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in the City of New York

ANNUAL REPORTS

1946



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NICHOLAS MURRAY BUTLER—OCTOBER, 1945

REPORT OF THE ACTING PRESIDENT OF COLUMBIA UNIVERSITY

FOR THE YEAR ENDING OCTOBER 1, 1946

TO THE TRUSTEES:

Pursuant to the provisions of the Statutes, there is submitted herewith the Annual Report on the work of the University during the academic year 1945-1946. Accompanying this Report and attached thereto are the reports of the Deans, Directors and other chief administrative officers, all of which deserve careful attention for the matters of University policy which they record and discuss.

The past year has been notable in the University annals for two reasons: it is the first in forty-five years in which the University has been without the direct guidance of Nicholas Murray Butler; and it is the first year in which this, as all other universities, has felt the impact of the tidal wave of students that is breaking upon the ramparts of education.

Important happenings of the year include the special ceremony in the Rotunda of Low Memorial Library on October 4, 1945, at which Major General Leslie R. Groves, Officer in Charge, Atomic Bomb Project, presented a scroll to Columbia University expressing the War Department's recognition of the University's contribution to research on the atomic bomb; the luncheon on October 5, 1945, in honor of the Indian Defense College Delegation, including Armarnath Jha, President of Allahabad University, Khan Bahadur Hussain, former President of Punjab University, J. W. Jefford, O.B.E., of the Royal Indian Navy, W. X. Mascarenhas of the Poona Technical Institute, Wing Commander S. Muskerjee, and Lieutenant-Colonel W. E. Williamson, Secretary to the Delegation; the Special University Convocation on October 18, 1945, at which His Excellency, Dr. Juan Antonio Ríos, President of the Republic of Chile, received the degree of Doctor of Laws *honoris causá*; the reception on October 30, 1945, in honor of the Commanding Officer and Staff of the U.S.N.R. Midshipmen's School; the seventh annual series of Sachs Lectures delivered by James Bryant Conant, President of Harvard University, at Teachers College on November 14-16, 1945; the ceremony on South Field on December 3, 1945, at which Commodore

John K. Richards, USN, presented to the University a bronze plaque in commemoration and appreciation of the training of 23,000 officers in the U.S. Naval Reserve Midshipmen's School on the Columbia campus; the seventh annual award, on December 13, 1945, of the Maria Moors Cabot Prizes in Journalism; the presentation to Dr. Nicholas Murray Butler, President Emeritus, on December 22, 1945, of a citation for distinguished and exceptional public service, by Mayor Fiorello LaGuardia and citizens of the City of New York; the dinner on January 23, 1946, in honor of Dr. Hu Shih before his return to China to assume the presidency of the National University at Peking; the Special University Convocation on March 18, 1946, at which the Right Honorable Winston Leonard Spencer Churchill, O.M., received the degree of Doctor of Laws *honoris causa*; the informal ceremony on the steps of Low Memorial Library, on March 21, 1946, at which one hundred scientific volumes, contributed by members and associates of the University, were presented by Dean George Braxton Pegram, Chairman of the Anglo-American-Hellenic Bureau of Education, to a delegation of professors from three Greek Universities, for transmission to the University of Athens; the Fourth Annual Conference on Religion, held April 8-11, 1946; the meetings, on April 24-26, 1946, of the American Oriental Society; the première, on May 8, 1946, of Gian Carlo Menotti's opera, *The Medium*, commissioned by the University under the Alice M. Ditson Fund, and presented at the University's Brander Matthews Theater by the Columbia Theater Associates; the second annual Festival of Contemporary American Music, held May 10-13, 1946, including the world première of a ballet by Martha Graham and two works for orchestra by Charles Ives; the luncheon on May 18, 1946, in honor of the Belgian Rectors, including Professor Edgard Blanquaert, rector of the University of Ghent, Professor Jacques Cox, rector of the University of Brussels, Professor Jules Duesberg, administrator and former rector of the University of Liège, Monsignor Honoré Van Waeyenbergh, rector of the University of Louvain, E. Clark Stillman, American Cultural Attaché at Brussels, Perrin C. Galpin, of the Belgian American Educational Foundation, and Jan Albert Goris, of the Belgian Information Center; the ceremony in the Rotunda of Low Memorial Library on June 7, 1946, at which the citizens of Paterson, New Jersey, paid homage to Dr. Nicholas Murray Butler, President

Emeritus, and presented him with a scroll of the city's tribute to a famous son; the luncheon on August 12, 1946, in honor of Dr. S. M. Naude, Director of the South African National Physical Laboratory, Dr. J. Ritchie, Director of the South African National Bureau of Standards, and Dr. R. W. Guelke, member of the South African National Physical Laboratory; the fifth annual session, held September 9-13, 1946, of the English Institute; the Special University Convocation on September 16, 1946, at which The Most Reverend and Right Honorable Geoffrey Francis Fisher, Archbishop of Canterbury, received the degree of Doctor of Laws *honoris causá*; the opening on September 30, 1946, of the American Press Institute;

The visits to the University of other distinguished persons, including Brigadier General Donald Armstrong, commandant of the Army Industrial College; Pierre Auger of France, scientist; Major General Donald R. Bateman of the United States Army; Godfrey Lowell Cabot of Boston; Francis Gordon Caffey, Judge of the Southern District of New York; Benjamin Claro, Minister Plenipotentiary of Chile; Brigadier General Thomas F. Farrell of the United States Army; Captain Pedro R. FlorCruz of the Philippine Military Academy Committee; General Milton A. Hill, United States Military Attaché in Chile; Lieutenant Rafael M. Illeto of the Philippine Military Academy Committee; Frederic Joliot-Curie of France, scientist; Dr. M. M. Leighton, Chief Geologist of the Illinois Geological Survey; Gerardo Molino, President of the University of the Republic of Colombia; Felix Morley, President of Haverford College; Dr. Niels Nielsen of the Danish Legation in Washington; Vijaya Lakshmi Pandit, President of the All-India Women's Conference; Dr. Theotonio Pereira, Portuguese Ambassador to Brazil; Mariano Ospina Perez, President-Elect of Colombia; M. Pilet-Golaz, former President of the Swiss Confederation; Ernesto Wruth Rojas, Colonel of the Chilean Army; Charles E. Rosset, Vice Consul of Switzerland in New York; Eugene Vinaver, Head of the Department of Romance Languages at the University of Manchester, England;

The bestowal upon many members of the University of honorary degrees, medals, foreign decorations, and other honors, including the award to Charles W. Cole, Professor of History, of the degree of Doctor of Laws by Wesleyan University, and the degree of Doctor of Laws by

Wagner College; the award to John Dewey, Professor Emeritus of Philosophy, of the degree of Doctor of Philosophy by the University of Oslo, Norway, and the degree of Doctor of Science by the University of Pennsylvania; the award to Virginia C. Gildersleeve, Dean of Barnard College, of the degree of Doctor of Laws by the University of Pennsylvania; the award to Philip C. Jessup, Professor of International Law, of the degree of Juris Doctor by the University of Oslo, Norway; the award to Isaac Leon Kandel, Professor of Education, of the degree of Doctor of Laws by the University of North Carolina; the award to Wesley Clair Mitchell, Professor Emeritus of Economics, of the degree of Doctor *honoris causa* by the University of Paris; the award to Douglas Moore, MacDowell Professor of Music, of the degree of Doctor of Music by the Cincinnati Conservatory of Music; the award to George Braxton Pegram, Dean of the Graduate Faculties, of the degree of Doctor of Science by the University of North Carolina, and the degree of Doctor of Science by Northwestern University; the award to Algernon Beverly Reese, Clinical Professor of Ophthalmology, of the degree of Doctor of Science by Davidson College; the award to Horatio Smith, Professor of French, of the degree of Doctor *honoris causa* by the University of Paris; the award to Henry Pitney Van Dusen, President of Union Theological Seminary, of the degree of Doctor of Sacred Theology by New York University, and the degree of Doctor of Divinity by the University of Edinburgh (*in absentia*); the award to William Crawford White, Clinical Professor of Surgery, of the degree of Doctor of Science by Wesleyan University; the award to Robert Sessions Woodworth, Professor Emeritus of Psychology, of the degree of Doctor of Science by the University of North Carolina, and the degree of Doctor of Science by the University of Pennsylvania;

For services in connection with World War II:

The award of the Croix de Guerre with palm to Justin M. O'Brien, Associate Professor of French, and his designation by the Government of France as Chevalier of the Legion of Honor; and the award of the Croix de Guerre with Gold Star to Captain Timothy F. Wellings, Professor of Naval Science and Tactics, by the Government of France; the

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TO
COLUMBIA UNIVERSITY

IN APPRECIATION OF ITS GENEROUS ASSISTANCE
AND UNCEASING COOPERATION IN THE TRAINING
OF 23,000 OFFICERS WHO WENT FROM THE
U.S. NAVAL RESERVE MIDSHIPMEN'S SCHOOL
NEW YORK

TO ACTIVE DUTY IN WORLD WAR II
TO DEFEND THE PRINCIPLES WHICH THIS
UNIVERSITY HAS ALWAYS UPHELD

COMMODORE JOHN K. RICHARDS, U.S. NAVY
COMMANDING OFFICER

APRIL 20, 1942



NOVEMBER 2, 1945

NAVY PLAQUE

designation by the Government of France of Ian Forbes Fraser, Director of the Maison Française, as *Officier de l'Instruction Publique*; the designation of Dr. Barbara Bartlett Stimson, Assistant Professor of Clinical Orthopaedic Surgery, as member of the Military Division of the Order of the British Empire; and the designation of J. Enrique Zanetti, Professor of Chemistry and Director of the Chemical Laboratories, as Honorary Officer of the Order of the British Empire; the award of the China Medal of Honor to Dr. Cornelius Jay Kraissl, Instructor in Surgery, and his designation as Honorary Three-Star Colonel of the Chinese Army;

the award of the Legion of Merit to Dr. Edmund Prince Fowler, Jr., Assistant Clinical Professor of Otolaryngology; to Albert C. Jacobs, Professor of Law and Assistant to the Acting President; to John David Millett, Associate Professor of Public Administration; to Justin M. O'Brien, Associate Professor of French; to Laurence F. Shaffer, Professor of Education; to Dr. Frank Edward Stinchfield, Associate in Orthopaedic Surgery; and to Captain Timothy F. Wellings, Professor of Naval Science and Tactics;

the award of the Medal for Merit to John Ray Dunning, Professor of Physics; to Raymond D. Mindlin, Associate Professor of Civil Engineering; to Timothy E. Shea, Director of Research at the New London Underwater Sound Laboratory; to T. Keith Glennan, Director of the New London Underwater Sound Laboratory; and to William H. Fritz and J. K. Nunan, staff members of the New London Underwater Sound Laboratory;

the award of the Bronze Star to Dr. José M. Ferrer, Jr., Instructor in Anatomy; twice to Dr. Yale Kneeland, Jr., Assistant Professor of Medicine; to Dr. Cornelius Jay Kraissl, Instructor in Surgery; to Dr. John E. Scarff, Assistant Professor of Clinical Neurological Surgery; to Dr. Frank Edward Stinchfield, Associate in Orthopaedic Surgery;

the posthumous award of the Navy Distinguished Civilian Service Medal to Albert L. Thuras, former member of the scientific staff of the Division of War Research;

the award of the Navy Commendation Ribbon to Frederick L. Fitzpatrick, Professor of Natural Sciences;

the award of the Army Commendation Ribbon to Dr. Bernard M. Blum, Instructor in Public Health Practice; and to Richard P. Youtz, Assistant Professor of Psychology;

the award of the Congressional Medal for Selective Service to Dr. Louis Casamajor, Professor of Clinical Neurology; to Dr. Lawrence Henry Cotter, Associate in Medicine; to Dr. Lewis Jacob Doshay, Associate in Neurology; to Dr. William Alden Gardner, Assistant Clinical Professor of Medicine; to Dr. Robert Louis Levy, Professor of Clinical Medicine; to Dr. Bernard S. Oppenheimer, Clinical Professor of Medicine; to Dr. Irving Hotchkiss Pardee, Clinical Professor of Neurology; to Dr. Grant Palmer Pennoyer, Associate in Surgery; and to Dr. Armitage Whitman, Associate Clinical Professor of Orthopaedic Surgery;

the award of the Navy Certificate of Exceptional Service to Naval Ordnance Development to Louis Plack Hammett, Professor of Chemistry, and to George Elbert Kimball, Associate Professor of Chemistry; and the War Department Certificate of Appreciation for Assistance in Ordnance Munitions Program to Louis Plack Hammett, Professor of Chemistry;

The award to Robert Ballentine, Instructor in Zoölogy, of a Guggenheim Fellowship; the designation of Adriaan Jacob Barnouw, Queen Wilhelmina Professor of the History, Language and Literature of the Netherlands, as recipient of the Gold Medal Award of the Holland Society of New York; the designation of Dr. Ruth Fulton Benedict, Associate Professor of Anthropology, as recipient of the \$2,500 Annual Achievement Award of the American Association of University Women, and as recipient of the American Design Award in intercultural understanding and relations; the designation of Edmund deS. Brunner, Professor of Education, as recipient of the 1946 Alumni Award from Moravian College in Pennsylvania; the award to Alice I. Bryan, Assistant Professor of Library Service, as co-author, of the Pi Lambda Theta Award for Research; the award to Marshall Clagett, Instructor in History, and to James T. Culbertson, Assistant Professor of Bacteriology, of Guggenheim Fellowships; the designation of William von Eggers Doering, Assistant Professor of Chemistry, as recipient of the John Scott Award; the award to Dr. Earl T. Engle, Professor of Anatomy, of the \$1,000 Prize

of the American Urological Association; the award to Otis Edward Fellows, Assistant Professor of French, of the Bronze Medal of the "Quinzaine Anglo-Américaine" of Paris; the award to James Kip Finch, Dean of the School of Engineering, of the 1946 Egleston Medal; the award to Virginia C. Gildersleeve, Dean of Barnard College, of the Gold Medal of the National Institute of Social Sciences, and her designation as recipient of the Achievement Award in Education by the Women's National Press Club, and as recipient of the Award for Distinguished Service to Public Education by the New York Academy of Public Education; the designation of David Ezra Green, Assistant Professor of Biochemistry, as recipient of the first Paul-Lewis Award in Enzyme Chemistry by the American Chemical Society; the award to Gordon Sherman Haight, Visiting Associate Professor of English, of a Guggenheim Fellowship; the award to Carlton J. H. Hayes, Seth Low Professor of History, of the Laetare Medal for 1946, by the University of Notre Dame; the award to Andrés Iduarte, Assistant Professor of Spanish American Literature, of the Decoration of the National Order of Merit Carlos Manuel de Cespedes, with the rank of Knight, by the Government of Mexico, and his designation as recipient of the annual literary award of *Letras de Mexico*; the award to Roman Jakobson, Visiting Professor of Slavic Languages, of a Guggenheim Fellowship; the award to Clarence Linton, Professor of Education, of the Butler Medal; the award to Normand Lockwood, Associate in Music, of the Publication Award, for a string quartet, by the Society for the Publication of American Music; the award to Werner Karl Mass, Assistant in Zoölogy, of the Gosney Fellowship by the California Institute of Technology; the decoration of John Bassett Moore, Hamilton Fish Professor Emeritus of International Law and Diplomacy, by the Brazilian Government with the National Order of the Southern Cross in the grade of "Grande Oficial"; the award to Franz Leopold Neumann, Lecturer in Government, of a Guggenheim Fellowship; an award to Mario Andrew Pei, Associate Professor of Romance Languages, in the National Peace Treaty Contest; the award to Dr. Max Pinner, Clinical Professor of Medicine, of the Trudeau Medal by the National Tuberculosis Association; the award to Isidor Clinton Rubin, Clinical Professor of Gynecology, of the Townsend Harris Alumni Medal by the City College of the College of the City of New

York; the award to Henry Clapp Sherman, Mitchill Professor Emeritus of Chemistry, of the Franklin Medal by the Franklin Institute; the award to Frances Agnes Stoll, Instructor in Dentistry, of an Honorary Fellowship by the American Scandinavian Foundation; the designation of Dr. Allan O. Whipple, Valentine Mott Professor Emeritus of Surgery, as a recipient of the annual Judd Award;

The election of George Baehr, Clinical Professor of Medicine, to be President of the New York Academy of Medicine; the designation of Boris A. Bakhmeteff, Professor of Civil Engineering, as Honorary Member of the American Society of Civil Engineers; the appointment of Marston Taylor Bogert, Professor Emeritus of Organic Chemistry, as Delegate from the National Academy of Sciences to the Sir Isaac Newton Tercentenary Celebration in Cambridge, England, and his designation as Guest of the Royal Society of London for the meeting of the Council of the International Union of Chemistry, in London; the election of Edmund deS. Brunner, Professor of Education, to be President of the Rural Sociological Society; the designation of Walter H. Bucher, Professor of Geology, as Honorary Member of the Academy of Sciences of Venezuela; the designation of Dr. John Caffey, Associate Professor of Pediatrics, as Honorary Member of the American Roentgen Ray Society; the election of Dr. George Samuel Callaway, Associate Professor of Dentistry, to be President of the New York Academy of Dentistry; the election of Hans Thacher Clarke, Professor of Biochemistry, to be Chairman of the New York Section of the American Chemical Society; the election of Edwin Harris Colbert, Professor of Vertebrate Palaeontology, to be President of the Society of Vertebrate Palaeontology; the appointment of Charles Woolsey Cole, Professor of History, to become the twelfth President of Amherst College; the appointment of Dr. William Darrach, Professor of Clinical Surgery, as Honorary Consultant to the Army Medical Library; the designation of Bernhard Dattner, Assistant Clinical Professor of Neurology, as Honorary Member of the Mexican Society of Neurology and Psychiatry; the election of Milislav Demerec, Associate in Genetics, to the National Academy of Sciences; the appointment of Leslie Clarence Dunn, Professor of Zoölogy, as Delegate from the National Academy of Sciences to the Tercentenary Meeting of the Royal Society of London, and his election to be President of the Ameri-

can-Soviet Science Society; the designation of Jan J. L. Duyvendak, Visiting Professor of Chinese, as Fellow of the Royal Asiatic Society; the designation of Colin G. Fink, Professor of Chemical Engineering, as Honorary Member of the Electrochemical Society; the election of Hamden Landon Forkner, Professor of Education, to be President of the American Business Education Association; the election of Virginia C. Gildersleeve, Dean of Barnard College, to Honorary Life Membership in the National Education Association; the election of Ross Golden, Professor of Radiology, to be President of the American Roentgen Ray Society, and his designation as Honorary Member of the Cuban Radiological Society and Honorary Member of the Mexican Radiological Society; the election of Clarence Henry Graham, Professor of Psychology, to the National Academy of Sciences; the election of Carlton J. H. Hayes, Seth Low Professor of History, to be a Corresponding Member of the Royal Academy of History in Spain; the election of Michael Heidelberger, Professor of Biochemistry, to be President of the American Association of Immunologists, and his invitation from the National Union of Intellectuals of France and from the Government of France to deliver an address on Immunity at the international gathering in Paris in December in commemoration of Pasteur; the election of Charles Cheney Hyde, Hamilton Fish Professor Emeritus of International Law and Diplomacy, to be President of the American Society of International Law; the election of Paul Francis Kerr, Professor of Mineralogy, to be President of the Mineralogical Society of America; the appointment of Stephan Kuttner, Associate in University Seminars, as Honorary Consultant in Canon Law to the Library of Congress; the appointment of Victor K. LaMer, Professor of Chemistry, as Editor-in-Chief of the new *Journal of Colloid Science*; the election of Dr. Philip R. Lehrmann, Clinical Professor of Neurology and Psychiatry, to be President of the New York Psychoanalytic Society; the election of Dr. Maurice Lenz, Professor of Clinical Radiology, to Honorary Membership in the College of Physicians and Surgeons of Costa Rica, and to Corresponding Membership in the Academy of Medicine of the Republic of Colombia, and to be First Vice President of the American Radium Society; the designation of Dr. Nolan D. C. Lewis, Professor of Psychiatry, as Honorary Member of the Brazilian League for Mental Hygiene; the election of Ralph Linton,

Professor of Anthropology, to be President of the American Anthropological Association; the election of Robert Frederick Loeb, Lambert Professor of Medicine, to the National Academy of Sciences; the election of Joseph Edward Mayer, Associate Professor of Chemistry, to the National Academy of Sciences; the invitation to Dr. Rustin McIntosh, Carpentier Professor of Pediatrics, from the Belgian Ministry of Health to visit Belgium for the purpose of studying an outbreak of poliomyelitis in that country; the designation of Dr. H. Houston Merritt, Professor of Clinical Neurology, as Honorary Member of the Philadelphia Neurological Society; the election of Boris Mirkine-Guetzevitch, Visiting Professor of History, as Corresponding Member of the Academia Nacional de la Historia in Argentina; the election of Douglas Moore, MacDowell Professor of Music, to be President of the National Institute of Arts and Letters; the election of Henri François Muller, Professor Emeritus of Romance Philology, to be President of the Linguistic Circle of New York; the election of Dr. Claude Worrell Munger, Professor of Hospital Administration, to be President of the American College of Hospital Administrators; the appointment of Ernst Peter Pick, Professor of Pharmacology, to be Honorary Professor of the Medical Faculty of the University of Vienna; the election of Albert T. Poffenberger, Professor of Psychology, to be Chairman of the Social Science Research Council; the designation of Dr. Gerald Hillary Pratt, Assistant Clinical Professor of Surgery, as Honorary Fellow of the National Society of Cuban Surgeons; the election of I. I. Rabi, Professor of Physics, to be Member of the Council of the National Academy of Sciences; the election of Marcus Morton Rhoades, Professor of Botany, to the National Academy of Sciences; the election of Dr. H. McLeod Riggins, Associate in Medicine, to be President of the American Trudeau Society; the election of Walter Charles Strodt, Instructor in Mathematics, to be a National Research Fellow; the designation of Lynn Thorndike, Professor of History, as Correspondant de l'Académie des Inscriptions et Belles Lettres, Institut de France; the election of Clifford LeRoy Treleven, Associate Professor of Optometry, to be President of the Association of Schools and Colleges of Optometry; the appointment of Henry P. Van Dusen, President of Union Theological Seminary, as President of the Associated Boards for Christian Colleges in China; the designation of Abraham Wald, Pro-

fessor of Mathematical Statistics, as Fellow of the American Statistical Association; the election of Dr. Allen O. Whipple, Valentine Mott Professor Emeritus of Surgery, to Honorary Membership in the Royal College of Surgeons of England;

Scholarly service rendered outside the University by Salo W. Baron, Professor of Jewish History, Literature and Institutions, who lectured in Johannesburg, Capetown, and other centers throughout the Union of South Africa on the invitation of the South African Jewish Board of Deputies; by Seth Bingham, Associate Professor of Music, as civilian instructor in the Biarritz American University; by Dr. John Caffey, Associate Professor of Pediatrics, as Visiting Professor of Roentgenology at the Mexico City Children's Hospital Symposium; by Gioacchino Failla, Professor of Radiology, who delivered the 1945 Caldwell Lecture before the American Roentgen Ray Society, who lectured at the special commemorative Roentgen Ray meeting of the American Physical Society in St. Louis, and who served as Consultant to the Metallurgical Laboratory of the University of Chicago in connection with the Plutonium project; by Ian Forbes Fraser, Director of the Maison Française, as Commandant of the Paris Study Center of the European Theater Forces, USA; by Dr. Ross Golden, Professor of Radiology, who delivered the Pancoast Lecture at the Philadelphia Roentgen Ray Society, and the Phi Delta Epsilon Lecture at the Jefferson Hospital in Philadelphia; by Dr. Arnold Knapp, Professor Emeritus of Ophthalmology, who delivered the 1946 Bowman Lecture in London at the annual meeting of the Ophthalmological Society of the United Kingdom; by Dr. Maurice Lenz, Professor of Clinical Radiology, who lectured before the Second Mexican Cancer Congress, and gave a course of lectures in Spanish on cancer therapy, in Bogota, Colombia; by Dr. Gerald Hillary Pratt, Assistant Clinical Professor of Surgery, who delivered the Annual Lecture to the National Society of Cuban Surgeons;

The productive scholarship of members of the University, resulting in the publication of such books as *Mind and Death of a Genius*, by Dr. David Abrahamsen, Research Associate in Psychiatry; *Teacher in America*, by Jacques Barzun, Professor of History; *New Zealand in the Press*, by Horace Belshaw, Associate in University Seminars; Volume One of the *Aviation Bibliography and Abstracts*, by Conrad Berens, Pro-

fessor of Clinical Ophthalmology; *Scholarship for Canada: the Function of Graduate Studies*, by J. Bartlet Brebner, Professor of History; *Economic Research and the Keynesian Thinking of Our Times: the Twenty-sixth Annual Report of the National Bureau of Economic Research*, by Arthur Frank Burns, Professor of Economics; *Pediatric X-Ray Diagnosis*, by John Caffey, Associate Professor of Pediatrics; *Jesse Buel, Agricultural Reformer*, by Harry James Carman, Dean of Columbia College; *A Century of American Life Insurance*, by Shepard B. Clough, Associate Professor of History; *Mickiewiczana*, by Arthur P. Coleman, Lecturer in the Department of East European Languages; *Front Page History of the Second World War*, by Richard Frederic Crandell, Associate in Journalism; *Insects of the Pacific World*, by Dr. C. Howard Curran, Lecturer in Medical Entomology; *Del Solar Hispánico*, by Amelia A. de Del Río (co-author), Assistant Professor of Spanish; *Problems of Men*, by John Dewey, Professor Emeritus of Philosophy; *The Economic Mind in American Civilization*, by Joseph Harry Dorfman, Associate Professor of Economics; *Attitudes of Seventeenth-Century France toward the Middle Ages*, by Nathan Edelman, Instructor in French; *Local Health Units for the Nation*; by Haven Emerson, Professor Emeritus of Public Health Practice; *The Human Life of Jesus*, by John Erskine, Professor Emeritus of English; *Bibliography of English Translations from Medieval Sources*, by Austin Patterson Evans (co-author), Professor of History; *The Periodical Press in Liberated Paris*, by Otis Edward Fellows, Assistant Professor of French; *The Practice of Religion*, by Frederick Clifton Grant, Edward Robinson Professor of Biblical Theology in Union Theological Seminary; *Modern Drug Encyclopedia*, by Dr. Alexander Benjamin Gutman, Assistant Professor of Medicine; *Principles of Social Case Recording*, by Gordon Hamilton, Professor of Social Work; *Wartime Mission in Spain*, by Carlton J. H. Hayes, Seth Low Professor of History; *The Person in the Body*, by Dr. Leland Earl Hinsie, Professor of Psychiatry; *His Excellency a Trustee*, by Roger Howson, Associate in History; *Hawk's Flight*, by Helen Hull, Associate Professor of English; *Marti escritor*, by Andrés Iduarte, Assistant Professor of Spanish American Literature; *Shock Treatment and Other Somatic Procedures in Psychiatry*, by Dr. Lothar B. Kalinowsky, Research Associate in Psychiatry; *Tungsten Mineralization in the United*

States, by Paul Francis Kerr, Professor of Mineralogy; *Russia and the Western World*, by Max M. Laserson, Visiting Professor of Philosophy; *The Sarcophagi of Ravenna*, by Marion Lawrence, Associate Professor of Fine Arts; *Neue Deutsche Gedichte*, by Hellmut Lehmann-Haupt, Assistant Professor of Book Arts; *Arts of the South Seas*, by Ralph Linton, Professor of Anthropology, and Paul Stover Wingert, Instructor in Fine Arts and Archaeology; *Soldier of Liberty, Casimir Pulaski*, by Clarence Augustus Manning, Assistant Professor of East European Languages; *Changing the Curriculum, a Social Process*, by Alice M. Miel, Assistant Professor of Education; *The Process of Persuasion*, by Clyde Raymond Miller, Associate Professor of Education; *Psychiatry Comes of Age*, by Dr. John Alfred Parsons Millet, Associate in Medicine; *Principles of School Administration*, by Paul R. Mort, Professor of Education; *L'Époque mérovingienne*, by Henri François Muller, Professor Emeritus of Romance Philology; *Mathematics of Finance*, by John A. Northcott, Associate Professor of Mathematics; *Pulmonary Tuberculosis in the Adult*, by Dr. Max Pinner, Clinical Professor of Medicine; *Repertorio Bibliografico della Storia e della Critica della Letteratura Italiano*, by Giuseppe Prezzolini, Professor of Italian; *Motor Disorders in Neurologic Diseases*, by Dr. Tracy Jackson Putnam (co-author), Professor of Neurology and Neurological Surgery; *The Mahatma and the World*, by Krishnalal J. Shridharani, Research Associate in Sociology; *The Dynamics of Human Adjustment*, by Percival M. Symonds, Professor of Education; *Planning for Jobs*, by Horace Taylor (co-author), Professor of Economics; *Wald's Sequential Tests of Statistical Hypotheses*, by Abraham Wald, Professor of Mathematical Statistics; *An Outline Guide to the Art of the South Pacific*, by Paul Stover Wingert, Instructor in Fine Arts and Archaeology;

And the publication in the field of music of *The Christmas Child* and *Come All You Fair*, by Seth Bingham, Associate Professor of Music; *Young America at the Piano* and *Young America at the Violin*, by Raymond Murdock Burrows (co-author), Associate Professor of Music Education; and *In Memoriam*, for orchestra, by Douglas Moore, MacDowell Professor of Music;

Public service performed by members of the University, including that of Ralph S. Alexander, Associate Professor of Marketing, as chairman of

the Definitive Committee of the American Marketing Association; that of Dr. Walter Palmer Anderton, Assistant Professor of Clinical Medicine, as Secretary of the Medical Society of the State of New York, and as President of the Francis Asbury Palmer Educational Fund; that of H. Dean Baker, Associate in Mechanical Engineering, as chairman of the Texas Company Fellowship Committee; that of Antonín Basch, Lecturer in Economics, as member of the Research Council of the Institute of World Affairs; that of Nelson Biaggi-Irizarry, Associate in Sanitary Science, as Secretary of the Puerto Rico Public Health Association; that of Ralph Harrub Blanchard, Professor of Insurance, as chief consulting economist of the Social Security Board; that of Marston Taylor Bogert, Professor Emeritus of Organic Chemistry, as member of the Executive Committee of the International Council of Scientific Unions; that of Paul Frederick Brissenden, Associate Professor of Economics, as member of the Millinery Stabilization Board; that of Philip Barnett Bucky, Professor of Mining, as consultant to the United States Bureau of Mines; that of Robert DeBlois Calkins, Dean of the Faculty of Business, as member of a Railway Labor Panel appointed by the President of the United States; that of Harry James Carman, Dean of Columbia College, as member of the Civilian Advisory Committee, United States Navy; that of John Maurice Clark, Professor of Economics, as member of the Commission on Freedom of the Press; that of Hans Thacher Clarke, Professor of Biochemistry, as chairman of the antibiotics study section of the National Institute of Health; that of Shepard Bancroft Clough, Associate Professor of Economic History, as member of the Research Committee of the Institute of World Affairs; that of Dr. William Darrach, Professor of Clinical Surgery, as chief consultant to the Veterans Administration, New York Area; that of Dr. Leo Max Davidoff, Professor of Clinical Neurological Surgery, as member of the medical teaching mission to Czechoslovakia in the summer of 1946; that of James Lewis Dohr, Professor of Accounting, as member of the Committee on Accounting Procedure of the American Institute of Accountants; that of Leslie Clarence Dunn, Professor of Zoölogy, as member of the Fellowship Board of the National Research Council; that of Herbert Oliver Elftman, Assistant Professor of Anatomy, as consultant to the National Research Council Committee on Prosthetic Devices; that of Roscoe B.

Ellard, Professor of Journalism, as editorial consultant to the Eno Foundation for Highway Control; that of Nickolaus Louis Engelhardt, Professor of Education, as member of the Problems and Policies Commission of the American Council on Education; that of Titus Carr Evans, Assistant Professor of Radiology, as civilian scientist at the Bikini bomb tests; that of Ray Nelson Faulkner, Professor of Fine Arts, as director of the Test and Research Division of the Bureau of Naval Personnel; that of Ernest McKinley Fisher, Professor of Urban Land Economics, as member of the Board of Directors of the National Committee on Housing, and as a member of the Committee on Housing Research of the Social Science Research Council; that of John Andrews Fitch, Professor of Social Work, as chairman of the Emergency Board appointed by the President of the United States to investigate a dispute of the Hudson and Manhattan Railroad; that of Gioacchino Failla, Professor of Radiology, as member of the National Defense Research Council; that of Walter Gellhorn, Associate Professor of Law, as member of the National Executive Committee of the American Society for Public Administration; that of W. Emerson Gentzler, Bursar of the University, as Treasurer of Knickerbocker Hospital; that of Virginia C. Gildersleeve, Dean of Barnard College, as member of the United States Education Mission to Japan in the spring of 1946; that of Eli Ginzberg, Assistant Professor of Economics, as United States Representative to the Five-Powers Conference on Reparations in the early summer of 1946; that of Dr. Ross Golden, Professor of Radiology, as Chief Consultant in Radiology for Branch Area Number Two of the Veterans Administration; that of Dr. Magnus I. Gregersen, Dalton Professor of Physiology, as member of the medical teaching mission to Poland in the summer of 1946; that of Celia Guzmán, Associate in Public Health Nursing, as member of the Board of Directors of the Council for the Improvement of Nursing Service and Education in Puerto Rico; that of Robert Murray Haig, McVickar Professor of Political Economy, as adviser to the Governor of Puerto Rico in connection with revision of the revenue laws; that of Gordon Hamilton, Professor of Social Work, as member of the National Committee on Personnel in the Social Services; that of Philip C. Jessup, Professor of International Law, as Consultant to the Department of State; that of Helen Judy-Bond, Professor of Home Economics, as

member of the Advisory Committee on Commercial Standards, United States Department of Commerce; that of Isaac Leon Kandel, Professor of Education, as member of the United States Education Mission to Japan in the spring of 1946; that of Edward Kasner, Adrain Professor of Mathematics, as Special Consultant to the Bureau of Ordnance, United States Navy Department; that of Harold J. Leonard, Professor of Dentistry, as Secretary-Treasurer for the American Board of Periodontology and Advisory Board for Dental Specialties, and as chairman of the periodontia section of the American Association of Dental Schools; that of Dr. Nolan D. C. Lewis, Professor of Psychiatry, as special Psychiatric consultant to the International Military Tribunal in Nuremberg; that of Dr. Robert Frederick Loeb, Lambert Professor of Medicine, as chairman of the Medical Fellowship Board of the National Research Council, as member of the Advisory Council of the Life Insurance Medical Research Fund, as member of the Advisory Board for Health Service of the National Red Cross, and as consultant to the Veterans Administration, Kingsbridge Installation; that of Irving Lorge, Professor of Education, as expert consultant to the Adjutant General's Office; that of William Anderson McCall, Professor of Education, as adviser to the North Carolina Governor's Commission on Merit Rating of Teachers; that of Dr. Donovan James McCune, Professor of Pediatrics, as member of the medical teaching mission to Poland in the summer of 1946; that of Roy William McDonald, Visiting Professor of Law, as member of the Economists National Committee on Monetary Policy; that of Millard Meiss, Assistant Professor of Fine Arts and Archaeology, as co-chairman of the American Committee for the Reconstruction of Italian Monuments; that of Clyde R. Miller, Associate Professor of Education, as Educational Director of the League for Fair Play of New York; that of Dan Houston Moore, Assistant Professor of Anatomy, who was sent, under the auspices of the Division of Cultural Relations of the Department of State, to Chile, Peru, Ecuador and Mexico, where he established biophysical laboratories, and lectured; that of Robert Foster Moore, Secretary of Appointments, as consultant to the Office of the Quartermaster General; that of Paul R. Mort, Professor of Education, as member of the Educational Policies Commission; that of Dr. Claude Worrell Munger, Professor of Hospital Administration, as member of the Com-

mission on Hospital Care, and as member of the Commission on Education; that of Dr. Ferdinand G. Neurohr, Special Lecturer in Dentistry, as member of the Ivory Cross Expedition to Holland in the summer of 1946; that of John Ewing Orchard, Professor of Economic Geography, as senior consultant to the Foreign Liquidation Commissioner, United States Department of State; that of Dr. Pablo Morales Otero, Director of the School of Tropical Medicine, as chairman of the Caribbean Research Council, and as adviser to the Anglo-American Caribbean Commission, on problems of medicine and health, and as a speaker on the nutritional problems of Puerto Rico before the Food and Nutrition Board of the National Research Council; that of Herman Frederick Otte, Assistant Professor of Economic Geography, as consultant to the New York State Department of Commerce; that of Dr. Jerry Clay Price, Research Associate in Neurology, as consultant on epilepsy to the Institute of Crippled and Disabled, New York City; that of Seymour Robb, Medical Librarian, as chairman of the Committee on Duplicate Foreign Material of the War Years of the Medical Library Association; that of John Benjamin Russell, Jr., Assistant Professor of Electrical Engineering, as expert consultant to the Office of the Secretary of War; that of William F. Russell, Dean of Teachers College, as chairman of the Advisory Committee on Human Relations; that of Dr. John Scudder, Assistant Professor of Surgery, who, at the invitation of the Secretary of War, flew to China as expert medical consultant to the United States War Department; that of Henry Clapp Sherman, Mitchill Professor Emeritus of Chemistry, as member of the Committee on Nutrition and Food Management of the United Nations Food and Agriculture Organization; that of Carl Sumner Shoup, Professor of Economics, as consultant to the Division of Tax Research of the United States Treasury Department; that of Isabel Maitland Stewart, Director of the Division of Nursing Education, as chairman of the Committee on Education of the International Council of Nurses, and as member of the Committee on Management of the Florence Nightingale International Foundation, at their meetings in London; that of Dr. Jerome P. Webster, Assistant Professor of Clinical Surgery, as consultant to the Surgeon General of the United States Army; that of Herbert Wechsler, Associate Professor of Law, as technical adviser to the International Military Tribunal at

Nuremberg; that of Ben Wood, Professor of Collegiate Educational Research, as chairman of the Joint Advisory Committee on Aviation Education; that of Edwin Henry Ziegfeld, Assistant Professor of Fine Arts, as special assistant to the Educational Services Program of the United States Navy;

The sojourn at the University during the year of several scholars and scientists from abroad, to receive instruction in techniques or to associate themselves with research work being conducted in various departments, among whom were: Dr. Otto Bier, Director of the Butantan Institute, São Paulo, Brazil; Dr. Fritz Kauffman of the State Serum Institute, Copenhagen, Denmark, a noted bacteriologist; Professor Jean La Barre, Head of the Institut Therapeutique of the University of Brussels; Dr. Bruno Lobo, Professor of Histology and Embryology on the Faculty of Medicine in the University of Brazil; Dr. J. J. Barbosa Quental, Assistant Professor of Pharmacology in the University of Brazil; Professor Fritz Schønheyder of Aarkus University, Denmark; Dr. Helge Tyren of the University of Upsala;

The promotion, following the adoption of the budget, of fifteen Associate Professors, two Visiting Associate Professors, two Associate Clinical Professors, two Assistant Professors and one Instructor to be Professors; of twenty Assistant Professors, three Assistant Clinical Professors, one Associate, and one Lecturer to be Associate Professors; of eleven Associates, five Instructors, and two Lecturers to be Assistant Professors; of six Associate Clinical Professors and one Assistant Clinical Professor to be Clinical Professors; of thirteen Assistant Clinical Professors and one Associate to be Associate Clinical Professors; of twelve Associates and two Instructors to be Assistant Clinical Professors; and changes of title in the case of seven present officers of the University;

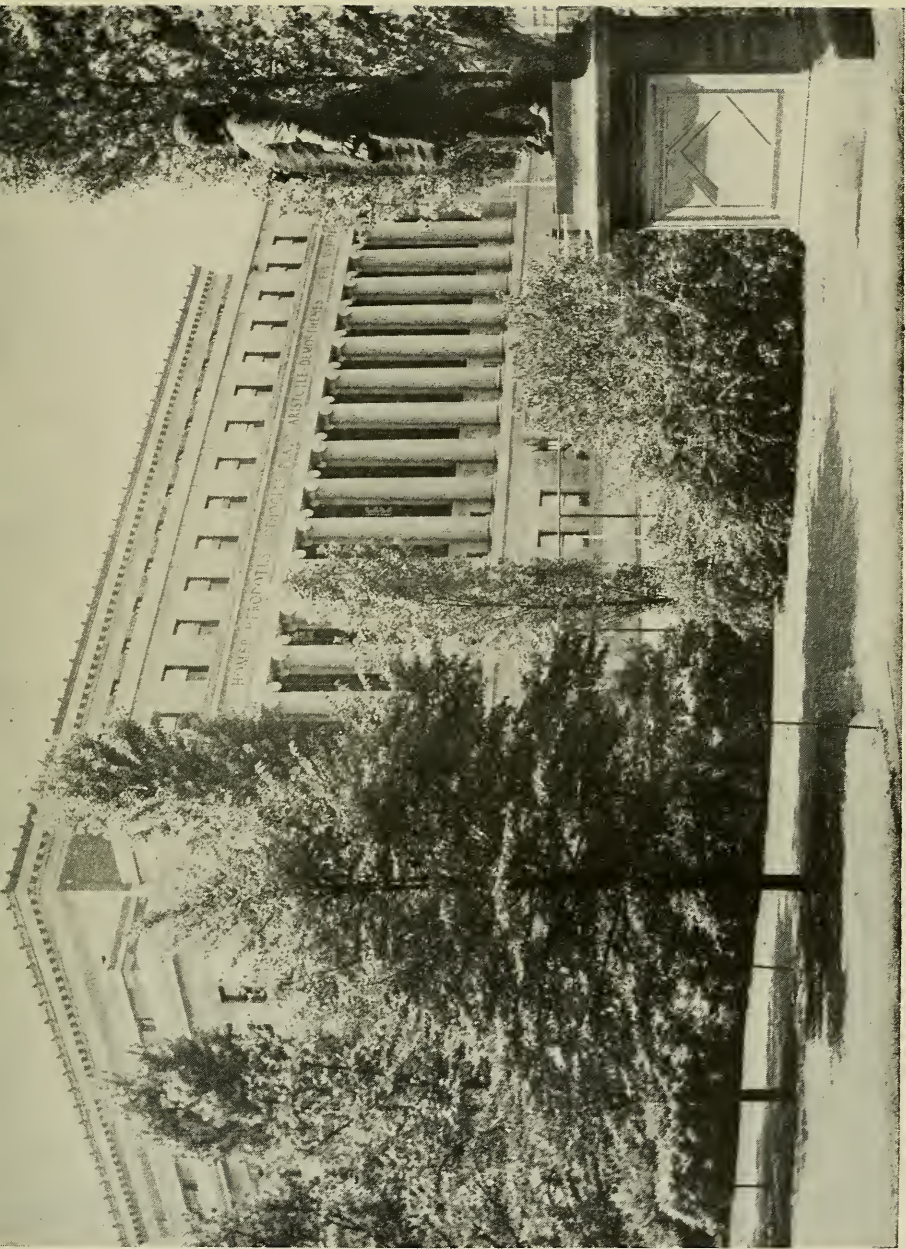
The transfer to Columbia from other universities or from other fields of service of five Professors; twelve Associate Professors; twenty-seven Assistant Professors; three Clinical Professors; two Associate Clinical Professors and five Assistant Clinical Professors;

The appointment to temporary service in the University of Abram Bergson, Associate Professor of Economics in the University of Texas, as Visiting Associate Professor of Economics; Geoffrey Bruun, formerly of New York University, as Visiting Lecturer in History; John

De Cicco, Associate Professor of Mathematics in the Illinois Institute of Technology, as Visiting Associate Professor of Mathematics; Gottfried Salomon Delatour, Professor of Sociology in the University of Paris, as Visiting Lecturer in Sociology; Joseph Leo Doob, Professor of Mathematics in the University of Illinois, as Visiting Professor of Mathematical Statistics; Jan J. L. Duyvendak of the University of Leyden as Visiting Professor of Chinese; Laurence H. Eldredge, formerly Professor of Law, University of Pennsylvania, as Visiting Professor of Law; Logan Fulrath as Visiting Lecturer in Law; Margaret Gilman, Associate Professor of French in Bryn Mawr College, as Visiting Professor of French; George W. Goble, Professor of Law in the University of Illinois, as Visiting Professor of Law; Albert Gailord Hart of the Committee for Economic Development, in Chicago, as Visiting Professor of Economics; Walter B. Henning, Lecturer in Indo-Iranian at the London School of Oriental Studies, as Visiting Professor of Indo-Iranian; Carlos L. Israels of the New York bar, as Visiting Professor of Law; Roman Jakobson, Visiting Professor of Comparative Linguistics, as Visiting Professor of Slavic Languages; George F. James of the New York bar, formerly Assistant Dean and Associate Professor of Law, University of Chicago, as Visiting Associate Professor of Law; Ernst Julius Kapp, Professor of Greek in the University of Hamburg, as Visiting Professor of Greek and Latin; Jacques Kosciusko, Chef de Cabinet for the Prefect of Paris, as Visiting Assistant Professor of French; Emil G. Kraeling as Visiting Associate Professor of Semitic Languages; Hendrik Anthony Kramers, Professor of Theoretical Physics in the University of Leyden, as Visiting Professor of Physics; Roy W. McDonald of the New York bar, formerly Professor of Law, Southern Methodist University, as Visiting Professor of Law; Myres S. McDougal, Professor of Law in Yale University, as Visiting Professor of Law; Jerzy Neyman, Professor of Mathematics in the University of California, as Visiting Professor of Mathematical Statistics; Ragnar Nurkse of the Institute for Advanced Study in Princeton, as Visiting Professor in International Economics; Bertil Ohlin, Professor of Economics in the University of Stockholm, to be Beer Lecturer; Sidney Paige, Senior Engineering Geologist, Army Engineers, as Visiting Professor of Engineering Geology; DeWitt Henry Parker, Professor of Philosophy in the University of Michigan, as Visiting Professor of Phi-

losophy; Hans Reichenbach, Professor of Philosophy in the University of California at Los Angeles, as Visiting Professor of Philosophy; Lawrence Kaelter Rosinger, Research Associate in the Foreign Policy Association, as Visiting Lecturer in Chinese History; G. Ledyard Stebbins, Professor of Genetics in the University of California, to be Jesup Lecturer; Wesley A. Sturges, Dean of the School of Law in Yale University, as Visiting Professor of Law; Rafael Taubenschlag of Cracow University as Visiting Research Professor of Ancient Civilization; Henry Bartlett Van Hoesen, John Hay Professor of Bibliography in Brown University, as Visiting Professor of Library Service; and the five scholars sent to this country by the French Ministry of Education—Jean Benoît-Lévy, as Visiting Professor of Education; Jean Gottmann, as Visiting Professor of Geography; Alfred Metraux, as Visiting Professor of Educational Anthropology; Boris Mirkine-Guetzevitch, as Visiting Professor of History; and Charles Sterling, Curator of Paintings at the Louvre, as Visiting Professor of Fine Arts;

The retirement from active service, at their own request, of the following members of the teaching, administrative and nonacademic staffs: On July 1, 1945, with the title of Professor Emeritus, William Bailey Dunning, Professor of Dentistry; also on July 1, 1945, Belle Northrup, Assistant Professor of Fine Arts in Teachers College; on June 30, 1946, each with the title of Professor Emeritus, Charles F. Bodecker, Professor of Dentistry; Henry S. Dunning, Professor of Dentistry; Robert H. Fife, Gebhard Professor of Germanic Languages and Literatures; Harry L. Hollingworth, Professor of Psychology in Barnard College; Harry L. Parr, Stevens Professor of Mechanical Engineering; Thomas T. Reed, Vinton Professor of Mining Engineering; Henry C. Sherman, Mitchell Professor of Chemistry; Curt P. Wimmer, Professor of Pharmacy; William H. Woglom, Professor of Cancer Research; I. Ogden Woodruff, Professor of Clinical Medicine; also on June 30, 1946, Gottlieb Betz, Assistant Professor of German; John S. Cleavinger, Associate Professor of Library Service; George Draper, Associate Professor of Clinical Medicine; Frederic B. Flinn, Associate Professor of Industrial Hygiene; Katherine F. Hollis, Instructor in Dentistry; Clare M. Howard, Associate Professor of English in Barnard College; S. Bernard Koopman, Lec-



NICHOLAS MURRAY BUTLER LIBRARY

turer in Accounting; Harry Mulhaus, X-Ray Division, School of Dental and Oral Surgery; Isabella K. Rhodes, Assistant Professor of Library Service; Samuel A. Tucker, Curator of Chandler Chemical Museum; Agnes R. Wayman, Associate Professor of Physical Education in Barnard College; James W. White, Professor of Clinical Ophthalmology, New York Post-Graduate Medical School; on September 30, 1946, each with the title of Professor Emeritus, Clifford D. Carpenter, Professor of Chemistry; Allen O. Whipple, Valentine Mott Professor of Surgery; on December 31, 1946, with the title of Professor Emeritus, Hal T. Beans, Professor of Chemistry.

DR. BUTLER'S RETIREMENT

The foregoing outline of happenings of the academic year 1945-46 is of necessity inadequate in many respects, but in none more so than with reference to the retirement of President Butler. A full appraisal of an administration that has extended over forty-four years and which gave to the University a period of remarkable growth and development, and to education and public life in general a leadership of unsurpassed value, must await the publication of the history of Columbia University now in preparation as part of the celebration in 1954 of the two hundredth anniversary of the founding of King's College. But it is incontrovertible that Dr. Butler's administration has done more than any other to make effective the purposes of the founders of King's College, as indicated by the following quotation from the Charter, that it should be a national institution:

. . . . to Encourage the said good design of promoting a Liberal Education . . . and to make the same as Beneficial as may be not only to the Inhabitants of our said Province of New York But to all our Colonies and Territories in America. . . .

For those who are to follow him, Dr. Butler has left a great heritage, not most importantly in terms of bricks and mortar and endowments (great as those additions to the resources of the University have been), but rather in those intangibles which have gone into the make-up of the spirit of the University. It is those values which must be preserved and on which his successors must build.

In preparation for a new administration, the Trustees early in the year called for a study of the educational and material resources of the University, with a view to consolidating the advanced position to which the University has been brought, and to planning for the further development of the University's educational program. At Morningside alone there remain ten undeveloped building sites, and the deans of the several schools are considering the trends of scholarship and the directions in which University leadership will evolve, in order that future construction will provide in logical fashion for the development of the educational work itself.

Meanwhile, the equivalent of possibly two additional structures is being provided by the re-design and improvement of the interiors of Hamilton, Havemeyer, Fayerweather and Schermerhorn Halls, and of the School of Journalism building. Two temporary barracks, to house the offices of the University's Veterans Counseling Service, have been erected between Low Memorial Library and University Hall; and a temporary building has been erected on the East Quadrangle to house the King's Crown Press.

At the beginning of the academic year the stately Renaissance building given to the University by the late Edward Stephen Harkness twelve years ago as a library center for the University, and known temporarily as South Hall, was formally designated by action of the Trustees to be the Nicholas Murray Butler Library, to honor the President Emeritus of the University and close friend of the donor.

WAR RESEARCH

No full account has been published of the magnitude and variety of the war work carried on by the University under contracts with the government for research and development to aid our armed forces. Much of the work is still militarily classified as "confidential" or "secret." President Butler, in his annual report last year, did tell all that could be said about one of our largest undertakings, namely our contribution to the research on atomic or nuclear energy and the production of the atomic bomb. It seems appropriate this year to refer to at least a few other developments under our war research contracts, some of which have been continued for peacetime purposes.

The total number of government research and development contracts, 1940 to September 1946, including a few sub-contracts, was 118, 73 of which were contracts with the National Defense Research Committee or its successor, the Office of Scientific Research and Development, the others with branches of the War Department, the Navy Department, or other government agencies. The total amount of these contracts was forty-three million dollars. Expenditures did not quite reach this sum, since there was a surplus in some contracts, and some contracts are still in progress. General supervision of the contracts with respect to what the University should undertake, the acquirement and retention of suitable personnel, and the organization of the work were exercised by a Committee on War Research, headed by George Braxton Pegram, Dean of the Graduate Faculties of Columbia University. Finances and accounting and general business detail were in the hands of a Government Contract Division of the Office of the Treasurer of the University, actively supervised by Joseph Campbell, Assistant Treasurer of the University.

In the following paragraphs, an attempt is made to indicate briefly the nature and the significance of the work accomplished under several of our larger war contracts with the government for research and development. In this description much use is made of quotations from the recently published official history of the Office of Scientific Research and Development, *Scientists against Time*, by James Phinney Baxter, III, President of Williams College. They have the advantage of being statements coming from outside the University and also of having been fully cleared for publication. Little, Brown and Company, publishers, and the Atlantic Monthly Press have generously given permission for the use of this material, for which appreciative acknowledgment is made.

To make clear some of the references, it is to be explained that the National Defense Research Committee (NDRC), established by presidential order in June, 1940, was the contracting agency for many of our government contracts until it was superseded as contracting agent by the Office of Scientific Research and Development (OSRD) in June, 1941, after which NDRC continued to have supervision and direction of all work under OSRD contracts except contracts relating to medical and health matters, which were directed by a coördinate Committee on Medical Research (CMR). All passages quoted hereunder, down to

the paragraphs concerning medical research contracts, are from Mr. Baxter, in *Scientists against Time*.

Mr. Baxter writes of Division 6, NDRC, in which Columbia took part through its New London Laboratory, its Field Engineers, its Airborne Instruments Laboratory, its Operational Research Group, its Underwater Sound Reference Laboratory, and its Special Studies:

Its scientists flew on long blimp patrols as technical aides; they flew out of Iceland in long-range antisubmarine search planes; they helped detect mines off North Africa and Italy; they traveled on escort carriers in the Atlantic and participated in many carrier plane missions, perfecting equipment and analyzing attacks; they helped on shakedown cruises of destroyers and destroyer escorts; they helped to install and try out rocket ordnance on small ASW vessels; they applied mathematics to search operations off Brazil and in the Caribbean; they repaired and put back into use discarded equipment at isolated places like Trinidad; they aided in building or improving training courses and in installing special training devices, at Key West, San Diego, Norfolk, Boston, Midway, Pearl Harbor, and many other centers; they gave assistance on the installation and maintenance of weapons in every Naval District without exception; they gave on-the-spot instruction to destroyer personnel off Leyte, Manus, and in the Marianas, and helped overcome there the technical limitations of difficult supply conditions.

They made acoustical surveys of harbor or coastal waters in Long Island Sound, in Chesapeake Bay, at Key West, Coca Sola, Midway, Oahu, and Guam; they made countless dives in submarines on experimental tests and frequently underwent depth charging, in tests of new devices; they produced and tried out quantities of pre-production equipment; they worked with production manufacturers on specifications and design problems, and with the Navy on trials of manufacturers' equipment; they measured the noise of many submarines, aiding in the perfection of routinized tests; they devised, under naval officer guidance, improved tactical methods and practice exercises; they assessed combat results; they visited England and Canada in liaison exchange of information; they maintained research liaison with large numbers of naval activities; they acted as technical advisers at our distant bases in Brisbane and Perth, Australia; they were a part of an airplane antisubmarine squadron in the Solomons; and they channeled the results of all this effort through the authorities and commands of the Naval Bureaus and fleet forces.

All this and much more, too. Many of them were nomads of science. One of them, Shea, traveled over 300,000 miles, going from activity to activity. Wherever they went they found those who had to combat the enemy heartened by evidences of scientific help pouring out of the laboratories back home.

The United States Navy Underwater Sound Laboratory at New London, Connecticut, was the largest of our contracts not concerned with atomic energy. Protection against underwater warfare was recognized early in 1940 as a prime need in our national defense efforts. In April, 1941, Columbia University was asked to undertake a program of research and development in anti-submarine and sub-surface warfare to be carried out primarily in a laboratory to be built for the purpose and on ships to be provided by the Navy, at New London, Connecticut. At the same time the University of California was asked to operate a laboratory at San Diego.

The latter laboratory was supposed to stress fundamental research and special problems in the Pacific, the former was to stress the finishing stages of the development of new devices. Both were founded on naval reservations so that the Navy might more easily furnish buildings, ships, naval personnel, and policing.

A third major laboratory was subsequently developed at Harvard. Columbia University's contract was with the National Defense Research Committee under the Office of Emergency Management. While the Navy pushed forward the construction of a suitable laboratory building at New London, the University secured the services of Timothy E. Shea, Vice-President of Electrical Research Products, Inc., who began to assemble a staff of engineers, physicists, and other scientists, of technicians and administrative personnel.

By September, 1941, the Laboratory was busily at work on numerous problems of defense against submarines. Suitable vessels on which experimental work could be conducted were supplied by the Navy. The scope of the work and size of the staff increased rapidly and continued to grow until the maximum was reached in 1944 with some 330 employees, of whom 120 were engineers and scientists.

Anti-submarine defense falls into two categories: the detection and location of submarines, and anti-submarine ordnance and its use. The New London Laboratory worked on both. It worked on problems of detection and location from ships, from the shore, and from the air, in close cooperation with all branches of the Navy, with somewhat similar laboratories operated by Harvard and by the University of California, and with the manufacturers of equipment. Much of the work was done

with underwater sound apparatus, since sound waves, either audible or high frequency, afford the best means of detection and location of submerged submarine vessels.

One of the interesting devices which came from the New London Laboratory and which was widely used by the Navy for the detection of submarines was the expendable sono-radio buoy. This consisted of a float which could be dropped from an airplane and which, on striking the water, would let down a microphone on the end of a cable several feet under the water and at the same time raise a little radio mast. In the float was electronic equipment by means of which sounds picked up by the suspended microphone would be sent out by radio to be picked up by a receiving device on a patrolling plane or ship. The propeller noises and other sounds from a moving submarine could in this way be heard distinctly by a listener on the patrolling plane miles away.

... This was developed at New London, in a form remarkably well adapted to U-boat hunts. Launched from an airplane, it floated in the water "free of all effects of ships' motion," and transmitted by radio to the plane whatever underwater sounds it heard. Light enough to be carried by planes in considerable numbers, the buoys were used in patterns to scour large areas of water within which a submarine was known or suspected to be. Then either an attack or an exhaustive waiting game, dependent on the submarine's ultimate surfacing, might be decided upon, depending on the circumstances. With each buoy having a different code signal, the moves of the submarine could be followed. If surface ships were called in to aid, the radio information could be transmitted to them, likewise. Developed with infinite skill and thoroughness, and sent into operation through most intimate cooperation between the New London Laboratory and Air Force, Atlantic Fleet, the expendable sono-radio buoy became one of the outstanding developments of the war.

In addition to the main laboratory, it was necessary to establish a number of stations for experimental and patrol purposes on the Atlantic coast from Rhode Island to Florida. Later, when the menace of enemy submarines in the Atlantic had greatly decreased, emphasis began to shift from anti-submarine to pro-submarine devices and measures to assist our submarines in the Pacific, so that in 1944 about 85 per cent of the work at the Laboratory was "pro-submarine."

All of the time much attention had to be paid to methods of training

those who would operate the devices for detection and for attack, for a new device in untrained hands on a ship or plane is of little value.

Recordings of various underwater sounds prepared at New London proved of great assistance; indeed, the demand for instructional records made New London one of the important sound-recording centers of the country.

To assist the Navy on installation and maintenance of new devices, Rear Admiral E. L. Cochrane, Chief of the Bureau of Ships, induced the New London Laboratory to set up the Bureau of Ships Field Engineering Group, which rendered valuable technical assistance throughout the Atlantic and Pacific areas and at innumerable shore bases. . . . Under T. E. Shea's general oversight this group was directed first by J. W. Kennard and later by Woodman Perine.

For this service, men who were chosen because of their knowledge, skill and temperament were given special training in the new devices at New London for a period of some weeks and were then placed at the disposal of the Bureau of Ships. To judge from the commendations received from Naval officers of all ranks and from the experiences of the members of the Field Engineering Group, this experiment in providing skilled aid to the users of the newer devices was highly successful. The headquarters of the Field Engineering Group was moved from New London to Washington and the Field Engineers themselves were scattered over the world, particularly in the Pacific. With the formation of the Field Engineering Group taking up much of Mr. Shea's attention, he became Director of Research, and Keith T. Glennan, who had come to the New London Laboratory in 1942, became Director of the New London Laboratory.

As the summer of 1943 approached . . . time was pressing; the pace of the Pacific war was stepping up and careful choice of effort was necessary if improvements were to be made quickly of use. Accordingly, Shea and Glennan, acting as ambassadors of Division 6 and with the cordial support of the Navy, visited the Pacific Fleet Submarine Force and exhaustively reviewed the proposed program with about thirty squadron and division commanders and staff officers. Out of this visit, which proved a landmark in the Division's history, and out of further discussions in Washington, grew a practical, intensive, and speedy program on many valuable devices.

. . . A Pearl Harbor Division of the New London Laboratory was established

in August 1944 and its members were attached to the staff of Vice-Admiral C. A. Lockwood, Jr., Commander Submarine Force, Pacific Fleet, who welcomed and fostered the assistance of the civilian scientists.

The New London Laboratory continued throughout the war to be concerned mainly with the perfecting of new devices, first for anti-submarine use, later for submarines themselves, and for the training of their personnel. The weapons which it devised or improved were numerous and varied. We can never know how many German submarines or Japanese surface ships its efforts helped to sink, but we know that a high percentage of the problems it tackled were brought to successful completion.

On the part of all of those who worked at the New London Underwater Sound Laboratory, the devotion to the enterprise in which they were engaged and the harmony with which their work was done was such that, after their work with the University was finished at the end of February, 1945, when the Laboratory was turned back to the Navy, former members of the laboratory staff resolved to keep up their associations with one another through what they call the "CUDWR USNUSL Alumni" (Columbia University Division of War Research—United States Navy Underwater Sound Laboratory Alumni). Dinners of the group were recently held simultaneously in New York and Los Angeles. At the New York dinner they were addressed by representatives of the Navy and of the University.

The detection and location of submerged submarines was obviously mainly a job for equipment making use of underwater sound sources, or projectors, and detectors, or microphones. Any comparisons of different equipment and any improvement in equipment must be based on the ability to measure and refer to fixed standards of measurement the sound transmitted under water.

The Bell Telephone Laboratories, anticipating coming events, had done some exploratory work. . . . For nearly a year the Bell Laboratories carried this work through the pioneering stages and established reference testing stations. Though the Laboratories had vast experience in measuring sound in air and were a natural choice to develop similar test equipment and procedures for underwater sound, it became advisable for the Laboratories to suggest a change in sponsorship. . . . On May 1, 1942, therefore, this work was organized under Columbia University, which established the Underwater Sound Reference Laboratories.

. . . Here were established the basic reference levels with which all underwater acoustical measurements were ultimately compared.

The Airborne Instruments Laboratory was one of several undertakings developed under the original New London Laboratory contract which it was subsequently necessary to carry on at other sites and under separate contracts.

In the summer of 1941, a group of scientists organized by Columbia University and directed by Louis D. Slichter, working with a small nucleus of specialists at the Naval Air Station at Quonset Point, Rhode Island, began its part of the secret project which led to the invention and development of the Magnetic Airborne Detector. The object of the research was a device which would detect submarines from the air, even though they might be completely submerged; the principle to be used was to locate the submarine by means of its magnetism.

The early work at Quonset Point was stepped up immediately after Pearl Harbor under the direction of D. G. C. Hare. The headquarters of the Columbia University group was soon moved from Quonset Point to La Guardia Field in New York.

By September of 1942 this organization had attained such a size that it was set up under Columbia University as a separate war laboratory, the Airborne Instruments Laboratory, with headquarters in a plant at Mineola, Long Island.

First at Quonset Point Naval Air Station and later at Mineola, Long Island, where a complete laboratory was established, the work on the Magnetic Airborne Detector (MAD) was continued and brought to the production stage. With this device submerged submarines were detected from altitudes of more than 300 feet, approaching 500 feet on occasion.

The demonstrated importance of magnetic-detection equipment now led to an intensive development campaign to increase its sensitivity and overcome certain limitations. . . . The staff of the Mineola Laboratory under the direction of Dr. D. G. C. Hare built hundreds of pre-production equipments, installed many of these in planes and blimps, helped establish training schools and tactical procedures, and flew almost 10,000 hours on observational and training flights.

A few months later, sets developed in the Mineola Laboratory were

being installed in large numbers in fighting planes patrolling the Atlantic Coast for submarines, and general installations were made in lighter-than-air craft based at Lakehurst.

Laboratory staff members were present during numerous bombing attacks on submerged targets, witnessed several torpedoings and rescues, and acted as technicians on the blimps and planes in which MAD apparatus was installed.

Among other instances of the success of MAD equipment, it may be cited that at a critical time in the war MAD equipment was effectively used to seal the Straits of Gibraltar, making impossible the passage through these Straits of enemy submarines. The Magnetic Airborne Detector appears to have valuable peacetime applications in making geophysical surveys.

Another very important undertaking, novel for our Navy, was initiated under our original New London contract in 1942 and continued until it was transferred to the Office of Field Service, OSRD, in October 1943. This was the Operations Research Group, and its purpose was to apply mathematical reasoning, usually of a statistical nature, to problems of operation, whether by ships, guns, bombs, detecting devices, attack or defense, as rapidly as data of any applicable kind could be assembled.

On the basis of combat results and laboratory experiments the members of the Antisubmarine Warfare Operations Research Group (ASWORG) established the basic laws of visual and radar sightings and devised scientific search plans which made the most of the aircraft and surface ships available and increased the probability of sightings. To keep German submarines from bringing cargoes of tin and rubber from the Far East to Europe, barrier patrols were designed to close the gap between Africa and Brazil. Similar analytical studies were made the basis for radar and sonar search plans, for air-sea rescue, and for the use of the Magnetic Airborne Detector and the radio sonobuoy.

It may well be that the greatest contribution made by scientists to subsurface warfare lay in the application of statistical analysis to the records of operations and in the development of doctrine. Tactics had to be improved for old gear and devised for new. Much of the new antisubmarine equipment was relatively unfamiliar to naval officers, and in the hectic days of 1942 no headquarters staff had at its disposal an adequate number of persons sufficiently versed in modern mathematical techniques to derive from the statistics of past and current operations important tactical lessons.

Much of the work that developed outside of New London from our

original anti-submarine contract was housed on the 64th floor of the Empire State Building in New York City, on which floor were housed also the offices of Division 6 of the National Defense Research Committee of OSRD. Certain "special studies" were undertaken by Columbia at the request of Division 6. This Special Studies Group made comparative studies of various types of equipment and of other subjects, under the direction of L. B. Spitzer, on leave from Yale's Department of Astronomy. Under the direction of W. V. Houston, Professor of Physics on leave from the California Institute of Technology, studies of mines and torpedoes were made in close coöperation with the Harvard Laboratory, the Bell Telephone Laboratories, and the California Institute of Technology, the results of which are still secret.

The third group originating under "Special Studies" is still engaged in preparing for publication, under the direction of Wallace Waterfall, on leave from the directorship of research of the Celotex Corporation, "Summary Subject Reports"; that is, reports in which the results of work done are summed up by subjects, regardless of which laboratory did the work. At first this group was to prepare Summary Reports only for Division 6, NDRC. Later our contract was extended to enable the Waterfall group to prepare the summary reports for all the Divisions of NDRC except Division 14, Radar. This work will not be concluded until June 30, 1947.

The great center of radar research and development was the Radiation Laboratory at the Massachusetts Institute of Technology, in which several men from Columbia held important positions. However, it was deemed better to have certain important research problems attacked at another center. Accordingly, Columbia University was asked to concentrate on the production and utilization of electric waves of three centimeters, and less, wave length. The work at Columbia, under the general supervision of Professor Rabi and immediate direction of Professor Kellogg, was very successful. Mr. Baxter writes in connection with the M.I.T. Laboratory:

Before the war ended . . . the Laboratory, which had worked out the techniques for the great shift from ten centimeters to three, had completed, with the help of its branch at Columbia University, the still more difficult transition to sets of a still shorter wave length.

The work of the Columbia Radiation Laboratory, no longer secret, is being actively continued under a contract with the Signal Corps of the Army.

Toward the end of the war countermeasures against enemy radar and radio controlled missiles became of the most critical importance. Our Mineola Airborne Instruments Laboratory was called upon to undertake countermeasures research.

In January 1944 Division 15 took over the responsibility for the Airborne Instruments Laboratory at Mineola, Long Island, from Division 6. This laboratory, directed by Dr. D. G. C. Hare, under a contract with Columbia University, had successfully completed a previous task for the Navy Department, and now set out to develop countermeasures methods and equipment for a variety of new electronics problems posed by the enemy, including the newly launched guided missiles and flying bombs. At its peak period of operation the Airborne Instruments Laboratory engaged a total personnel of 301, of which 76 were of technical graduate grade; about three quarters of this staff went on the countermeasures job, the balance continued on final stages of the Navy's problem.

The development of smoke screens for concealment from aircraft, particularly bombing planes, and for concealment of operations by ground forces and landing parties, acquired an unexpected importance in World War II.

. . . Irving Langmuir, a former Nobel Prize winner, at the General Electric Company, and Victor LaMer at Columbia University, working independently under NDRC contracts beginning in September and October, 1940, threw fresh light on the problem of aerosols—that is, the suspension of particles of liquids or solids in air.

. . . At Columbia University laboratory methods were developed for producing smokes which had particles of uniform diameter. These uniform particle smokes yielded spectral colors at various angles even though they were made of transparent materials.

Thus independently at General Electric Company and at Columbia University the optimum size of particle for light scattering was determined. . . . Theoretical predictions were verified in practice. Indeed the practical difficulties of measuring the usefulness of a smoke are so great that theory turned out to be more useful than observation as a means of deciding what smoke to use.

. . . the original theoretical developments led to a variety of smoke generators, large numbers of which were used by both the British and the U. S.

Armies overseas. The culminating use of smoke screens occurred during the preparation for the crossing of the Rhine in the late winter and spring of 1945. While men and matériel were being assembled for that crossing, a huge smoke screen prevented the enemy from observing what was going on. All Allied armies on the Western front made extensive use of mechanical smoke generators to screen airfields, bridges, troop concentrations, ports, and railways. The development was extensive and the work of Section B-5 saved literally millions—even billions—of dollars of shipping, supplies, and planes, not to mention human lives.

With the theory of smokes and their production well worked out, Professor LaMer was able to make valuable contributions to the production and efficient application of another type of aerosol, namely mists of DDT or other chemicals used for insecticidal purposes.

At the beginning of World War II there was no great demand for mathematicians to aid in research and development for military purposes. The call was for the devising of new weapons or means of defense. A little later it became clear that the evaluation of practically every new device and guidance for its improvement, the setting of rules for its most effective use, the estimation of the probabilities of success of every tactical procedure, whether of defense or offense, was to be accomplished by setting up the data in mathematical terms and getting tangible results by mathematical computations. To meet this rapidly growing need, an Applied Mathematics Panel was set up under NDRC, and many mathematicians at Columbia and elsewhere were called into action for mathematical solutions of military problems. The result was a demonstration of the degree of practical usefulness of mathematics that may well have astonished even some of the mathematicians.

At Columbia there were three separate groups of mathematicians working. The Bombing Research Group, under the direction of Professor Jan Schilt and Mr. J. D. Williams, worked mainly on problems of bombing. They used the facilities of the Watson Scientific Computing Laboratory in our Department of Astronomy for their computation, by the use of card-sorting machines. The Statistical Research Group, led by Professors Harold Hotelling and W. A. Wallis, dealt with many problems to which statistical theory was applicable, ranging from rocket ballistics to method of inspection of products in manufacturing. In connection with the problem of most economical sampling in product in-

spection, a new method of procedure called "Statistical Analysis" was developed by this group, chiefly by Professor A. Wald, which was put into immediate and effective use in hundreds of war plants. The Applied Mathematics Group dealt also with a wide variety of problems amenable to mathematical treatment, which were originated within the Mathematics Panel or referred to it by various branches of the Army and Navy.

Mr. Baxter says of the work of the Applied Mathematics Panel:

This type of analysis provided a powerful scientific method of evaluating the effectiveness of weapons and improving it. Its application at all stages—original design, development, early testing, advanced testing, production, and combat—proved extremely effective in the development of new weapons and of the tactics for their employment.

Under the supervision of the Committee on Medical Research (CMR) Columbia University had twenty-seven OSRD contracts. Of these quite the largest was a contract for work on antimalarial drugs, directed by Professor Robert C. Elderfield. A large number of new drugs were synthesized, two of which are thought to be among the most promising for the permanent cure of relapsing vivax malaria. In addition the group working at Columbia served as the major source of organic chemicals "intermediates," used by some thirty-odd other OSRD contractors working on antimalarials. Approximately 200 different chemical compounds not obtainable commercially were prepared at Columbia in amounts ranging from a few grams to several kilos for each compound. Columbia operated the central control laboratory in which all lots of drugs prepared in the country in the antimalarial program were submitted to final chemical controls before being used in higher animals or humans. Our laboratory largely handled the coördination of the chemical work of the program, working closely with other university groups and with pharmaceutical companies.

A brief summary of the nature and success of our whole range of CMR contracts can best be given by quoting from a letter of July 26, 1946 to the Acting President from Dr. A. N. Richards, Chairman of the Committee on Medical Research, in which he referred by name to the special services of several members of the University staff:

Dr. Selig Hecht. By the application of his expert knowledge of visual mechanisms, Dr. Hecht greatly improved the safety and efficiency of naval and

military personnel. Especially in night operations, the use of Dr. Hecht's fundamental discoveries and practical applications were of great value. Through his constant cooperation with the Armed Forces, he made widely available his wisdom and experience. He helped to inaugurate the Army Air Forces Night Vision Training Program, he discovered the long-lasting harm to night vision of bright sunlight, he aroused the interest of the services in the need for protecting night vision, and he developed instruments for testing night vision.

Dr. J. Gardner Hopkins. New and increasingly effective fungistatic agents have been discovered and have been tested against the fungous infections of the skin which have been a source of disability to our armed forces in parts of this country and in the Tropics. In this connection the willingness of Dr. Hopkins to undertake a trying expedition to the Pacific Theater, and of the University authorities to spare his services, are particularly appreciated.

Dr. Virginia Kneeland Frantz. Dr. Frantz has performed the experiments necessary to place on a practical basis the use of absorbable cellulose in the control of a hemorrhage in wounds. This has provided military surgeons with a new weapon of great usefulness in field surgery which will also be of importance in civilian practice.

Dr. Robert L. Levy. A thorough study of the trends of blood pressure in Army officers, observed over their period of active service, has contributed both to the Army standards in this connection and to the understanding of the progress of abnormal blood pressure.

Drs. Alvan L. Barach and Walter W. Palmer. These investigations added to our knowledge of respiratory requirements in high altitude aviation and, in particular, provided basic information necessary for the development of pressurized breathing systems by the Air Forces.

Dr. Charles Glen King. These studies resulted in important discoveries relating to the influence of diet on human tolerance of high altitudes and low barometric pressure. This information was of practical value to the Air Forces in the control of their nutritional programs.

Dr. Sidney C. Werner. Studies of the disturbances of nutrition associated with injury and disease have advanced the knowledge of this subject and have indicated methods to remedy these disturbances.

Dr. Erwin Chargaff. Attempts at purification and concentration of typhus vaccine have been made with some promise of success.

Drs. Frank L. Meleney, Ivan C. Hall, Robert Elliott, Jr., and Frederick Smith.

Dr. Meleney has worked with great enthusiasm and effectiveness in a number of projects concerned with improvement in methods of controlling wound infections. He has served as the executive officer of the organized program of study of accidental wounds in a dozen different institutions in addition to conducting one of the most important units. Many new drugs have been in-

vestigated through his efforts including an antibiotic substance, Bacitracin, which was discovered and developed in his own laboratory.

Dr. George K. Smelser. Dr. Smelser has analyzed systematically the influence of many drugs and chemotherapeutic agents on the healing of injuries of the eye and has placed the local treatment of eye wounds upon a more rational basis than formerly existed.

Dr. Tracy J. Putnam. An exhaustive analysis of methods for estimating the severity and permanence of the effects of brain injury has made significant contributions in the field of surgery of peripheral nerves.

Dr. Sidney C. Werner. The possible usefulness of a certain type of hormone treatment as a means of protecting the protein reserves of patients after severe burns has been investigated.

Drs. Hans T. Clarke and Edgar G. Miller. Amino acid analyses on the various protein fractions from the laboratory of Dr. Edwin Cohn contributed to the success of the plasma fractionation program.

Dr. David Seegal. Dr. Seegal and his associates were most effective and discriminating in evaluating blood substitutes, particularly gelatin, globin and bovine albumin.

Dr. Magnus I. Gregersen. These extensive studies of the circulation following hemorrhage and traumatic shock did much to clarify the circulatory changes in animals during the state of shock.

Dr. Carl J. Warden. These investigations on various visual phenomena gave information which makes possible the improvement of gunsights and will thus increase the accuracy of gun-fire.

Dr. Elvin A. Kabat. This was one of a group of studies on the purification and standardization of blood group specific substances with a view to preventing the undesirable reactions that may follow some blood transfusions.

Drs. Dickinson W. Richards and Andre Cournand. This project made very important contributions to the clinical knowledge of shock and defined clearly the circulatory changes and some of the chemical changes in various phases of clinical shock.

Drs. Dan H. Moore and Elvin A. Kabat. Studies of false positive serological tests for syphilis have advanced the understanding of this phenomenon.

Drs. Donovan J. McCune and Hattie E. Alexander. Careful studies have been conducted to evaluate protective substances against gas gangrene, a disastrous complication of wounds.

Drs. Edward L. Howes and Henry S. Simms. This systematic and comprehensive investigation of the influence of various drugs and dressing technics on the healing of wounds has placed the local treatment of wound infections upon a rational basis.

Dr. Charles L. Fox, Jr. This investigation of the physiological changes result-



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WAR RESEARCH MEDALLION

ing from severe burns has brought forward a number of important original observations concerning the metabolic consequences of thermal injuries and has introduced new methods of burn treatment which have attracted much interest.

Drs. Colin G. Fink and Clay R. Murray. Useful criteria for selection of metal plates to use in the repair of bone fractures have been developed.

Drs. H. B. van Dyke and Alfred Gellhorn; Drs. James R. Culbertson and Harry M. Rose. Newly developed substances have been evaluated in the treatment of tropical diseases, and new methods of administering compounds already tested have been devised.

Dr. Heinrich Waelsch. These preliminary studies on the metabolism of atabrine in the dog showed the drug to be almost entirely metabolized.

Drs. Barry G. King and Enid T. Oppenheimer. This study of the effect of atabrine on animals, particularly with respect to their tolerance of low barometric pressure, was undertaken in view of the interest of the Armed Forces in the effect of atabrine on aviators.

Dr. Michael Heidelberger. This study of the antigenic properties of human malarial parasites has yielded much valuable information, and useful technics for parasite separation and vaccine preparation have been worked out.

Drs. Michael Heidelberger and Elvin A. Kabat. The immuno-chemical studies on "W" have assisted greatly in the consideration of the offensive and defensive aspects of this very toxic material.

Dr. Karl Meyer. These studies contributed to a better understanding of the action of vesicants upon the eye.

Dr. David Green. This investigation contributed, perhaps, the first information on the nature of the mechanism of death of bacteria when exposed to chlorine. This has had practical value in the water disinfection program of the armed services.

Drs. Robert C. Elderfield and Walter J. Gensler. Dr. Elderfield and his associates have carried the heaviest burden of any of the investigators concerned with the synthesis of new and potential antimalarial drugs. In addition to supplying intermediates to the other investigators, Dr. Elderfield, as Executive Secretary to the Panel on Synthesis of the Board for the Coordination of Malarial Studies and as regional director of the program of synthesis in the Eastern area, has been responsible for coordinating the work among a large number of laboratories.

As a modest but permanent memento, for the members of the scientific staff of the Division of War Research and the chief administrative officers, of days spent in the service of their country, the University has provided a bronze medallion paperweight modeled by Oronzio Mal-

darelli, Associate in Sculpture. The medallion bears in relief the King's Crown emblem of the University and the inscription:

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One of these medallions, with the recipient's name engraved, was sent to each of the 1,100 research workers and key administrative personnel of the Division of War Research with a letter from the Acting President asking that it be accepted as a symbol of the University's gratitude for their contribution to the work done, for which it could not hope to make adequate acknowledgment.

The foregoing record of Columbia's share in war research may well give satisfaction to anyone interested in the University. But beyond that it should be gratifying to the whole country as typical of the contribution which the colleges and universities of the nation made during a great emergency; typical of the coöperation between educational institutions and our government that made possible the application of a wide variety of scientific discoveries to the needs of a nation at war.

The success of coöperation on war research should point the way to similar endeavor for the solution of problems of constructive value to peaceful living. Yet great care is needed lest the research activities of the universities be diverted to industrial or applied research away from their normal and special responsibility for basic or fundamental research. The universities should continue to bend their main efforts to extending the boundaries of knowledge. To this end, the universities should, for the national good, have support for their laboratories and for the training of research personnel, not on the scale which the war made temporarily expedient, but well beyond pre-war standards.

YALE-COLUMBIA SOUTHERN STATION

In what may well prove an important step in furthering the aggregate knowledge of the universe and the celestial bodies, Columbia has joined forces with one of her sister universities here in the East. In July of this year an agreement was signed by Columbia, Yale, and the University of the Witwatersrand in Johannesburg, South Africa, under which the Astronomical Station located on the grounds of the University of the Witwatersrand would thereafter be operated jointly by the Departments of Astronomy at Yale and Columbia.

The Station, founded twenty years ago by the Director of the Yale Observatory, is now to be known as the Yale-Columbia Southern Station. The two co-directors will be Professor Dirk Brouwer, present Director of the Yale Observatory and Munson Professor of Natural Philosophy and Astronomy; and Professor Jan Schilt, Rutherford Professor of Astronomy at Columbia. Yale will continue to use the station equipment for astrometric work, while the Columbia astronomers will concentrate on photometric researches. The principal instrument of the station, a twenty-six inch photographic refracting telescope, will be shared by the astronomers of both universities. And in the Pupin Laboratories on the Columbia campus a new type of photometer is now being constructed which will be used here in connection with the South African researches.

COLUMBIA COLLEGE

Since the last annual report, the Committee on College Plans, appointed in September, 1943 to study the long-range problems facing Columbia College during the postwar period, has reported to the Faculty comprehensive proposals affecting curriculum and administration. All these proposals have been accepted by that body. The committee report *A College Program in Action*, published by Columbia University Press, states in its introduction that it "does not pretend to furnish an entire philosophy of higher education," but it recalls the fact that the "reestablishment of general education and the unifying of educational thought, which have gone forward so rapidly since the beginning of the Second World War, have been in progress within Columbia College experimentally

for almost twenty-five years, and actively and affirmatively for more than a decade."

This refers principally to the requirement of introductory courses in the social sciences, the physical sciences and the humanities, forming the core of undergraduate study in the first two years. This plan and its administration the present committee has reviewed and reaffirmed, offering only modifications of detail. The most important of these is the suggested change in the ordering of the Introductory Science course, which is to be more closely unified in contents, mode of instruction and relation to more advanced work in the field. The second year of the Humanities course (Fine Arts and Music) is, at the same time, to be required of all sophomores—a reaffirmation of the original plan, the application of which had been postponed for practical reasons no longer operative.

The teaching of English and the foreign languages likewise receives attention in the current report. It is proposed to require of all entrants to Columbia College an examination in English, to count as an important part of the criteria for admission. The student's obligation to write acceptable prose while in the College is also extended by enlisting the aid of instructors in the basic courses, so that English, ceasing to appear a special subject "worked off" in a special classroom, may regain its proper status as a medium for all communication.

The main effort of the committee, however, was expended on the unification of aims and policies in the Upper College. Without setting up a sharp division into two halves, it is proposed to screen all students at the end of the second year, to place each in the charge of a Senior adviser (supplementing, not replacing, the general adviser), and to provide in all departments and divisions comparable course offerings, equivalent as to range, maturity and variety of method. Reading courses, colloquiums, seminars and lecture courses are to be planned, in the order of importance just given in this listing. The Colloquium on Important Books, long a distinguishing feature of the Upper College, is to be retained without prejudice to its counterparts in divisional offerings.

The report pays close attention also to matters of departmental administration, to relations of the College with other schools and Faculties, to student admissions, scholarship and residence problems, and extra-curricular activities. It concludes by reasserting the great importance



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to the College of its close connection with the University, and while recalling the College's "special achievements which have commended themselves to serious and discerning students in every quarter of the country," it commits the future "to the further proof of what has been going forward at Columbia College during the last twenty-five years."

AMERICAN PRESS INSTITUTE

On the morning of September 30, 1946, with the start of the first three-week seminar for newspaper editors, the American Press Institute opened under the auspices of the Graduate School of Journalism and under the general direction of Dean Ackerman. Originating in the mind of Sevellon Brown, editor and publisher of *The Providence Journal-Bulletin*, and proposed by him to Columbia University and the other thirty-seven newspaper publishers who became its founders, the American Press Institute is a pioneering step in higher education for American journalism, and its influence will be felt beyond the confines of this continent. It is a commendably serious assumption of responsibility, on the part of the journalistic profession, for the quality and presentation of the immense and endless stream of news by which public opinion is formed—that powerful intangible by which democracies are served, revolutions impelled, and liberties preserved.

Under the guidance of Floyd Taylor, Associate Dean of the School of Journalism and now Director of the Institute, a series of discussion seminars will be held during the academic year. These groups, kept small and intimate, will explore the task, the techniques, of bringing to the public significant news, reported with perception and perspective. The sobering realization that newspapers today are, indirectly, as apt to make history as to report it, has led professional men in the newspaper field to the awareness that this power which newspapers possess to influence great masses of people is as potent and must be guarded as carefully as any military weapon.

The American Press Institute this year will accommodate only 150 selected news men, but this first small ripple of heightened social responsibility in the profession may spread, as the years pass, throughout the country. The University is justly proud to be associated with the

thirty-eight publisher-founders in so momentous a contribution to journalism and to sound and enlightened public opinion.

LAW SCHOOL

The Law School finds itself today, in all respects save one, in a most enviable position. With its mature and experienced Faculty restored to teaching, with its prestige such that it is enabled to select the finest students from a large number of applicants, with its most essential tool, the library, ranking as one of the five great law libraries of the world—the only problem of the School is to confine its intensive activity within the walls of Kent Hall. Actually, it has not been able to do so, and by 1947 at least half of the classes will need to be held outside of Kent Hall.

This need for space makes most timely the renewal of a proposal which has been before the University for many years. Originated fifteen years ago, and delayed of realization first by economic depression and then by war conditions, the plans for a great law center at Columbia are now again under consideration by the Faculty.

Here, in buildings centered about Kent Hall, professional training, research, and public service would be carried on in a closely related manner; a legal clinic would provide at modest cost services in this field to persons of moderate or low income.

The Report of the Dean of the Law School discusses details of the proposed building program which would first of all provide adequate quarters for the study of law, and thus remove its one handicap from a School which, with it, is yet regarded as one of the three best law schools in the nation. Without this handicap, what possibilities may not the future hold?

LATIN AMERICAN CENTER

For some three or four years, an interesting and significant development has been taking place at Columbia University which may in time play an important part in the cultural relations between North and South and Central America.

Professor Frank Tannenbaum, who holds the chair in Latin American History, has developed—in coöperation with Professor Federico de

Onís of the Department of Spanish—what is virtually a center of Latin American economic and historical studies. During the year now under review, there have been brought to the University for lecture seminars in Spanish and Portuguese, twenty Latin American scholars and lecturers who, through their interest in the undertaking, have made their contribution out of good will.

The interest and coöperation of the Institute of International Education, the Foreign Policy Association, the Office of Inter-American Affairs in the State Department, and the Guggenheim Fellowship Foundation have been of much assistance in this project, and give ample evidence of the excellent relations between the University and the academic world of Latin America.

What has been most gratifying and important from the point of view of the University is that the Center is acquiring a reputation among scholars in Latin America, and is assuming the character of a permanent and informal contact between academic Latin America and Columbia University. There is every hope that in time it will become a natural focus of interest for Latin Americans coming to the United States, thus making it possible for the University to avail itself of services which, because they are voluntary, have additional value.

FOREIGN STUDENTS

Foreign students are not a novelty at Columbia. While their numbers are on the increase, in view of the large foreign student population that has long been a part of the Columbia scene, the effect of the present increase is likely to be relatively slighter here than in other colleges and universities.

There are at the present time 1,390 foreign students from eighty countries and colonies distributed among the various schools of the University. In the academic year 1945-46, there were 1,191 foreign students in the University, while 873 were registered for the Winter Session. In 1944-45 the total number of students of foreign residence was 536. The figures for the preceding years are: 1943-44, 366; 1942-43, 456; 1941-42, 450; 1940-41, 696; 1939-40, 707; 1938-39, 671; 1937-38, 478; 1936-37, 423; 1935-36, 391.

The following countries have at least ten students in the University: Austria, 19; Belgium, 12; Brazil, 28; Canada, 245; China, 168; Colombia, 10; Cuba, 46; Czechoslovakia, 14; Dominican Republic, 14; Egypt, 19; England, 41; France, 51; Germany, 47; Greece, 27; India, 61; Iran, 32; Italy, 17; Jamaica, 31; Mexico, 17; The Netherlands, 20; Norway, 19; Philippines, 27; Poland, 32; Sweden, 27; Switzerland, 18; Turkey, 25; Venezuela, 18.

It is interesting to note that the large majority of foreign students are either matriculated or expect to be, while some 300 are non-matriculated, and are taking for the most part English for Foreigners, and similar courses.

Nearly 100 of these foreign students are veterans, of fifteen foreign allied armies.

The Foreign Student Group is unique not only in its size and in its wide distribution, but in its high quality, in its seriousness and fixity of purpose. Fifty-seven per cent are candidates for degrees, more than half of these being candidates for the higher degrees.

SCHOOL OF BUSINESS

At the beginning of the year, the School of Business initiated its two-year graduate program leading to the degree of Master of Business Administration which was authorized by the Trustees at their meeting on October 2, 1944, and thereby took a noteworthy step in the direction of training men of superior capacity to master the intricate and complex factors of our highly organized economy.

If modern society is to deal effectively and wisely with the perplexing economic problems it confronts, more of its ablest youth must be trained to direct the economic affairs of business, government, and related institutions. Recognizing this need, the School of Business undertook to develop a higher type of professional training for administration. Efforts are being made to select students of potential administrative capacity. Through these and other measures, the University hopes to send forth professionally trained graduates, better qualified to pursue careers in administration and to deal with the business and economic problems of our times. In the past year a notable beginning has been made.

RELIGIOUS WORK

Signifying the University's concern for the religious life of students of all faiths on the Columbia campus, the year saw the adoption of two important new provisions for work in this field. By his gift in 1900 of funds for the erection of Earl Hall, William Earl Dodge had placed at the disposal of the University exceptional equipment for the development of the religious life of the University. The gift was made soon after the establishment of the University at Morningside, and before any specialized religious work had been organized within the University. The donor therefore wisely suggested that the management of the building should be entrusted to the Young Men's Christian Association, whose interest in the welfare of young men was known to be so keen; and the pioneering work thus accomplished on the Columbia campus has been, for nearly half a century, invaluable as mentor and inspiration to the wider religious and social program which has developed on that foundation.

However, with the growth of the "Counselor system" and the establishment of a fully developed inter-faith religious staff, it has been felt wise by all concerned that the University should assume full responsibility for the building through appropriate channels. A new arrangement has therefore been entered into by the Young Men's Christian Association and the University: a joint committee of representatives from the University and from the Young Men's Christian Association has been established to ensure the participation of interested non-academic groups; and an Executive Secretary, charged with responsibility for the administration of the building itself for maximum service to students of every creed, will henceforth be appointed by the University, on the nomination of the Young Men's Christian Association.

The statutes of the University governing religious work have been revised to provide for the new arrangement and for full recognition of the work of the religious counselors. Under the new statutes the counselors are for the first time, on nomination of their respective sponsors, established by Trustee appointment as recognized officers of the University, working under the chairmanship of the Chaplain of the University in maintaining general ministries to the three major religious groups—Catholic, Jewish and Protestant.

There are few other universities which have so cosmopolitan a population, and there is probably none so fortunate in finding a way of religious ministry which reflects that cosmopolitan nature and copes with it as adequately. Growing out of the free association within Earl Hall, and from the constant interchange typified by the weekly staff meetings of Chaplain and Counselors, there develops not only a well-integrated program for Catholic, Jewish and Protestant students, but also a promising degree of inter-faith activity.

UNIVERSITY SEMINARS

There have been established in Columbia University certain advanced seminars, participated in by scholars and specialists drawn from within and without the University; they are designated University Seminars, and are devoted to continuing study of persistent institutions or problems of our civilization, or to vital phases of earlier periods. The subjects considered are of enduring interest and importance and of such complexity that a group of scholars approaching from different points and using different methods may fruitfully co-operate in their investigation. Thus, the problem of peace may be studied by the anthropologist, the economist, the historian, the lawyer, the political scientist, the sociologist, each from his own point of view and by methods appropriate to each discipline. By bringing these together and by calling to their counsel public officers engaged on practical aspects of the problems, new light may be thrown upon old problems, and proposals more soundly and broadly based for their solution may emerge. In this way the University may participate more directly in resolving some of the important issues confronting the world.

Five seminars investigating the problems of peace, religion, the Renaissance, rural life, and the state were active in 1945-46. In the seminar on religion, which has studied Religion and Health, the group consisted of two anthropologists, three ministers, four philosophers, five psychiatrists and physicians, one psychologist, and one specialist in personality testing; in the seminar on the state, which has been following a historical survey of the development of bureaucracy, devoting the present year to a study of bureaucracy in the late Roman Empire and during the Middle Ages, there participated one anthropologist, four historians, one professor of

canon law, one of Roman law, one of administrative law, one of public administration, one lawyer, and two sociologists.

University Seminars, like the usual joint seminars, cut across the lines of departments, faculties and schools in their membership; and have the added advantage of consecutive study over the years of different phases of a subject. Though permanent within the University, these seminars involve no reorganization of the faculties or of the departments, and members of the departments participate because already interested in investigating the institutions or problems under consideration. No elaborate administration is involved, though all staffs may in the long run be recruited with a view to strengthening one or another seminar.

AMERICAN MUSEUM OF NATURAL HISTORY

One of the undisputed advantages which an urban university enjoys for its undergraduate, graduate and professional schools is the quite unparalleled opportunity to coöperate closely with other nearby centers of research and culture. The opportunities of close contact with scholars of related fields must count as positive values in education.

The University has excellent working arrangements with most of the cultural institutions of the area. Occasionally those arrangements prove mutually so valuable that an even closer relationship is entered into, as recently in the case of the American Museum of Natural History. In coöperation with the Museum, the University has extended its plans to combine graduate study and research in vertebrate paleontology. Under this arrangement, graduate students have at their disposal the combined facilities of the departments of zoölogy and geology at Columbia University, and the parallel departments at the Museum. In this manner the Museum's scientific collection, said to be the most extensive in the world, is made available to the great benefit of Columbia's graduate students and at the same time is put to the best possible use for the advancement of human knowledge, and the Museum staff is brought in contact with the activities in the field of advanced education.

COLUMBIA UNIVERSITY PRESS

The year for Columbia University Press was marked by the election of its new President, Frederick Coykendall, for so many years Director of

the Press, and the advancement of Charles G. Proffitt from Associate Director to Director and Secretary of the Press; and by the publication of three volumes which have occasioned an exceptional amount of interest and praise.

In the fall of 1945 the Press published one of the most popular and most widely reviewed books in its history, *The Trollopes: the Chronicle of a Writing Family*, by Lucy Poate Stebbins and Richard Poate Stebbins. Appearing at the same time as the revival of interest in Anthony Trollope, the book both fostered that interest and benefited by it, and has established itself as the best work on the family. And in May of 1946 the Press issued *The Roots of American Loyalty*, by Merle Curti, former Columbia professor and Pulitzer Prize winner, which is the first book-length study of the sources of patriotism in this country, and was greeted with enthusiasm across the land.

In May also, the Press issued *A College Program in Action: a Review of Working Principles at Columbia College*. This is the report originally prepared by the Committee on Plans, a committee of the College Faculty, of which Professor Steeves was Chairman and Professor Barzun, Secretary. *A College Program in Action* shows clearly how Columbia College has pioneered in general education for a quarter of a century.

Earlier in the academic year the Press published *The Germans in History*, by Prince Hubertus zu Loewenstein, and this volume, too, the product of long years of research, has received widespread attention.

Meantime, the Press had taken over from A. C. McClurg the publication rights of the standard reference work, *Granger's Index to Poetry*, and in December, 1945, issued a *Supplement* to the Index covering the years 1938 to 1944. This was entirely compiled and edited by the Editorial Department of the Press, which is planning to bring out the new edition of *Granger's Index* each ten years, and a supplement each five years.

In February of 1946 the Press issued Volume One of *Contemporary Civilization in the West*, and the accompanying Manual. Volume Two of each is to be issued in the autumn. This is the latest revision of the reading material used in the Contemporary Civilization course in the College, which has already been adopted by many other schools. In March, shortly after the United Nations set up headquarters in the United States, International Documents Service of the Columbia Uni-

versity Press was appointed official sales agent for all United Nations publications in North and South America. Although no book length publications have been issued as yet, United Nations has published the general and official records of the various organizations and in August established the *United Nations Weekly Bulletin*.

And in September, 1946, the Press published Bernard N. Schilling's *Human Dignity and the Great Victorians*—the first in a series of scholarly books the Press will henceforth issue for Grinnell College of Iowa.

THE VETERANS

One of the most significant developments of the postwar era, and an impressive characteristic of the academic year 1945-46, has been the astounding influx of student veterans. In the Winter Session 1944-45, there were 168 veterans registered at Columbia. By the Winter Session of 1945-46, this number had risen to 1,802. During the Spring Session, however, 7,826 veterans were registered in the various parts of the University. The Winter Session of 1946-47 opened with 14,371 veterans on the campus.

The unparalleled enthusiasm with which the youth of our nation have accepted the education offered by the government has imposed heavy responsibilities upon the University. Elaborate administrative machinery has been required, since tuition and subsistence are paid by the Veterans Administration. The duties of the Registrar and the Bursar have increased materially, as have their staffs.

It has been the policy of the University not to place veterans in a special category, but to treat them as members of the student body. We have endeavored to care for veterans' affairs through the existing agencies insofar as this could be done effectively. But in order to cope with some of the problems presented, it was necessary to make further provision. In the early days the most urgent need was for guidance and counsel to the veterans who applied to Columbia each day for advice or for admission. To meet this demand the University created the Office of Counselor to Veterans, at first in the office of the Director of University Admissions, but later as a Division of the President's Office.

In January, 1946, to coordinate the steps necessary to meet the new

challenge to the University, Professor Albert C. Jacobs of the School of Law, who had recently been released from the Navy where he had been Director of the Dependents Welfare Division, Bureau of Naval Personnel, was appointed Assistant to the President for Veterans' Affairs. At the same time, Troup H. Mathews, a veteran of the North African campaign, was designated as Administrative Assistant. An Advisory Committee on Veterans' Affairs was constituted to supervise the program throughout the entire University.

The Office of the Counselor to Veterans has a staff of four full-time counselors and six part-time counselors. Through September, 1946, some 30,000 veterans have been interviewed by this office, often at the rate of 300 per day. This does not include the countless mail inquiries. It is estimated that over one-half of the veterans seeking advice from this Office have not sought admission to the University, but general counsel on educational matters.

The Office of the Counselor to Veterans has continued to offer advice and assistance to returning servicemen seeking to take advantage of the "G.I. Bill," and in so doing, has endeavored to aid the University Admissions Office in its preliminary procedures. In addition, it has extended service to veterans already enrolled in the University by assisting them with their problems concerning subsistence, insurance, and other special veterans' matters.

This considerable expansion has placed a severe strain on available office space. In order to meet this emergency, a temporary Veterans Affairs Building is being erected with the assistance of the Federal Public Housing Authority and the State of New York, between Low Memorial Library and University Hall. It is expected that this building will be ready for occupancy by all of the veterans' service activities by January 1, 1947.

One problem which the return of the veteran has placed on the University is a responsibility which would normally belong to the community—housing. The student veteran must have a place to live. Basically, the college housing problem is, and will remain, a part of the nation's critical housing shortage. It is not a part of the educational function, but it has had to be assumed by the University if many veterans were not to be denied higher education.

To take care of single veterans, the following steps have been taken.

By installing double-decker beds wherever possible in the University dormitories, the capacity has been increased from 2,000 to 2,500. In the Army Hall dormitories at City College, a Federal Public Housing Authority project, 400 Columbia veterans are housed. Others are quartered in the dormitories on North Brother Island in the East River, an emergency development sponsored by New York State. Through the Off-Campus Registry, the clearing house for rooms and apartments, 500 veterans have been placed in private houses and rooms.

Finding living quarters for the married veterans has been even more difficult. Shanks Village, on the site of the former Camp Shanks, some twenty miles north of New York City, will by the first of the year have been converted by the Federal Public Housing Authority to provide 1,500 apartments. This project has been sponsored by Columbia University and is operated by the Federal Public Housing Authority. The University has entered into sub-contracts for some of the apartments with other metropolitan institutions. At the present time, married veterans are occupying some twenty-one apartments on North Brother Island; fourteen families are accommodated in the beautiful University mansion at Nevis; and some 600 families have been placed by the Off-Campus Registry.

The return of veterans to the campus has required of the University difficult adjustments and heavy expenses. It is an effort, however, which is extremely rewarding. Academically the records of the veterans to date have been outstanding, almost invariably surpassing those of non-veterans. Their seriousness and fixity of purpose have won universal acclaim. The ease and completeness with which the ex-servicemen have fitted into the academic environment has also been remarkable. More mature not only in years and bearing, but also in judgment, they have wanted to become, and to a large degree they have succeeded in becoming, integrated in the student body. Cases of maladjustment and of war neurosis have been few. The veterans have been interested in the more serious phases of University life. They are vitally concerned with public affairs, with world problems, and with equipping themselves for sound citizenship. They have brought to the campus an atmosphere of serious purpose and a sense of responsibility.

UNIVERSITY BUDGET

The budget for 1946-47, adopted by her Trustees in the spring of 1946, is the largest in the history of the University. It calls for an increase of \$3,393,112.95 over the budget for 1940-41, the last normal year prior to the war, when \$9,334,495.19 was appropriated. It is an increase of \$1,899,524.00 over the 1945-46 budget.

This record budget has been necessary to meet the needs of the largest number of students ever enrolled at the University. Enlarged teaching staffs, expanded laboratories, and increased maintenance costs of buildings and grounds have been contributing factors.

One of the major appropriations in the budget is \$8,628,228.59 for academic expenses, which, it is noted, is an increase of 23 per cent over the \$6,532,020.07 spent for this purpose in 1940-41. The appropriation for buildings and grounds is \$1,856,910.00 or 105 per cent over the \$905,368.00 so spent in 1940-41. Library expenses for 1946-47 are estimated at \$797,270.00, an increase of 51.5 per cent over the \$526,162.00 so spent in 1940-41. A sum of \$590,467.00 has been appropriated for student aid, an increase of 21.9 per cent over the amount devoted to such purposes in 1940-41.

As usual, the principal income will come from two sources, endowment and investments, and student fees. Income from endowment and investments has been estimated at \$5,544,933.00, and the income from student fees at \$5,150,550.00. The balance of the income will be derived from gifts to the University and from other sources.

As announced in January, 1946, effective with the opening of the Winter Session, 1946-47, student fees were increased from \$12.50 to \$15.00 per point in most cases, or 20 per cent. It has been estimated that this increase in student fees will produce \$868,346.00 more than would have been paid under the former fee system. The most recent previous increase in fees at the University was in 1935-36, when the increase was from \$10.00 to \$12.50 per point.

The estimated income from student fees constitutes 47.3 per cent of the total of the University's estimated income. In 1940-41 the income from fees was \$2,834,321.00, or 30.3 per cent.

It is easy to say that this trend is proper, that the increasing costs of education should be passed on to the student; but this might constitute a real threat to the freedom of the independent colleges and universities in the land. It is of prime importance that these institutions retain their ability to advance standards, revise programs and otherwise to apply the best thought of their scholars to the advancement of education, free both of governmental pressures and of disproportionate need for student fees. As long as these institutions maintain the fundamentals of American ideals and progress, they should have in the future, as they have had in the past, the generous material support of the American public. The student whose college experience makes him grateful to his Alma Mater will help to assure her of the needed support.

TOTAL BUDGET APPROPRIATIONS

Including amendments made subsequent to the adoption of the budget,
but excluding reappropriated balances

<i>Schedule A</i>	1931-32	1945-46
General University administration and instruction	\$ 5,765,869.36	\$ 5,218,007.05
Summer Session	251,050.00	189,357.00
University Extension	1,758,050.00	643,065.00
Medical School	1,402,137.20	2,340,382.37
School of Dental and Oral Surgery	418,100.00	
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	\$ 9,595,206.56	\$ 8,390,811.42
<i>Schedule B</i> —Buildings and Grounds	\$ 1,157,040.00	\$ 1,334,060.30
<i>Schedule C</i> —Library	434,108.93	675,495.73
<i>Schedule D</i> —Business administration	222,740.00	293,773.00
<i>Schedule E</i> —Annuities	54,457.70	30,822.82
<i>Schedule F</i> —Insurance	50,000.00	25,000.00
<i>Schedule G</i> —Interest account	495,283.89	43,771.58
Amortization	230,000.00	423,008.86
<i>Schedule J</i> —Under the direction of the President	365,000.00	248,000.00
<i>Schedule R</i> —		
Retiring and widows' allowances	185,425.99	311,773.76

<i>Schedule R</i> —	1931-32	1945-46
Payment to Teachers Insurance and Annuity Association	111,500.00	229,100.00
<i>Schedule S</i> —Fellowships, scholarships and prizes	382,597.98	481,352.75
	<hr/>	<hr/>
Total	\$13,283,361.05	\$12,486,970.22
Amounts chargeable to general income	\$ 9,983,310.13	\$ 9,380,026.13
Amounts otherwise chargeable	3,300,050.92	3,106,944.09
	<hr/>	<hr/>
Total	\$13,283,361.05	\$12,486,970.22

The appropriations as contained in the budget adopted by the Trustees on April 1, 1946, for the work of this corporation alone during the academic year 1946-47, together with such amendments as were made previous to June 30, 1946, are as follows:

For educational administration and instruction	\$ 9,695,467.12
For care of buildings and grounds	1,856,910.00
For the Library	797,270.44
For business administration	252,985.00
For annuities	42,844.37
For insurance on academic property	25,000.00
For interest on the corporate debt	50,271.05
For amortization of the Loan of 1941	431,511.34
For retiring and widows' allowances	555,595.28
For fellowships, scholarships and prizes	590,467.35
For Schedule J, under the direction of the President	248,000.00
	<hr/>
Making in all the sum of	\$14,546,321.95

which sum is made chargeable as follows:

To the income of the corporation	\$11,094,829.99
To income from special endowments	1,242,304.15
To gifts	390,474.00
To moneys to be paid by the Carnegie Foundation	151,372.50
To moneys to be paid by the Presbyterian Hospital	410,818.00
To moneys to be paid by Barnard College	506,922.05
To moneys to be paid by Teachers College	749,601.26
	<hr/>
	\$14,546,321.95

In accordance with custom, there is presented the following summary statement of the results of the operation of the work of the University corporation, so far as Income and Expense Account is concerned, since the present system of accounting was adopted:

<i>Year</i>	<i>Surplus</i>	<i>Deficit</i>	<i>Capital Account: General Funds</i>
1912-13 . . . . .	.....	\$67,769.12	\$25,330,930.52
1913-14 . . . . .	.....	42,952.64	25,400,522.88
1914-15 . . . . .	.....	13,592.55	25,488,672.81
1915-16 . . . . .	.....	40,855.14	26,996,740.07
1916-17	\$30,547.37	.....	27,044,870.90
1917-18 . . . . .	.....	211,106.17 ^a	26,933,764.13
1918-19	82,214.74	.....	26,400,649.91
1919-20	71,590.93	.....	25,545,110.85
1920-21	89,571.82	.....	25,635,421.05
1921-22	156,630.54	.....	26,430,836.76
1922-23	98,786.81	.....	26,497,602.41
1923-24	54,982.74	.....	27,301,358.85
1924-25 . . . . .	.....	122,909.21	27,371,312.10
1925-26	157,205.79	.....	27,469,649.06
1926-27 . . . . .	.....	142,229.76	29,236,825.38
1927-28 . . . . .	.....	168,462.99	33,859,764.34
1928-29 . . . . .	.....	467,777.98	36,385,380.16
1929-30 . . . . .	.....	344,443.75	38,096,899.20
1930-31	170,290.20	.....	38,319,089.20
1931-32 . . . . .	.....	293,957.41	37,675,714.86
1932-33 . . . . .	.....	298,910.66	38,547,232.48
1933-34 . . . . .	.....	193,060.90	36,181,228.46
1934-35 . . . . .	.....	193,077.27	35,976,793.56
1935-36 . . . . .	.....	152,321.42	35,352,751.23
1936-37 . . . . .	.....	7,909.42	35,312,448.37
1937-38 . . . . .	.....	426,172.82	34,954,813.36
1938-39 . . . . .	.....	363,052.31	34,520,592.96
1939-40	12,395.48	.....	34,981,446.91
1940-41 . . . . .	.....	206,927.76	34,776,290.10
1941-42	51,423.50	.....	34,902,183.99
1942-43	2,428.99	.....	34,955,325.86
1943-44	150,369.45	.....	35,155,079.37
1944-45	65,522.71	.....	35,273,116.67
1945-46 . . . . .	.....	55,270.14	35,194,566.61
	<u>\$1,193,961.07</u>	<u>\$3,812,759.42</u>	

^a This deficit was almost met, however, by the work of the Alumni Fund Committee in raising \$199,218.36 to be applied toward meeting it.

The gifts and bequests received during the year are set out in detail in the Treasurer's Report. As is there shown, the total amount received in gifts by the University corporation alone amounted to \$1,876,796.10, divided as follows:

A. Gifts to Capital:

1. General endowment	\$ 35,621.44	
2. Special endowments	890,743.09	
3. Buildings and grounds	4,548.50	
	<hr/>	\$ 930,913.03

B. Gifts to Income:

1. General purposes	\$ 58,671.66	
2. Specific purposes	887,211.41	
	<hr/>	945,883.07
		<hr/>
		\$1,876,796.10

The principal additions to general and special endowments and to Buildings and Grounds were the following:

From the Alumni Fund Committee, for general endowment, \$3,809.69; for special endowments, \$30,485.57; for Buildings and Grounds, \$4,448.50;

From the Estate of William Alexander Wilson, unrestricted, \$4,311.75;

From the International Business Machines Corporation, for general endowment, \$25,000;

From the American Cyanamid Company, to be added to the Heat and Mass Flow Analyzer Laboratory Fund, \$5,000;

From Dr. George F. Cahill, for the Cahill (George F.) Fund, Department of Urology, \$5,000;

From the Class of 1920, for the Class of 1920 Twenty-fifth Anniversary Fund, \$18,710;

From Frank C. Erb, to establish the Erb Scholarship Fund, \$15,000;

From the Estate of Frederic Bancroft, to establish the Bancroft (Edgar A. and Frederic) Foundation, \$46,000;

From the Estate of Arthur W. Bark, to establish the Bark (Arthur W.) Fund, \$15,319.83;

From the Estate of Louis D. Beaumont, to establish the Beaumont (Louis D.) Fund, \$50,000;

From the Estate of Edward F. Cole, to be added to the Cole Fund, \$5,920;

From the Estate of Lizette A. Fisher, for the Fisher (Lizette Andrews) Fellowship Fund, \$6,329.39;

From the Estate of Mary Mandeville Johnston, to establish the Johnston (Edward W. Scudder) Scholarship Fund, \$8,333.34;

From the Estate of Augustus W. Openhym, for the Openhym Research Fund, \$24,457.10;

From the Estate of Anna Cooper Renwick, to establish the following funds:

Renwick (Anna Cooper) Professorship Fund	\$12,500.00
Renwick (Anna Cooper) Publication Fund	12,500.00
Renwick (James, Jr.) Scholarship Fund	25,000.00
	<hr/>
	\$50,000.00

From the Estate of Minnie Marsh White, to establish the White (Minnie Marsh) Fund for the work of the Department of Cancer Research, \$10,000;

From Mrs. Dorothy Richards Hirshon, to establish the Bache (Jules S.) Fellowship Fund at the College of Physicians and Surgeons, Department of Obstetrics and Gynecology, \$15,000;

From Joseph Haag, Jr., for the Cahill (George F.) Fund, Department of Urology, \$5,000;

From the International Nickle Company, Inc., to be added to the Heat and Mass Flow Analyzer Laboratory Fund, \$5,000;

From Henry Krumb, to establish the Krumb (Henry) Mining and Metallurgical Scholarship Fund, \$14,200;

From Mrs. Beatrice La Montagne, to establish the La Montagne (Beatrice) Research Fund, \$500,000;

From Mrs. Muriel Richards Pershing, to establish the Bache (Jules S.) Fellowship Fund at the College of Physicians and Surgeons, Department of Obstetrics and Gynecology, \$15,000;

From Research Corporation, to be added to the Heat and Mass Flow Analyzer Laboratory Fund, \$5,000;

From Standard Oil Development Company, to be added to the Heat and Mass Flow Analyzer Laboratory Fund, \$5,000;

From various donors, for the Class of 1909 Memorial Fund, \$5,922.50;

From various donors, to establish the Medalie (George Z.) Memorial Fund, \$7,765;

Among the many gifts to be added to the University's income for general and for special purposes were the following:

From the Alumni Fund Committee, for general purposes, \$53,051.66; for specific purposes, \$16,086.31;

From the Dell Publishing Company, for the general purposes of the University, \$5,000;

From the American Bureau for Medical Aid to China, Inc., for development of Visual Aids under Medical School Administration, \$4,500;

From an anonymous donor for Psychosomatic Training, Department of Psychiatry, \$3,550;

From an anonymous donor, toward the salary of a Lecturer in History, \$4,175;

From an anonymous donor, for a study of respiratory infections, Department of Medicine, \$5,000;

From an anonymous donor, for research in the Department of Dermatology, \$10,000;

From an anonymous donor, for the Surgical Bacteriology Research Gift No. 1, Department of Surgery, \$3,482.26;

From an anonymous donor, for the Cancer Research Gift, Department of Surgery, \$8,000;

From Mrs. Herbert Bertrand, for the study of hypertension, Department of Medicine, \$5,000;

From the Boston *Herald Traveler* Corporation, for the establishment of an American Press Institute, \$5,000;

From the Buffalo *Evening News*, for the establishment of an American Press Institute, \$10,000;

From the Chinese Embassy, for Chinese Cultural Scholarships, \$4,500;

From the Commonwealth Fund, for special research, \$24,905;

From the Corn Industries Research Foundation, for special research, \$9,500;

From Cornelius Crane, for the Asthma Physiological Gift, Department of Medicine, \$5,000;

From Fred H. Daniels, for the Putnam-Salzer Gift, Department of Neurology, \$5,000;

From the Dazian Foundation, for Medical Research in the Department of Neurology, \$3,500;

From the Detroit *News*, for the establishment of an American Press Institute, \$10,000;

From Marcellus Hartley Dodge, for the Marcellus Hartley Research Laboratory, \$5,000; Class of 1903 Student Loan Fund, \$850;

From E. I. duPont de Nemours and Company, Inc., for the duPont Fellowship, \$11,128;

From the *Evening Star* Newspaper Company, Washington, D. C., for the establishment of an American Press Institute, \$10,000;

From Rudolph Fluegge, for cancer research, \$5,350.17;

From the John A. Hartford Foundation, Inc., for study of gout in the Department of Medicine, \$5,000;

From the International Cancer Research Foundation, Inc., for research in the Department of Biochemistry, \$4,050;

From the Irvington Varnish and Insulator Company, for research on cashew-nut shell liquid, Department of Chemistry, \$4,000;

From the W. K. Kellogg Foundation, to establish the Kellogg Foundation gift for Graduate Medical Education, \$50,000;

From the Albert and Mary Lasker Foundation, Inc., for special research, \$46,000;

From the Lederle Laboratories, Inc., for special research, \$3,800;

From the Legation of Sweden, toward the salary of a Lecturer in Swedish, Department of Germanic Languages, \$3,600;

From the Life Insurance Medical Research Fund, for special research, \$19,320;

From Eli Lilly and Company, for special research, \$6,000;

From the Loomis Institute for Scientific Research, Inc., for the Enzyme Laboratory, Department of Medicine, \$5,000;

From the Josiah Macy, Jr. Foundation, for special research, \$89,800;

From the John and Mary R. Markle Foundation, for special research \$22,893;

From the William J. Matheson Foundation, for the Department of Neurology, \$10,120;

From Merck and Company, for special research, \$3,400;

From the Eugene and Agnes E. Meyer Foundation, for the establishment of an American Press Institute, \$10,000;

From the National Foundation for Infantile Paralysis, for study of atrophy of denervated muscles, Department of Neurology, \$6,100;

From the Netherlands Government, toward the salary of the Queen Wilhelmina Professor, \$7,500;

From the New York Botanical Garden, for special purposes, \$5,676.19;

From the New York *Herald Tribune*, Inc., for the establishment of an American Press Institute, \$10,000;

From the New York *Times*, for the establishment of an American Press Institute, \$10,000;

From the Nutrition Foundation, for special research, \$20,500;

From Parke, Davis and Company, for special research, \$16,000;

From the Providence *Journal*, for the establishment of an American Press Institute, \$20,000;

From the Research Corporation, for special research, \$10,750;

From the Rockefeller Foundation, for various special purposes, \$106,480.18;

From the Scripps-Howard Newspapers, Inc., for the establishment of an American Press Institute, \$10,000;

From Sharp and Dohme, for special purposes, \$4,200;

From E. R. Squibb and Sons, for research in Endocrinology, Department of Pharmacology, \$15,000;

From the St. Louis *Post-Dispatch*, for the establishment of an American Press Institute, \$10,000;

From Swift and Company, for special research, \$7,000;

From the *Telegram & Gazette*, Worcester, Mass., for the establishment of an American Press Institute, \$5,000;

From the Texas Company, for research in thin film lubrication, Department of Mechanical Engineering, \$3,500;

From the *Times-Mirror* Company, for the establishment of an American Press Institute, \$10,000;

From the Toledo *Blade*, for the establishment of an American Press Institute, \$5,000;

From the United States Public Health Service, for special research, \$9,575;

From the Viking Fund, Inc., for special research, \$7,500;

From Wallace and Tiernan Company, Inc., for study of the corrosion of metals and alloys by chlorine, Department of Chemical Engineering, \$4,000;

From Mrs. Francis M. Weld, for special research, \$3,200;

From the Williams-Waterman Fund of Research Corporation, for special research, \$7,500;

From the Winthrop Chemical Company, Inc., for special research, \$5,250.

The total gifts in money received during the year by the six corporations included in the educational system of the University are classified as follows:

<i>Purpose</i>	<i>Columbia University</i>	<i>Barnard College</i>	<i>Teachers College</i>	<i>College of Pharmacy</i>	<i>New York Post-Graduate Medical School</i>	<i>New York School of Social Work</i>	<i>Total</i>
A. Gifts to Capital							
1. General endowment	\$ 35,621.44	\$ 2,500.00	.....	.....	\$ 247.50	.....	\$ 38,368.94
2. Special endowments	890,743.09	24,800.00	\$ 400.00	.....	.....	.....	915,943.09
3. Buildings and Grounds	4,548.50	.....	4,912.54	.....	.....	.....	9,461.04
B. Gifts to Income							
1. General purposes	58,671.66	8,177.80	2,025.00	\$20,275.14	158,634.36	\$52,246.68	300,030.64
2. Special purposes	887,211.41	29,626.55	214,223.62	3,000.00	1,256.25	21,504.00	1,156,821.83
	\$1,876,796.10	\$65,104.35	\$221,561.16	\$23,275.14	\$160,138.11	\$73,750.68	\$2,420,625.54

The following statement, which is presented annually, records the gifts in money alone made since 1890 to the several corporations included in the University:

1890-1901		\$5,459,902.82
1901-2	\$1,082,581.02	
1902-3	1,721,895.06	
1903-4	1,783,138.18	
1904-5	1,960,247.87	
1905-6	1,299,909.78	
1906-7	1,360,590.80	
1907-8	1,077,933.87	
1908-9	974,637.07	
1909-10	2,357,979.30	
1910-11	2,932,655.79	16,551,568.74
<hr/>		
1911-12	\$2,242,417.58	
1912-13	1,605,935.33	
1913-14	1,494,648.61	
1914-15	814,111.69	
1915-16	2,287,144.91	
1916-17	1,634,578.78	
1917-18	882,267.76	
1918-19	3,455,356.60	
1919-20	3,724,181.14	
1920-21	2,190,289.85	20,330,932.25
<hr/>		
1921-22	\$3,270,380.76	
1922-23	12,728,021.59	
1923-24	2,375,691.92	
1924-25	2,097,108.25	
1925-26	5,276,777.11	
1926-27	3,498,380.20	
1927-28	5,546,667.61	
1928-29	3,617,928.92	
1929-30	4,242,991.66	
1930-31	4,139,980.62	46,793,928.64
<hr/>		
1931-32	\$2,873,182.99	
1932-33	2,317,453.66	
1933-34	2,640,118.53	
1934-35	2,165,333.02	
1935-36	6,608,131.87	
1936-37	2,772,218.91	
1937-38	1,504,205.40	
1938-39	1,990,364.87	
1939-40	1,711,008.72	
1940-41	1,225,773.20	26,807,791.17
<hr/>		
1941-42	\$2,599,312.32	
1942-43	1,442,234.12	
1943-44	1,594,413.19	
1944-45	1,869,201.46	
1945-46	2,420,625.54	9,925,786.63
<hr/>		
Total		\$125,919,910.25

In the following financial statement given each year, the land, buildings and equipment used for educational purposes by Columbia University are entered at cost, the Upper and Lower Estates at their assessed valuations, and all other University property at book values.

	<i>Capital Resources</i> 1945-46	<i>Appropriations</i> 1945-46	<i>Income and</i> <i>Expense Account</i> 1945-46
Columbia University	\$129,687,056.61	\$12,632,808.18 ^b	—\$55,270.14
Barnard College	9,847,261.40	609,176.20 ^c	— 13,519.05
Teachers College	19,604,161.51	3,008,252.53 ^d	306,221.46
College of Pharmacy	740,196.70	92,107.50	11,007.60
New York Post-Graduate Medical School	5,526,815.80 ^a	97,588.91	16,810.71
New York School of Social Work	1,284,187.96 ^e	379,234.18 ^e	2,514.00 ^e
	\$166,689,679.98	\$16,819,167.50	
<i>Other Affiliated Institutions:</i>			
Union Theological Seminary .	\$ 13,799,495.73		
Presbyterian Hospital	66,509,293.00		
	\$ 80,308,788.73		
	\$246,998,468.71		

^a Including Hospital.

^b With amendments.

^c Not including \$477,899.36 contained in Columbia University Budget.

^d Not including \$617,699.26 contained in Columbia University Budget.

^e For the year ending September 30, 1945.

DEATHS OF UNIVERSITY OFFICERS

The following officers and members of the staff of the University have died since the publication of the last Annual Report:

On October 9, 1945, Charles M. Griffith, Clinical Professor of Otolaryngology in the New York Post-Graduate Medical School, in the fifty-second year of his age.

On October 11, 1945, John Dyneley Prince, Professor Emeritus of East European Languages, in the seventy-seventh year of his age.

On October 19, 1945, Hatcher Hughes, Assistant Professor of English, in the sixty-fourth year of his age.

On October 31, 1945, Charles Dick, formerly a porter in the Residence Halls, in the seventy-fourth year of his age.

On November 4, 1945, James Earl Russell, Dean Emeritus of Teachers

College and Professor Emeritus of Education, in the eighty-first year of his age.

On November 30, 1945, Charles Hindrup, formerly a carpenter in the Department of Buildings and Grounds, in the sixty-third year of his age.

On December 20, 1945, Harry Taub, Assistant Professor of Pharmacology, in the forty-sixth year of his age.

On January 4, 1946, Edward F. Kern, Associate Professor of Metallurgy, retired, in the seventy-fourth year of his age.

On January 17, 1946, Fannie Wyche Dunn, Professor Emeritus of Education, in the sixty-seventh year of her age.

On January 25, 1946, Elizabeth Weibel, member of the Residence Halls Staff, retired, in the fifty-fourth year of her age.

On February 11, 1946, Frederic W. Erb, formerly Supervisor of Loan Department, Libraries, retired, in the seventy-fourth year of his age.

On February 20, 1946, George William Cassellius, formerly stockroom attendant in the Department of Physiology, retired, in the eighty-fourth year of his age.

On March 6, 1946, Ethel Benedict Gutman, Assistant in Medicine, in the fifty-third year of her age.

On March 11, 1946, Anna Woods Ballard, Assistant Professor of French in Teachers College, retired, in the seventy-fifth year of her age.

On March 18, 1946, John William Cunliffe, Director Emeritus of the School of Journalism, in the eighty-first year of his age.

On March 20, 1946, Harry Pelham Robbins, Trustee of Columbia University, in the seventy-first year of his age.

On March 24, 1946, Arthur Carrillo, laboratory assistant in Pharmacology, retired, in the seventy-third year of his age.

On April 30, 1946, Girsch Astrachan, Associate in Dermatology and Syphilology, New York Post-Graduate Medical School, in the fifty-fourth year of his age.

On May 12, 1946, Robert Almer Harper, Torrey Professor Emeritus of Botany, in the eighty-fourth year of his age.

On May 15, 1946, Dr. James Watson White, Professor of Clinical Ophthalmology in the New York Post-Graduate Medical School, in the sixty-ninth year of his age.

On May 22, 1946, Charles Edward Caverly, Assistant Clinical Professor of Obstetrics and Gynecology, in the fifty-third year of his age.

On May 25, 1946, Patty Smith Hill, Professor Emeritus of Education in Teachers College, in the seventy-eighth year of her age.

On June 10, 1946, Dr. Rudolph Scharf, Assistant in Medicine, in the forty-ninth year of his age.

On July 1, 1946, William Chandler Bagley, Professor Emeritus of Education in Teachers College, in the seventy-second year of his age.

On August 9, 1946, Helen Pruyn Wood, Instructor in Nursing, in the forty-fifth year of her age.

On August 15, 1946, Dr. Ward J. MacNeal, Professor of Bacteriology in New York Post-Graduate Medical School, in the sixty-fifth year of his age.

On August 17, 1946, Jefferson Butler Fletcher, Professor Emeritus of Comparative Literature, in the eightieth year of his age.

On August 29, 1946, Mary L. Irwin, formerly a Cataloguer in the Libraries, in the eighty-ninth year of her age.

On September 5, 1946, Dr. Clement B. Masson, Assistant Professor of Clinical Neurological Surgery, in the forty-eighth year of his age.

On September 9, 1946, Horatio Elwin Smith, Professor of French, in the sixtieth year of his age.

On October 3, 1946, Dr. Robert K. Lambert, Clinical Professor of Ophthalmology, in the forty-seventh year of his age.

LOOKING TOWARD PEACE

Earlier in this report it was urged that the national government cooperate with the universities on basic research in the physical sciences. The forward thrust of knowledge and research in this direction is in fact inevitable simply as a means by which the nations of the world may keep abreast of one another in their resources. Researches in the physical sciences should indeed be pursued without diminution of effort, and they are best pursued in the great universities of the world.

But there is a danger that this preoccupation of scholar and layman alike with the swiftly progressing comprehension of our physical environment may blind them to a far greater involvement. Dr. Vannevar Bush, in his report to the President of the United States entitled *Science, the Endless Frontier*, sounds the following note of warning:

It would be foolish to set up a program under which research in the natural sciences and medicine was expanded at the cost of the social sciences, humanities and other studies so essential to the national welfare.

This states the case mildly. The present condition of the world indicates clearly that a renewed respect for the humanities and progress in the social sciences must come now to the assistance of mankind, and not too slowly. What has always been known to the discerning—that study

of the humanities nurtures an insight badly needed today—has recently been widely acknowledged; while the results of even the comparatively limited opportunities given the social scientists during the period of the war have made clear their increasing competence and the possibilities of future applications of their findings.

On this record it is evident that the humanities and the political and social sciences must have adequate support and must have the same freedom for investigation and study and experimentation as have the natural sciences; they must have equal protection in their work. This support would, of course, involve full responsibility on the part of the social scientists themselves, and the same objectivity shown by the leaders in the natural sciences. The work at Oak Ridge and at Los Alamos was not put into the hands of tyros or self-appointed experts. Work in the social sciences similarly should create definitions for the judgment of competence that will inspire public confidence. The field of study is the natures of men, their psychologies, their explosiveness in this or that situation, their resistance to this or that movement even though it be for their advancement, their attraction to this or that idea though it may ultimately enslave them and destroy their freedom, their instinct for immediate individual welfare as against the long-term public good.

What is the public good? How defined? How gained? The problems of atom-smashing are simple compared with these. The nations of the world must be led, and quickly, out of the confusion and fear caused by the havoc of war not only on cities and peoples, but on the moral fibre of mankind as well. Objective, disinterested study of man's relationships, the unmasking of the manipulations of his relationships and emotions for purposes of political or economic power, is a matter of the most urgent necessity.

FRANK DIEHL FACKENTHAL
Acting President

October 1, 1946

TABULAR STATEMENTS

TEACHING STAFF

<i>Faculties</i>	<i>Professors</i>	<i>Associate Professors</i>	<i>Assistant Professors</i>	<i>Totals</i>	
				<i>1944-45</i>	<i>1945-46</i>
Columbia College	34	29	30	87	93
Graduate Faculties	152	50	32	225	234
Barnard College	17	17	20	55	54
Architecture	2	1	4	20	7
Business	14	8	7	44	29
Dental and Oral Surgery	7	11	19	77	37
Education	74	18	29	111	121
Engineering	27	9	20	38	56
Journalism	5	6	2	12	13
Law	15	8	2	28	25
Library Service	1	1	10	12	12
Medicine	63	64	163	308	290
Pharmacy	5	4	4	26	13
Post-Graduate Medical	12	27	39	95	78
Social Work	10	4	5	17	19
Tropical Medicine	3	9	6	19	18
Total	441	266	392	1,174	1,099
Duplicates	91	34	27	196	152
Net Total	350	232	365	978	947
Associates				275	282
Instructors				483	494
Lecturers				193	209
Assistants				401	475
Total				2,330	2,407
University Extension not included above				215	308
Summer Session not included above				285	420
Total				2,830	3,135
Administrative officers not included above				124	116
Emeritus and retired officers				266	284
Total				3,220	3,535
Nonacademic staff				3,169	3,846

THE SITE

	<i>Square Feet</i>	<i>Acres</i>
A. 1. At Morningside Heights		
Green and Upper Quadrangle	734,183	16.850
South Quadrangle	359,341	8.250
East Quadrangle	90,825	2.080
Maison Française [411 West 117th Street]	1,809	0.041
Residence of the Chaplain [413 West 117th Street]	1,809	0.041
415 West 117th Street	1,809	0.041
417 West 117th Street	1,809	0.041
419-421 West 117th Street	3,618	0.082
Deutsches Haus [423 West 117th Street]	1,809	0.041
429-33 West 117th Street	5,427	0.123
Casa Hispánica [435 West 117th Street]	1,809	0.041
Casa Italiana [1161 Amsterdam Avenue]	4,036	0.092
612 West 116th Street	2,523	0.058
	1,210,807	27.781
2. At the Medical Center [Broadway and West 168th Street]		
Total site, 891, 185 sq. ft., 20.458 acres. Under ownership of Columbia University	471,158	10.816
3. At Baker Field [Broadway and West 218th Street]	1,221,385	28.039
Total for Item A	2,903,350	66.636
B. Barnard College	209,832	4.814
Riverside Quadrangle	32,366	0.743
Barnard College Camp, Ossining, N. Y.	733,550	16.840
Total for Item B	975,748	22.397
C. Teachers College		
1. At West 120th Street	156,420	3.591
2. At 509 West 121st Street	17,035	0.391
3. At 512, 514 West 122nd Street and vacant lots	16,535	0.380
4. Lincoln School [425 West 123rd Street]	47,500	1.090
5. At 106 Morningside Drive	17,668	0.406
6. At Van Cortlandt Park	619,600	14.224
7. At Speyer School	4,917	0.113
[514 West 126th Street]		
8. Residence of the Dean [409 West 117th Street]	1,809	0.041
Total for Item C	881,484	20.236
D. 437 West 59th Street buildings	75,312	1.730
E. College of Pharmacy	7,516	0.172
[115 West 68th Street]		
F. Camp Columbia, Lakeside, Conn.	25,743,960	591.000
G. Poughkeepsie Boat House, Town of Lloyd, Ulster Co., N. Y.	226,039	5.189
H. New York Post-Graduate Medical School	56,292	1.291
J. Nevis, Irvington-on-Hudson, N. Y.	2,957,514	67.110
Total Items A to J, inclusive	33,827,215	775.761

DEGREES CONFERRED

During the academic year 1945-46, 4,267 degrees and 183 diplomas and certificates were conferred, as follows:

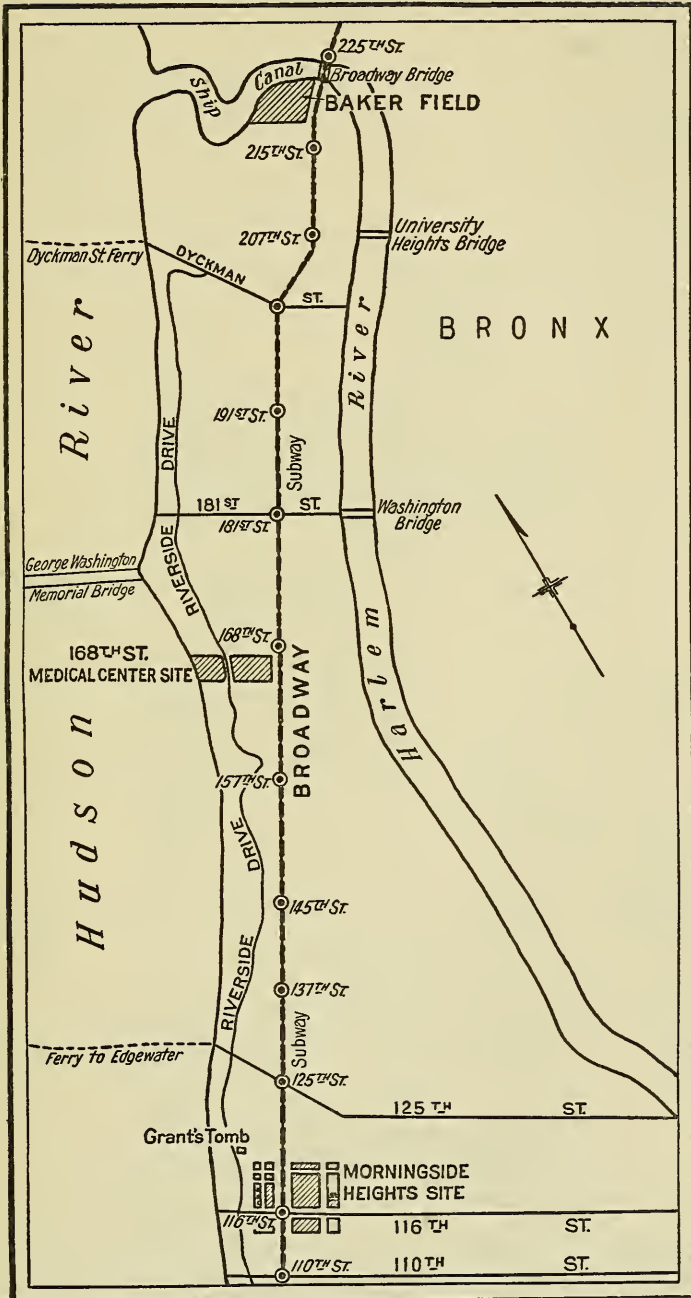
COLUMBIA COLLEGE		UNION THEOLOGICAL SEMINARY	
Bachelor of Arts	265	Master of Arts	18
BARNARD COLLEGE		NEW YORK SCHOOL OF SOCIAL WORK	
Bachelor of Arts	276	Master of Science	207
FACULTY OF LAW		FACULTY OF ENGINEERING	
Bachelor of Laws	68	Bachelor of Science	157
Master of Laws	4	Chemical Engineer	2
Doctor of the Science of Law	1	Civil Engineer	1
		Master of Science	47
FACULTY OF MEDICINE		FACULTY OF ARCHITECTURE	
Doctor of Medicine	113	Bachelor of Architecture	8
Master of Science (Public Health)	1	Master of Science	4
Master of Public Health	28	FACULTY OF BUSINESS	
Doctor of Medical Science	2	Bachelor of Science	38
Bachelor of Science (Nursing)	68	Master of Science	37
Bachelor of Science (Occupational Therapy)	4	FACULTY OF JOURNALISM	
Bachelor of Science (Physical Therapy)	3	Master of Science	61
Certificate in Occupational Therapy	16	FACULTY OF LIBRARY SERVICE	
Certificate in Physical Therapy	2	Bachelor of Science	108
UNIVERSITY EXTENSION		Master of Science	18
Certificate of proficiency in secre- tarial studies	11	Certificate in Library Service	2
Certificate in secretarial studies	3	FACULTY OF DENTAL AND ORAL SURGERY	
Certificate in occupational therapy	53	Doctor of Dental Surgery	43
Certificate in physical therapy	16	Certificate in dental hygiene	42
COLLEGE OF PHARMACY		Certificate of proficiency in orthodontics	14
Bachelor of Science	6	Certificate of proficiency in clinical dentistry	2
Master of Science	1	UNIVERSITY COUNCIL	
FACULTIES OF POLITICAL SCIENCE, PHILOSOPHY, AND PURE SCIENCE		Bachelor of Science (general studies)	33
Master of Arts	365	Bachelor of Science (optometry)	14
Doctor of Philosophy	139	Total degrees, certificates and diplomas	4,450
Certificate in international administration	1	Number of individuals receiving them	4,435
TEACHERS COLLEGE		UNIVERSITY MEDALS FOR EXCELLENCE	6
Bachelor of Science	350	HONORARY DEGREES	14
Master of Arts	1,711		
Master of Science	21		
Doctor of Education	45		
Professional diplomas	21		

STUDENT ENROLLMENT

		Totals	Gain	Loss
RESIDENT STUDENTS				
A. WINTER AND SPRING SESSIONS				
Undergraduate Students:				
Columbia College	1,724	.....	525	
Barnard College	1,308	.....	68	
University Undergraduates	571	.....	229	
Total Undergraduates		3,603	822	
Graduate and Professional Students:				
Political Science, Philosophy, and Pure Science				
	3,481	.....	1,288	
Architecture	88	.....	20	
Business	430	.....	236	
Dental and Oral Surgery				
Dentistry	195	.....	.....	16
Dental Hygiene	49	.....	16	
Engineering	728	.....	.....	25
Journalism	66			
Law	631	.....	413	
Library Service	302	.....	.....	22
Medicine	524	.....	18	
Nursing	369	.....	3	
Occupational Therapy	49			
Physical Therapy	36			
Public Health	93			
Optometry	47	.....	19	
Pharmacy	432	.....	134	
Teachers College	8,416	.....	1,797	
Social Work	1,408	.....	112	
Total Graduate and Professional Students .		17,344	4,171	
B. SUMMER SESSION (1945) including undergraduate, graduate, professional and unclassified students				
	10,353	10,353	1,903	
C. UNIVERSITY EXTENSION. Regular courses (net) .				
	9,286	9,286	3,910	
Gross Total Resident Students		40,586	10,806	
Less duplicate registration		3,267		
Net Total Resident Students		37,319	10,215	
UNIVERSITY EXTENSION				
Special courses (given without academic credit) .	1,648	.....	791	

COLUMBIA UNIVERSITY

RELATION TO MORNINGSIDE HEIGHTS OF
MEDICAL CENTER AND BAKER FIELD



DIRECTORY OF BUILDINGS AND GROUNDS

COLUMBIA UNIVERSITY

Located between Broadway and Morningside Drive, 114th Street to 120th Street

Academic Buildings

	KEY
Alumni House	4
Avery	7
Brander Matthews Hall	65
Butler Library	46
Carnegie Endowment, 405-7 West 117th Street	
Casa Hispánica, 435 West 117th Street	
Casa Italiana	67
Chandler Laboratories	12a
Chaplain's Residence, 413 West 117th Street	
College Entrance Examination Board, 425 West 117th Street	
Dean Teachers College, 409 West 117th Street	
Dean Columbia College, 415 West 117th Street	
Dean School of Engineering, 417 West 117th Street	
Deutsches Haus, 423 West 117th Street	
Earl	14
East	64
Engineering	13
Fayerweather	6
Furnald	44
Greenhouses	63
Government Contract Division, 433 West 117th Street	
Hamilton	42
Hartley	41
Havemeyer	12
John Jay	45
Johnson	62
Journalism	43
Kent	2
King's Crown Hotel	66
Livingston	40
Low Memorial Library	1
Maison Française, 411 West 117th Street	
Mines	15
Men's Faculty Club	61
Parker Institute of Advanced International Studies, 421 West 117th Street	
Philosophy	3
President's House	60
Pupin Physics Laboratories	11
Russian Institute, 431 West 117th Street	
St. Paul's Chapel	5

	KEY
Schermerhorn	8
Schermerhorn Extension	8a
School of Business	16
School of International Affairs, 429 West 117th Street	
The Geological Society of America, 419 West 117th Street	
University Hall	9
Watson Scientific Computing Lab.	75
Women's Faculty Club	62a

Class Gifts, Memorials, etc.

Class of 1881 Flag Staff	21
" 1886 Exedra	23
" 1893 Chapel Bell	24
" 1887 Well Head	25
" 1888 Gate	26
" 1882 Gates	28
" 1891 Gate	30
" 1900 Pylon	47
" 1890 Pylon	48
" 1885 Sun Dial	55
" 1884 and 1899 Tablet	56
" 1880 Gates	57
" 1899 Mitchel Memorial	53
" 1906 Clock	59
Dwight Memorial Pylon	49
Hamilton Statue	52
Jefferson Statue	58
Lafayette Post Flag Pole	32
Mapes Gates	29
Meunier's Hammerman 1889 Class Gift	31
Pine Memorial Pylon	50
Rives Memorial Steps	54
Rodin's Penseur	22
Statue of Great God Pan	27
Van Amringe Memorial	51

Claremont Avenue

Charles King	73
De Witt Clinton	71
Morris	72
Tompkins	74

BARNARD COLLEGE

Broadway and Claremont Avenue, 116th Street to 120th Street

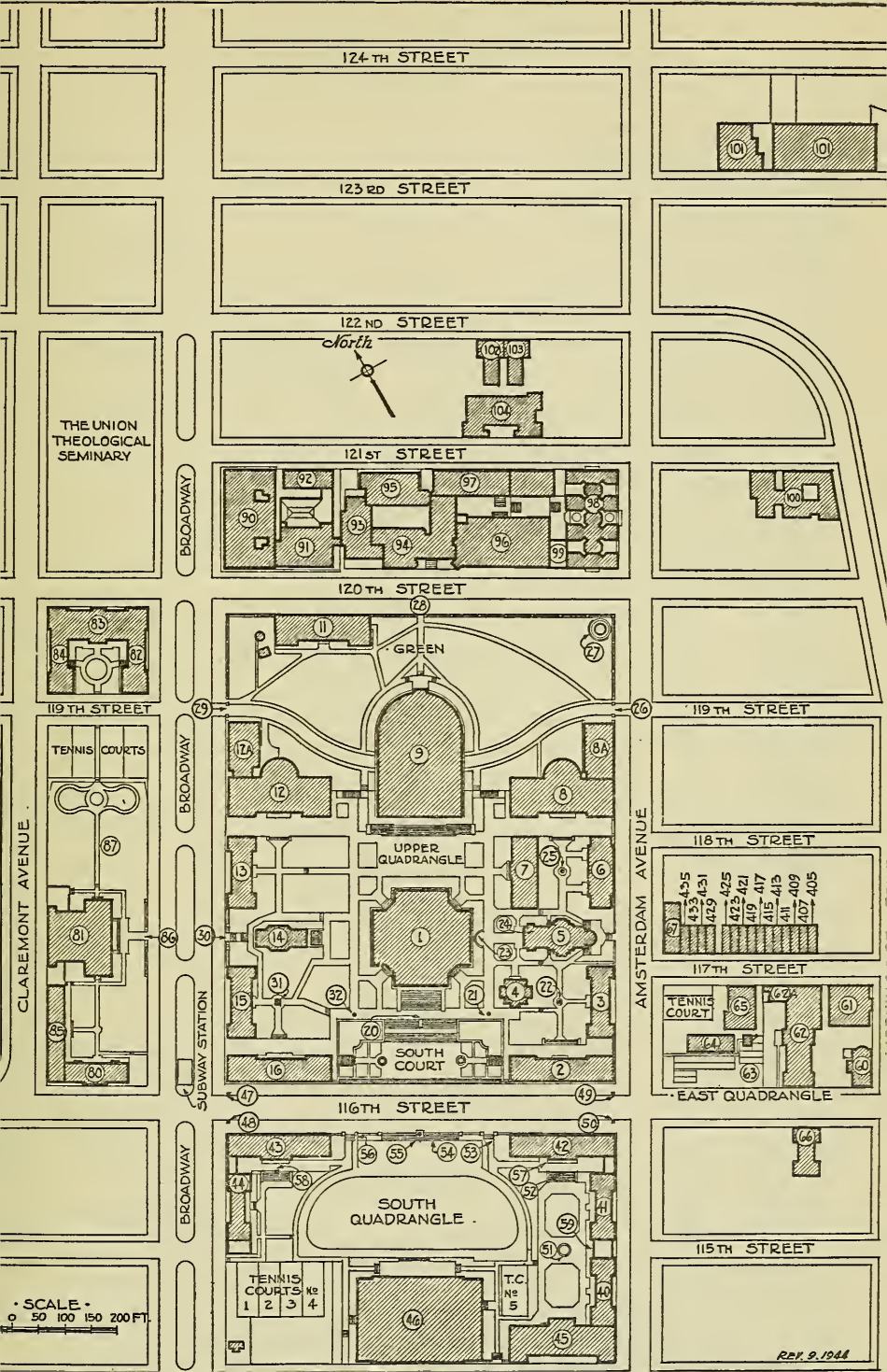
Barnard	81	Helen Hartley Jenkins Geer Memorial Gate	86
Brinckerhoff	82	Milbank	83
Brooks	80	Milbank Quadrangle	87
Fiske	84	Riverside Quadrangle	88
Hewitt	85		

TEACHERS COLLEGE

Located between Broadway and Amsterdam Avenue, 120th Street to 121st Street

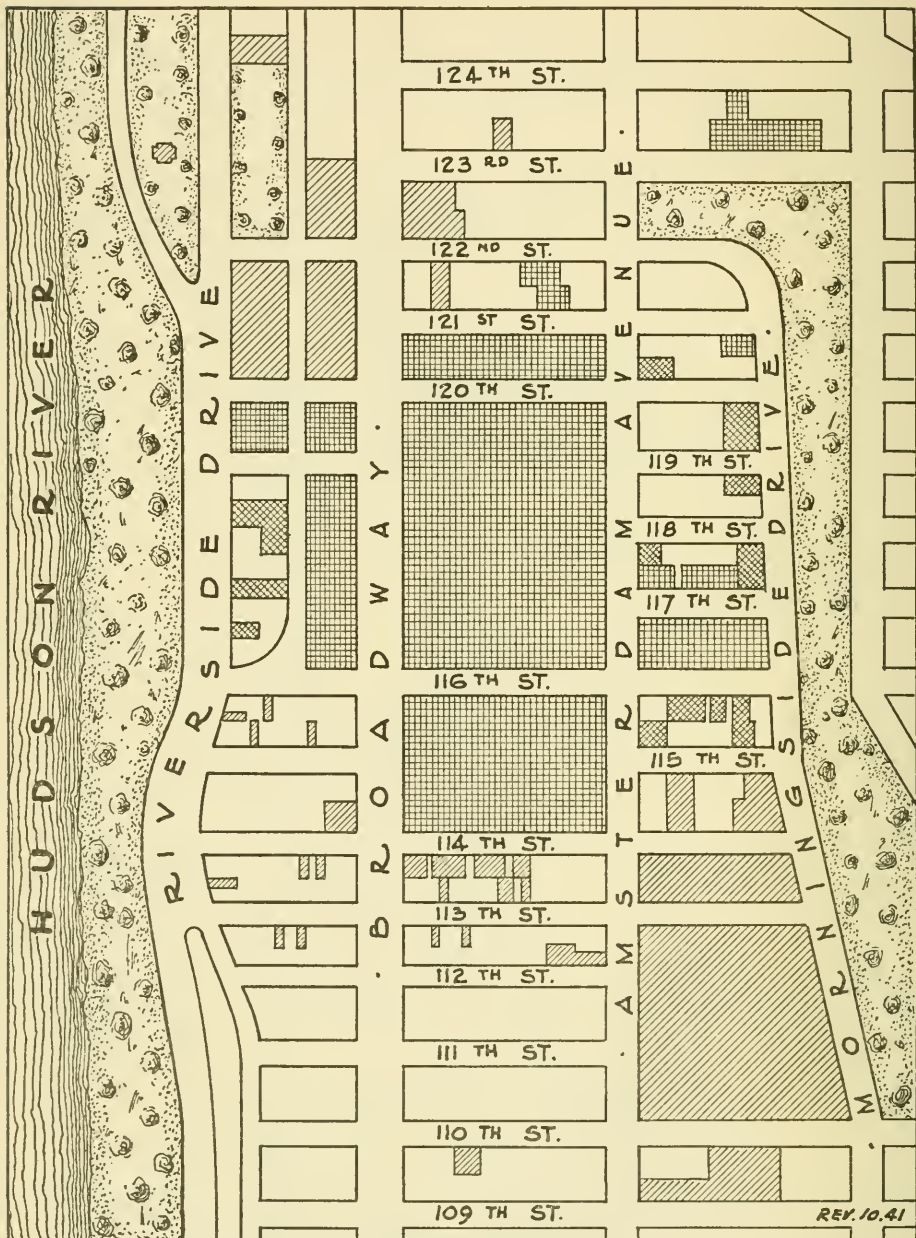
Bancroft	104	Main Teachers College Hall	94
Grace Dodge Hall	97	Milbank Chapel	93
Grant	102	Russell Hall	96
Horace Mann Building	90	Sarasota	103
Lincoln Building	101	Seth Low	100
Lowell Annex	99	Thompson Hall	91
Macy Hall	95	Whittier	98
Macy Annex	92		

PLAN OF BUILDINGS AND GROUNDS



MORNINGSIDE HEIGHTS

A CENTER OF INSTITUTIONS OF LEARNING, OF THE HEALING ART
AND OF RELIGION

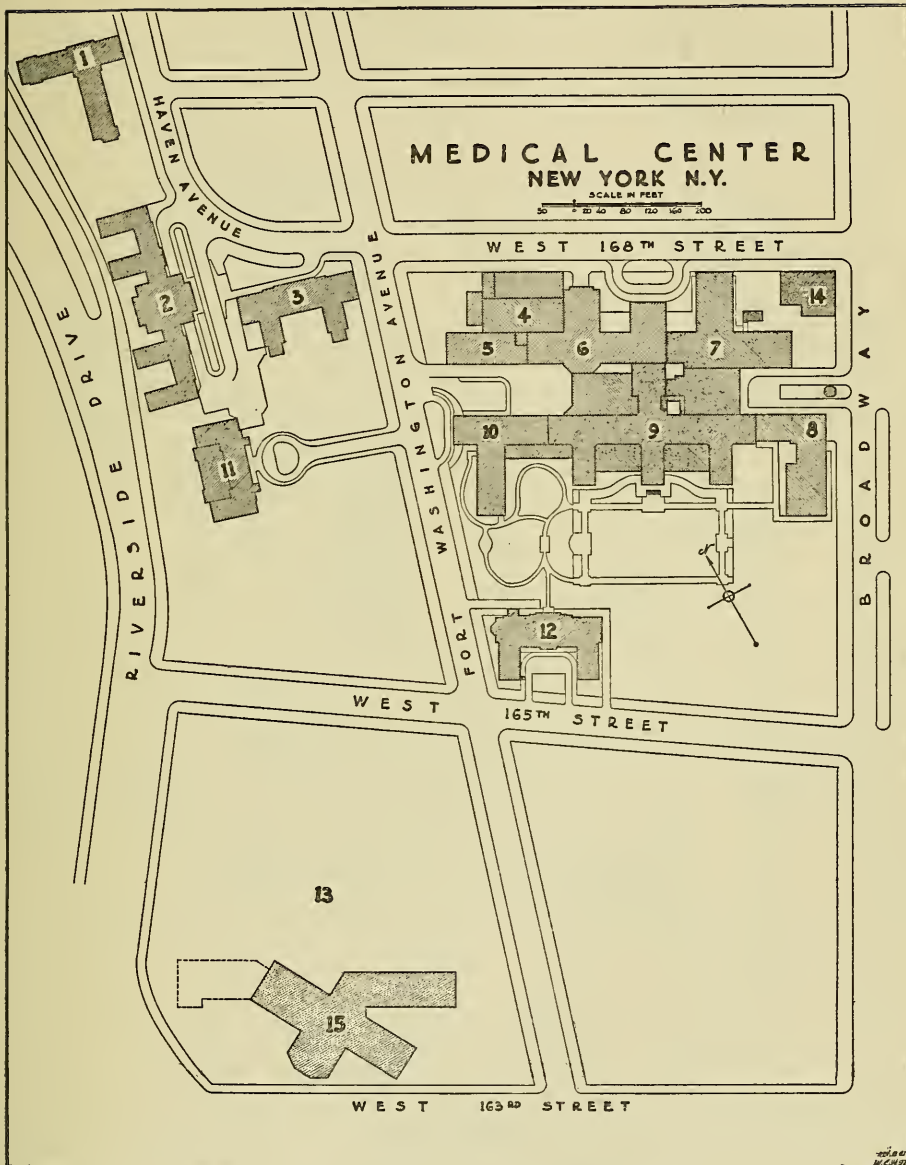


REV. 10.41

-  COLUMBIA UNIVERSITY PROPERTY FOR EDUCATIONAL PURPOSES
-  OTHER COLUMBIA UNIVERSITY PROPERTY
-  OTHER PUBLIC INSTITUTIONS INCLUDING FRATERNITY HOUSES

COLUMBIA UNIVERSITY

PLAN OF BUILDINGS AND GROUNDS, MEDICAL CENTER

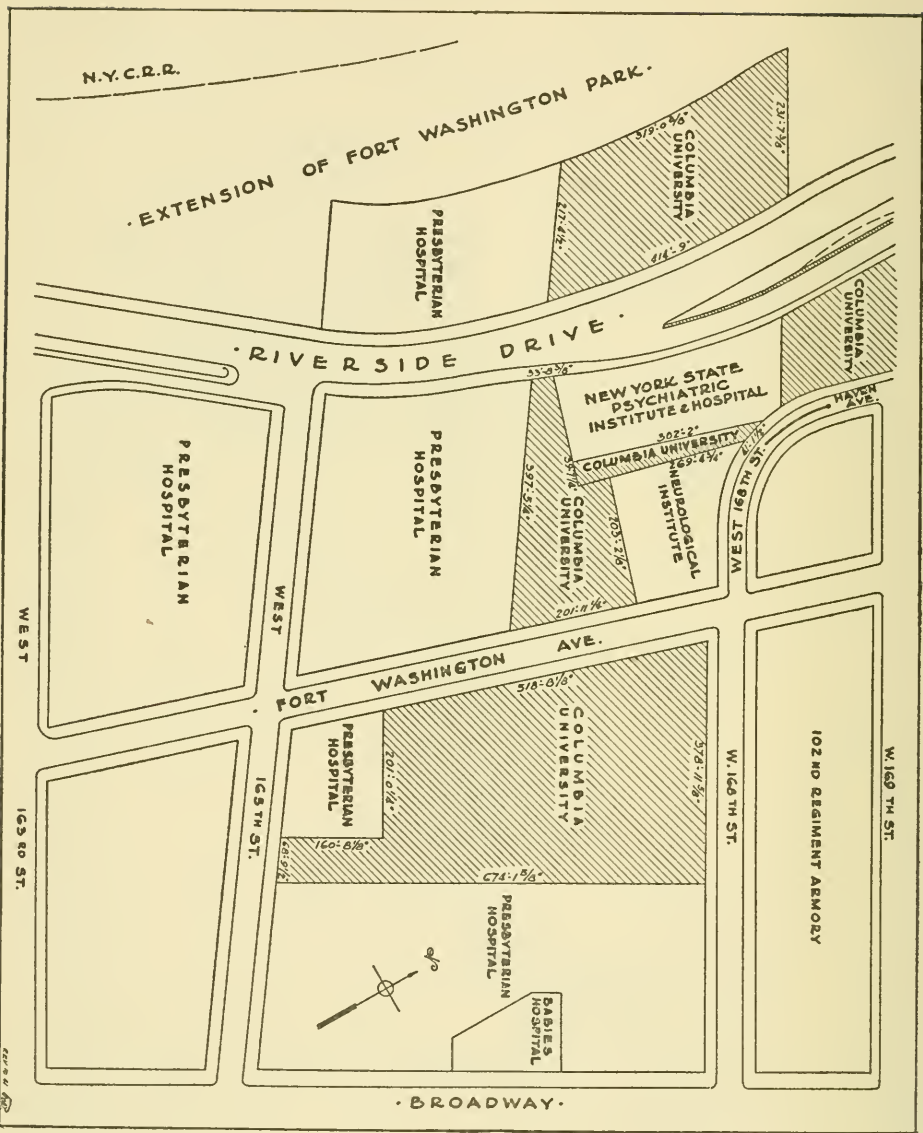


1. Bard Hall
2. New York State Psychiatric Institute and Hospital
3. Neurological Institute
4. Power Plant
5. Service Building
6. College of Physicians and Surgeons
7. Vanderbilt Clinic
School of Dental and Oral Surgery
8. Babies Hospital

9. Presbyterian Hospital
10. Harkness Pavilion
11. The Presbyterian Hospital School of Nursing
12. The Institute of Ophthalmology of Presbyterian Hospital
13. Property of Presbyterian Hospital
14. Washington Heights Health and Teaching Center
15. Nightingale Hospital

COLUMBIA UNIVERSITY

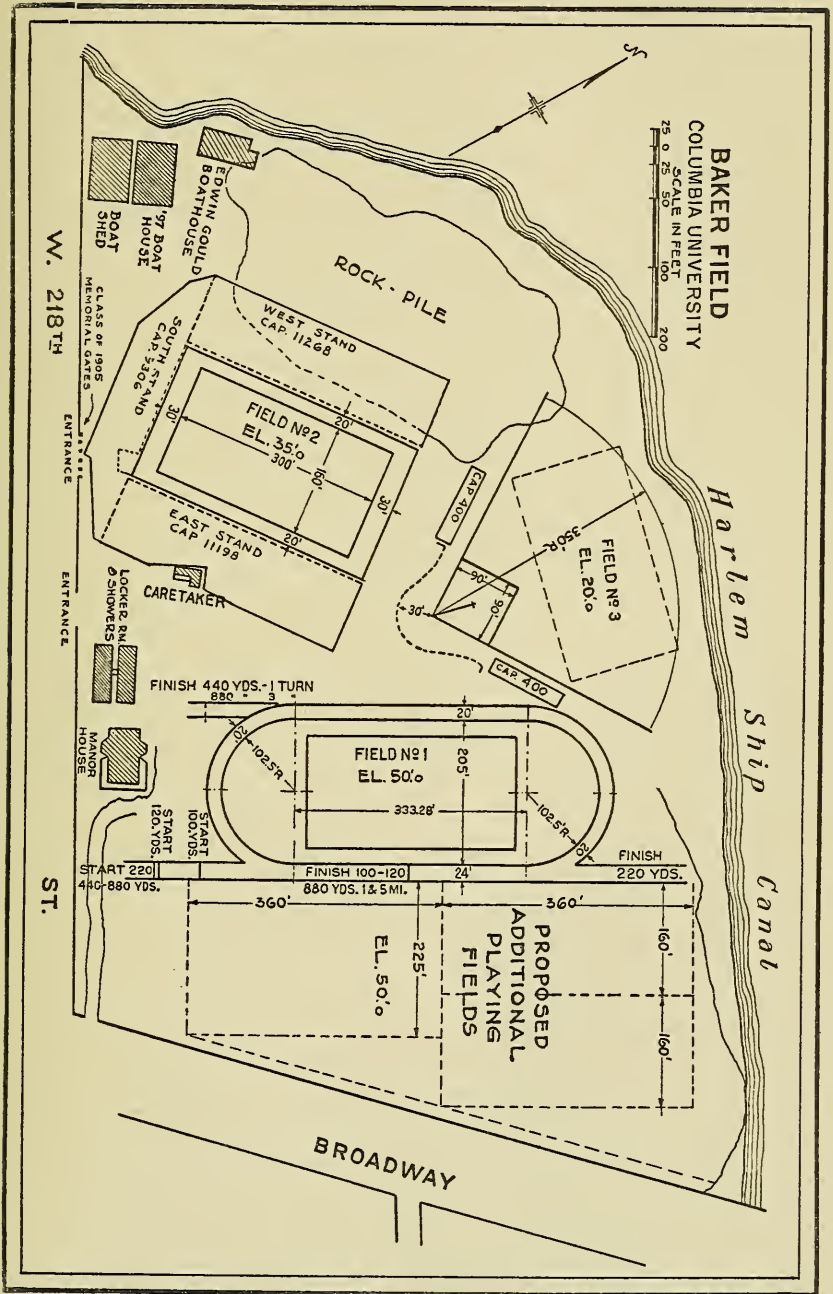
OWNERSHIP OF LAND INCLUDED IN
THE MEDICAL CENTER



COLUMBIA UNIVERSITY

BAKER FIELD

THE STUDENTS' PLAYING FIELDS OF COLUMBIA UNIVERSITY



Columbia University

IN THE CITY OF NEW YORK

Report of the Dean of Columbia College

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1946



MORNINGSIDE HEIGHTS

NEW YORK 27, N. Y.

PRINTED FOR THE UNIVERSITY BY
COLUMBIA UNIVERSITY PRESS

COLUMBIA COLLEGE
REPORT OF THE DEAN

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1946

To the Acting President of the University

SIR:

As Dean of Columbia College I have the honor to present the following report for the year 1945-46.

In accordance with the resolution adopted by the Faculty of the College at its meeting on February 19, 1945, the College has, during the academic year under review, operated on a normal two semester basis. The twelve-weeks Transition Term (July 2-September 21, 1945) arranged for the students of Columbia College and Barnard College as well as undergraduates of other colleges and universities who might desire to continue their accelerated programs or to adjust their schedules, after a period of acceleration, to the normal course of study in their respective colleges was highly successful. So satisfactory were the results that it is evident beyond doubt that the weeks immediately preceding and following the regular Summer Session may, as occasion arises, be used by the College to good advantage educationally. In fact, as this Report is being written, plans are already well advanced whereby students of the College will have opportunity to register for courses in modern language, mathematics, and other subjects to be given during the weeks before and after Summer Session. In large measure these courses are being offered to meet the needs of returning servicemen.

As was foreseen, with the termination of the war not only Columbia but almost every reputable institution of higher learning in America is witnessing the return to academic halls of an unprecedented number of servicemen whose careers were interrupted by the call to national duty. Their number is being swelled by thousands upon thousands of young men who, prior to going into military service, had not, for one reason or another, entered college. For the reasons set forth in the preceding Report on the College these men are now seeking admission. So also are the thousands of civilians who, having completed their preparatory

work, are anxious to continue their formal schooling. As far as Columbia College is concerned this situation has thrust upon the Faculty and the Officers of Administration a number of pressing problems. Three of these merit brief mention: (1) size of student body; (2) number of qualified applicants, ex-servicemen and civilians, to be admitted for the academic year 1946-47; and (3) adequate facilities in terms of staff, equipment, and housing should the student body be enlarged.

In comparison with Yale, Harvard, and many of its other sister institutions, Columbia College is a small college. In its first report submitted to the President and the Trustees, the Special Committee on the State of Columbia College recommended among other things that the total enrollment of the College in peace time, should, with its existing facilities, not exceed 2,000 students. The Faculty is of the opinion, however, that in the present emergency, the College should temporarily enlarge its student body to the point where standards of instruction and guidance would not be impaired. After careful study this figure has been set at not more than 2,400, an increase of 600 over prewar years.

The second problem has been no less perplexing, namely, the proportions of ex-servicemen to be admitted as compared with those recently graduated from preparatory schools. After viewing this problem from every possible angle it seemed advisable to fix this ratio on a fifty-fifty basis. The number of ex-servicemen to be admitted will not, of course, include the hundreds of those who were admitted to the College before being called to national duty and who have been away on leave and are now returning. Of the total number of students in the College for 1946-47 approximately 1,400 will be ex-servicemen.

The decision to increase the student body temporarily and at the same time not to lower standards means that provision must be made to enlarge our instructional and guidance staffs and to add equipment and other physical wants where necessary. Fortunately, steps in this direction have already been taken largely as a result of the findings and recommendations of two special Faculty Committees, one headed by Professor Croxton and the other by Professor Zanetti. The work of these two committees was summarized in my Report of last year. On behalf of the Faculty, may I express to the Comptroller and to the Trustees

deep appreciation for acting upon the reports of these two committees so promptly. Without the physical changes now being made in Hamilton and Havemeyer Halls and in other buildings used for instructional purposes for Columbia College students, enlargement of our student body at this time would have been impossible.

It is a source of great satisfaction to report that the College will continue to serve the needs of the Navy Department of the United States. With the termination of the war the Navy Department arranged to establish at a number of colleges and universities N.R.O.T.C. units. Columbia College was one of the institutions selected. The new unit will be established on a peace time basis beginning in the Winter Session 1946-47. Meanwhile the transition of the Naval V-12 students who are members of the College student body to N.R.O.T.C. status has been effected.

Under its peace-time R.O.T.C. program the Navy Department requires twenty-four points of naval science study or eight three-point courses. This requirement fits readily into the normal program of Columbia College. The membership of the N.R.O.T.C. will consist of civilian students who have been accepted as students by the College following our regular admissions procedures, and who have been approved by the Navy as officer-candidates. Their tuition fees will be paid by the Navy and they will receive a monthly subsistence allowance of \$50. Students following the N.R.O.T.C. course of study will not be permitted to take for credit any additional professional courses. On behalf of the Faculty of the College I take this opportunity to express our deep appreciation to the Navy personnel who have adapted themselves to our particular set-up and coöperated with us in so many ways in making both V-12 and the N.R.O.T.C. programs successful. When the history of Columbia College in these war and postwar years is written the part played by the Navy in our educational endeavor will bulk large. We look forward to the continuation of this harmonious and helpful relationship.

If the two preceding Reports of the Dean of the College seem to have stressed things physical rather than intellectual it should not, therefore, be concluded that the latter are being minimized or sacrificed. Quite

the contrary. If physical needs have been emphasized it is only because of the deep-seated belief on the part of the Faculty and the Administration that the physical changes recommended would contribute in no small measure to the educational efficiency of the College. For this reason we shall continue to press for a new gymnasium, improvements at Baker Field, and a new Student Center, all three of which are most urgently needed.

In the realm of things intellectual the year under review has, for the College, been most fruitful. Outstanding has been the Report of the Committee on College Plans. For three years this Committee, headed by Professor Steeves, Professor Barzun as secretary, and Messrs. Bayne, Carpenter, Gutmann, Koopman, McKnight, Miner, Randall, Taylor, and the Dean of the College as co-workers, took inventory of every phase of College activity from admissions to the degree with honors, and from Faculty promotions to student extracurricular activities. As the Report itself points out, the Committee has made no effort to furnish an entire philosophy of higher education. Rather it has made an appraisal of the present state of the College for the purpose of ascertaining the strengths and weaknesses of an educational program instituted in the College more than a quarter of a century ago under the leadership of Dean Hawkes. Beyond this examination of the present state of the College the report suggests means whereby weaknesses may be eliminated and policies and procedures clarified and coördinated.

Because of the lively interest of the American people in higher education, it seemed advisable to the Faculty to make the Report of the Committee on Plans available to the public. Consequently, the report, together with a descriptive account of some of the more important features of the College curriculum, was published in book-form in mid-April under the title *A College Program in Action*. This volume, for which there has been great demand in the past from those who desired fuller information about our program and who desired to share in the Columbia experience, will give educators, parents and prospective students and, indeed, every one concerned with the world of today and tomorrow insight into what Columbia College is doing to carry out its obligations.

In many respects the work of the Committee on Plans is a fulfillment of views and policies discussed at considerable length by the Special Committee on Curriculum of ten years ago. Both reports are in agreement that a substantial part of the program of the first two years should be devoted to orientation in the three studies which together describe the workings of the modern world: the humanities, the natural sciences, and the social sciences; and that the last two years should build upon this structure in a fashion sufficiently flexible to recognize the matured capacities and interests of the particular student. It is also not without interest to note that the present Committee is in accord with that of a decade ago that the pattern of general conformity in the work of the first two years should be replaced in the last two years by reasonably free election, and that this free choice "should follow no uniform plan of synthesis, arbitrary unity, specialization, or other prescribed principle, but should be worked out in the best possible understanding of the particular student needs and capacities." In other words the Committee warmly approves of what has been fundamental in all of the College's educational planning and experimentation during the last twenty-five years.

Of the Committee's recommendations several deserve special mention here. These concern admissions, the introductory course in science, English composition, physical education and hygiene, honors, the upper college, the staff, student needs, and the administrative relation of the College to the University.

For years, as the Committee points out in its Report, the effective control of admissions to Columbia College has been exercised nominally through the University Committee on Admissions and in reality through the Office of Admissions. Only rarely has the Faculty of the College had anything to do with admissions. As a rule no member of the College teaching staff sees the applicants for admission. The Committee on Plans believes this to be a weakness in our admissions machinery and recommends that the College have its own standing Committee on Admissions. To this Committee would be presented those marginal cases who fall within the category of "questionable risks." The Committee on Plans also recommends that should such a Committee on

Admissions be created, its membership be chosen annually in a rotation similar to that of other standing committees and that this Committee be called upon for personal service in screening and selecting applicants, particularly those on the fringe of eligibility.

In the screening process the Committee recommends that in addition to the basic qualifications of scholarship and deportment the following items might well be taken into consideration:

1. Evidence of an established interest in science, literature, music, or art.
2. Evidence of having carried some worthwhile extracurricular activity through to some significant conclusion.
3. Evidence of having held responsible employment after school hours and during summers.
4. Ability to speak clearly and concisely and without affectation.
5. Manliness and directness of general manner.
6. Spontaneity and attractiveness of personality.

The Committee on Plans also recommends that a written examination in English composition given by Columbia College or the College Entrance Examination Board or any other competent agency be required of all candidates as indispensable contributory evidence of fitness for entrance. The Committee further recommends that in admitting applicants attention be given to the matter of geographical distribution. The Committee holds that Columbia College should maintain its national character and that educationally it is wise to bring together men from various sections of the country and from foreign countries. In the words of the Committee: "It is a service, not only to those who come to us from distant parts, but also and especially to men of local origin, that this association of persons and points of view should take place. Both ideas imply the faith that mutual enlightenment and understanding are best achieved by living and learning together in the formative years of youth." To this end the Committee suggests that the student body of the College be composed approximately as follows: one third from Greater New York, one third from the Metropolitan area within a fifty mile radius and one third from remoter points.

Perhaps no part of the Committee on Plans report is more far-reaching in its implications than its recommendations concerning English compo-

sition. After reviewing historically the problem of teaching the student correct usage of the written and spoken word, the Committee is unanimous in its opinion that responsibility for teaching English composition belongs not alone to the English Department but to all departments giving instruction in the College. The Committee proposes, therefore, that in addition to a one-year course of instruction in composition during the first year, meeting two hours a week, but counting one point each term, the written work of every course in the College and especially in Contemporary Civilization and the Humanities be a "significant determinant" of passing or failing the course.

Though we occasionally hear an admission from a student that health and physical tone have their importance in enabling him to carry on his studies, it is a rare undergraduate who expresses spontaneous gratitude for departments of physical education. Undergraduates will tell you that they don't need physical exercise beyond what they get in their daily routine. At Columbia the purpose of the physical education requirement is not principally the building up and maintenance of physical strength, but the integration of the physical life with the mental, and development of patterns of social behavior to which the give and take of personal contact and competition and the necessities of coördination contribute very appreciably. In this connection the war has taught us much.

The Committee on Plans, therefore, supports the recommendation of the Department of Physical Education that, beginning with the academic year 1947-48, the requirement in Physical Education be extended into the junior and senior years by requiring of juniors and seniors not less than 100 periods of participation in diverse intramural, intercollegiate recreational activities, not more than 60 participation units to be accepted for credit in any one year, and each year counting as one point of academic credit, thus increasing the requirement for graduation from 124 to 126 points.

Similarly, the Committee reported favorably on the proposal that, beginning with the academic year 1947-48, the requirement in Hygiene be increased to two hours per week of instruction, counting as two points academic credit. This change it is thought will provide adequate time for the presentation of the minimum essentials of health information.

The conditions under which the College has awarded the Bachelor's degree with honors have varied over recent years. For a decade during the 1920's honors were awarded either on departmental recommendation or on completion of special courses taken for the purpose. Except for that interval the Faculty has followed the more usual course of American colleges and awarded honors to students of the highest achievement, generally on the recommendation of departments and by action of the Committee on Instruction; a student of high standing but with no clearly defined specialization might receive a degree "With Honors." The objections of the Committee on Plans to this system follows:

1. Men of quality are not necessarily of outstanding personality; occasions have arisen in which students of very high achievement have failed to establish that achievement in the view of their department of special interest, except in the record of their grades. Those students are at a disadvantage in comparison to students who possess initiative and establish themselves more vividly in their instructors' minds.
2. There may be conflict of position and interest in the awarding of honors between a department and the Committee on Instruction, the department naturally feeling a sponsorship for its distinguished students and the Committee on Instruction acting for the preservation of a balance of departmental claims.
3. There is some ground for believing that the element of chance enters too much into the present situation, and that students exercising professional option at the end of their third year may be unwittingly underestimated a year later when honors for their class are under discussion.

Neither the Committee on Plans nor its subcommittee which studied this problem were willing to propose a solution. The Committee on Plans, however, recommends not only a standard procedure but the setting up of a standing Committee on Honors which shall exercise control over awards, the details of actual course and examination requirements being left, as formerly, to the departments.

Resolutions incorporating the recommendations of the Committee on

Plans as to admissions, English composition, physical education and hygiene, and honors as well as other items of lesser importance were adopted by the Faculty at its April and May meetings in the Spring of 1946.

An orientation course in science similar to that in the humanities and the social sciences and which would complete the educational trilogy of the first two years in the College has not as yet fully evolved. This is not because of lack of effort on the part of the Faculty or of the science departments concerned; rather it stems from the conviction on the part of some members of the Faculty that (1) the approaches and techniques of the separate sciences can scarcely be fused into a single point of view and a single method; (2) that such a course would be "thin" and fail to touch more than the surfaces of the physical and natural sciences; (3) that the problem of staffing such a course would be almost insuperable; (4) that the road to a teaching career in the scientific fields, particularly in a large university, requires specialization in a single domain of study; and (5) that an orientation course in the sciences would not adequately prepare the student for continued work in any given science. Despite these arguments noteworthy progress has been made toward the formulation of such a course. In 1934 a collaborative two-year course was established as an alternative to the choice of specific courses in particular sciences. But this course was lacking in unity and comprehensiveness of purpose and optional as far as the science requirement was concerned. Nevertheless it marked a beginning. During the year under review a subcommittee of the Committee on Plans under the Chairmanship of Professor Beckmann has worked diligently on this problem and has submitted a majority report setting forth in broad outline a proposal for a course which would not only be an introduction to the several sciences but a serious and exacting discipline in the logic and methods of the scientific worker. During the coming academic year the report of the subcommittee will be the subject of further study of the proposal to the end that the general course in science to be required of all undergraduates be set up as promptly as possible in accordance with the recommendation of the Committee on Plans.

The present efforts of the Faculty to evolve a general course in Science

constitutes, in many respects the final chapter to the expanding plans of the College over the last twenty-five years for fundamental instruction during the first two years. This is not to say that the last two years have been neglected. The Committee of 1936 proposed a fairly clear line of cleavage between the first two undergraduate years and the last two and stressed the importance of making the program for the last two years fit the students' growing maturity. The Committee on Plans agrees but feels that upperclass courses should not only be more difficult but should "appeal to a developed imagination, encourage independent effort, and develop articulateness, not merely deepen the channels of accustomed labor." The Committee cites the science sequences, the Colloquium on Important Books, and the senior seminars as courses having met the aims of what the program for the last two years should offer. So important are the suggestions of the Committee on Plans for the strengthening of the course-offerings for the last two years that a special committee of four—Professors Brebner, Edman, and Ramsey and Mr. Hance—has been appointed in accordance with a resolution of the Committee on Instruction to give consideration to the educational worthwhileness of courses not offered in these two years and to consult departmental officers and those in charge of divisional courses with a view to enriching the course offerings of the Upper College. The report of this special committee will be eagerly awaited. To further perfect the work of the last two years, the Committee on Plans recommends more careful screening of our students at the end of the sophomore year and a more efficient system of upper class advisers.

No part of the report of the Committee on Plans merits more careful consideration than its findings concerning the teaching staff. The prime requisite of the undergraduate instructor is, in the opinion of the Committee, "That he possess the personal gifts and the intellectual arts of a first-rate teacher. He should be a competent scholar, but his scholarship should be correlative of his talent and passion for teaching." The Committee deplures, and rightly so, the appointment to the staff of any person who fails to measure up to this standard; it is especially outspoken in its condemnation of the practice of using the College as a convenient shelter for young graduates interested primarily in research

and who, for the most part, are devoid of those qualities which make a good teacher. The Committee also urges a definite term of tenure not to exceed five years for the non-permanent members of the staff and cautions against the dangers of academic inbreeding—a condition from which we do not at present suffer.

During the academic year covered by this report the staff turnover has been larger than usual. This was not unexpected. During the war years there was almost no turnover and the demand by institutions of higher learning for competent instructors was almost nil. With the termination of the war and the return to academic halls of unprecedented numbers of students, the competition among colleges and universities for experienced teaching personnel has been extremely keen. Even the large turnover of junior officers this year is not a cause for alarm. Only a few of our junior officers can look to permanent positions in the College or the University. By far the large majority must go elsewhere. In return for their service, the College has, as the Committee of Plans points out, given them valuable experience and a start in their careers. In the future as in the past the College should continue to render this important contribution.

Irrespective of rank, the mounting cost of living has heavily taxed every servant of the College from elevator operator to professor. If morale is to be maintained at a high level and if we are to continue to attract those whom we desire to serve the needs of the College, and indeed, the entire University, it is imperative that salary levels all along the line be raised at the earliest possible moment. With truck and taxi drivers, and even unskilled workers receiving a total annual income greater than that received by most college teachers holding the rank of instructor, the situation is far from encouraging. Thought should also be given to providing more suitable housing and better schooling facilities, particularly for the junior members of the staff and their families.

Student life at Columbia is, in the opinion of the Committee on Plans, progressively healthy. The undergraduate body has grown in social maturity and responsibility. Horseplay is conspicuously absent despite greater freedom from formal and disciplinary restraints. The Committee expresses concern for the student employed in part-time

work. Employment means possible impairment of both academic and social opportunities. We have the task of keeping the employed students interests in the best possible balance by preventing his outside concerns from dominating his college work, and by helping him as far as we can find a congenial orbit in our social life.

The Committee on Plans also gave thought to the problem of funds for scholarships and fellowships. At present about 20 percent of the student body of the College receive scholarship aid. The Committee agrees with the Special Committee on the State of Columbia College that our present funds for scholarships should be supplemented. It further urges the establishment of five annual awards of \$1,200 each, and ten awards of \$300 to enable graduates of the College to take up graduate work without the pressure of financial need. These awards to be considered honors and not merely financial assistance are in addition to the endowed and named fellowships now available to students of the College. This recommendation is imperative when we consider what has been done in this respect by other endowed institutions.

One other item covered by the Committee on Plans in regard to student life deserves brief comment, namely, extracurricular interests. In view of the fact that extracurricular activities, both athletic and non-athletic, provide unrivaled opportunities for the development of varied talents of a non-academic kind, yet related to intellect, character, and leadership, the Committee recommends that a special study should be speedily undertaken by the Advisory Committee of King's Crown Activities with a view to recommending action concerning the organization, financial support, and allotment of facilities to these student activities to the end that they may contribute their share to our educational program.

In its third report the Special Committee on the State of Columbia College reviewed at considerable length the administrative set-up in the College and the relation administratively of the College to other parts of the University, and particularly to the Graduate School. The Committee on Plans in that part of its report entitled "The Teaching Organization" addressed itself to the same double-headed problem. On the basis of reports of these two committees the following memorandum from the

Committee on Instruction of the College was submitted to the President and through him to the Advisory Committee on Educational Policy:

1. That the present over-all departmental arrangement headed by an executive officer be retained, and that the system of departmental representatives be continued.

2. That in each department giving instruction in the College there be created a committee composed of members of the College Faculty, to be chosen by the Executive Officer of the department for a term of three years and to be eligible for reappointment. (a) The Chairman of this Committee on Columbia College shall be named by the Executive Officer of the department with the approval of the Committee on Instruction. (b) The Committee shall name from among its members a Departmental Representative who shall perform the customary duties of that position. The Departmental Representative may or may not be identical with the Chairman of the Committee.

3. That the Committee so chosen shall assist the Executive Officer in the general supervision of the work of the department of the College. The Chairman of the Committee on the College shall submit an annual report on behalf of the Committee to the Executive Officer and to the Committee on Instruction of the College. This report shall include (1) the state of and plans of the department as far as the College is concerned; (2) observations upon the teaching performance and other activities of the members of the department giving instruction in the College; (3) proposals and recommendations as to appointments and promotions.

4. That on the basis of the annual report of the Committee, the Executive Officer of the department shall, in collaboration with the Chairman of the College Committee and the Chairman of the Committee on Instruction of the College (Dean of the College), prepare recommendations regarding the appointment or promotion of those officers of instruction who devote half or more of their time to Columbia College.

5. That these recommendations shall then be submitted to the Committee on Instruction of the College for consideration. If approved by the Committee, they shall then be transmitted by the Executive Officer of the department as a part of his budgetary letter to the President of the University. In considering these recommendations, the President of the University and the Advisory Committee on Educational Policy shall have power to call upon the Dean of the College to furnish registration figures, personal dossiers respecting men proposed for appointment or advancement, and any other information relevant to the College personnel and the College program.

6. That the Committee on Instruction through the Dean of the College shall, as the need arises, submit to the President of the University memoranda

covering the staff requirements of the College which lie outside the province of the several departments.

7. That the Faculty of Columbia College is requested to amend its rules to provide that the Committee on Instruction of Columbia College shall always include at least two College Departmental Representatives.

The College has no desire to be dictatorial or to set up cumbersome administrative machinery. As the heart of a great University it appreciates the benefits which accrue to it from the free interchange of teaching staff of the College and the Graduate School and other units of the University. The Faculty of the College believes that the above proposals will preserve our departmental unity and put a premium on coöperation and team work rather than upon division of interest. Certainly the spirit of team work should be preserved where it exists and be strengthened where it is deficient.

In keeping with the recommendations submitted by the Special Committee on the State of Columbia College, the Departments of Intercollegiate Athletics and Physical Education, including Intramural Sports, have, by Trustee action, been organized into a single department under a single administrative officer with two associates to assist him in the conduct of the two principal divisions of the department. This is a long step in the right direction for it means that the staff of the consolidated department will include not only the members of the physical education staff but all coaches of athletic teams. As far as practicable all members of the new department will be appointed by the Trustees and will give full-time service. Moreover, all full-time members will be included in the University's pension and retirement program and will receive all the benefits of academic status.

The establishment of a single staff, composed of men giving continuous full-time service in duties as assigned by the head or director of the consolidated department, offers the advantages of flexibility in assignment of duties, increased opportunity for promotion and economies in cost, including office administration. A further advantage lies in the increased opportunity to make use of the teacher-coaches in the College's personnel and guidance program.

With passing years it is increasingly evident that more attention should be given to speech improvement and remedial reading. In the

period before the war the College required every undergraduate to take a speech test during his freshman year. This test was conducted in the following manner: after the student wrote out a personal history card, his voice was recorded on an aluminum disc while he read a passage of prose and then spoke extemporaneously about himself and his past environment. The record was then played back to him and his speech faults pointed out to him in detail. During the war, when it was impossible to obtain aluminum discs, these recordings had to be given up. The test in other respects was conducted as before but with much less satisfactory results. Unless students whose speech is poor are able to listen to their own speech and hear their faults, they are insensitive to criticism and are not easily convinced that any improvement is necessary. It is highly desirable, therefore, that beginning with the Winter Session of 1946-47, the making of a record of each student's voice be resumed.

The time has also come when we should review our experience with remedial reading. It is most unfortunate that students should come to us who have never been taught properly how to read or who have glaring speech defects. Were these shortcomings taken care of before the student enters college, valuable time would be saved. Moreover, were the student to enter college with sufficient mastery of a foreign language to enable him to pass at once the language proficiency test stipulated by the College as part of the requirement for the A.B. degree a long step forward would have been made in sound educational principle.

In transmitting this report to you may I once again record my deep appreciation to the members of the administrative and instructional staffs and to my secretarial colleagues who have so uncomplainingly carried a heavy burden during this trying year. My long enforced absence from duty because of an unforeseen and wholly unexpected accident doubled the load of my co-worker Dean McKnight. To him I am indebted beyond words.

Respectfully submitted,

HARRY J. CARMAN

Dean

July 30, 1946

Columbia University

IN THE CITY OF NEW YORK

Report of the Dean of the School of Law for 1946



MORNINGSIDE HEIGHTS
NEW YORK 27, N. Y.

PRINTED FOR THE UNIVERSITY BY
COLUMBIA UNIVERSITY PRESS

SCHOOL OF LAW
REPORT OF THE DEAN
FOR THE YEAR 1946

To the Acting President of the University

SIR:

As Dean of the Faculty of Law I have the honor to submit the report of the School of Law for the period beginning with the Spring Session of 1946 and extending to the beginning of the Spring Session of 1947. Due to the accelerated law course begun in February, 1942, my reports for the last several years have covered three sessions, beginning in February, thus including parts of two academic years.

THE LAW SCHOOL TODAY

Notwithstanding its inadequate physical quarters, Columbia Law School is today stronger than at any period in its history. For many years it has been regarded by the legal profession and by the public as being one of the two or three best schools in the country. Whether its reputation has always been justified is a matter of opinion, but there can be no doubt about its present standing. In size, in experience, and in competence, the Faculty is today the equal of any. The quality of the student body is of the highest order, and the library ranks among the five great law libraries of the world.

THE STUDENT BODY

During the period covered by this report more than 3,000 applicants have sought admission to the School, approximately five times as many as could be admitted without lowering the high educational standards heretofore maintained. Only 664 were admitted, who, together with the students already in the School, brought the total number to 845, which is 67 per cent more than the number of students in 1940, the last normal year prior to the war. The registration will reach a peak of approximately 950 in September, 1947, but due to the decision of the Faculty to discontinue the accelerated law course for students entering after June, 1947, and to restrict the admission of beginning students to September,

the registration will drop to around 600 students by September, 1948, a number better suited to our physical facilities.

Accepting only one out of five applicants has enabled the Selection Committee of the Faculty to limit admission to applicants with high college records. Practically all of those admitted hold college degrees with A or B records. The few who were admitted with C-plus records made high scores on the capacity test required of all applicants with college records below B. Approximately 98 per cent of those admitted are veterans. Most of them were commissioned officers and many of them had distinguished military records.

The high quality of the present student body is revealed by the fact that the number of first-year students who failed to maintain a passing average during the last twelve months was only 7 per cent, as compared with 15 to 20 per cent prior to the war. What is more indicative of the high quality is the fact that a majority of these students made B or better records during the first year. Twenty per cent made B-plus or A records. Twice as many made Law Review averages as the Law Review could absorb. To meet this situation, the honor students in each class are designated Harlan Fiske Stone Scholars. Those who do not become editors of the Law Review are eligible for appointment as Faculty assistants.

DISTRIBUTION BY STATES AND COLLEGES

Because of the educational provisions of the "G. I. Bill," there has been a marked increase in the number of applicants from every section of the country. Included in the 845 students now in the School are students from 42 states, the District of Columbia, and six foreign countries, although two-thirds of the students are drawn from New York and adjacent states. One hundred and eighty-one colleges and universities are represented. The student body consists of 795 men and 50 women. Ninety-three per cent of the male students and 12 per cent of the women served in the armed forces during the war. Approximately 60 per cent of the students are married. Eight hundred and twenty-eight students are candidates for the LL.B. degree, the remaining seventeen including fourteen candidates for graduate degrees, and three special or non-matriculated students.

The registration by sessions at the date of this report is as follows:

	<i>Men</i>	<i>Women</i>	<i>Total</i>
First session	103	3	106
Second session	171	6	177
Third session	160	2	162
Fourth session	186	10	196
Fifth session	99	10	109
Sixth session	61	17	78
Graduate	14	0	14
Special and nonmatriculated	1	2	3
	—	—	—
TOTALS	795	50	845
Veterans registered			745

THE LAW SCHOOL AND THE FUTURE

The School stands today at the peak of its strength, but it cannot stand still. It must move forward in influence and usefulness or soon suffer a loss in its effectiveness and prestige. In my last several reports I pointed out the physical handicaps under which the School is laboring and made proposals concerning its future development. The need of an additional building adjacent to Kent Hall is so pressing and is so obviously necessary to carry on properly the present work of the School, to say nothing of new developments, that this need must be met as quickly as possible; else irreparable harm will soon be done to one of the University's most distinguished and most effective departments. While adequate physical quarters are a *sine qua non* to the preservation of the School as well as to its development, a building and physical equipment alone will not accomplish these ends. It is essential to plan broadly with respect to the School's objectives, its activities, its personnel, and its relations with other departments of the University, if its influence upon the study and development of the law and its administration, the education of lawyers and, indirectly, of public officials is to continue to be widespread and effective.

The Faculty have been giving these matters serious consideration for some time, and I have recently invited a small but carefully selected com-

mittee of alumni to discuss with members of the Faculty a development program for the School. The position of the School gives it special advantages and opportunities. It is a part of a great University in the most important city in the world, at a time when social and political problems threaten national and international security. The training of lawyers must continue to be the School's primary function, for government by law, of which lawyers are an essential part, is the best protection against the tyranny of totalitarianism and the abuses of government through the influence of pressure groups. If lawyers are effectively to perform this function in modern society, their education must include an understanding of the political, economic, and social problems with which law deals as well as training in the methods and techniques of the law. This can most effectively be accomplished by encouraging the Faculty to organize their courses so as to reveal the political, economic, or social origins of legal rules and doctrines and their implications in modern society, as well as to train the student in the use of legal materials in the accomplishment of the lawyer's tasks.

It would seem that any development program for the Law School, in addition to providing improved professional training, should make provision for comprehensive and intensive studies of a fundamental character directed to present-day problems; expansion of the work in legislative drafting and the study of the legislative development of the law; enlarged study of international, comparative, and foreign law, in both their public and their private aspects; organization of postgraduate seminars for lawyers conducted with the assistance of specialists drawn from the bar; and acquainting students from other countries with the law and institutions in this country.

ACCELERATED LAW COURSE

In response to the desire of the older veterans to expedite their graduation, the Law School has conducted for several years an accelerated course whereby students could complete the three academic years in two calendar years by attending three sessions per year (Winter, Spring, and Summer). Beginning students have been admitted three times during each year, in September, in February, and in June. In order to avoid sections

and the overlapping of classes, each entering class has been kept together throughout the six sessions. This has necessitated giving during each session all of the first-year courses and most of the second- and third-year courses. What this means is that the Faculty has in effect been conducting simultaneously three law schools instead of one.

The accelerated law course would have been a back-breaking burden upon the Faculty but for the action of the Trustees in authorizing a temporary enlargement of the teaching staff by inviting visiting professors from other law schools and lecturers drawn from the bar to aid with the teaching work. Most of the visiting teachers have taught during the Summer Sessions, as it is easier to obtain distinguished visitors from other institutions during the summer. Also, by having visitors during the summer, the regular Faculty has been able to concentrate its efforts principally upon the work of the Winter and Spring Sessions, thus making possible during these sessions a larger and more diversified offering of courses and seminars. Furthermore, by relieving most of the Faculty of the necessity of teaching more than two sessions during a calendar year, time has been provided for the research and writing that are indispensable to the maintenance of a high-grade law school.

During the Summer Session of 1946 the visiting teachers were George W. Goble, Professor of Law, University of Illinois; Wesley A. Sturges, Dean and Professor of Law, Yale University; Laurence H. Eldredge, formerly Professor of Law, University of Pennsylvania; Myres S. McDougal, Professor of Law, Yale University; Roy W. McDonald, of the New York bar, formerly Professor of Law, Southern Methodist University; George F. James, of the New York bar, formerly Assistant Dean and Associate Professor of Law, University of Chicago; and Carlos L. Israels, of the New York bar.

During the Winter Session of 1946-1947 Logan Fulrath, of the New York bar, taught the part of the course on Trusts dealing with the administration of estates.

The visiting teachers who have accepted invitations to teach in the Summer Session of 1947 are Warren A. Seavey, Bussey Professor of Law, Harvard University; Charles T. McCormick, Dean and Professor of Law, University of Texas; Max Radin, Professor of Law, University of

California; Horace E. Whiteside, Professor of Law, Cornell University; John W. MacDonald, Professor of Law, Cornell University; Harry W. Jones, Professor of Law, University of California; Mark DeW. Howe, Professor of Law, Harvard University; Robert Braucher, Visiting Professor of Law, Harvard University; Louis B. Schwartz, Assistant Professor of Law, University of Pennsylvania; Carlos L. Israels, of the New York bar; and Stanley S. Surrey, Tax Legislative Counsel of the United States Treasury Department.

While the accelerated law course has served the needs of the older veterans whose professional education was delayed from three to five years by the war, the disadvantages from an educational point of view have been so obvious that most law schools have discontinued it. Also, the number of veterans applying for admission began to decrease after September, 1946, and the more recent applicants have been normally younger men. It was also apparent that the repetition of courses three times each year was consuming so much of the time and energy of the Faculty that it was very difficult to inaugurate planned improvements in the curriculum and in teaching methods. Consequently, the Faculty decided this spring that while the accelerated course shall be continued for all students entering the School prior to September, 1947, students beginning in September, 1947 and thereafter should not be allowed to accelerate their graduation, and the practice of admitting beginning students in February and June should be discontinued after 1947. This means that the Summer Session of 1948 will be restricted to fourth-, fifth-, and sixth-session students, and there will be no summer session in law after 1948. With three classes graduating during 1948 and only one class beginning during that year, the total registration in September, 1948, will be around 600, a decrease of one-third of the peak registration expected in September, 1947. Even so, a School of 600 would exceed the pre-war registration by 20 per cent, and such a number is as many as the School can accommodate in its present building without overcrowding.

HUGHES AND STONE PROFESSORSHIPS

A noteworthy event during the period under review was the action of the Trustees in establishing professorships in the Faculty of Law bearing

the names of two of the Law School's most distinguished graduates, Charles Evans Hughes and the late Harlan Fiske Stone, both Chief Justices of the United States. The new chairs are the Charles Evans Hughes Professorship of Law and the Harlan Fiske Stone Professorship of Constitutional Law. The first incumbent of the Hughes Professorship is Huger W. Jervey, a member of the Faculty since 1923 and Dean of the Faculty from 1925 to 1928. He is not only a well-known legal scholar, teaching courses in equity and comparative law, but is also the director of the Parker School of Advanced International Studies at Columbia. The first incumbent of the Stone Professorship is Noel T. Dowling, who has been a member of the Faculty since 1922. He has devoted most of his time since 1926 to the study and teaching of constitutional law, in which he is one of the leading authorities in the United States.

Chief Justice Hughes received the degree of LL.B. from Columbia in 1884. Following his graduation he was awarded a Prize Fellowship and from 1884 until 1887 he taught in the Law School. Justice Hughes ranks among America's most prominent citizens, having served as Governor of New York (1907-1910), Associate Justice of the Supreme Court (1910-1916), Republican candidate for President (1916), Secretary of State (1921-1925), member of the Permanent Court of International Justice (1928-1931), and Chief Justice of the United States (1930-1941).

Chief Justice Stone, who played such an important role in the development of constitutional law during the last twenty years, received the LL.B. degree from Columbia in 1898. From 1899 until 1905 he taught in the Columbia Law School and after an absence of five years returned in 1910 to be Dean of the Faculty of Law. He held that post until 1923. He became Attorney General of the United States in 1924, and the following year was appointed Associate Justice of the Supreme Court. He was appointed Chief Justice in 1941, continuing in that high position until his death on April 22, 1946. While Dean of the Law School he began its development in its modern form. During his administration he did much to enlarge its physical facilities, to build up the library, to strengthen the Faculty, and to improve the educational standards of the School.

It is most fitting that the names of Charles Evans Hughes and Harlan

Fiske Stone, outstanding Americans and jurists, should be permanently identified with the Columbia Law School in which they were students and teachers and upon which they have reflected such great credit. It will be especially gratifying to the thousands of alumni who were pupils of Dean Stone that one of the chairs will bear his name. It is also satisfying to know that the first incumbents of these chairs are men eminently qualified to inculcate in students the ideals and principles characteristic of the lives and work of the two Chief Justices.

In 1939 a professorship in the Faculty of Law was named after another great jurist and Associate Justice of the Supreme Court, Benjamin Nathan Cardozo, formerly a student in the Columbia Law School. Other Justices of the Supreme Court who studied law at Columbia are Associate Justices Stanley F. Reed and William O. Douglas.

THE FACULTY

In my report last year I pointed out that all but one of our Faculty who were absent during the war had resumed their academic duties, so that the School had its pre-war Faculty practically intact. A majority of them are over fifty years of age and many of them rank among the most distinguished legal scholars in the country. No other law school has so many mature and experienced teachers. This will be a real advantage to our students during the next five years, but it is imperative that a group of able younger men be added to the staff if the Faculty is to maintain its position and prestige after the loss of its older members. In furtherance of the policy of adding younger members, I mentioned last year the appointment of Willis L. M. Reese as Assistant Professor of Law. Because of his effective teaching and general usefulness to the School he has been made Associate Professor of Law, effective July 1, 1947. Since my last report, another member has been added to the Faculty and two more will be added July 1, 1947, bringing the total Faculty to twenty-eight members.

William Clements Warren was appointed Associate Professor of Law in 1946. He is thirty-eight years of age. He received the A.B. degree *summa cum laude* in 1931 and the M.A. degree in 1932 from the University of Texas. He received the LL.B. degree *cum laude* from Harvard in 1935. Following his graduation from law school he was associated with the

New York law firm of Davis, Polk, Wardwell, Gardiner & Reed until 1937, when he became associated with the Cleveland law firm of McAfee, Grossman, Hanning & Newcomer, where he remained until 1940. At that time he became associated with the New York law firm of Milbank, Tweed & Hope. In 1942 he went to Australia to engage in special work for the Red Cross. In 1943 he was commissioned a Captain in the United States Army and rose to the rank of Lieutenant Colonel. He served in the European, Mediterranean, and Middle East theaters, where he was engaged in the procurement and distribution of military matériel to the various lend-lease nations. Upon his discharge in December, 1945, he returned to the office of Milbank, Tweed, Hope, Hadley & McCloy. While practising in Cleveland, Professor Warren taught for four years in the Law School of Western Reserve University, giving courses and seminars in taxation. His experience in practice has been largely in corporation and tax work. At Columbia he is collaborating with Professors Berle and Magill in reorganizing and modernizing the offerings in those fields.

Allison Dunham will become Assistant Professor of Law July 1, 1947. He is thirty-three years of age. He received the A.B. degree from Yankton College in 1936 and the LL.B. degree from Columbia University in 1939. While a student in Columbia Law School, he maintained one of the two highest scholastic records in his class, and was a member of the Board of Editors of the Columbia Law Review. Following his graduation, he served for two years as law secretary to Justice Stone of the Supreme Court of the United States. He served in the U.S. Naval Reserve from 1941 until 1945, attaining the rank of Lieutenant Commander. Since 1945 he has been Assistant Professor of Law in Indiana University, where he has demonstrated his effectiveness as a law teacher. At Columbia he will work in the property field in coöperation with Professor Powell.

Charles L. Black, Jr., will become Assistant Professor of Law on July 1, 1947. He is thirty-two years of age. He received the B.A. degree *cum laude* in 1935 and the M.A. degree in 1938 from the University of Texas. After spending two years in the Yale Graduate School, he entered Yale Law School, receiving the LL.B. degree in 1943. While in Yale Law School he maintained the highest scholastic record in his class. Immedi-

ately following his graduation he entered the Army of the United States and was later commissioned a First Lieutenant. Upon his discharge in June, 1946, he became associated with the New York law firm of Davis, Polk, Wardwell, Sunderland & Kiendl. In addition to his other accomplishments he has unusual linguistic ability. He will work with Professor Jervey in developing the work in foreign and comparative law and will assist Professor Jervey in teaching the first-year course in Equity. He will also give the course in Admiralty.

As usual, members of the Faculty have been engaged in a variety of important activities not directly connected with their law school work.

Professor Jacobs was appointed Assistant to the President and has been devoting most of his time to University administration. The School has been fortunate, however, in that Professor Jacobs has continued to give the course in Family Law which he has taught for many years.

Professors Hays and Wechsler have been working since last July on the drafting of a Model State Banking Regulation Act. This is a project undertaken jointly by the American Bankers Association and a committee of the American Bar Association. The object of the project is to produce a statute which the American Bankers Association can recommend as a model to various states either for complete adoption or as guidance in the revision of their present banking laws.

Professor Llewellyn continued his work as chief reporter on the Uniform Commercial Code.

Professor Powell was engaged in writing a five volume treatise on the law of property. This monumental work will require five years for completion.

Professor Jessup, who was appointed Hamilton Fish Professor of International Law to succeed Professor Hyde, was awarded the degree of Juris Doctor by the University of Oslo, Norway, in recognition of his distinguished contributions to international law and his work for the United Nations.

Professor Hanna brought to completion his work as director of research on war claims for the Foreign Property Holders Protective Committee.

In 1935 there was established at Harvard University the Gerard C. Henderson Memorial Prize, to be awarded at intervals of not less than

five years to the author of a critical and constructive written work of outstanding excellence dealing with Administrative Law or other legal problems affecting government. In 1946 the Faculty of the Harvard Law School voted to make the first award of the Henderson Memorial Prize to the Attorney General's Committee on Administrative Procedure and to Professor Gellhorn, its Director, in recognition of that Committee's Final Report, published in 1941, which has illuminated and analyzed many phases of administrative law.

Various members of the Faculty contributed their usual quota of articles to legal periodicals and other scientific journals, and I continued my work as a member of the Law Revision Commission of the State of New York of which I was recently appointed Chairman by the Governor.

PUBLICATIONS

During the period under review, the following books prepared by members of the Faculty were published:

Materials for Legal Method, by Professors Dowling, Patterson and Powell. Foundation Press, 1946.

Cases on Constitutional Law, 3d ed., by Professor Dowling. Foundation Press, 1946.

Cases and Materials on the Development of Legal Institutions, 7th ed., by Professor Goebel. Privately printed, 1946. This revision of Professor Goebel's well-known book makes possible the changes discussed in my report for 1944.

Cases and Materials on the Law of Insurance, 2d ed., by Professor Patterson. Foundation Press, 1947.

Administrative Law—Cases and Comments, 2d ed., by Professor Gellhorn. Foundation Press, 1947.

Cases on the Law of Taxation, 4th ed., by Professor Magill in collaboration with Professor Maguire of Harvard Law School. Foundation Press, 1947.

CURRICULUM REVISION AND TEACHING METHOD

A number of interesting changes in the curriculum and experiments in teaching methods occurred during the last twelve months.

Professors Berle and Warren have been engaged in revising the course

in Corporations so as to give our students a better understanding of the new and perplexing problems encountered in present-day corporate practice. The new course will combine parts of the pre-existing course known as Business Organization II (corporations) and the course entitled Corporation Finance. The historical reason for having two courses has now disappeared. The course in corporation finance was conceived twenty years ago in an effort to add to the conventional course in corporations the actual content of the corporation law of the day. For some time it has been recognized that Corporation Finance embodied material which properly should be considered in connection with the course in corporations. Consequently, Business Organization II has been substantially reorganized, integrating and correlating the material that had previously been covered in the pre-existing courses together with additional material that had not previously been covered. A casebook by Professors Berle and Warren, *Cases and Materials on Business Organization: Corporations*, to be published by the Foundation Press, will be available for the Winter Session of 1947-1948. This casebook consists of seven parts: (1) Creation of a Corporation; (2) Capital Stock and Its Property Rights; (3) Public Issue of Stock; (4) Funded Debt; (5) Management and Operation; (6) Stockholders' Remedies for Mismanagement; (7) Sale, Merger, Consolidation and Dissolution.

In order to cover this vast body of material, it was essential that the cases and materials be given their relative importance in the field as a whole. For that reason, subjects such as ultra vires, watered share liability, subscription to capital stock, and similar topics, previously covering several weeks in a course in Corporations, have been largely covered by historical and analytical notes, together with a modern case or two indicating their present significance. This treatment of many subjects has enabled a number of topics not previously covered to be given exhaustive treatment in the new course. To illustrate: an attempt is made in Part I to systematize, under the enterprise entity theory, a great number of cases that courts have been struggling with for many years involving de facto corporations, disregard of the corporate fiction, and related problems. Part II deals exhaustively with capital stock and the stockholders' contractual and property rights; Part III, with the public issue

of stock, the important problems arising under the Securities Act of 1933, the Securities and Exchange Act of 1934, and the various state blue sky acts. Without treating them exhaustively, Part IV deals with the corporate problems relative to funded debt and the Trust Indenture Act of 1939. It seems quite probable that either the common law or possible legislation may place greater fiduciary responsibility on management, because of the increasing separation of management and ownership. In the light of this, Part V attempts to deal with management and operation in such a way that an appreciation of the problem and the probable trend will be clearly developed. The development of the law with respect to stockholders' remedies for mismanagement is given detailed treatment in Part VI. Part VII, dealing with sale, merger, consolidation and dissolution, is intended primarily to complete the picture of the growth of corporate life and the problems which occur after its creation and organization.

During the period under review the School benefited from the participation of a number of active practitioners in the Seminar in Selected Legal Problems. This Seminar, which was revived after a lapse during the war years, involves intensive student work each week on a legal problem assigned by a visiting practitioner in conjunction with a member of the Faculty; papers prepared by the students furnish a basis for the discussion during the class session. The problems in the Seminar are drawn from the practitioner's own experiences and serve to introduce the student in a realistic way to the kind of work he will soon be called upon to perform as a junior attorney in an active law office. The assignments involve such varied tasks as preparing memoranda, drawing pleadings, and negotiating and drafting agreements. The problems this year reflected the diversity of the law itself, for they related, among other things, to corporation finance, domestic relations, labor law, personal service contracts, trade regulation, trusts, and estates. The Seminar has proved to be an effective way of utilizing the services of the splendid bar of the City of New York.

A significant development in the teaching of public administration and administrative law was the Seminar in Governmental Administration, conducted by Professor Gellhorn and by Professor John D. Millett

of the Department of Public Law and Government. When surveying the curriculum in 1945, the Faculty resolved that additional work should be offered with respect to intra-governmental legal affairs, as well as problems involving the private citizen's relation to governmental activities. The Seminar in Governmental Administration has been planned accordingly.

The subject of administrative law, as it has been taught at Columbia and elsewhere, has had to do principally with judicially-enforcible restrictions upon administrative action. Important as these matters are, they do not fully reveal how administrative judgments are formed in the first instance. Yet, as the experience of modern practitioners has proved, the lawyer whose clients are affected by administrative activity must understand the principles, policies, and standards of the agencies themselves if he is to be significantly successful. This is equally true as to private practitioners and government lawyers. The Seminar in Governmental Administration has attempted for this reason to emphasize planning rather than litigation, though of course planning must be done with an eye to possible later litigation. The instructors have sought throughout to stress policy development, with respect to both procedure and program, not so much in terms of the permissible legal minimum (which is, in the last analysis, the central issue in most administrative law cases), but rather in terms of the wisest course of decision, all factors considered.

The problem method of instruction has been employed. The instructors have stated the facts of a situation, have indicated a desired end result, and have then left to the students the discovery and development of the relevant legal and non-legal materials. The problems have involved the practising of numerous skills, including the drafting of regulations and statutes, the writing of briefs, the preparation of a trial memorandum, and the representation of parties in formal hearings. Among the many topics which the course has touched upon are legal aspects of control over government funds, property, and personnel; administration of a social insurance program; the scope of municipal authority, under a modern charter, to deal with problems of racial discrimination; Federal-State-City relationships in the execution of public housing programs; the planning of programs to enforce regulatory laws; the conduct of a hearing in a labor relations controversy; the interplay of international

and national considerations in shaping this country's policies with reference to air transport; and the scope of governmental authority over radio program content.

The interest in this course and in the Seminar in Selected Legal Problems, to which I have already referred, warrants continued experimentation with the use of the problem method of instruction in lieu of the more conventional casebook method.

The manuscripts for Professor Michael's new casebook in first-year procedure and Professor Hays' new casebook in advanced procedure, discussed in my report for 1943, have been used in mimeographed form. Both books will be published next year. The publication of Professor Hays' materials in labor law, also in mimeographed form, will be delayed in view of important changes now taking place in the laws relating to labor unions and their activities. A revised edition of these materials will be prepared next year.

GRADUATE WORK

During 1946 the applications for admission to graduate work in law exceeded the number which could be accommodated, in view of the greatly increased numbers of students admitted to undergraduate work. The Faculty Committee on Graduate Instruction selected for admission an exceptionally able group of graduate students in law. Eight candidates for the doctor's degree and six candidates for the master's degree were admitted for the academic year 1946-1947. Of this number three doctoral candidates and one master's candidate elected to specialize in International Law, a much larger proportion than in prewar years. In addition to these degree candidates, two foreign legal scholars were in residence during 1946-1947: Professor Keerza Mo Joel, of the South-western Associated University of China, who came to the United States to study the American case-law system; and Miss Helga Pedersen, formerly an assistant in the Danish Ministry of Justice, who, having a fellowship awarded by the American Association of University Women, came here to study American penal methods and penal institutions. Professor Joel was awarded a Special Fellowship in Law and was given the privileges of a Visiting Scholar.

"Delinquent Girls in Court: A Study of the Wayward Minor Court

of New York" is the title of a book by Professor Paul W. Tappan, of New York University, which was published in 1947 by the Columbia University Press as his dissertation for the degree of Doctor of the Science of Law. The Foreword is by Professor Karl N. Llewellyn. The book is a valuable study of the importance of legal process in the attempt to arrive at projected social goals.

THE LAW LIBRARY

During the last twelve months 8,922 bound volumes were added to the Law Library, the largest increase of any of the last fifteen years, bringing the total collections to 269,437 volumes. These include about 146,000 volumes in Anglo-American law, with approximately 31,000 textbooks; 82,000 volumes in foreign law; 30,000 volumes in international law; 10,000 volumes in comparative law, jurisprudence, biography, and bibliography; and about 3,000 rare volumes which are kept in the Treasure Room.

Before 1939 long-continued efforts had succeeded in completing most of our sets of foreign laws, periodicals, and commentaries. Now that communications with most European countries have been reopened, efforts have been renewed to repair the damages of war. The Law Library is a party to both official and unofficial coöperative compacts relating to the acquisition of material from enemy and occupied countries. This leads to the acquisition of many duplicates, but also ensures the purchase of practically all works published in our field during the war years. It will be a long and tedious process, but it is hoped that in time the library will have as much of this material, either in the original or in photographic reproduction, as it is possible to obtain. Professor Deák, who has been attached to the United States Legation in Berne, Switzerland, continued during the year to send us specific items not otherwise procurable.

Since many of the law classes are held in the large classroom in Butler Library, an auxiliary reading room in that building has been provided for law students. A selection of text and case books is kept there for their use, part of a purchase of multiple copies for law students made necessary by the increased enrollment. This serves to reduce the overcrowded conditions now prevailing in the Law Library in Kent Hall.

In order to meet the heavy demands upon the library, the staff has been substantially enlarged. Last autumn the Associate Law Librarian, Stanley L. West, resigned to become Director of Libraries of the University of Florida. He was succeeded by Mr. Harry Bitner, returning from service in the Army of the United States in the European theater. Mr. Bitner was formerly law librarian of the University of Kansas City Law School and for a time was on the staff of the Law Library of the University of Pennsylvania. He is a graduate of the Kansas City Law School and of the University of Illinois Library School.

LAW SCHOOL NEWSPAPER

On April 22, 1947, the first issue of *Columbia Law School News* was published. The establishment of the newspaper, which is published every two weeks, was the result of student interest in providing a medium for keeping our large student body and our alumni informed about the School and about each other. I am confident that the publication of this newspaper will prove to be a valuable addition to the activities of the students and will also serve to keep our alumni and other members of the profession advised as to important developments in the School. The Standing Committee of the Alumni Association of the Law School not only aided in financing the newspaper during its first few months, but plans are now being made whereby the newspaper will be sent to all members of the Alumni Association. While the newspaper will be a student-controlled publication, its financial affairs will be supervised by a Board of Trustees consisting of Louis M. Loeb, '22, Albert G. Redpath, '22, Standish F. Medina, '40, Professors Noel T. Dowling, '12, and Willis L. M. Reese.

LAW REVIEW

Because of the large number of students now making high law school grades, the Law Review has increased the size of the Editorial Board from thirty to forty-five members. The Review has also returned to its prewar schedule of publishing eight numbers per year. The *Review* is at present in excellent condition and the recent numbers reflect the high quality of the present Board.

MOOT COURTS

I am glad to report that with the return of our students, the moot courts, which had been inactive during the war, have been revived. Fifteen moot courts, representing 608 students, are now participating in trials and arguments. Eighty judges and lawyers drawn from our alumni served as judges in these arguments this spring. It is expected that by next autumn the finals in the Harlan Fiske Stone competition will be held.

GEORGE Z. MEDALIE MEMORIAL

During last year a committee of alumni headed by Harold Harper, '07, raised a fund of \$28,041.95 through subscriptions by the friends of the late Judge George Z. Medalie, '07, which was given to the University to be used in furnishing a Moot Court room in the Law School as soon as the School obtains the additional building needed for its development. No more appropriate memorial could be established to honor the memory of George Z. Medalie, a great lawyer and a distinguished citizen. A portrait of Judge Medalie has been painted which will hang in the Moot Court room that will bear his name.

BOARD OF VISITORS

The Board of Visitors, appointed by the Trustees, held a luncheon meeting on May 23, 1946. At this meeting Professors Michael and Hays explained the new courses in civil procedure. The next meeting of the Board will be held on May 28, 1947, at which time Professors Berle and Warren will explain the new course in corporations. The members of the Board appointed for the academic year 1946-1947 are: Mason H. Bigelow, '12 Law, New York City; Alger B. Chapman, '30 Law, Albany, New York; Governor Thomas E. Dewey, '25 Law, Albany, New York; Major General William J. Donovan, '08 Law, New York City; Justice William O. Douglas, '25 Law, Washington, D. C.; Walter D. Fletcher, '22 Law, New York City; Judge Stanley H. Fuld, '26 Law, New York City; James W. Husted, '25 Law, New York City; Theodore Kiendl, '13 Law, New York City; Louis M. Loeb, '22 Law, New York City; John M. Lowrie, '12 Law, Galesburg, Illinois; Colonel Alfred Mc-

Cormack (*Chairman*), '25 Law, Washington, D. C.; Robert McCurdy Marsh, '03 Law, New York City; Andrew Penn Martin, '14 Law, Cleveland, Ohio; Walter S. Orr, '15 Law, New York City; Timothy N. Pfeiffer, '12 Law, New York City; Whitney North Seymour, '23 Law, New York City; Justice Bernard L. Shientag, '08 Law, New York City; Stoddard More Stevens, Jr., '17 Law, New York City; Senator Pliny Williamson, '03 Law, New York City; Wallace P. Zachry, '22 Law, New York City.

I regret to report the death of Mr. Zachry on October 9, 1946.

REGISTRATION, SCHOLARSHIPS, AND FELLOWSHIPS

The registration during the Spring Session of 1946 was as follows:

Graduate	14
Third year	95
Second year	119
First year	330
Nonmatriculated and Special	10
	—
TOTAL	568

The registration during the Summer Session of 1946 was as follows:

Graduate	6
Third year	98
Second year	162
First year	341
Nonmatriculated and Special	3
	—
TOTAL	610

The registration during the Winter Session of 1946-47 was as follows:

Graduate	14
Third year	124
Second year	304
First year	362
Nonmatriculated and Special	5
	—
TOTAL	809

In June, 1946, the degree of LL.B. was awarded to forty candidates and the degree of LL.M. was awarded to three candidates. In October, 1946, the degree of LL.B. was awarded to forty-nine candidates and the degree of LL.M. was awarded to two candidates. In February, 1947, the degree of LL.B. was awarded to thirty-seven candidates and the degree of LL.M. was awarded to two candidates.

During the twelve-months period beginning February 4, 1946 and ending February 1, 1947, scholarship aid amounting to \$7,325 was awarded as follows:

<i>Session</i>	<i>Amount</i>	<i>Number of students</i>
Spring Session, 1946	\$2,850	21
Summer Session, 1946	1,525	12
Winter Session, 1946-47	2,950	18

For the academic year 1946-1947, eight graduate fellowships were awarded with stipends aggregating \$8,500.

Respectfully submitted,

YOUNG B. SMITH
Dean

May 10, 1947

Columbia University

IN THE CITY OF NEW YORK

Report of the Dean of the School of Medicine

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1946



COLUMBIA-PRESBYTERIAN MEDICAL CENTER

168TH STREET AND BROADWAY

NEW YORK 32, NEW YORK

PRINTED FOR THE UNIVERSITY BY
COLUMBIA UNIVERSITY PRESS

FACULTY OF MEDICINE
REPORT OF THE DEAN

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1946

To the Acting President of the University

SIR:

I have the honor to submit the annual report of the activities of the School of Medicine for the academic year 1945-1946. Due to the accelerated program, the degree of Doctor of Medicine was awarded on March 28, 1946, to 113 candidates.

For the period July 1, 1945, to June 30, 1946, students were enrolled in the regular course of instruction for the degree of Doctor of Medicine as follows:

First year (which entered October, 1945)	114
Second year	113
Third year	115
Fourth year	116

The war-time schedule of acceleration of medical and dental teaching has been completed during the year and the peace-time program will go into effect July 1, 1946, with certain modifications in the prewar calendar of instruction in the clinical years.

There were approximately 1,200 applicants for admission to the class beginning October 4. These applicants had prepared in 223 different colleges and universities. The class admitted October 4 has prepared in forty-six colleges. The graduating class of March 28 obtained internships in forty-two different hospitals in all sections of the country. Twenty-three students who were registered under the Graduate Faculties of the University took their work at the Medical School during the year.

In the School of Public Health the registration was as follows:

M.S. candidates (Hospital Administration)	24
M.P.H. candidates	37
Special students	23

The registration in the School of Nursing was as follows:

First year	112
Second year	101
Third year	107
	<hr/>
Total	320

In the course for Occupational Therapists forty-nine students were registered and thirty-four students registered for the course in Physical Therapy.

The Dental School registration was as follows:

First year	21
Second year	47
Third year	45
Fourth year	43
	<hr/>
Total	156

In addition to the degree of Doctor of Medicine the following degrees were awarded:

Med.Sc.D.	2
M.P.H.	28
M.S. (Public Health)	1
B.S. (Nursing)	83
B.S. (Physical Therapy)	3
B.S. (Occupational Therapy)	4

The Dr. William Perry Watson Prize, given to the member of the graduating class showing the most efficient work in the study of the diseases of infants and children during the medical course, was awarded to Drs. Russell S. Boles, Jr. and William R. Watson of the class of March, 1946. Dr. Lillian Recant, class of March, 1946, was given the Janeway Prize, awarded to the graduate who, in the opinion of the Faculty, has ranked highest in efficiency and ability.

With the end of the war-time program of student selection and assignment by the Army and Navy, the problems of peace-time admission here has returned. The number of applicants already is high (many times the number of annual openings in the first year class). With the liberal

provisions of government aid for ex-servicemen, the applications in the near future will be even greater. Dr. Aura E. Severinghaus has continued as Chairman of the Committee on Admissions, a responsible, arduous, and important office. Since the most important factor in medical education is the student, wise selection is vital to the future of the School. Only a small fraction of those applying can be accommodated and there are bound to be many disappointed applicants.

Certain changes in the curriculum of instruction are indicated. The Committee on Curriculum, of which Dr. Severinghaus is also Chairman, has been studying the problem during the year. Its recommendations are being put into effect, especially in the clinical teaching and integration, which will further strengthen the education of up-to-date physicians.

Due to the curtailment of the Army Specialized Training Program and the Navy College Training Program, there was more need for scholarship aid this year. An average grant of \$525 was made to twenty-eight students. A considerable number of future students will probably be eligible for benefits under the Servicemen's Readjustment Act of 1944, although many students may exhaust their allowances while still in college preparation. A few will be eligible for benefits under Public Law 16 and state veterans' scholarships. With the increased tuition and higher living expenses, however, the need of scholarship assistance will continue great, especially in the case of highly desirable candidates who have limited resources.

Dr. George A. Perera, physician in charge of the Student Health Service, reports that the basic functions of this Service have not changed. He and his small staff cared for a total medical and dental student body of 608 and forty-two graduate students. The usual routine care of all these students was covered in a highly satisfactory manner and includes complete physical examinations for all first year medical and dental students, routine chest x-rays for all first, fourth and transfer medical and dental students, daily consultation hours, home and emergency visits, all kinds of diagnostic and therapeutic tests, health certificates and Wasserman tests, as well as maintenance of student health records.

Dr. Perera concludes his able and understanding direction of the Student Health Service as of June 30. He will assume other duties in

the Department of Medicine. Dr. Albert R. Lamb will succeed him as Physician in Charge of the Student Health Service.

It is with deep regret that the following deaths are reported:

Anna V. Hughes, Professor Emeritus of Dentistry, on July 1, 1945

Ethel B. Gutman, Assistant in Medicine and Clinical Chemist, Presbyterian Hospital and Vanderbilt Clinic, on March 6, 1946

Charles M. Griffith, Clinical Professor of Otolaryngology, New York Post-Graduate Medical School, on October 9, 1945

James W. White, Professor of Clinical Ophthalmology and Executive Officer of the Department of Ophthalmology, New York Post-Graduate Medical School, on May 15, 1946

Charles E. Caverly, Assistant Clinical Professor of Obstetrics and Gynecology and Associate Attending Obstetrician and Gynecologist, Sloane Hospital and Vanderbilt Clinic on May 22, 1946

Rudolph Scharf, Assistant in Medicine and Assistant Physician, Presbyterian Hospital and Vanderbilt Clinic, on June 10, 1946

THE GRADUATE AND POSTGRADUATE PROGRAMS

Termination of the war resulted in an unusually heavy demand for both graduate and postgraduate instruction. Thousands of medical officers were released from the military services each month and the majority sought further training leading to specialization and completion of the requirements of the specialty boards or opportunities for reorientation before resuming civilian practice. Training of many of the recent graduates had been interrupted on entering military services. A serious effort has been made by hospitals and medical schools throughout the country to provide for reorientation or completion of their training at the time of their release. Residencies at affiliated hospitals were increased in number and facilities for instruction in the basic medical sciences at the medical schools were expanded.

Opportunity for advanced study in the medical sciences has, for several years, been provided by the University for residents in its affiliated hospitals. In the past, they have entered the laboratories individually or in small groups for various intervals, at different times in the year and on either a part- or full-time basis. Although flexibility in formulation of the

program of study for each individual is desirable and will be continued, increasing demand for instruction required some degree of organization. To meet this demand, a program of instruction covering a period of six months was arranged. It is adapted to the background, previous experience, and interests of each resident and the requirements of the various specialties.

Either research, group instruction, or a combination of the two may be elected. Residents who have the time, background, and interest are encouraged to investigate fundamental problems related to their specialties. The program of group instruction in the basic medical sciences is also arranged on an elective basis. No resident is required to follow a definite curriculum but may register for those courses which are in keeping with his requirements. Instruction is conducted in small groups and on a graduate level. Guided reading, seminars, demonstrations, and laboratory work are the basis for study but the success of the experience depends upon individual effort and sufficient freedom from clinical responsibilities to allow time for independent thought.

This program is in keeping with the trend toward reduction in emphasis on details relating to the specialties in both preclinical and clinical years of the undergraduate medical curriculum and a greater emphasis on the fundamental morphological and physiological principles which provide a sound basis for further study related to the specialties at the graduate level. The response of residents and attending staffs of the hospital to the further development of this program is most encouraging and an indication of an increasing interest in graduate medical education. The broadened and more extensive graduate residency program has been made possible through the generous grant from the W. K. Kellogg Foundation for a four year period.

Approximately two hundred postgraduate continuation courses for practicing physicians were offered at the New York Post-Graduate Medical School, the Mount Sinai Hospital, Montefiore Hospital, and other affiliated institutions during the year. Practically all classes were filled to capacity. Although the majority of veterans were admitted to courses previously in operation, a temporary program of instruction of two to six months was organized for graduates of the College of

Physicians and Surgeons and former residents in affiliated hospitals. These physicians were admitted to the wards, clinics and laboratories at the Medical Center and Bellevue Hospital, attended conferences, rounds and other activities and were encouraged to take part in the medical life of the services to which they were assigned. This type of instruction could never be carried out on a large scale but it provided an excellent review during the transition period between military service and civilian practice.

In response to the request of the Veterans Bureau, the Faculty has joined with the other medical schools of the City in a Deans' Committee which has the responsibility of organizing and directing the teaching and resident staff of the Kingsbridge Hospital, one of the largest Veterans Administration general hospitals. The whole plan is now operating admirably and affords assurance to ex-service patients there of the highest quality of medical, surgical, and specialty services and at the same time offers excellent opportunities for further training of about one hundred hospital residents, all former medical officers.

During the past year, postgraduate courses were given to 2,243 physicians, including thirty-five army officers. The enrollment was as follows:

<i>Hospitals</i>	<i>Number of Registrations</i>	<i>Number of Doctors</i>
Mount Sinai	622	418
Montefiore	618	246
Bellevue	21	21
Margaret Hague	64	64
Medical Center	154	153
New York Post-Graduate	1,896	1,220
New York Eye and Ear Infirmary	140	121
Total	<hr/> 3,515	<hr/> 2,243

POSTGRADUATE DENTISTRY

To help meet the demands, a program of postgraduate studies was set up under the direction of Professor Daniel E. Ziskin. Heretofore, oppor-

tunities for graduate study in the School of Dental and Oral Surgery were limited to the specialties of Orthodontics and Oral Surgery, with emphasis on clinical practice. During the year 1945-1946 these courses were augmented to include more basic training in related fields, and lectures and clinics by the staffs of various departments of the Medical School. The practical aspects of the teaching were strengthened by the re-arrangement of schedules. The biological aspects of each subject were stressed. In addition, new courses were established in Periodontology and General Restorative Dentistry. Here also the basic sciences and relevant medical subjects constituted an important supplement to the clinical training. These courses lead to a Certificate of Training. The Orthodontics course covers a period of fourteen consecutive months; Oral Surgery a calendar year; and, Periodontology and Restorative Dentistry an academic year.

A comprehensive schedule of refresher courses, varying in duration from two weeks to four months was offered. During the year, thirty-six students were admitted to the long-term courses, and 128 to refresher courses. In the former group there were twenty-seven veterans and in the latter, 111. Because of limited physical facilities and insufficient trained personnel, a large number of applicants were denied admission. Wherever possible, former servicemen were given preference.

The Board of Trustees of the University granted funds for the inauguration of fellowships for graduate dentists in six basic medical sciences, for the purpose of encouraging and developing well-qualified dental teachers and research workers. Each fellowship requires two years of study and carries an annual stipend of \$2,000. These awards should be invaluable in stimulating closer integration of dentistry and the basic sciences.

Dr. Vernon W. Lippard, Associate Dean and Associate Director of the New York Post-Graduate Medical School, has resigned effective early next fall to become Dean of the Louisiana State University School of Medicine at New Orleans. He has made an important place for himself in the University program and, especially since his return from the Pacific theater, he has done a splendid job in organizing long and short

courses of retraining for returning medical officers. He will be greatly missed but goes to his new post with the best of wishes from a host of Columbia, Presbyterian, and Post-Graduate friends.

A major change is that occasioned by the retirement as of June 30, 1946, of Professor Benjamin P. Watson, Executive Officer of the Department and Director of the Services of Obstetrics and Gynecology. Dr. Watson has done much to make the Department one of the outstanding teaching and research units anywhere. His instruction of students and residents has been an outstanding achievement. His retirement, as that of Dr. Whipple, is a matter of profound regret but the whole Center is proud of their accomplishments and grateful for their invaluable help in building the present program. Dr. Howard C. Taylor, Jr., a graduate of this School and Professor of Obstetrics and Gynecology at New York University Medical College, has been nominated to be Dr. Watson's successor. Dr. Taylor has a national reputation in his specialty and brings to his Alma Mater a rich clinical and scientific preparation which promises to carry forward the finest tradition of the Department and the Sloane Hospital for Women.

Professor Allen O. Whipple has indicated his wish to retire next September 30 from the Professorship of Surgery and Executive Officer of that Department and Director of the Surgical Service in the Presbyterian Hospital. Dr. Whipple has made many noteworthy contributions to the development of the Medical Center and to American surgery. As a teacher, leader, and personal inspiration to his associates, old, young, and students, Dr. Whipple has no superior anywhere. After a thorough canvass of available men, the Faculty has recommended Dr. George H. Humphreys II as his successor. Trained at Harvard and the Medical Center, he brings to the post the highest promise of superlative surgery, a keen interest in teaching and a broad understanding of the opportunities in his field.

Dr. William Henry Woglom, Executive Officer of the Department of Cancer Research, is also retiring at the end of the year. Professor Woglom has carried on many researches in the cancer field and has taken a prominent part in the editorial supervision of publications on the subject. Few men are as well informed in this baffling area of science as he.

The retirement of Professor Charles F. Bodecker of the Department of Dental and Oral Surgery after nearly a quarter of a century of active research in dentistry is reported. He has made many important discoveries which have brought out clearly the close interdependence of the medical, dental, and the health services.

Professor Phillips Thygeson, Executive Officer of the Department of Ophthalmology, on leave in the military service, has resigned to enter private practice. Professor John H. Dunnington has been made Executive Officer and Director of the Ophthalmology Service of the Presbyterian Hospital.

CURRENT TRENDS IN MEDICAL CARE

Medicine today is in a stage of rapid evolution, accelerated by the phenomenal growth of medical knowledge during recent years and by growing public concern over the health of the population as a whole. In the long-term, over-all appraisal of the resources of our nation, there is general agreement that the health and vigor of the individual and of the entire population are vital assets of the entire country, as well as the concern of every citizen and family. The contributions of medical knowledge to the maintenance, protection and improvement of health are widely recognized. Additions to that knowledge have been greater in the last fifty years than in the previous four thousand. At the risk of oversimplification in such a brief presentation as this, attention should be called particularly to several important current trends in medical care.

Medical knowledge is now so complex and requires so many different skills that no single individual can possibly master the entire field. The development of specialization has been inevitable and, within limits, desirable. Complete medical service can no longer be rendered by an individual physician alone. The necessity of cooperation between specialists in the care and treatment of many illnesses and in many phases of individual preventive medicine suggests some form of group responsibility and coordination of the services and knowledge required for the care of a given patient. In keeping with this principle one of the first improvements in the teaching program of the School has been the inauguration of group practice instruction in the Vanderbilt Clinic for

all fourth year students, as urged in previous reports of the Dean. The plan is working admirably and adds materially also to the services rendered by the staff and clinic to patients coming to Vanderbilt Clinic.

Associated with the necessity of some form of coördinated or group practice is the increasing emphasis upon comprehensive rather than limited medical care, restricted usually to surgical conditions and obstetrics which represent only a small fraction of the medical needs of individuals or families. The coverage should be not only comprehensive for the individual but should include the entire family of dependents. Included in such comprehensive services should be preventive medical services, as well as curative and restorative procedures.

It is widely agreed that the general community hospital of the future will be the base of modern medical service. It must include not only laboratories equipped and manned to provide diagnostic services but increasingly must provide determinations to guide the doctor in the control of therapeutic procedures. It must include an out-patient service for follow-up, rehabilitation, ambulatory and home treatment, much of which if well utilized can relieve the demands for expensive in-patient hospital care. It should gradually provide office facilities for more practitioners who on the basis of "geographic full-time" can greatly increase their effectiveness and service to the community at lowered cost and with greater satisfaction to themselves.

The hospital is the natural center for all forms of professional education of nurses, doctors, dentists, technical aids of every kind, attendants, administrators, and the local general public. In such an environment research into new methods of diagnosis, treatment and prevention can flourish. Specialized hospitals for such conditions as tuberculosis, cancer, other chronic, incapacitating illnesses, contagious diseases, mental disorders, and the crippled and handicapped, maintained from tax sources will be needed and should have the facilities and trained personnel to render the highest type of medical services. General hospitals for the indigent are recognized almost universally as the responsibility of the government.

The establishment of sound hospital group practice units where actually needed throughout the country will have a particular bearing on the

all important question of the distribution of physicians. At present in this country there is one doctor to about 750 persons, an over-all ratio generally regarded as fully adequate if the services of such trained personnel are available when needed. The ratio is two to five times that found in any country in the world previous to the war. The output of the existing medical schools of the country will maintain and even increase that favorable ratio. The problem of providing proper medical services for the population is not that of producing more physicians but of obtaining a better distribution and utilization of existing doctors and future graduates. The solution is in the creation and proper maintenance of hospital centers, wherever the local health needs justify such units.

Young medical graduates, nurses and other trained professional workers will not go into practice in small communities or rural districts unless modern facilities for practice are available. Until such opportunities exist or are created, financial subsidies or other inducements alone will not suffice. It is in such institutions also that young graduates can be more effectively utilized than they are today. Perhaps the greatest waste of medical manpower in our present scheme of medical services occurs in that period of from five to ten years after completion of hospital training when younger physicians are only partly occupied in the early stages of practice.

Mention should be made of the program of the Veterans Administration which is now charged with the responsibility for certain types of medical care for over 19,000,000 ex-service men and women. Should future Congresses extend the existing provisions to non-service connected disabilities and to the dependents of present beneficiaries, there will be a potential 60,000,000 persons involved. These possibilities make most urgent the earliest possible development of sound, community-wide programs of medical care for the entire population.

In appraising the needs for medical care, it is important to keep in mind that the character of medical services in this country has changed appreciably in the past twenty-five years. A generation ago a large part of the problem was the control of contagious diseases which attacked particularly children and young adults (diphtheria, typhoid fever, tuberculosis, smallpox, and the diarrheal diseases of children, as examples).

Many of these causes of death and illness have now been brought under control or practically eliminated. Thousands of individuals now live to middle or old age as a result of the control and prevention of these crippling and killing diseases of early life, which explains in large part the sharp alteration in the age distribution of the population. Today the major problems of medicine are those of middle and later life, of chronic diseases, early diagnosis and preventive therapy, the correction of disabilities, often chronic, and the rehabilitation of handicapped individuals through vocational, psychological, educational, and medical treatment.

Illness is unpredictable for the individual and is highly uneven in its distribution in the population. In rough figures, fifty per cent of the total cost of medical care is at present carried by about ten per cent of the population. Perhaps four per cent of the families of the country bear more than one-half of the total cost of hospitalization and surgical treatment. On the other hand, the total cost of adequate medical services is not high in comparison with other expenditures in the national economy. The problem involved is that of spreading the total cost of medical care over a large fraction of the total population and over a long period of time. This involves the principle of insurance, so widely recognized in this country in other than health fields and first enunciated in the area of social security in the French Convention of 1794.

The program of insurance against sickness and the results of incapacitating illness for self-supporting persons is recognized everywhere as only a part of the larger social concept. It represents a part of the effort of employed persons for security, particularly for the wage earner, which also includes protection against such risks as old age, provisions for widows, orphans, or other survivors, temporary or permanent disability, unemployment, maternity benefits, and, more recently, hospitalization to which the employed person is liable. Originally, the object was to distribute the purely economic burden of illness over a large segment of the population. This consisted of payment for time lost and led to the development in the health field of "cash benefits" for illness, disability, and unemployment because of illness. This was shortly supplemented by "benefits in kind," comprising largely provisions for restoration, treatment, and the cure of sickness and injury and not just compensation

alone. More recently the emphasis has been increasingly placed upon prevention.

It is interesting to note that many of the present recommendations and efforts of the medical profession and other groups in this country in dealing with prepayment medical care programs have ignored the actual experiences abroad. As an example, the proposals by the medical profession are on a "cash benefit" basis for partial medical services on a fee-for-service remuneration rather than on the provision of comprehensive "benefits in kind." These methods are quite contrary to the best experiences and evidence here and elsewhere that would indicate that the proposals are already known to be impractical and unworkable.

Many of the policies being written by medical society programs are almost identical with the policies written by the commercial casualty indemnity companies. It is difficult to see why the medical profession is entering into a field of indemnity insurance already covered expertly by some of the leading insurance companies in this country. The only justification for the medical profession entering into the insurance business is to provide "benefits in kind" in the nature of comprehensive, adequate medical services, leaving the cash indemnity business to the commercial companies.

Another consideration of importance is that of the administrative responsibility in the conduct of prepayment medical services. The medical profession insists upon the control of any medical service program. It is obvious, however, that the responsibility for providing adequate medical care for the country is not merely a professional responsibility. Any adequate plan must embrace the interests of labor, business, and the public as well as the professional groups. Industry, banking, labor, the medical and other professions, the hospitals, public administration, and other interests should be represented. The purely professional matters must, of course, be left in the hands and to the judgement of the doctors and other professional workers who by training, skill, and experience are qualified to make the best decisions regarding professional services.

The country needs wise, courageous leaders in medicine, coöperating with industry, labor, and the public to meet the health needs of the country and avoid the errors and mistakes of other health service pro-

grams such as have been developed in the last sixty years in Europe. We must develop plans which will be suitable to the needs of American society under the guidance and direction by professional personnel on professional matters. There is every reason to believe that with patience and consideration of the complex adjustments that have to be made in the development of a medical service program adapted to the needs of present day society, the medical profession will be able to make a contribution of the greatest importance to the welfare of the country. If the profession is prepared to provide the necessary leadership and guidance, there is every reason to suppose that in substantial measure it will be able to remain in the position of determining the broad, over-all professional policies.

THE OBJECTIVES OF MEDICAL EDUCATION AT COLUMBIA UNIVERSITY

Since the creation of the Faculty of Medicine of King's College which after the American Revolution was incorporated into what is now Columbia University, the policy in regard to medical instruction has been the production of the highest possible quality of doctors for the practice of medicine and public health for the country. Graduates of the Medical School have played their part in medical affairs in national, state, and local health services for generations.

It has always been the policy of the Faculty of Medicine to select for admission those applicants who show the highest promise of becoming sound, ethical, well-trained, and competent practitioners of medicine and leaders in the medical profession, with constant emphasis on their responsibility to the medical needs of the country. Since the development of the outstanding facilities, resources, and teaching-research staff of the Medical Center, the Medical School has been recognized more widely as a national institution serving national needs in the training of doctors for practice, research, and public services.

In view of this broad policy, the selection of students, as stated in the Announcement of the College of Physicians and Surgeons for years, has placed emphasis upon those "who are most likely to succeed in medicine rather than to those who present the highest number of course credits or who have limited their preparation to the premedical sciences." Every

effort is made in the selection of students to admit those individuals who, in addition to evidence of intellectual capacity and achievement in the premedical courses of recognized colleges, have the character, personality traits, industry, resourcefulness, intellectual self-reliance, and maturity to assume responsibility in matters of life and death.

For a period of years the number of applicants for admission has been in the neighborhood of 1,500 every year. The capacity of the Medical School for adequate instruction is limited to accepting each year approximately 100 students. From the large list of applications every effort is made to select those, who, regardless of race, color, creed, or domicile, most nearly meet the qualifications mentioned above.

If this Institution and the medical profession in general is to render the highest measure of public service to the country in times of war and in times of peace, it is imperative that only the most highly qualified individuals be selected for medical training. This policy is traditional with the Faculty of Medicine of Columbia University and must be continued if the School is to justify in adequate measure its responsibility to produce an annual supply of highly qualified physicians. Any other policy would be against the public interest.

DEPARTMENT OF ANATOMY

Professor SAMUEL R. DETWILER, Executive Officer

Dr. Raymond L. Zwemer, who has been on leave of absence for two years, has resigned as Assistant Professor of Anatomy to continue his duties as Executive Director of the Interdepartmental Committee on Scientific and Cultural Cooperation. Department of State, Washington, D.C.

Dr. George Smelser has been promoted from Assistant Professor to Associate Professor. Dr. Louis Levin, formerly Research Associate in the Department, is returning after a year at the Michael Reese Hospital in Chicago to the post of Assistant Professor. He will work on the chemistry of the steroid hormones in connection with collaborative studies involving the Departments of Anatomy, Obstetrics and Gynecology and Urology. Dr. Moses Diamond, formerly Associate Professor of Dentistry, has been transferred to the Department as Associate Professor of Dental Anatomy and Dr. Edmund Applebaum, formerly Assistant Professor of Dentistry, has been transferred as Assistant Professor of Dental Anatomy. These changes are in keeping with the plan of integrating medical and dental research and teaching announced last year.

Dr. José M. Ferrer, Jr. has been appointed Instructor of Anatomy and will assume responsibilities for Anatomy instruction to residents under the program of Graduate Medical Education and Mrs. Dorothy Z. Kraemer also has been appointed Instructor of Anatomy.

Dr. Bruno Lobo, Professor of Histology and Embryology on the Faculty of Medicine at the University of Brazil, was a guest investigator in the Department for six months. He was sponsored by the Commonwealth Fund. Dr. Cortland O. Robinson, Medical Officer for the Atlantic Division of the Pan American Airways, Inc., has been a guest investigator in the Department and has collaborated in research in experimental embryology with Professor Detwiler.

The Department has carried a heavy load of teaching. The student registration in the various courses for undergraduate medical and dental students, nurses, physiotherapists, dental hygienists, and hospital residents (190) totalled no fewer than 1,070 during the year.

In addition to the full-time staff, the course in Gross Anatomy during the year has had the continuous and capable laboratory assistance of the following clinically trained men who have added materially to the strength of the course: Doctors Emanuel B. Kaplan, John V. Gazzola, J. Ray Bryant, Milton L. Cullen, Richard O. Diefendorf, Charles Herndon, Walter Wesley Miner and Elmer Key Sanders. The instruction given by Professor Robert P. Ball and his associates in the Department of Radiology has proven most valuable to the students.

Dr. Emanuel Kaplan, in addition to his valuable aid in the teaching of Gross Anatomy, has also carried on important researches on the mechanics of the skeleto-muscular system.

Under the auspices of the Division of Cultural Relations of the Department of State, Professor Dan H. Moore was sent to Chile, Peru, Equador, and Mexico where he established biophysical laboratories and gave lectures on the applications of electrophoresis and the ultracentrifuge to the medical sciences.

Professor Herbert Elftman has continued his investigations of biomechanics and has served as consultant for the Committee on Prosthetic Devices of the National Research Council. He and Dr. William B. Atkinson have jointly contributed two chapters to the Raven Memorial Volume on the Anatomy of the Gorilla. Dr. Atkinson has continued his fundamental research on the reproductive endocrinology of the mouse. Professor Elftman and Dr. Atkinson have initiated a program of histochemical investigations on the influence of the steroid sex hormones on the distribution of alkaline phosphatase in the uterus.

Professor Sherwood L. Washburn is continuing his experimental studies upon the cranial form aided by a grant from the Viking Fund. He has also organized a conference under the same Fund of physical anthropologists from various institutions which will convene in the summer.

Professor Harry H. Shapiro has completed a second revision of his textbook on "Applied Anatomy of the Head and Neck." He has continued his researches on Experimental Amelectomy and the Transplantation of Developing Teeth.

Professor William M. Rogers is continuing his researches on degenerating motor nerves in mammals. He has been correlating structural and functional changes occurring at the neuro-muscular junction following motor nerve damage.

Professor Rogers and Dr. Henry Aranow, Jr. of the Department of Medicine have been collaborating on objective methods for studying motor responses and for evaluating the effects of various substances on the neuro-muscular mechanism—clinical and experimentally—on patients suffering from myasthenia gravis.

Professor Raymond C. Truex and Mr. Carl E. Kellner, departmental artist, have been jointly engaged for the past three years in the preparation of an atlas of the human head and neck. The atlas, consisting of approximately 150 half-tone illustrations made from original specimens and dissections, is approaching completion.

Professor Wilfred M. Copenhaver is investigating the factors affecting embryonic blood formation in Amphibians. In collaboration with Professor Detwiler it has been shown that early embryos, subjected to high concentrations of sulfa drugs, exhibit developmental anomalies similar to those reported previously following treatment with O₂ and high CO₂. In collaboration with Professor Truex, a study of the Purkinje fiber conduction system of the moderator band of the heart, has been completed.

Professor Adolph Elwyn has carried his usual heavy load of teaching. In addition to his undergraduate courses, he has given ten lectures to an Army Psychiatric Unit and a series of eighty neuroanatomical lectures to a group of forty-five Residents from various State Psychiatric Hospitals. He has begun work on the second edition of his textbook on Neuroanatomy.

Professors Diamond and Applebaum have been carrying on *grenz-ray* studies of dental caries in human teeth. Their results support the claims of a proteolytic agent as against the generally accepted acid mechanism of this disease. They have made embryological studies concerned with the directions and interrelationship of the growth of the bones in the skull.

Professor Earl T. Engle has continued his studies on hypothyroidism in monkeys. Work on the endometrial cycle, which was largely neglected during

the war, has been reactivated. He and Dr. Charles L. Buxton of the Department of Obstetrics and Gynecology are accumulating significant data on the problem of sterility in women.

Professor Philip E. Smith has carried on his important research on the role of the anterior hypophysis in pregnancy.

Professor Detwiler has been engaged with studies in experimental neuroembryology. A device has been developed for quantitating the locomotor ability of amphibian larvae following the removal of portions of the embryonic brain. The method yields fairly precise data on the influence of the various component parts of the brain upon the spinal motor mechanism. In collaboration with Professor Copenhaver, studies are being made upon the tolerance of amphibian embryos at different stages to various sulfa drugs.

Professor Detwiler has been appointed Associate Editor of the *Journal of Experimental Zoology*.

DEPARTMENT OF BACTERIOLOGY

Professor A. RAYMOND DOCHEZ, Executive Officer

Owing to the exigencies of the wartime teaching schedules, there was some slight diminution in the breadth of the teaching program. A number of graduate students have continued their work in pursuit of the degree of Doctor of Philosophy; seven are at various stages of the required work.

A number of graduate students have continued their work in pursuit of the degree of Doctor of Philosophy; seven are at various stages of the required work.

During the past year the Diagnostic Laboratory performed bacteriological and serological examinations on 56,774 specimens, a slight increase over last year. Acting on the request of the Medical Board of the Presbyterian Hospital, a laboratory was established to provide diagnostic services in connection with the use of penicillin throughout the Hospital. The new penicillin laboratory has also undertaken the performance of anti-streptolysin determinations and diagnostic tests in connection with the use of streptomycin.

Some mention should be made regarding the increasing complexity of both bacteriological and serological procedures in the Diagnostic Service. The titration of Wassermann reactions, the introduction of additional new media for the isolation and identification of bacteria, the wider use of serological tests, and the frequent special examinations done in connection with diseases of suspected viral diseases all add to the responsibilities of the laboratory, but are not reflected in the tabulation of specimens handled.

Professor Rhoda Benham's course in Medical Mycology was given as usual

during the Spring. Out of a total registration of fifteen students, twelve were doctors, and of these six were returned servicemen who were taking graduate work in Dermatology.

Professor Claus W. Jungeblut continued his studies on experimental poliomyelitis with special emphasis on the possibility of obtaining protective effects in monkeys. With Dr. Fritz Kauffmann (from the Statens Serum Institute, Copenhagen, Denmark) experiments were undertaken in guinea pigs to study the effectiveness of various peripheral routes of infections. With Professor Nicholas Kopeloff and Dr. Bernard L. Pacella of the New York State Psychiatric Institute, a study was made of the encephalogram in experimentally infected animals as well as in human cases. With Mr. Harris Karowe and Stanley Braham (third year medical students) the blood group distribution was studied in a series of 220 cases. With Mrs. Alice Knox, a graduate student in this Department, the work on studying murine poliomyelitis virus in tissue culture was continued. Experiments were also run to study the antagonistic effect in mice of two parasympathetic or sympathetic drugs, i.e., atropin and ergotamine, on the course of botulinus intoxication.

Professor Beatrice C. Seegal, together with Dr. Margaret Holden and Dr. Harold Baer has been engaged in the study of an antibiotic occurring in *Anemone pulsatilla*, a member of the *Ranunculaceae*. The active principle, protoanemonin, a gamma unsaturated lactone, may be extracted from the plant or prepared synthetically. It has a wide range of antibiotic activity in the test tube. This work is being aided by a grant from the John and Mary R. Markle Foundation. The studies with Dr. Emily Loeb of the Department of Medicine on the action of cytotoxic serums injected in the rat have continued. In collaboration with Dr. Abbie Knowlton and Dr. Herbert Stoerk studies of the effect of the injection of desoxycorticosterone acetate (Doca) and of adrenal cortical extract upon the blood pressure of rats injected simultaneously with anti-kidney serum have been under investigation.

Professor Theodor Rosebury returned to the Department November 1, 1945. He gave a series of lectures during the third trimester to second, third, and fourth year dental students covering the material of the course. Since this course had not been given during his absence and no place could be made for it in the regular schedule, it was given after hours on a voluntary basis.

During the past twelve months, Professor James T. Culbertson has been concerned chiefly with the experimental chemotherapy of three helminth infections: filariasis bancrofti, schistosomiasis mansoni, and onchocerciasis. The work on filariasis bancrofti and schistosomiasis mansoni was done in Puerto Rico under an O.S.R.D. contract in collaboration with Professors Harry M. Rose, Federico Hernandez-Morales, José Oliver-Gonzalez and Dr. Caroline K. Pratt. Approximately fifty patients (chiefly those treated with

the pentavalent antimony compound neostibosan) have apparently been entirely freed of infection with *Wuchereria bancrofti* as a result of treatment. Of the drugs tested in schistosomiasis, only one (urea stibamine) has yet been found to have a significant effect. The work on onchocerciasis was carried on under a grant from the Winthrop Chemical Company, New York, during February and March 1946 at the Onchocerciasis Hospital, Huixtla, Chiapas, Mexico, in collaboration with Professor Rose and Drs. Francisco Ruiz Reyes, Roberto Nettel, and Angel Zurón. Arrangements for the study were made through Dr. Manuel Martínez-Baez, Under-Secretary of Health of the Mexican Government and Dr. José Zozaya, Director of the Institute of Health and Tropical Diseases, Mexico City.

Professors Rose and Culbertson under an O.S.R.D. contract have continued work on the chemotherapy of filariasis. Of the several compounds tested neostibosan proved to be best tolerated and produced the highest rate of apparent cure.

The question of the possible deleterious effects of antimony on tuberculous infections were examined experimentally. In collaboration with Professor Alfred Gellhorn of the Department of Pharmacology, the plasma levels and urinary excretion of antimony were studied in a series of patients receiving both trivalent and quinquevalent antimonial drugs. In February and early March of 1946, Professors Culbertson and Rose visited southern Mexico and treated a series of patients suffering from onchocerciasis with neostibosan. Sufficient time has not yet elapsed to be able to appraise the results of this therapeutic study.

Studies have been made on the behavior of three strains of herpes virus isolated by primary egg passage and an antigen has been prepared from the allantoic fluids of chick embryos inoculated with herpes virus which has been found to be of value in performing skin tests in human subjects for the diagnosis of antecedent herpetic infections. An anti-viral substance has been found in the sputums of normal persons and of patients suffering from diseases of the respiratory tract. The nature of this substance, which may be of considerable importance in immunity to viral infections such as influenza, is still undetermined, but it does not appear to be an antibody.

The virus work has been carried on in collaboration with Miss Eleanora Molloy. Together with Dr. Richard B. Duane and Dr. Edward E. Fischel a report was made of the successful treatment of a case of Rocky Mountain Spotted Fever with para-aminobenzoic acid. A study was made, in collaboration with Miss Katherine C. Mills, on the serological response of patients with respiratory tract infections during the period December 1945-February 1946. Cases of clinical influenza which were seen during the outbreak in December were all caused by influenza B virus, with one exception, but in

January and February infections with influenza A virus made their appearance.

Professor Charles L. Fox, Jr. has obtained further information, under an O.S.R.D. contract, regarding the so-called "loss of plasma" into injured tissues and infected wounds by electrophoretic analysis, by using radioactive isotopes to trace chloride ions, which suggested that the proteins in injured regions are derived from the tissues rather than from the plasma.

With the generous assistance of the Stamford Research Laboratories of the American Cyanamid Company, a flame photometer, which they had developed for the extremely rapid analyses of sodium and potassium, was built employing lithium as the internal standard. In collaboration with Professor Donovan J. McCune of the Department of Pediatrics, the electrolyte shifts in the course of diuresis following massive sodium lactate therapy in nephrosis were measured and similar studies were carried out in collaboration with Professor Arthur H. Blakemore of the Department of Surgery and Professor George F. Cahill of the Department of Urology. The relation of p. amino-benzoic acid, or a chemically similar metabolite, production to drug fastness in staphylococci is under study with Dr. Harold Baer. With the aid of Dr. Marjorie R. Stetten of the Department of Biochemistry this has been found to be a new substance, 2-hydroxy-5, 6-diaminopyrazine, apparently an important component of folic acid. The possibility that sulfonamide bacteriostasis is a result of interference with folic acid metabolism is under study.

Dr. Ada R. Clark has continued the comparative study of herpetic gingivostomatitis and fuso-spirochetal infections of the mouth. Dr. Margaret Holden in collaboration with Professor Beatrice C. Seegal and Dr. Harold Baer has continued the study of the antibiotic occurring in *Anemone pulsatilla*. The viruses studied—bacteriophage and influenza virus—were not influenced by protoanemonin. This work is being aided by a grant from the John and Mary R. Markle Foundation.

During the past year Dr. M. Maxim Steinbach and Mr. Charles J. Duca have continued their studies of chemicals and antibiotics for possible activity against the tubercle bacillus. These compounds were diazone, thiouracil and N⁷-3, 4-dimethylbenzoyl sulfanilamide. All three showed toxic effects in guinea pigs which precluded their use in human beings. Because of his previous work with promin, Dr. Steinbach has been using this compound, in nebulized form, in the treatment of bronchial tuberculosis in patients at Montefiore Hospital. The promin treatment has so far been very successful in the treatment of this type of tuberculous lesion. Dr. Steinbach and Mr. Duca have also made studies of the activity of streptomycin against tubercle bacilli, and at present are using this antibiotic in experimental tuberculosis in guinea pigs.

Dr. Helen Purdy Beale, in coöperation with Professor Dan H. Moore of the Electrophoresis Laboratory and Dr. Mary E. Lojkin, has tested by the electrophoretic method the purity of six strains and four derivatives of tobacco-mosaic virus.

Mr. Chester Southam, a fourth year medical student, has carried out a study on an antibiotic derived from cedar heart wood. Although the active principle has not yet been identified, the crude extract is not toxic for animals. Mr. Saul Frances conducted respiration studies on bacteria under the supervision of Professor Charles L. Fox, Jr. Miss Lucille K. Georg has prepared for publication results of preliminary studies with the Flaviform group of Trichophytons, "Suppurative Ringworm Contracted from Cattle." Miss Georg, under the direction of Professor Rhoda Benham, is engaged in studies of the growth factors and variations of the Flaviform group of Trichophytons and closely related organisms.

In collaboration with Professor Claus W. Jungeblut, Mrs. Alice Knox studied certain drugs which affect the central nervous system for their power to inhibit the action of botulinus toxin in mice. Mrs. Knox has studied the SK and MM murine strains of poliomyelitis virus grown in tissue cultures of embryonic mouse brains. Mr. Abraham G. Osler is engaged in research studies being conducted in the laboratory of Professor Michael Heidelberger on the effect of various activating and inhibiting substances on the hemolytic activity of complement. Mr. Fred L. Rights has been engaged in research studies on scrub typhus at the Army Medical School under the guidance of Dr. Joseph Smadel.

DEPARTMENT OF BIOCHEMISTRY

Professor HANS T. CLARKE, Executive Officer

There has been no essential change in the personnel of the Department.

Professor Edgar G. Miller has acted as responsible investigator under contract with O.S.R.D. for the work on amino acid analysis of pure proteins, carried out by Professor Erwin Brand and his group. This study, which has provided information of fundamental importance to knowledge of protein structure, has now given exact and complete information as to the composition of three pure crystalline proteins. Under Professor Miller's guidance Dr. Victor Ross has continued his experiments with protamine diphtheria toxoid and protamine tetanus toxoid and on the preparation of "Shick toxin" which will not require the use of a control and should yield more certain results than that employed currently in clinical practice.

Professor Goodwin L. Foster has continued his studies of the application of the isotope dilution method for the amino acid analysis of proteins. Professor

Maxwell Karshan, who is in charge of the instruction of biochemistry to dental students, has, in collaboration with various members of the Department of Dentistry, continued his studies on the etiology of periodontoclasia. Professor David Rittenberg, with Dr. David Shemin and Dr. Konrad Block has further developed the study of intermediary metabolism of amino acids with the aid of isotopic nitrogen and of organic compounds labelled with deuterium. The study of the synthesis of cholesterol from acetic acid by tissue slices has also been continued. An interesting by-product of these investigations has been the demonstration that the porphyrin of hemoglobin is directly produced from acetic acid and glycine, and the determination of the life-span of the human red cell, which proves to be about 125 days.

During the past year three visiting scientists have been associated with Professor Rittenberg's group, Dr. Edgar Shantz of Distillation Products, Inc., Professor Fritz Schönheyder of Aarhus University, Denmark, and Dr. Helge Tyren of the University of Upsala. These visitors have been instructed in techniques which they plan to apply in their respective laboratories. At the instance of Professor Rittenberg, plans have been initiated for the application of isotope techniques to the study of clinical problems in collaboration with members of the Department of Medicine.

Professor Erwin Chargaff has continued his work on lipoproteins and on blood coagulation, with special reference to hemophilia, in which work he has been collaborating with Professor Randolph West of the Department of Medicine. He has completed studies on the nucleic acids of tubercle bacilli, on the antigens of *Proteus* OX-19 and on hydroxypyruvic acid.

Professor DeWitt Stetten, Jr. has completed a study of the effect of insulin upon the metabolism of carbohydrates and fatty acids. He also investigated the mechanism of glucogenesis by determining the deuterium content of glycogen in the liver of rats. In collaboration with Dr. Marjorie Stetten, he has prepared deuterio inositol and demonstrated its metabolic conversion into glucose. A study of the atomic distribution of deuterium in glucose from rats containing heavy water is in progress.

Dr. Robert R. Williams of the Department of Medicine has carried out in the biochemistry laboratories a study of the immunological properties of chemically modified bovine serum albumin. Dr. Zacharias Dische, with the support of the International Cancer Foundation, has continued his studies of aerobic glycolysis in erythrocytes and has developed a new and sensitive color procedure for the indication and estimation of various sugars and related products.

As in previous years, Professor Clarke has devoted a considerable portion of his time to work for the Government arising out of the war emergency. His work as Special Assistant to the Director of O.S.R.D. in connection with the chemical study of penicillin has now been superseded by the task of organ-

izing the publication of the scientific material which has accumulated under this program. He has also undertaken the duties of Chairman of the Antibiotics Study Section of the National Institute of Health.

DEPARTMENT OF CANCER RESEARCH

Professor WILLIAM H. WOGLOM, Executive Officer

Professor Milton J. Eisen resumed his duties in the Department on January 1, 1946, after serving with the Army in the Southwest Pacific for several years. He took advantage of his stay in New Guinea to investigate the results of betel nut chewing, a habit that has been widely credited with causing carcinoma of the mouth. His observations strongly suggest, however, that the actual cause is not the betel nut itself, but rather the lime or tobacco with which it is so often mixed. Professor Eisen's study of the production of sarcoma of the liver by implantation in it of paraffin pellets containing a carcinogenic hydrocarbon was carried on during Professor Eisen's absence by Mrs. Walter Long. Professor Eisen has now in progress an investigation that it is hoped will answer the question whether impaired hepatic function and consequent faulty estrogen metabolism bear any relation to the initiation of mammary tumors, and another on the possibility of inducing immunity in an inbred strain of rats.

Professor Gray H. Twombly has completed and published in association with Miss Doris Meisel his attempt to confirm the statement from another laboratory that a filtrable virus can be recovered from mouse tumors growing in fertile hen's eggs. Professor Twombly was forced to the conclusion that any neoplasms produced with material from inoculated fertile eggs grow from intact tumor cells and are not referable to the presence of a virus. Professor Twombly is conducting experiments on the induction of tumors by a new carcinogen, acetylaminofluorene, in animals stimulated by various types of hormones. He has also under way an inquiry on the effect of x-rays and hormones on transplanted mammary cancer.

Professor Jacob Heiman is continuing his investigation on the effect of the antireticular cytotoxic serum of Bogomolets, a product that has aroused considerable interest of late, upon the growth of transplanted mouse and rat tumors, and the development of spontaneous cancer in mice. Another of his experiments is concerned with the effect of testosterone and progesterone on induced and spontaneous neoplasms.

Professor Edward L. Howes, of the Department of Surgery, has completed and published his experiments on the early stages of carcinogenesis, which show differences between the connective tissue reaction in susceptible and

insusceptible animals, and has begun an inquiry on the relation between diabetes and malignant growth, employing methods that were not available when this subject first came under experimental investigation several decades ago.

In many different laboratories, and with many different methods, the cancer cell has been shown to be deficient in calcium. Whether this is a cause or an effect of its malignant nature is not known, but the clue is well worth following up with an eye to treatment. Hence for many years Professor Woglom has been trying to introduce this element into the tumor cell, but always without success. The Department is fortunate in having enlisted the interest of Dr. Zacharias Dische of the Department of Biochemistry, who will collaborate in this study.

Dr. Louis Herly is continuing his work on the virus problem. He has extended his observations on the primary fluorescence of human tumors, at first concerned principally with mammary neoplasms, to include all available human material. Identification of the agent responsible for this fluorescence awaits chemical collaboration.

Dr. Richard Jahiel, a volunteer worker in the Department, is interested in the perennial question of tumor immunity. On the working hypothesis that the cancer cell may prove to be, after all, in a sense a foreign cell, Doctor Jahiel is employing more delicate methods than have hitherto been used in an attempt to induce an immune reaction.

Professor Woglom will retire on June 30. His uncompleted experiments include a study of regressing spontaneous mouse carcinomas and of the repeated transplantation of tissue into the animal from which it was derived. In keeping with his University retirement, Professor Woglom has resigned as a member of the Scientific Advisory Committee of the International Cancer Research Foundation, now the Donner Foundation, Incorporated, Cancer Research Division, and also as Editor of *Cancer Research*, which will move to Yale University where it will be edited by Dr. Stanhope Bayne-Jones.

The following firms have generously supplied pharmaceutical products for experimental purposes: The Squibb Institute for Medical Research, The Schering Corporation, Ciba Pharmaceutical Products, Incorporated, and Roche Organon, Incorporated.

DEPARTMENT OF DENTAL AND ORAL SURGERY

Professor BION R. EAST, Executive Officer

During the academic year 1945-1946, there were 369 students registered in 379 classes or courses in the School of Dental and Oral Surgery. Their distribution according to class or course appears in Table I.

TABLE I

*Distribution of 379 Registrations during Academic Year
Dentistry, Undergraduate*

Freshman	21
Sophomore	47
Junior	45
Senior	43
	<hr/>
TOTAL	156

Dentistry, Certificate in Training

Orthodontics	28
Oral Surgery	4
	<hr/>
TOTAL	32

Dentistry, Special Courses

General Dentistry	16
Prosthetics	11
Orthodontics	81
Periodontology	27
Pedodontics	1
Oral Surgery	6
	<hr/>
TOTAL	142

Course For Dental Hygienists

Dental Hygiene	49
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The total number of registrations is significantly greater than in any previous year. The increase which occurred in the postgraduate courses reflects the interest of the dental veteran better to equip himself for civilian practice and also the civilian practitioner to improve his knowledge of the newer advances in dental education. While the greatest number of students were residents of New York, it is of interest to note that the student body included individuals from thirty-four other states and foreign countries. The relatively large and varied program of postgraduate dental education has been conducted under marked handicap, largely because the physical facilities of the School are inadequate.

In order better to meet the administrative problems of the Department resulting from an increased student enrollment, a separate Admissions Office was established and has functioned smoothly under Professor Houghton Holliday, Chairman of the Committee on Admissions.

DIVISION OF RECORDS AND PERSONNEL

Not only is the Department responsible for giving instruction and opportunities for research in dentistry as a specialized branch of medicine, but it operates a large clinic where the student receives clinical instruction. This clinic is comparable to the out-patient department and ward services of a hospital where medical students receive a significant part of their training. The conduct of the clinic involves the registration of patients, keeping of clinical records and collection of patient fees and the procurement of thousands of various essential articles of equipment and supplies. To center responsibility for the management of the clinic, a Division of Records and Personnel was established. Professor Irvin L. Hunt was placed in charge of the new division on July 2, 1945, and made superintendent of the clinic.

An important accomplishment during the year has been the introduction of a master clinic record to replace the multiple records which were formerly maintained by the several divisions. This has been effected with all patients attending the dental clinic except those referred by Vanderbilt Clinic and Presbyterian Hospital. It is anticipated that a mutually satisfactory working arrangement regarding records between these two hospital agencies and the dental school will soon result.

A second development has been the setting up of an employment policy whereby the clerical and technical personnel will be fitted into definite ratings where a salary will be set for each rating. Advancement in salary will occur according to satisfactory service and tenure of position.

DIVISION OF ORAL DIAGNOSIS

The teaching program of this division was expanded during the year by the introduction of graduate studies embracing both clinical and didactic instruction. The personnel of the division was strengthened by assigning Professor Lewis R. Stowe to full-time duty in the division. In addition to a continuation of the various research projects mentioned in the 1945 report new problems were undertaken as follows: An elaboration of a study of the effects on the oral structure of the implantation of estrogen pellets in dogs—Professor Daniel E. Ziskin in collaboration with Professor Edward V. Zegarelli; A study of the results of penicillin tablets taken by mouth in the treatment of acute Vincent's infection and other infections of the jaws—Professor Ziskin in

collaboration with Professor Stowe and Dr. Ada R. Clark of the Department of Bacteriology.

DIVISION OF OPERATIVE DENTISTRY

The vacancy which existed as head of this division at the beginning of the year was filled by the promotion of Dr. Carl R. Oman to full Professor and Head of the Division. Although the division has been handicapped because a number of its staff were still on military leave of absence, Professor Oman successfully reorganized the staff and its teaching methods.

Indicative of the esprit de corps of this division was the formation of a study club at the request of the staff members. At these sessions, all material pertaining to the teaching of operative dentistry is considered and discussed. Each demonstration is followed by various members of the teaching staff going into the clinic and performing the respective operations on clinic patients. This has tended to introduce uniformity in teaching methods which eliminates confusion in student teaching and should be of assistance in developing young teachers.

In September, 1945, Dr. Milton R. Miller, Assistant Professor, resigned. Dr. Daniel M. Kollen was appointed Assistant Professor and placed in charge of the teaching of root canal therapy. Dr. Bernard O. A. Thomas, Instructor in Dentistry, resigned to become Assistant Professor and Head of the Department of Oral Pathology in the new dental school of the University of Washington.

Dr. Kollen gave a postgraduate course in root canal therapy for the First District Dental Society. Drs. William J. Miller and Edward Cain are working together with the division head on a Syllabus to be distinctive of Columbia University operative technique. This will probably be ready for use in September, 1946.

PROSTHETICS DIVISION

Dr. Gilbert P. Smith was appointed a full Professor and Head of the Division on October 1, 1945, and continued the program as previously set up. The reduction in the staff and the accelerated program have taxed the time of the division and have precluded much activity other than that pertaining to lecture, laboratory and clinical routine. The resignation of Professor Earle B. Hoyt as Head of the Division and the decisions of Associate Professors Harry A. Young and Donald J. McLaughlin to reduce their schedule from full- to half-time necessitated the complete reassignment of lectures and technique courses. Under the leadership of Professor Smith, changes in pro-

cedure in prosthetic teaching, administration, and a new system of clinic records have been developed.

It is a satisfaction to report that Dr. Max A. Pleasure and Dr. Saul Misheloff were added to the prosthetics staff during the year. Dr. Pleasure is a well-known prosthodontist and Dr. Misheloff is a graduate of Columbia who is recognized by the profession for his excellence in the field of restorative dentistry. At the request of the New York State Health Department, a post-graduate course was arranged in surgical prosthesis for dentists practicing in upstate New York. The Health Department paid the tuition fee and a stipend to the student for subsistence while taking the course. Professor Smith was assisted in this particular postgraduate course by Dr. Oscar Beder and Dr. Louis A. Saporito. Dr. Saporito is a member of the Executive Council, County Prosecutor and Chairman of the Board of Censors of the Essex County Dental Society and a Trustee of the New Jersey State Dental Society.

ORAL SURGERY

Dr. Henry S. Dunning, who was one of the founders of the School of Dental and Oral Surgery, Professor of Dentistry and Head of the Division of Oral Surgery for many years, retired on June 30, 1946. Dr. Dunning retains his interest in the School and has been appointed Professor Emeritus of Dentistry.

During the first few months of the present academic year, Dr. Douglas B. Parker directed the division. In October, Dr. Maurice J. Hickey was appointed Professor of Oral Surgery and Head of the Division. Professor Hickey brings to the division outstanding preparation, both professional and administrative.

Under the present system of clinics, the students devote the morning session to exodontia without the distraction of oral surgery. The afternoon is devoted to lectures and demonstrations of the diagnosis and treatment of oral surgery cases. Senior students are being used as assistants at all maxillo-facial operations performed in Presbyterian and Babies Hospital operating rooms. The purpose behind this innovation is to acquaint students with the technique and conduct required in an operating room. Arrangements have been made with the Neoplasm Clinic of Presbyterian Hospital to have all new oral neoplasms sent to oral surgery for examinations and biopsy. This has provided a larger volume of oral carcinomas for presentation to the students. If the integration of the faculties of medicine and dentistry resulted in no further benefits than have been outlined in the activities of the division of oral surgery, it was truly worthwhile. The training of postgraduate student candidates for the certificate of training in oral surgery has been expanded by affiliation

with the dental surgery departments on Mount Sinai and Montefiore Hospitals.

PERIODONTIA

The Periodontia Division, under the direction of Professor Harold J. Leonard, has carried the usual program of undergraduate training and has expanded its teaching program of postgraduate students. This has included special courses for dentists who wish to specialize in periodontia as well as giving instruction to postgraduate students who are registered for courses in oral surgery, orthodontics, and restorative dentistry.

Professor Leonard served as Secretary-Treasurer for the American Board of Periodontology and Advisory Board for Dental Specialties, Advisor to the Committee on Specialties of the Council on Dental Education of the American Dental Association, Chairman of the Periodontia Section of the American Association of Dental Schools, Vice-Chairman of Periodontia Section of the American Dental Association.

A two weeks full-time course was given to sixteen dentists in June. Several well-established periodontists were included in this group, members of which came from eleven states and Cuba.

A full-time academic year course leading to a Certificate of Training has been organized and will be ready to start in September, 1946. The School is believed to be the first to organize and offer such a course which may serve as preparation for dentists who wish to specialize in Periodontology and to qualify for certification by the American Board of Periodontology.

Research is going forward in continuation of the animal and human experimentation of Professor Frank E. Beube to form alveolar bone by the use of boiled animal bone powder. Dr. Herbert Bartelstone is assisting in this research.

The research of Professor Maxwell Karshan of the Department of Biochemistry and Dr. Benjamin Tenenbaum relates to systemic chemical conditions found in marked periodontoclasia cases. An outstanding finding is the evidence that a severe periodontoclasia of children and young adults is confined almost exclusively to females and has no discoverable local etiology adequate to account for the condition. There is something here of importance to the whole field of physiology relating to tissue resistance to infection which might well be discovered through this investigation.

The Columbia Periodontia Group, a society made up of postgraduates and others interested in periodontology in the Metropolitan Area, has held monthly meetings at the School during the year. Under the able leadership of Dr. Jacob S. Friedlander, the programs have been excellent and the meetings well attended.

PEDODONTICS

Under the direction of Professor Ewing C. McBeath, the division has continued its unique place in dental education. When a child is accepted as a patient it is treated as a comprehensive case and its entire dental needs are supplied by the student under the direct supervision of a member of the staff. The New York State Health Department recognized the program's worth when it requested that a special course be arranged for upstate dentists, financed by the State Health Department.

During the year, Dr. William A. Verlin, who has been on military leave, returned to active duty in the division. Dr. Stanley W. Vogel was also added to the staff.

In addition to his services in the division of Pedodontics, Professor McBeath again gave the course in medicine for dental students. It is gratifying to note that returning veterans, graduates of this school, express their appreciation of the usefulness and the practicability of the knowledge acquired in this course. They report that this preparation made it possible for them to be accepted by their medical colleagues in the Army and Navy on a different plane from that of the graduates of most dental schools.

RADIOLOGY

Professor Houghton Holliday, in addition to acting as Chairman of the Admissions Committee, continued as head of the Radiology Division. Professor Holliday resigned as Executive Officer of the Department of Dental and Oral Surgery and Associate Dean of the Dental Faculty on June 30, 1945. He has contributed significantly to building the dental faculty and the School's scholastic standing whereby it was rated 99.4% out of a possible 100% by the Council on Dental Education of the American Dental Association. Fortunately for the School, Professor Holliday consented to remain as Professor of Dentistry and head of the Division of Radiology.

ORTHODONTICS

Dr. Arthur C. Totten was promoted to Professor of Dentistry and appointed head of the division on July 1, 1945. The Orthodontic Division can well serve as an example of the benefits of "integration." Since July 1, the course has been materially strengthened by the addition of instruction in pediatrics, physical diagnosis, some aspects of internal medicine related to dentistry, comparative dental development, and related clinical practice and biostatistics. This is to enable the postgraduate student better to evaluate the patient as a whole which should be the basis of orthodontics.

Previously, the division accepted postgraduate students on a full-time basis but had a staff in attendance only during the mornings. This has been corrected also, the acceptance of part-time students has been discontinued. The demand for orthodontic treatment in the clinic has been so great that it has been impossible to accommodate more than 8% of those applying for admission. In spite of the increase of the number of students and staff available for caring for clinic patients, an individual must, at the present time, wait for three years before treatment can be started.

The State of New York has recently recognized the importance and need of orthodontic treatment by establishing a program for the underprivileged, the cost of which is paid by the State.

Besides the clinic undergraduate and postgraduate training, the division, through the coöperation of guest clinicians and lecturers, has offered three postgraduate courses for practicing orthodontists. During the year, 190 students attended the various orthodontic courses.

During the year, Dr. Lewis E. Jackson resigned and his work was taken over by Dr. James Jay who was promoted to Instructor. Dr. Harry Galton was promoted to Assistant Professor.

Certificates of Training were awarded to sixteen students. Dr. Jay and Dr. William Lefkowitz of the Histology Division collaborated in an investigation of changes produced by orthodontic appliances on the teeth, alveolar process, and mandible and maxilla of Macaus Rhesus monkeys.

Dr. George Callaway, Associate Professor of Dentistry, is President of the New York Academy of Dentistry and a member of the executive committee of the New York Society of Orthodontists. Dr. Harry Galton is a member of the Interprofessional Relation Committee of the New York Academy of Dentistry. Dr. Henry U. Barber, Jr. is a member of the Public Relations Committee of the American Association of Orthodontists, Member of the Credential Committee for the Greater New York Dental Meeting and New York State Dental Society, Member of the Orthodontic Committee Relative to State Aid. Dr. William C. Keller is a member of the Board of Censors, New York Society of Orthodontists.

ORAL HISTOLOGY

Under the direction of Professor Charles F. Bodecker the program of teaching and research in this field was continued. Members of the staff presented papers before a number of dental societies. On June 30, 1946, Professor Bodecker retired after twenty-three years of most valuable and faithful service to the School. As Professor Emeritus of Dentistry, Dr. Bodecker will continue his research and his active interest in the School.

In keeping with the purposes of integrating the faculties of the Medical and Dental Schools, the teaching and research activities of dental anatomy and embryology were transferred to the Department of Anatomy. The oral pathology teaching and research was transferred to the Department of Pathology. Professors Moses Diamond and Edmund Applebaum were transferred to the Department of Anatomy and Professor Lester Cahn to the Department of Pathology. The wisdom of this change is already apparent. Each of these teachers and investigators has improved physical facilities at their disposal and the resources of their respective basic science departments.

DENTAL HYGIENE

Under the direction of Mrs. Frances A. Stoll, the courses for Dental Hygienists enjoyed its prewar student enrollment. Eleven states were represented among the students. Miss Katherine Hollis, Instructor in Dental Hygiene, retired on June 30, 1946, after twenty-four years of service. Miss Hollis contributed significantly to the building of the courses for Dental Hygienists.

DEPARTMENT OF DERMATOLOGY

Professor J. GARDNER HOPKINS, Executive Officer

Dr. Robert R. M. McLaughlin has returned from five years leave of absence with the Navy. Dr. Elizabeth A. Laszlo has been granted a year's leave of absence for duty with the United Nations Relief and Rehabilitation Association in China.

To meet the demands of the accelerated program Professor Leslie P. Barker was placed in charge of teaching for the third year and Professor James L. Miller for the fourth year class. This arrangement has promoted efficiency and will be continued. The Syphilis Symposium for the fourth year class was held on January 18, 19 and 25. Dr. John F. Mahoney of the United States Public Health Service, Dr. Norman R. Ingraham, Jr., of the University of Pennsylvania, Dr. Edward P. Maynard, Jr., of the Long Island Medical College and Dr. Bernhard Dattner of Bellevue Hospital were guest speakers.

Experience during the war brought home to many medical officers the importance and interest of dermatology and in consequence an unprecedented number of well qualified candidates are seeking opportunities for graduate training in this speciality. To meet the needs of these veterans, the Department has expanded its program of graduate instruction, an undertaking made possible by the grant to the University from the W. K. Kellogg Foundation and by anonymous gifts to the Department. Ten physicians are now engaged in

a three year period of training, some as residents and others as assistants in the Vanderbilt Clinic. Still others have been admitted for courses in Mycology and in Histopathology of the Skin. Even so, it has been impossible to accommodate more than a small fraction of those applying for full-time training or for special courses. The presence of the enthusiastic graduate students is stimulating to our teaching staff. Arrangements for affiliated residencies have been completed at St. Luke's Hospital, Roosevelt Hospital, and the Hospital for Joint Diseases where the chiefs of the dermatological services are members of our teaching staff.

In spite of the abnormal burden of teaching and clinical work imposed by the accelerated educational program and absences of staff members, clinical investigation has been energetically pursued. Professor George C. Andrews has completed the third edition of his textbook on diseases of the skin which was published in May. Professor A. Benson Cannon is engaged in a study of penicillin therapy in syphilis aimed especially at development of a menstrum which will furnish gradual absorption for a twelve to twenty-four hour period. Encouraging results have already been obtained with hydrogenated cottonseed oil. Professor Andrews, Dr. Jerome K. Fisher and Mr. Carl B. Braestrup are studying dosages for "contact" x-ray therapy with recently installed apparatus. The method combines speed and convenience of application with greater safety for underlying structures. Professor Paul Gross and Beatrice Kesten have continued their special clinic for study of metabolic changes in psoriasis. Professor Miller conducted studies on local penicillin therapy, and with Professor Rhoda W. Benham, on treatment of the *Microsporum* Audouini infections which have assumed epidemic proportion in our public schools. Doctors William and Helene O. Curth are studying local therapy with tyrothricin.

Professor Benham, Dr. Elizabeth Hazen of the New York State Department of Health, and Miss Lucille Georg have continued studies on the nutritional requirements of pathogenic fungi with special reference to the effect of various nutrients on morphology.

DEPARTMENT OF MEDICINE

Professor WALTER W. PALMER, Executive Officer

An important change in the dispensary teaching of the fourth year clinical clerks has occurred in the establishment of a group practice clinic in Vanderbilt Clinic. The surgical and medical dispensary clerkships are now combined. So long as the student is on service as clerk he follows his patients with the Attending and is present at the consultations which take place. The Departments of Surgery and Medicine are combining to rearrange the lectures as-

signed to both departments. These lectures will be conducted by medical and surgical staff members engaged in the presentation of all aspects of the subjects.

At Bellevue Hospital, under the direction of Professor Dickinson W. Richards, Jr., the fourth year students have the advantage of seeing a large variety of clinical material at the bedside where an instructor is provided for every four students. On the Chest Service, under Professor J. Burns Amberson's direction, the students have the opportunity to become familiar with the mechanism involved in the pathogenesis of disease. Social and public relationships, particularly as these concern tuberculosis, are discussed.

At Goldwater Memorial Hospital the Department has found it expedient to contract its program to the Research Division. From now on there will be only a few undergraduates working there on the tutorial basis. A limited number of our fourth year men have continued with ward and emergency work at Roosevelt Hospital.

As the young men in service return the assistant resident staff has been increased to give them additional training both at the Presbyterian Hospital and at Bellevue Hospital. Bellevue has increased the number of assistant residents by four, Presbyterian by twelve. From April 1 to July 1 Professor Richards gave an intensive course for eight returning veterans. On the Chest Service twenty-two physicians received training as assistant residents and residents during the year, seven of these remaining for more than one year. Thirty-seven interns assigned from the various medical divisions of the Hospital have received formal training for an average of three months each. In addition, twelve men have had fellowship appointments enabling them to carry on clinical work or special investigative work. These numbers are greater than in any previous year. The program of resident training, in addition to instruction by the Visiting Staff, includes a number of regularly scheduled conferences designed for specific purposes. The quality of the resident staff has been excellent and a great deal of educational value has been accomplished with them.

Twenty physicians attended a formal course in October for intensive instruction in diseases of the chest. This course is a continuation of that offered by the Trudeau School of Tuberculosis. Hereafter there will be no formal connection between the two courses but, by mutual agreement, the Bellevue course will follow immediately that given at Saranac for the convenience of interested physicians. A good deal of instruction has been given by the staff to veterans who are studying in the First, Second, and Third Medical Services of the Hospital. By mutual agreement these men are taken for scheduled instruction and it is arranged for them to attend the clinical conferences. At the request of Professor Mustard, Director of the School of Public Health, physicians enrolled in the public health courses and who are studying the

problems of tuberculosis are given instruction in clinical and pathological problems.

Numerous research projects are underway in the Department. Professor Franklin M. Hanger, Jr. in the biological field, has demonstrated that there is often a correlation between certain functional derangements of the liver and the anatomical lesions found on biopsy. A method has been devised by which the protein abnormalities can be evaluated. Professor A. Raymond Dochez and Miss Katherine C. Mills report the production of a specific antiserum effective in preventing experimental infections with a virus isolated from a fatal case of primary atypical pneumonia in man. Professor Yale Kneeland, Jr. in his studies of di-bromo-salicylic acid finds this drug is a powerful bactericidal substance against staphylococcus and, also, against certain strains of hemophilus influenzae. This substance may have a virucidal action as well.

Professor Ralph H. Boots, Dr. Charles A. Ragan, Jr., Dr. James A. Coss, Jr., and Dr. Eli Bauman working in the Edward Daniels Faulkner Arthritis Clinic report that continuous use of gold salts may cause remission in chronic rheumatoid arthritis if administration is continued over long periods of time; that British anti-Lewisite seems to ameliorate the toxic reactions due to gold, and cold agglutinins may develop following treatment with BAL; that penicillin administered by mouth to patients suffering from Marie Strumpell arthritis causes little improvement but the bacterial flora of the throat loses the Gram positive organisms and coliform organisms appear.

Dr. Emily N. Loeb, with Professor Beatrice C. Seegal of the Department of Bacteriology, is continuing her observations on the renal effect of certain antisera. A study of the possible modification of these effects through certain steroids of the adrenal gland is under way in collaboration with Professor Seegal, Dr. Abbie Knowlton, Professor Robert F. Loeb, and Dr. Herbert C. Stoerk of the Department of Pathology.

Professor Harry M. Rose, working with Professor James T. Culbertson of the Department of Bacteriology under an O.S.R.D. contract on the chemotherapy of filariasis, has observed that at the present time antimonial compounds are the drugs of choice in the treatment of Bancroftian filariasis; of the several compounds tested neostibosan proved to be best tolerated and produced the highest rate of apparent cure. No evidence could be found for the deleterious effects of antimony on tuberculous infections. In collaboration with Professor Alfred Gellhorn of the Department of Pharmacology, the plasma levels and urinary excretion of antimony were studied in a series of patients receiving both trivalent and quinquevalent antimonial drugs. Studies have been made on the behavior of three strains of herpes virus isolated by primary egg passage, and an antigen has been prepared from the allantoic fluids of chick embryos inoculated with herpes virus which has been found in the sputums

of normal persons and of patients suffering from diseases of the respiratory tract. Professor Rose with Drs. Richard B. Duane, Jr. and Edward E. Fischel reported the successful treatment of a case of Rocky Mountain Spotted Fever with paraaminobenzoic acid. Dr. Franklin A. Stevens has demonstrated molecular degradation of proteins in ragweed extract with a consequent loss of antigenicity. Dr. Joseph C. Turner has begun research in sickle cell anemia and the influence of virus infections on the course and development of animal leukemia.

Professor Robert F. Loeb, with Drs. Emily Loeb, Abbie Knowlton, and George A. Perera, has been carrying out studies in relation to the role of desoxycorticosterone acetate in the genesis of hypertension and has embarked on studies on the effect of the sodium ion itself in this disorder. Dr. Perera has shown that the liver and portal circulation may be responsible for the increased plasma volumes observed in cardiac insufficiency and Laennec's cirrhosis. He is investigating the role of the adrenal cortex and electrolyte metabolism in the mechanism of hypertension.

The research activities of Professor Randolph West include, in cooperation with Professor Erwin Chargaff of the Department of Biochemistry, studies on pseudo-hemophilia. With the late Mrs. Ethel B. Gutman, Professor Alexander B. Gutman completed a method for determination of acid and alkaline phosphatase using a new substrate, phenolphthalein monophosphate. Professor Gutman has completed a new manometric method for the estimation of uric acid in serum and urine.

Professor Michael Heidelberger has developed a method of vaccination against pneumococci using specific polysaccharide. Its effectiveness was studied at the Air Force Training Camp at Sioux Falls with 9,000 subjects and 9,000 controls. No cases of pneumonia developed in the treated cases and twenty-three cases developed among the untreated. Professor Heidelberger has directed further studies toward possible immunization against malaria.

Dr. David E. Green and his colleagues of the Enzyme Laboratory have discovered and isolated from animal tissues three enzymes involved in the oxidation of ketone compounds. These three enzymes depend for their activity upon the presence of vitamin B₁ pyrophosphate. Dr. Green, with Captain W. E. Knox and Dr. Morris Spirtes, has undertaken at the request of the Office of the Quartermaster Corps an investigation of the fundamental biochemistry of antiseptics.

Professors Richards and Andre F. Cournand, on the Columbia Division, at Bellevue Hospital, under an O.S.R.D. contract, report a study on artificial respiration which had been specially requested by the Aero Medical Laboratory at Wright Field. The particular job in hand was the analysis of performance and of effects on both respiration and circulation of the Burns

model resuscitator as developed by the Aero Medical Laboratory. This was found to be an effective apparatus both in conscious and unconscious subjects, and a full report of the study was submitted last fall to the office of the Committee on Medical Research and to the Office of the Air Surgeon. Shortly thereafter Captain Hurley Motley, who had collaborated with Dr. Richards and Dr. Cournand, received a special commendation from the Air Surgeon's Office for this work. Professor Cournand aided the Aero Medical Laboratory at Wright Field in studies of the use of other forms of resuscitator apparatus. New apparatus developed at Wright Field, as well as certain types of commercial apparatus, are being tested. The so-called recording optical bench, on which Professor Cournand and the group from Professor Homer Smith's laboratory at New York University Medical School worked actively during the course of the Government Contract, finally resulted in an excellent apparatus built by the Cambridge Instrument Company.

Under Professor Richards' direction, work has continued actively in the general field of respiratory and cardiac physiology under the grant from the Commonwealth Fund. This has included studies of cor pulmonale; a continuation of the various studies of cardiac and pulmonary function on patients before and after chest surgery; and, more recently an investigation of various cardiac disorders, both acquired and congenital. These have been taken in part from the First Medical Division and in part from the Pediatrics Division. Professor Cournand's research team, which has been carrying out the above work in addition to those already named, has included Dr. Aaron Himmelstein of the Chest Surgical Division, Dr. David T. Dresdale now on the First Medical Division, Dr. Dorothy Leake of the Chest Medical Division, and the laboratory staff under Mrs. Marianne Lester.

Using the techniques for analyzing pulmonary function, and the catheterization procedure for the study of various functions, Dr. Eleanor deF. Baldwin, in collaboration with Professor George H. Humphreys, II, Drs. David Green, James Mathers, and Paul Wilson of Babies Hospital, has been active in the analysis of cases of congenital heart disease. Work has continued in analyzing cases of silicosis to define their relative states of disability.

Professor Edgar M. Medlar at Bellevue Hospital is continuing his research with the support of the John Hegeman Memorial Fund of the Metropolitan Life Insurance Company. He has gathered material in the autopsies of Medical Examiner's cases which provides unique information concerning the prevalence of tuberculosis and its relationship to public health activities. As an incidental study, Professor Medlar has investigated the occurrence of caseous and cavitary tuberculosis as shown by autopsies in the various hospitals of the city of patients who have died from other diseases. The figure is surpris-

ingly high and will undoubtedly stimulate further investigation and action. With the assistance of Dr. Ursula Joan Roche, Professor Amberson is completing a study of early pulmonary tuberculosis from material which we have been collecting during the past seventeen years.

In collaboration with Drs. Margaret Boyle, Rene Wegria, Richard A. Cathcart, and Professor John L. Nickerson of the Department of Physiology, Professor Robert L. Levy has made observations on the cardiovascular system, following its intravenous injection of nicotine in normal persons, cases of coronary heart disease and of peripheral vascular disease. It appears that in susceptible individuals nicotine may constrict the coronary arteries and so bring about a diminished flow of blood to the myocardium. In collaboration with Dr. Paul D. White, Lecturer on Medicine at Harvard Medical School, Dr. William D. Stroud, Associate in Medicine at the University of Pennsylvania School of Medicine, Brigadier General C. C. Hillman of the Letterman General Hospital, and Professor John W. Fertig who acted as consulting statistician, Professor Levy made statistical studies of blood pressure in army officers. Observations made on the effects of synthetic quinidine and dihydroquinidine in cases of auricular fibrillation lead to the conclusion that both of these drugs in appropriate doses, were as effective as commercial quinidine. Dr. Richard T. Cathcart, Dr. David W. Blood and Mr. Edgar Liefer, a fourth year medical student, under Professor Levy's supervision found that digitalis has no effect on the clotting time of blood. Observations made on the use of digitalis during the acute stage of cardiac infarction seem to indicate that this drug may safely be given during the period immediately following coronary occlusion and that it may be expected, at this time, to exert its usual effects in relieving cardiac insufficiency.

Professor Alvan L. Barach, assisted by Drs. Bettina B. Garthwaite and Colter Rule, is investigating the effect of inhalation of penicillin aerosol in chronic bronchitis, bronchial asthma, bronchiectasis, lung abscess and sinusitis for which new apparatus and special techniques have been developed. The use of the immobilizing pressure chamber for the treatment of pulmonary tuberculosis has continued. The follow-up results of seven out of eleven cases in which either clinical recovery or arrest of the disease took place, indicate that the principle of lung rest as achieved by residence in the equalizing pressure chamber constitutes a form of treatment that achieves results in selected cases unobtainable by any other method.

Professor George Draper and Dr. C. Wesley Dupertuis, assisted by Dr. Hugh McGill of Queens University Medical School, have made constitutional appraisals on over 500 pregnancy cases from the Sloane Hospital Ante Partum Clinic. Dr. Sidney C. Werner under an O.S.R.D. contract has studied the

pharmacologic properties of a mixture of pure amino acids in gastrectomy patients. The use of amino acids post-operatively and pre-operatively also resulted in a less complicated clinical course than in a control group of untreated patients.

Dr. Harry Aranow, Jr., in collaboration with Professor Earl T. Engle of the Department of Anatomy, finds that prolonged administration of thiouracil to monkeys produces a hitherto unreported histological change in the hyperplastic thyroid glands. With Professor William M. Rogers of the Department of Anatomy, he has collaborated on an electrical stimulating and recording apparatus with which it is hoped that the intimate phenomena of neuro-muscular transmission in the myasthenic may be studied. With Dr. C. Harrison Snyder of the Babies Hospital staff and with Dr. Marcel Goldenberg, Dr. Aranow has found that Fourneau compounds number 933F and 1164F, when administered intravenously, have the power of abolishing hypertension due to excessive adrenalin secretion. Dr. Thomas H. Hunter has demonstrated that the treatment of subacute bacterial endocarditis with hydrosis of penicillin up to 20,000,000 units has resulted in the cure of some of the resistant cases.

Professor David Seegal reports for the group on Welfare Island as follows: Professor Arthur J. Patek, Jr. and his associates are continuing their studies on dietary treatment of Laennec's cirrhosis. Professor Joseph Victor has succeeded experimentally in producing a prompt and sustained hypertension by unilateral, subtotal ligation of periadrenal blood vessels and tissues. Professor Forrest E. Kendall, with the assistance of Dr. Liese Lewis, Professor Victor, Mr. Walter Meyer, and Miss Anne Shwachman, aided by a grant from the Lasker Foundation, has developed a simplified method for determination of cholesterol. Dr. Alfred Steiner has confirmed his previous observation that the feeding of soya lecithin produces a temporary fall in the serum cholesterol level of man. In the past year he has produced a sustained hypercholesterolemia in dogs by means of combined thiouracil and cholesterol feeding. Two of three dogs so treated have developed arteriosclerosis of the aorta, coronary and some other arteries which closely resemble the lesions found in human arteriosclerosis. This is the first recorded instance of the production of arteriosclerosis in the dog by induced hypercholesterolemia, as far as we know. This finding meets one of the objections of those who hold that hypercholesterolemia plays a minor or non-existent role in the development of human arteriosclerosis.

Professor Seegal has continued his interest in the factors influencing the maintenance and progression of chronic glomerulonephritis, particularly in reference to hemolytic streptococcus infection. Professor Seegal, Dr. Henry Cocher and Dr. Richard B. Duane, Jr. have recently collected informa-

tion with regard to progress in the control of chronic illness. They have concluded that some chronic illnesses can be largely controlled if adequate medical or surgical procedures are instituted before the disease process has become irreversible.

Dr. Colcher with Professors Patek and Kendall has studied the rate of disappearance of galactose from the blood stream after intravenous injection. The data accumulated permitted the construction of an equation giving the percent of galactose removed per minute. The numerical value so obtained is called the Galactose Removal Constant. This Constant has thus far proved useful in determining functional impairment of the liver and in the differential diagnosis of certain liver diseases. Dr. Colcher with the assistance of Professor Victor has embarked on a study concerned with the experimental production of ulcers in the main stomach of the rat. Dr. Alice Lowell continues her affiliation with Professor Cournand at Bellevue Hospital in the studies on shock. Dr. Harold Mankin of the resident staff at the Goldwater Memorial Hospital continued his study of the osmotic factors in the formation of ascites in patients with Laennec's cirrhosis.

Dr. Frederick R. Bailey was promoted from Assistant Clinical Professor to Associate Clinical Professor; Dr. Joseph C. Turner from Associate in Medicine to Assistant Professor of Medicine. Professors I. Ogden Woodruff and Henry James will officially retire from the active visiting staff of the First Medical Division, Bellevue Hospital, on July 1 having reached the retirement age. Both have signified, however, their willingness to continue as active consultants to the service. Dr. John L. Caughey, Jr. resigned to become Assistant Dean at Western Reserve University Medical School.

Professor Robert F. Loeb has been elected a member of the National Academy of Sciences. His additional activities this year have included serving on the Advisory Council of the Life Insurance Medical Research Fund and on the Advisory Board for the health service of the National Red Cross; he has acted also as Consultant to the Veterans Administration, Kingsbridge Installation. Professor Michael Heidelberger has been invited by the national Union of Intellectuals of France and the French Government as one of two representatives from the United States to deliver an address on Immunity at an international gathering in Paris next December to commemorate the fiftieth anniversary of the death of Pasteur. Dr. Fritz Kauffmann of the State Serum Institute, Copenhagen, Denmark, a noted bacteriologist, has worked in Professor Heidelberger's laboratory, as has also Dr. Mary Loveless, allergist of the Cornell University Medical College. Mr. A. Osler of the New York City Department of Health Laboratories, has been assigned to the laboratory for a study of complement now under way. This study is being carried on with the aid of a grant from the Rockefeller Foundation and with

the help of Dr. Otto Bier, Director of the Butantan Institute, Sao Paulo, Brazil, who has returned to complete his Guggenheim Fellowship, interrupted by the war.

Professor Heidelberger has been elected President of the American Association of Immunologists. Dr. David E. Green received the Paul Lewis Laboratories Award in Enzyme Chemistry from the American Chemical Society. Professor Robert C. Darling began in January to establish his laboratory for research in Physical Medicine which is supported by the Baruch Fund. He has been delayed by the difficulty of acquiring laboratory material and in procuring assistants but should be ready soon to proceed with his studies.

The first year of the training program for physical and occupational therapy students under the auspices of the College of Physicians and Surgeons has been satisfactorily completed under the supervision of Professor William Benham Snow. Emphasis has been placed on integration of the basic training for the physical and occupational therapists. Being at the Medical Center has added greatly to strengthening the program and has been a stimulus to both students and instructors. Curricular changes have been made, mainly in the physical therapy training, where a return to the original plan of a two-year course is to be put in operation. The establishment of the Bachelor of Science degree in Physical and Occupational Therapy adds incentive to the prospective students.

The Council on Medical Education and Hospitals of the American Medical Association again has accredited the courses as acceptable training with the statement that the program covers the standard requirements set up for such institutions.

A total of 192 students was enrolled in occupational therapy; fifty-four in the War Emergency course sponsored by the War Department and seventy-five students in the regular course of instruction. Students in the regular course of instruction had prepared in fifty-five different colleges and universities. The fifty-four students in the War Emergency course all held Baccalaureate degrees, including four with Masters degrees.

The Professional Certificate in Occupational Therapy was awarded to twenty-eight students in October, 1945, and to twenty-five students in February, 1946.

The arrangement with Teachers College has been continued because, due to the nature of the laboratories needed in the teaching of occupational therapy techniques and modalities, their facilities are most appropriate. Under this plan students have participated in five regular Teachers College courses and have formed the personnel for nine courses. Twenty-five hospitals and agencies have served in the teaching program for occupational therapy.

Through the generosity of the W. K. Kellogg Foundation, the Occupational

Therapy Division has been the recipient of grants totalling \$3000 for scholarship awards and \$3000 for student loan purposes. Twenty-one students in occupational therapy have benefited by this scholarship help and six students have derived necessary help from the loan fund.

Previous and currently enrolled students have obtained scholarships from several sources of their own contact, among them the Schepp Foundation, Hattie Strong Foundation, Jewish Educational Alliance, P.E.O. Sisterhood Educational Fund. Requests for scholarship aid are increasing. There is definite need for further assistance.

Of the twenty-seven students who registered September, 1945, for courses in physical therapy, fifteen held the B.S. degree, seven were graduate nurses, and six had two years or more of college.

It is appropriate to note in this brief report that, as far as didactic instruction is concerned, two courses in physical therapy have been instituted for the future: one, a two-year program leading to the B.S. degree for candidates who can submit sixty points of credit in the liberal arts with a strong offering in the basic sciences, also a Certificate for graduate nurses; and the other, a one-year Certificate course for college graduates and public health nurses with experience.

No scholarship aid has been provided by the University for regular students in physical therapy for which there is a real need. It happens, however, that twenty-two of the students in residence in physical therapy during 1945-1946 have received substantial scholarship aid from the National Foundation for Infantile Paralysis, and one student has had a full maintenance fellowship from the American Physiotherapy Association.

DEPARTMENT OF NEUROLOGY

Professor TRACY J. PUTNAM, Executive Officer

The Department is happy to welcome back those of its members who have served in the Armed Forces. All have returned safely and are now again actively engaged in the teaching, research, and administrative activities of the Department.

No change in the undergraduate teaching plan was made during the past year, but with the increase in personnel available for teaching, the courses have been more thoroughly presented. Two courses in neuropsychiatry for the Army Medical Officers were given in conjunction with the Department of Psychiatry during last fall and winter. Another course is being given for veteran residents of the New York State hospitals who are receiving basic training in neurology and psychiatry at the Neurological and Psychiatric

Institutes. In addition, informal training in basic and clinical neurology is offered to small groups of veterans and foreign graduate students at the Institute, at the Medical School, and at Vanderbilt Clinic, under the direction of Dr. Hans Hoff.

The study of peripheral nerve injuries especially the results of plasma glue sutures which has been carried out in conjunction with the United States Naval Hospital at St. Albans and in which Drs. Thomas Hoen, Isadore Tarlov, Ernst Herz, Joseph Moldaver and Professor Paul F. Hoefer participated was terminated the end of last year. In its place a more extensive contract designated for the study of all methods employed for the evaluation, operative repair and follow-up of peripheral nerve injuries in various centers of the country is under way. Dr. David D. N. Nachmansohn, for the Chemical Warfare Service, is studying the use of various potential toxic gas compounds for the treatment of muscle disorders, especially myasthenia gravis. Professor Elvin A. Kabat continues working with the United States Public Health Department in studies concerning blood group substances. Research activities at the M. Allen Starr Laboratories and at the laboratories of the Neurological Institute have been greatly increased since the war ended.

Professor Putnam, with Drs. Ludwig V. Chiavacci, Hans Hoff, and Hyman G. Weitzen, has continued his investigations of the mechanism responsible for the lesions in multiple sclerosis. The studies have now passed from the investigative stage and are applied clinically to a large number of patients suffering from multiple sclerosis. Professor Putnam and Dr. Herz have published a manual "The Motor Disorders in Nervous Diseases," to be used in conjunction with a teaching collection of moving pictures.

Professor Henry A. Riley is still occupied with his preparations for the Nissl atlas of the human brain stem and medulla oblongata. Professor Otto Marburg has published a variety of papers on neuroanatomical and neuropathological subjects, especially in relation to the cerebral blood supply and its anomalies. He is working on his projected atlas of neuropathology. Professor Leon H. Cornwall is preparing his textbook on neuropathology as previously reported.

Professor Hoefer with a number of co-workers has continued to work on several projects in clinical electrophysiology. With Drs. Edward B. Schlesinger and Harry H. Pennes a review of over six hundred verified brain tumors was prepared. With Drs. Hoff and Roger J. Pluvillage a review of over one hundred treated cases of convulsive disorders is being prepared. Dr. Abraham Mosovich, under Professor Hoefer's direction, is preparing an electro-encephalographic classification of the epilepsies. Dr. Pennes has developed a method for the measurement of heat production in striated muscle in man. Various new apparatus are in development, among them the new analyzer for the electro-encephalogram, a new recording instrument for

all bio-electrical potentials and a new electric knife which obviates the old spark gap generator. A recording instrument for the operating room is in preparation. Dr. Schlesinger is working on the therapeutic effects of curare in spasticity, rigidity, and the dyskinesias in man.

Professor Frederick A. Mettler continues to direct the laboratories for physiological research, assisted by Drs. Arlindo Conde, Raul M. Carrea, Luis R. Guzman-Lopez, James W. Heath, and Robert G. Heath. He is studying the motor system in primates especially in conjunction with motor disorders resulting from extirpation of cortical structures, various portions of the basal ganglia and various portions of the cerebellar system. In conjunction with Professor H. Houston Merritt and Professor Putnam, he is preparing an introduction to neurology. Dr. Robert Heath, under his direction, is preparing a physiological analysis of electroshock therapy applied to various areas of the cortex and also the effect on animals of removal of the frontal cortex and subsequent removal of the caudate nuclei.

Professor Abner Wolf and Dr. David Cowen, in addition to their large share of the undergraduate and graduate teaching, have studied a variety of experimentally produced infectious diseases in primates. Professor Wolf, in conjunction with Professors Elvin A. Kabat and Alwin M. Pappenheimer, has studied the distribution of stainable enzymes and other chemical substances throughout the central nervous system.

Dr. Harry Grundfest in addition to directing the new peripheral nerve project is continuing his fundamental studies of electrical properties of single axones and fiber tracts of the central nervous system started and developed by him at the Rockefeller Institute. Professor Kabat has continued his work on blood groups and on the distribution of stainable substances through the nervous system. He has made a number of studies on other biochemical subjects and has prepared a large review on immunochemistry. He is also working on the subject of experimental production of multiple sclerosis and encephalitis by injection of various proteins derived from brain and lung extracts. Dr. Joseph Moldaver has continued his investigations of lower motor neurone involvement especially in poliomyelitis.

Dr. Nachmansohn and his co-workers, Drs. Theodore Bullock, Marjorie Berman, Hedda M. John, Christopher Coates, Mortimer A. Rothenberg, and Kenneth Sterling, continue the work started several years ago. It consists of studies of the system of esterases involved in the conduction of nerve impulses in providing the energy for the nerve impulse and in other fundamental related mechanisms. He has recently studied the effect of various new anticholine-esterases, some of which might provide means for the treatment of myasthenia and other disorders. Dr. Jerry C. Price is studying the effect of promising new compounds for the treatment of various aspects of epilepsy; Drs. Hoff and Frederick Zimmerman working with him. Drs. Zimmerman

and Bessie Burgemeister are working on a project trying to speed up the intellectual progress in mentally retarded children by treatment with glutamic acid.

As can be seen from this brief review, the scientific productivity of the Department continues at a high level. An indication of the standing of the Department in the field of neurology may be seen from the fact that of forty-two papers accepted for presentation at the meeting of the American Neurological Association in June, 1946, ten were wholly or in part the work of members of the Department.

DEPARTMENT OF NURSING

PROFESSOR MARGARET E. CONRAD, Executive Officer

The three developments of special importance have been the approval of the Master of Science degree for advanced students in clinical fields of nursing, the establishment of the Out-Patient Nursing Service, and the structural additions to Maxwell Hall.

The addition to Maxwell Hall is nearing completion, and is scheduled for occupancy August 1, 1946. It provides for 102 additional student rooms, apartments for 22 members of the faculty, a splendid library and six reception rooms. The new facilities and the provision of housing for all students in the residence gives promise of a marked improvement in the living conditions for student nurses next year.

The Visiting Nurse Service of New York found it necessary to discontinue its program of instruction and demonstration in public health nursing for student nurses on March 1, 1946, because of insufficient experienced nursing personnel, but other arrangements were made to give them instruction and demonstration under the public health agency. Mrs. Margarete Martin Reisner was added to our instructional staff to develop this program.

In accordance with University policy, tuition fees for the entire nursing course have been increased to become effective July 1, 1946, as follows: Degree Candidates from \$300 to \$400 and Diploma Candidates from \$200 to \$250.

Student enrollment for the year is as follows:

	<i>Total</i>	<i>Degree</i>	<i>Diploma</i>
Third Year	107	67	40
(11 of this group, members of U.S. Cadet Nurse Corps)			
Second Year	101	67	34
(42 of this group, members of U.S. Cadet Nurse Corps)			
First Year	112	67	45
(56 of this group, members of U.S. Cadet Nurse Corps)			

A tradition of the School of Nursing was renewed this year with notable success in the various measures aimed at reconstruction of the Florence Nightingale School of Nursing at Bordeaux, France. Following World War I, this school was established by the American Nurses Association as a memorial to the American nurses who had died in service. Miss Maxwell was one of its ardent supporters, and funds were donated by our own nurses for the library which was given in memory of Amebel Scharf Robert, 1916. The school building having been practically ruined in World War II, the American Nurses' Association is undertaking to rebuild it.

The coöperative venture which was started last summer employing ward assistants to help on the wards as vacation relief proved so successful it is being repeated this summer. Most of this group are incoming medical students.

Professor Eleanor Lee was elected Treasurer of New York County Registered Nurses' Association.

Changes in the teaching staff include the following: Miss Delphine Wilde, Instructor, has been doing advanced study at Teachers College in Orthopedic Nursing; Miss Constance Hamon has been part-time instructor in the outpatient department, alternating with Miss Wilde; Miss Marjorie Peto has been doing advanced work in Pediatrics at Teachers College while carrying a part-time position as Instructor in Babies Hospital. Miss J. Margaret Ada Mutch is an Instructor in Nursing, succeeding Mrs. Elizabeth MacQuigg; Miss Alice Hamilton resigned as Instructor in Nursing Arts on April 30, 1946; Miss Winifred Kaltenbach has resigned from the position as Assistant Professor of Nursing as of June 30, 1946 and Miss Peto will succeed her on July 1, 1946.

The generosity of both physicians and surgeons in rendering professional service and in assisting with the educational program is sincerely appreciated by The Department of Nursing.

DEPARTMENT OF OBSTETRICS AND GYNECOLOGY

Professor BENJAMIN P. WATSON, Executive Officer

The accelerated program of teaching has continued throughout the year but is now happily at an end. Looking back over the past four years, one gets the impression that, whilst there was no reduction in the content of the various courses and student attainment seemed to be high, there was too little time for the individual to digest what he learned, and that not so much will be retained as when the tempo was slower.

The staff is again complete, all members who were in the various services have returned to duty. We are proud of the work they did during the war.

Two attained the rank of full Colonel: Professor Eugene S. Coler and Alvin J. B. Tillman. Three attained the rank of Commander: Charles L. Buxton, Clinton P. O'Connell, and John B. Rearden. With their return the various special clinics and research projects, which had to be discontinued during their absence, will gradually get under way again.

The following contributions to literature were made during the year: *Further Experience in the Use of Transplanted Abdominal Fascia in the Relief of Stress Incontinence*: Am. Jr. Obs. and Gyn.: Vol. 50, No. 2, Pgs. 119-137, August 1945; W. E. Studdiford; *A Quadriovular Quadruplet Pregnancy*: Am. Jr. Obs. and Gyn.: Vol. 50, No. 2, Pgs. 184-190, August 1945; B. P. Watson; *Placental Senescence and the Onset of Labors*: Vol. 50, Pgs. 471-481, November, 1945; Howard S. Mandel, Samuel Graff, and Ada M. Graff; *Adrogen Therapy of Menopausal Symptoms in Cancer Patients*: Am. Jr. Obst. and Gyn., Vol. 50, No. 5, Pgs. 502-509, November, 1945; S. B. Gusberg.

The Trustees of the University have granted my request for retirement from my appointment as Professor and Executive Officer of the Department. I wish to express to them, to the Dean of the Faculty, and to my colleagues my appreciation of the privileges I have enjoyed during the past twenty years. I could not wish to my successor anything better than the same happiness that I have had in my work in Columbia University.

DEPARTMENT OF OPHTHALMOLOGY

Professor JOHN H. DUNNINGTON, Executive Officer

The Department of Ophthalmology welcomes back from the Armed Services the following members: Professors Gordon M. Bruce, John P. Macnie, Alson E. Braley, and Drs. C. Gregory Barer, A. Gerard Devoe, and Edward Gallardo. Their presence will do much to facilitate an early return to prewar activities. A great loss was sustained in the resignation of our executive officer, Professor Phillips Thygeson, whose keen interest in the research activities of the Department will be greatly missed. Professor Ludwig von Sallman has been placed in charge of research. The undergraduate teaching program has continued to function smoothly due largely to the able supervision of Professor Maynard C. Wheeler.

Under the auspices of the Knapp Memorial Foundation in Ophthalmology, Professor Ludwig von Sallman has conducted in vivo experiments on the hydrogen ion concentration of the aqueous humor in physiologic and pathologic conditions; studies on the stability and penetration of penicillin ointments with various bases and penicillin salts; resorption from the vitreous. His investigations on the concentration of penicillin in the structures of

the eye after various methods of administering the antibiotic have done much to clarify the treatment of intraocular infections. Also, in collaboration with Dr. Leon Hoskins, a resident, Professor von Sallman completed a study on penicillin therapy of intraocular infections with anaerobes.

Professor Karl Meyer has continued his work on lysozyme and hyaluronidase. Out of these investigations have come the perfection of a highly accurate methods for the determination of lysozyme as well as the finding of a new lysozyme in very high concentration in the latex of some plants. In collaboration with Dr. Ellen Regan, a resident, he is also conducting experiments on the lysozyme content of the lachrymal secretion in various diseases of the conjunctiva and cornea.

Professor George K. Smelser has studied the healing of corneal wounds dealing specifically with the action of drugs and agents used in ophthalmology on the corneal epithelium. He has demonstrated for the first time the deleterious influence of Grenz irradiation on cell division and wound healing in the cornea. The inhibitory effect of adrenalin on mitosis in the cornea was shown to have a similar action on regenerating liver. He has also started a study on the preservation of corneas for use in corneal transplants which we are hopeful will lead to methods of preservation of this material for much longer periods.

Professor Manuel Uribe Troncoso has continued his investigations on glaucoma under a grant from the Mary W. Harriman Fund and has reported on the use of diathermic surgery on the ciliary body in glaucoma.

Professor LeGrand Hardy, Drs. Gertrude Rand and Catherine Rittler, co-workers in the Knapp Memorial Laboratory of Physiological Optics, have continued their work on evaluating current tests for color blindness and devising new tests to serve both for the detection of defective color vision and for an analysis of the type and extent of the defect. In coöperation with the New York State Psychiatric Institute studies on the incidence and significance of defective color vision among psychotics were started. The studies on reliability and validity of visual acuity test objects were continued.

The course for residents covering the basic sciences as related to ophthalmology was conducted from January to June. The Departments of Anatomy, Pathology, Pharmacology, Physiology, and Public Health generously contributed to this course which covered the subjects of pharmacology, anatomy of the special senses, general pathology, biostatistics, embryology of the eye, bacteriology, radiology, physiological optics, histology of the eye, biochemistry, surgical anatomy, physiology, principles of medical ophthalmoscopy, and medical illustration. Its success is due not only to the hearty coöperation of the other departments but also to the untiring efforts of Professor Hardy whose zeal and enthusiasm is a stimulus to all.

DEPARTMENT OF ORTHOPEDIC SURGERY

Professor ALAN DEFOREST SMITH, Executive Officer

The merger of the New York Orthopaedic Hospital with the Presbyterian Hospital, which became effective in October, 1945, and the integration of the Fracture and Orthopaedic Services make possible the establishment of a unit for the study of all types of diseases and injuries affecting the musculo-skeletal system which should be far-reaching. Many of the benefits from this merger will not become evident until it is possible to move the Orthopaedic Hospital to the Medical Center, but plans for making this union effective are being made and closer coöperation of the two Services already has been brought about.

The establishment of a unified service for acute injuries as well as for chronic conditions of the back and extremities at the Medical Center will provide material for teaching that is readily available and will make possible a better form of instruction for undergraduate students.

The Annie C. Kane Fellowships in Orthopaedic Surgery will continue and will make it possible to give a thorough training in this subject to a group who have completed their preliminary course as residents and assistant residents. It is expected that some of fellows will be candidates for the degree of Doctor of Medical Science.

The Department of Orthopaedic Surgery has been strengthened greatly by the addition of Professor Clay Ray Murray and his staff on the Fracture Service. Dr. Murray has been advanced to the rank of Professor of Orthopaedic Surgery. During the year Dr. Halford Hallock also was made Clinical Professor of Orthopaedic Surgery. Professor Murray will continue as head of the Fracture Service.

A program of investigation of many problems in the injuries and diseases of the musculo-skeletal system has been formulated and will be under the direction of Dr. Stephen S. Hudack, who has been made Associate Professor of Orthopaedic Surgery, and Dr. C. Zent Garber, Pathologist at the Orthopaedic Hospital.

DEPARTMENT OF OTOLARYNGOLOGY

Professor JOHN D. KERNAN, Executive Officer

The undergraduate teaching in the Department during the past academic year has been continued as heretofore. Each group of students receives instruction in the methods of examination and the use of lights and instruments by Drs. George V. Browne and Arthur J. Cracovaner. Special in-

struction is given in hearing tests, vestibular tests, anatomy of the nasal passages by Professors DeGraaf Woodman, Edmund P. Fowler, Jr., Franz Altmann and Drs. Albert R. Kolar, Jules Waltner, and Daniel C. Baker. Professor Woodman's instruction is carried out in Neurological Institute. Each group makes ward rounds in the Presbyterian Hospital and Babies Hospital with Professor Kernan and Dr. Baker.

The hearing and deafness clinic has been further developed into three separate clinics under the direction of Professors Altmann, Fowler, and Woodman and Dr. William J. Greenfield. Over one hundred fenestration operations have been done during the past year and a study of the results is being checked at regular intervals in the hearing clinic. The work has been considerably augmented by the addition of a second audiometric technician.

Professor Fowler is in charge of the Research Laboratory where investigation is going on in the study of temporal bone pathology. The course for graduate students and residents in basic sciences given from January to July has been conducted by Professors Altmann, Fowler, Woodman, and Dr. Baker.

Professor George R. Brighton has continued the course in endoscopy and has given this course twice during the past year for the benefit of the residents and graduate physicians. Dr. Daniel C. Baker's proposal for establishing a special clinic for laryngeal diseases has been approved.

DEPARTMENT OF PATHOLOGY

Professor HARRY PRATT SMITH, Executive Officer

The retirement of Professor James W. Jobling, Executive Officer of the Department, and of Professor Alwin M. Pappenheimer, his long-time associate, at the end of the preceding academic year, is acknowledged with regret and with the highest appreciation of their leadership during the past three decades. In looking back upon this period, it will be noticed that these three decades have witnessed an important change in viewpoint among pathologists—a change which decries undue preoccupation with mere description of the structural changes in disease. These two workers, and a few others of like mind, have made it clear that the pathologist must give attention to disease sequence in its broadest sense. It is now clear that the sequence can be best expressed by an integrated combination of structural data with chemical, physical, bacteriological, immunological, and clinical findings. Pathology, thus broadly conceived, can be regarded truly as the "Science of Disease," as indeed the name implies.

Professor Homer D. Kesten has taken up his duties as Pathologist at the

White Plains Hospital. He continues as Associate Professor, on a part-time basis, contributing to the teaching program, maintaining his program of research on arteriosclerosis, on spontaneous neoplasms in rates and on production of anti-Rh serum.

Dr. Edith E. Sproul, Assistant Professor, has accepted an important assignment as Professor of Pathology at the American University at Beirut. Her resignation at Columbia was effective June 30, 1946. Professor Sproul is known here as an inspiring teacher and an investigator of genuine ability. Her many friends at the Medical Center will regret her departure, but will rejoice in knowing that she is receiving well-earned recognition. Her appointment is a tribute to her and to the Department. Professor Hans F. Smetana returned last fall from active duty in the Army and on May 1, 1946, accepted an appointment as civilian pathologist at the Army Institute of Pathology. Dr. William J. Pyles completed his appointment in the Department on December 31, 1945, at which time he accepted an appointment in Medicine at the Goldwater Memorial Hospital. He has recently accepted an appointment as Associate Professor of Medicine at the American University in Beirut.

Dr. Herman N. Eisen completed his term as Resident. Dr. Robert A. Kritzler, who returned from service with the Presbyterian Unit overseas, returned to the Department as Instructor on December 10, 1945. Drs. Kathleen Kirk and Dean Davies completed their terms as Assistants; Dr. Dorothea G. Worcester will remain during the coming year as Instructor.

The depleted staff and the problems of reorganization have taken much of the time of the new Executive Officer. The Department has been fortunate in securing the services of Dr. Joseph E. Flynn, whose appointment as Assistant Professor began on November 5, 1945. Dr. Franklin K. Fite was released from the Navy and accepted an appointment as Instructor on April 3, 1946. Dr. Fred M. Davenport began as Assistant on June 1, 1946, and Dr. John B. Riley as Assistant on April 1, 1946.

Professor Henry S. Simms, with the assistance of Dr. Mary S. Parshley, has resumed the studies on the mechanism of fat deposition in atherosclerosis. Particular effort is being made to determine the source of the "anti-B Factor." Professor Simms, in charge of the program on aging, has established animal quarters with air-conditioning and uniform indirect lighting on South Property. This colony will produce rats as part of a coöperative program on aging by several departments. These activities are under the Committee for Research on Aging, consisting of Professors Smith, A. Raymond Dochez, Earl T. Engle, Magnus I. Gregersen, and Simms. The work of the program has been made possible through generous grants by the Josiah Macy, Jr. Foundation and by the Mary and Albert Lasker Foundation.

Professors Theodore F. Zucker and Dr. Lois M. Zucker have extended

their work on growth. In collaboration with Dr. Benjamin N. Berg, they have continued their studies on experimental lesions in the stomach of the rat. Professors Abner Wolf and David Cowen are studying the demyelinating lesions in the central nervous system of the monkey by the use of heterologous and homologous brain emulsions. Studies have also been made on the relationship of acid phosphatase activity in the central and peripheral nervous system, as related to repair following injury of neural tissue. Further work is being carried out on experimental prenatal toxoplasmosis, in an effort to clarify the mechanism of its production. Dr. Hans Kaunitz, working under a grant from the John and Mary R. Markle Foundation, is conducting experiments on the Vitamin E content of liver and muscle, in order to secure information as to whether the rat can synthesize Vitamin E. In cooperation with Professor Jacob J. Beaver of the Department of Chemistry, studies have been made on the nature of the reducing substances present in tissue extracts. Mrs. Julia T. Weld has been working on antibacterial substances produced by fungi. The antibacterial activity of elemental sulphur was investigated.

Dr. Herbert Stoerk, in conjunction with Drs. Herman N. Eisen and Manfred M. Mayer, has completed a series of studies on the influence of adrenal cortical steroids on the production of antibodies. Dr. Stoerk also collaborated with Professor Harry B. van Dyke of the Department of Pharmacology in a search for a curareform substance in thymus. Dr. Eisen also studied the histaminase activity of various organs with and without sensitivity to horse serum. Professor Beryl H. Paige has collaborated with Professor Wolf and Cowen in making a study of cases of suppurative meningitis which have failed to respond successfully to antibacterial agents. Dr. Dorothy H. Andersen has had a very productive year in the continuation of her work on the celiac syndrome.

DEPARTMENT OF PEDIATRICS

Professor RUSTIN McINTOSH, Executive Officer

The return to academic duty of all of those members of the Department who were on leave during their term of military service has brought welcome relief from the stringencies in personnel to which the teaching organization had been subjected for the past several years. Although no attempt will be made here to record the names and military achievements of all those who participated in the war effort, it is appropriate to express once again the gratitude which all of us feel toward those who served in the Army or Navy and the pride we take in their contribution to the successful issue. At the same time it would be idle to suppose that their return marks an immediate resumption

of normal academic activity. Problems of personal readjustment to civilian life persist, as do also those of housing, of finding suitable office accommodations for practitioners, of bridging the gap between military medicine and civilian pediatrics, and of channeling research interest toward fundamental concepts.

The resignation of Professor Dever S. Byard, who had reached the retirement age, was accepted with great regret. Dr. Annie V. Scott left the Department in January to resume the chair of pediatrics in Cheeloo University Medical School in China, and Dr. Richard G. Hodges resigned in order to accept appointment as assistant professor in Western Reserve University. Other resignations include those of Dr. Weston M. Kelsey and Dr. Robert W. Ripley.

New appointments to the pediatric teaching staff comprise those of Drs. Benjamin C. Berliner, William A. Silverman (re-appointment after lapse of six months), and Paul E. Wilson.

In the course of the academic year the Commonwealth Fund generously granted extension, for an additional two-year period, of their support of Professor Hattie E. Alexander's studies on *Haemophilus influenzae* and of Dr. Dorothy H. Andersen's investigations of chronic nutritional disorders. Professor Richard L. Day's studies of the physiology of premature and newborn infants have been aided by a two-year grant from the John and Mary Markle Foundation; and, the Cutter Laboratories, of California, have given assistance to Dr. Paul A. di Sant'Agnese in his investigation into active immunization of young infants by simultaneous administration of multiple antigens. There were eleven publications from the Department, including Professor John Caffey's book on Pediatric X-ray Diagnosis, a notable contribution in a field thus far scarcely exploited.

Shortly after the resumption of civilian travel, following the cessation of hostilities, increasing numbers of visitors from other countries began coming to observe American methods of pediatric teaching, research, and practice. While the majority of them remain but a few days or so, going from one teaching center to another with the intent of making an overall survey of a large section of the country, still others seek an opportunity to spend several months of intensive study in a single institution. The Department welcomes these visits and values them as means of cementing friendly international relations among scholars of different lands.

In October and November Professor McIntosh visited Belgium at the invitation of the Belgian Ministry of Health and under the auspices of the National Foundation for Infantile Paralysis, for the purpose of studying an outbreak of poliomyelitis in that country and of conferring with physicians regarding methods of diagnosis and treatment of the disease.

There were no important changes made in the teaching program for medical students. Looking back over the results of the past four years, this Department is convinced that the accelerated schedule made necessary by the military emergency was not a pedagogic success.

DEPARTMENT OF PHARMACOLOGY

Professor HARRY B. VAN DYKE, Executive Officer

The principal changes in the staff of the Department in the academic year were the appointment of Dr. John V. Scudi as Assistant Professor and the resignation of Dr. Maurice E. Krahl and Dr. Clifford L. Spingarn as Instructors. Dr. Solomon Disick returned from military service and will continue to work as a part-time Instructor. Dr. Alfred Gilman has been appointed Associate Professor from July 1, 1946. Dr. J. J. Barbosa Quental, Assistant Professor of Pharmacology in the University of Brazil, is a guest investigator who will remain in the Department during part of the coming academic year. Professor Jean La Barre, Head of the Institut Therapeutique of the University of Brussels, was the guest of the Department during the last part of the academic year. Drs. Alan Leslie and Leo Parmer have been on leave in military service.

All members of the Department participated in the teaching which has been successfully modified by introducing more intensive instruction in the third trimester. Lectures on biostatistics with applications to pharmacological problems, were given in the second trimester by Professor John W. Fertig. A course of graduate instruction for hospital residents has been organized. Dr. Solomon Disick has undertaken reorganization of the laboratory work for dental students for the purpose of better integration with dental science.

The Charles Christian Lieb Library of the Department of Pharmacology has been established through the initial gift of a fine library of scientific periodicals by Emeritus Professor Charles C. Lieb. This library is of inestimable value to the Department and the generosity of Emeritus Professor Lieb is deeply appreciated.

The investigative work of the Department was greatly hampered by lack of space; this handicap will be overcome as soon as new laboratories in the College become available. The work on the chemotherapy of leishmaniasis under an O.S.R.D. contract was completed by Professors van Dyke and Gellhorn and has been or is about to be published. A large number of organic and organometallic compounds were tested for possible therapeutic promise. Observations on the behavior of the most active compounds, derivatives of antimony, were made and new facts on tissue distribution and excretion in

relation to curative value were gathered. New work in endocrinology was started by Professor van Dyke studying the thymus gland and by Professor Gellhorn and Dr. Krahl investigating new aspects of the relation of the adrenal glands to carbohydrate metabolism. Under the auspices of a contract with the United States Army, the pharmacology of a new antibiotic, bacitracin, is under study by Professors van Dyke and Scudi.

Funds contributed by E. R. Squibb and Sons and by Eli Lilly and Company have greatly assisted the Department's program of research. This aid is gratefully acknowledged.

DEPARTMENT OF PHYSIOLOGY

Professor MAGNUS I. GREGERSEN, Executive Officer

The reorganization of the teaching staff of the Department to a peacetime basis was accomplished within a few months after V-J Day. This involved several resignations and new appointments. Dr. F. J. W. Roughton, Associate in Physiology, resigned in September and returned to his former post in Cambridge University, England. Dr. Kenneth S. Cole, Associate Professor of Physiology, who had been on leave of absence since the fall of 1942, resigned in November to join the faculty of the University of Chicago. Dr. Elizabeth E. Painter, Instructor in Physiology, also on leave during the war resigned to become Assistant Professor of Pharmacology at Loyola Medical College in Chicago.

Dr. Howard J. Curtis, who was granted leave of absence in the spring of 1943 in response to a special request from the directors of the atomic bomb project and who later served as Director of the Clinton Laboratories at Oak Ridge, Tennessee, rejoined the Department in January and has been appointed Associate Professor of Physiology. Dr. Joseph H. Holmes, Assistant Professor of Physiology, was released from the United States Army Medical Corps in January and at once resumed his duties here. Dr. Wilson C. Grant, former Lieutenant j.g. in the United States Navy and Dr. Thomas H. Allen, First Lieutenant in the United States Army Air Corps have been appointed Instructors in Physiology. Dr. John L. Nickerson has been advanced from Assistant to Associate Professor of Physiology. Dr. Marjorie Zucker, formerly Instructor in Physiology, has been appointed Research Fellow under the Baruch Grant for Physical Medicine. Dr. Daniel Kline, who received his Ph.D. in Physiology during the winter, resigned from the University Fellowship on January 1, in order to accept a temporary position at the Long Island College of Medicine. Dr. Jerome Gersten, Research Fellow of the Baruch Foundation for Physical Medicine, has been accepted by the Department for a year's training in research and teaching. Miss Monica Reynolds, Mr. Herbert

Borison and Miss Enid Neidle have been appointed Assistants in Physiology for the coming year.

Several important changes have been made in the teaching program. Post-graduate teaching in physiology for returning veterans, which has been made possible by a grant from the W. K. Kellogg Foundation, has been organized and directed by Professor Holmes. All senior members of the staff will take part in this instruction. The course covers those phases of physiology which have the most direct bearing on the practice of medicine and surgery.

Beginning next fall the Department will, for the first time, give a series of advanced courses in physiology in which the enrollment will be limited. These are designed for graduate students in physiology, for especially qualified medical students and for medical and dental graduates holding research fellowships in physiology. The advanced training offered in these courses will provide opportunity to gain experience in modern experimental techniques and their applications to current investigations. For the first time since the beginning of the war, the Department is offering a summer course in physiology, under the direction of Professor Holmes. The great demand for such a course is evident from the heavy enrollment. Professor Nickerson collaborated with the Department of Ophthalmology in the teaching of basic science to a group of residents in ophthalmology.

With the end of the war it has become possible to go forward with plans long contemplated for the development of teaching and research in electro-physiology and other phases of bio-physics. This program is being undertaken mainly by Professors Curtis and Nickerson. It is the conviction of the Department that the field of so-called bio-physics can best be advanced when intimately associated with the main currents of mammalian physiology, from which bio-physics has in the past drawn a large part of its vitality and to which it contributes so greatly. Segregation of bio-physics is also regarded as a serious drawback in the training of graduate students in bio-physics, for such students must have a broad knowledge of classical physiology in order to be competent to fill the available teaching positions in our medical schools and universities.

The investigations on traumatic shock which the Department carried out under contract with the Office of Scientific Research and Development during the war have been officially terminated. Out of this work has come approximately fifty scientific papers dealing with various aspects of the fundamental physiological disturbances in shock. Some of these studies such as those on blood volume changes in experimental and clinical shock have been of unquestioned practical value in relation to therapy, and the methods which were developed for investigating circulatory disorders have proved to be such useful tools that several of the investigations on shock are being carried on without interruption. Drs. William L. Nastuk, Clarissa H. Beatty, and

Daniel Kline are continuing with the quantitative study of the rate of recovery from the metabolic disturbances in shock after transfusion with blood and with blood substitutes modified in various ways to speed recovery.

Another line of investigation begun by Professors Nickerson and Curtis during the war and which has shown great promise, is the development of the ballistocardiograph for measuring cardiac output. During the past year Professor Nickerson has collaborated with Drs. Stead, Warren, and Brannon of Emory University in Atlanta, Georgia, as well as with our own Departments of Surgery and Cardiology.

Professor Shih-Chun Wang has brought forth additional convincing evidence on the neurogenic factor in shock. Miss Monica Reynolds is investigating the therapeutic value of saline in hemorrhagic shock with a view to evaluating the effects of the sodium ion. Dr. Marjorie Zucker working under the Baruch Grant is engaged primarily in investigations of capillary and lymphatic phenomena and has recently contributed a paper on bleeding time. Mr. Richard Lee, a third year medical student, is investigating the relation of the endocrine glands to the control of the capillary circulation. Dr. Ingrith Deyrup is continuing the studies of internal fluid exchange, utilizing radioactive isotopes; and, Professors Holmes and Gregersen are resuming their prewar researches in the field of water and electrolyte metabolism. Professor Curtis is at present concerned with the design and construction of modern equipment for the electro-physiological studies which he is undertaking. Mr. E. Freeman Hersey, a third year medical student, is spending several months collecting blood volume data on surgical patients under the supervision of Dr. Harold D. Harvey of the Department of Surgery and Professor Gregersen. Professor Walter S. Root and Dr. Wilson C. Grant are investigating the mysterious disappearance of red cells from the circulation which occurs under certain experimental conditions and which has made difficult the interpretation of blood volume data in special clinical conditions.

Professor Root has been elected Chairman of the New York Section of the Society of Experimental Biology and Medicine. Professor Gregersen has been selected as a member of the Medical Teaching Mission to Poland, jointly sponsored by the U.N.R.R.A. and by the Unitarian Service Committee, and will be in Europe during the summer.

DEPARTMENT OF PSYCHIATRY

Professor NOLAN D. C. LEWIS, Executive Officer

Modern progress in psychiatry to which the Department is an active contributor is slowly but definitely influencing all branches of medicine and sociology. This is due in a considerable degree to the insistence of the psychiatrist

on studying the whole individual, the personality as well as his diseases. The sooner a real understanding is reached between internal medicine and psychiatry the more rapid will be the progress of medicine as a science. In medicine the mind has always been deemed important theoretically, but it is usually left out of consideration or given scanty attention when bodily diseases have been under practical therapeutic consideration.

The staff of the Medical Psychiatric Service has remained the same as last year with Drs. Viola Bernard, Louise Brush, and Ruth Moulton on regular service, assisted by Dr. Sadie Zaidens. Dr. Kenneth Kelly, on leave of absence with the Navy for four years, returned to duty on the Medical Service in February. Dr. Edward S. Tauber has just returned from leave after four years in the Army.

Forty-five psychiatrists attended the Department of Psychiatry, Vanderbilt Clinic, during the year. Dr. Zygmunt A. L. Piotrowski did the psychometric and Rorschach examinations, as well as those requested by Babies Hospital.

Professor Lawson G. Lowrey joined our staff in September, coming first to assist in the instruction of military students in the course in Military Neuropsychiatry. Drs. Alfred Schick, J. Lloyd Morrow, John W. Welsh and Leon L. Altman have served as volunteer assistants. Dr. Justin L. Greene and Hugh McHugh have returned from the armed services.

Professor Lewis was on leave during November and December of 1945, during which time he was on active duty for the International War Crimes Tribunal assigned to the Nuremberg trials.

In addition to the usual instruction afforded medical divisions of the Department of Psychiatry the members of the Department conducted the third intensive course in neuropsychiatry for military officers, from September 1 to November 24, 1945. Many favorable reports have been received regarding the practical value of these military courses, three of which were given to a total of 260 students.

Professor George E. Daniels has confined most of his teaching to the Psychoanalytic Clinic which he has organized. Members of basic science and clinical departments participated. Clinical conferences on cases worked up by students in the Psychosomatic Clinic were held as part of the course.

For a number of years the Department of Physiology, with the coöperation of other departments of the medical school, has conducted a weekly Correlation Clinic throughout the year illustrating various applications of anatomy, physiology, and biochemistry to clinical and laboratory medicine. This year Professor Daniels was invited by the Committee on Correlation Clinics to give the last of the series on physiological manifestations of emotion. Patients with such conditions as peptic ulcer, essential hypertension, Raynaud's disease, ulcerative colitis, were shown not as disease entities, but to give examples of

psycho-physical interrelationships. Consideration of psychological medicine in the first year in relation to physiology and as a part of total integrations of the organism is an important advance.

Dr. Moulton is preparing a series of lectures to be given in the fall to graduate dental students on psychiatry in psychosomatic medicine as applied to dentistry. Dr. Kelly will give two lectures this summer and a series of fifteen lectures next spring on psychosomatic problems as a part of the course given for physical therapists. Inclusion of such training in the curriculum of dentistry and physical medicine represents a significant trend not only toward a better understanding of emotional factors, but in their greater integration with medicine in general.

During the year fifteen Vanderbilt Clinic psychiatrists participated in the teaching program of the third year students, and again took part in the course in military neuropsychiatry from September 1 to November 24.

There has been, as in the past, one psychiatric social worker in the Department, and as usual, the New York School of Social Work assigned two students for field work training in psychiatric social work. Drs. Henry H. Hart and Fanny Hann-Kende have again held regular conferences with the social work students in a joint program with the Neurological Institute assisted by Dr. Martin Schreiber.

The new Group Teaching Clinic at Vanderbilt Clinic has the services of psychiatrists one afternoon a week at the present time. The necessity of manning the Group Clinic with one psychiatrist each afternoon, five days per week, is an obligation that should be taken very seriously, and some plan must be worked out whereby this will be covered.

The new clinic of the Psychoanalytic Clinic for Training and Research was opened at the Vanderbilt Clinic in March, 1946. Drs. Ackerman and Bernard assisted in the teaching of the students and Dr. Ackerman was responsible for the direct operation of the Clinic. This Clinic will afford a valuable medium for intensive treatment of patients referred from the medical wards and from other departments of the Hospital and Vanderbilt Clinic, as well as the acceptance of special outside referrals.

Fifty-two articles and books have been published by members of the Department during the year and many additional papers and addresses have been presented at scientific meetings.

Members of the Department on duty at the Psychiatric Institute are all engaged in research for the major portion of their time. Among the problems at present under investigation are a number of studies on shock treatment of mental disorders, and their physiological components; the genetics of old age, tuberculosis, and dementia precox, particularly, co-twin studies which include a large number of normal and abnormal persons; experi-

mental epilepsy; deficiency and allergic disorders; and several problems in neurochemistry.

The financial support of the Josiah Macy, Jr., Foundation has enabled Dr. David Abrahamsen to study criminal offenders and their families. It was found that all of the offenders studied had suffered from bodily disorders of a psychosomatic nature. Of the control patients, all had some manifestations of a psychosomatic disorder, although not so severe as in the offenders. More significant was the presence of psychosomatic disturbances in members of the offenders' families. Here, psychosomatic disorders were constantly found either in the mother or father or in one or more siblings of the offender, in contrast to the control patients, where the psychosomatic disturbances were less frequent. The symptoms were most frequently located in the gastrointestinal tracts. Some cases studied seem to indicate that the crime committed might reflect a certain emotional state rather than a personality type.

Funds furnished by the Rockefeller Foundation to study "the significance of genetic factors in the incidence of nervous and mental diseases peculiar to old age" have been utilized by Dr. Franz Kallmann who has organized an appropriate staff of assistants to pursue this work in coöperation with New York State mental hospitals, public and private homes for the aged, and the various State, City, and County Welfare agencies for the distribution of old age assistance.

Dr. Louise Brush is continuing her study of hypertensive and coronary patients. Dr. Moulton expects to publish her findings on several cases of ulcerative colitis. Dr. Moulton and Professor Daniel E. Ziskin of the Department of Dentistry published the results of their research in glossodynia in the *Journal of the American Dental Society* and are completing final revision on research done on oral and vaginal smears as a research technique which will probably be published in the *Journal of Clinical Endocrinology*. Dr. Viola Bernard is at present writing up her research on sterility studied in a child adoption agency and with Dr. Kelly is preparing a paper on *Psychiatric Aspects of Sterility*.

SCHOOL OF PUBLIC HEALTH

Professor HARRY S. MUSTARD, Director

The teaching activities of the School of Public Health in the academic year 1945-1946 were unusually heavy. Thirty-seven candidates for the Master of Public Health degree were registered during the year. Twenty-four candidates for the Master of Science degree were registered in Hospital Administration, and there were a number of special students in Biostatistics.

The teaching program followed a fairly well established line, except in the case of Hospital Administration for which a new curriculum was instituted. This is a two-year course, one academic year in residence, plus a calendar year as administrative assistant under supervision of this School in an approved hospital.

In the field of research, Professor Frederick B. Flinn has continued his studies in relation to the action of alcohol in lead poisoning which is being prepared for publication. Professor Flinn has also continued his radium studies and reports that apparently because of precautions taken in industrial plants concerned, none of the dial painters under supervision are suffering any ill effects from their employment.

Professor Harold W. Brown with Dr. Kathleen L. Hussey, Dr. Norman Thetford, and Mr. Roger W. Williams, has continued his studies on filariasis both in the laboratory and in the field at St. Croix, Virgin Islands. These studies are supported by the John and Mary R. Markle Foundation and were originally undertaken in coöperation with the United States Navy. Professor Brown, with his assistants, has also continued his studies in amebiasis and in chemotherapy of Paragonomiasis and Enterobiasis. Professor David Weinman has continued his research in the field of protozoölogy with special emphasis on the blood flagellates and intestinal protozoa.

The following retirements and resignations have been reported with regret: Dr. Ernest L. Stebbins, Professor of Epidemiology, resigned in April, 1946, to accept an appointment as Professor of Public Health Practice, and Director of the Johns Hopkins University School of Hygiene and Public Health; Dr. Frederick B. Flinn, Associate Professor of Industrial Hygiene, retired as of June 30, 1946; Dr. David Weinman, Assistant Professor of Parasitology, resigned as of June 30, 1946; and Dr. Margaret P. Martin, Instructor in Biostatistics, resigned in August, 1945, to accept an appointment as Assistant Professor of Biostatistics.

Additions to the teaching staff include: Dr. Leonard J. Goldwater, Professor of Industrial Hygiene, July 1, 1946; Dr. John E. Gorrell, Professor of Hospital Administration, September 1, 1946; and, Miss Lillian R. Elveback, Instructor in Biostatistics, January 1, 1946.

DEPARTMENT OF RADIOLOGY

Professor ROSS GOLDEN, Executive Officer

The return of the following members of the Department at the conclusion of the war has been welcomed: Professor Robert P. Ball, Dr. Gerald M. Peterson, Dr. Vincent M. Whalen, Professor Ernest H. Wood, Dr. Lawson E.

Miller and Dr. Eric J. Ryan. Professor Murray M. Friedman is still in the service but anticipates release in the near future.

Dr. Raymond W. Burford has resigned to enter private practice in Dallas, Texas; Dr. Paul H. Ducharme, to begin practice in Orlando, Florida; and, Dr. Arthur F. Hunter to practice radiology in Portland, Oregon.

Professor Golden has been honored by the election as President of the American Roentgen Ray Society; as Honorary Member of the Cuban Radiological Society; and by appointment as Chief Consultant in Radiology for Branch Area Number Two of the Veterans Administration. He has given several lectures including the Pancoast Lecture at the Philadelphia Roentgen Ray Society; a lecture to the staff of the Grace Hospital in Detroit to commemorate Roentgen's one hundredth anniversary; and, another to the New York Gastroenterological Society. He gave the Phi Delta Epsilon Lecture at the Jefferson Hospital in Philadelphia. Professor Golden, together with Dr. Paul H. Ducharme, published an article on the clinical significance of deformity of the cecum in amebiasis. In April he published an article on the preparation and presentation of medical papers.

Professor Maurice Lenz has continued during the past year, together with Professor Titus C. Evans, the study of the effectiveness of radioactive sodium in leukemia and polycythemia. He has published papers on radiotherapy in cancer of the breast, radiocurability of cancer, roentgentherapy of epitheliomas of the skin and tumor dosage and results in roentgentherapy of breast cancer. He lectured on the radiocurability of cancer at the Medical Society of the County of New York and on roentgen and radium therapy of cancer at the New York State Department of Health; he also spoke at the meeting of the New York Roentgen Society, and at the American College of Radiology Post-Graduate Course. Professor Lenz gave a course of lectures in Spanish on x-ray and radium therapy of cancer in Bogota, Colombia. At approximately the same time he attended the Second Mexican Cancer Congress and lectured on cancer of the breast, larynx, nasopharynx, and the principles of the treatment of cancer. He also lectured in San Salvador and in Costa Rica and was awarded an Honorary Fellowship by the College of Physicians and Surgeons of Costa Rica and by the National Academy of Medicine of Colombia. Professor Lenz, with Professor George Cahill and Dr. Charlotte Donlan, presented the results of the treatment of cancer of the bladder by cystotomy and insertion of radium needles at the meeting of the American Radium Society.

Professor James A. Corscaden, Dr. Saul B. Gusberg and Dr. Donlan have started the use of interstitial radium in advanced cancers of the cervix.

Since January, 1944, members of the Radiological Research Laboratory have been engaged mostly in research relating to the atomic bomb project under the Manhattan District of Engineers. Professor Gioacchino Failla has served as

Consultant to the Metallurgical Laboratory of the University of Chicago in connection with the Plutonium project, and also served on Section 17.2 of the National Defence Research Council. Professor Failla was a member of the American Standards Association War Committee on the Safety Code for the Industrial Use of X-rays and served on the Radiology Panel of the Growth Committee of the National Research Council. Professor Failla's lecture originally prepared for the Caldwell Lecture at the American Roentgen Ray Society for 1945, "Protection against High Energy Roentgen Rays," was published in the Memorial Number of the American Journal of Roentgenology and Radium Therapy which commemorated the fiftieth anniversary of the discovery of the Roentgen ray. Other papers published from the Radiological Research Laboratory were: "The History of Dosimetry in Roentgen Therapy" by Professor Edith H. Quimby; "The Use of Radioactive Sodium as a Tracer in the Study of Peripheral Vascular Disease" by Dr. Beverly C. Smith and Professor Quimby; "The Tolerance Dose or Tolerance Intensity" by Professor Quimby; and, "Studies of the Effects of Radioactive Sodium and of Roentgen Rays on Normal and Leukemic Mice" by Professors Evans and Quimby.

Professor Failla lectured on x-ray therapy at a special commemoration of the fiftieth anniversary of the discovery of the Roentgen ray at the American Physical Society meeting in St. Louis; he also lectured on the physical basis of dosage in radiation therapy at the American College of Radiology Refresher Course, on radiation therapy at the Sigma Pi Sigma Society, and on atomic energy and medicine at the New York Roentgen Ray Society, at the Yonkers Academy of Medicine, and at the Physics Club in Philadelphia.

Professor Quimby gave several lectures on the atomic bomb to lay groups. She lectured on dosage determinations in radiation therapy at the American College of Radiology Refresher Course in February and to the Philadelphia Roentgen Ray Society; and to the Hunter College Faculty Science Club; and at the Columbia University Physics Department Colloquium she lectured on artificial radioactive substances in biology and medicine. She also talked on atomic energy in radiology at the New York State Medical Society and at the Pennsylvania State Radiological Society, and on atomic energy in medicine at the Manhattan Eye, Ear and Throat Hospital and the North Bronx Medical Society. She also lectured on atomic energy in medical research at a staff conference of the Wellcome Research Laboratories.

Professor Evans lectured on the influence of quality and rate of administration on the biological effects of radiation at the American College of Radiology Refresher Course and gave a lecture at the American Association for Cancer Research on effects of radioactive sodium on leukemia in mice. He has received leave of absence to take part in "Operation Crossroads."

A number of appointments were made in the Department this past year. Dr. Ida Sterman and Dr. Stephen A. Forbes were appointed Assistants in Radiology. Drs. Arthur E. Childe and Lloyd H. Smith have joined the Department as Volunteer Assistants. Leslie A. McClintock, Ph.D., was appointed Associate in Biochemistry and was assigned to the Radiological Research Laboratory. Dr. McClintock, in association with Professor Friedman, succeeded in attaching a heavy metal to an antibody and showed that the antibody carried the heavy metal specifically to the antigen. Dr. McClintock is now carrying on similar observations in connection with mouse tumors.

DEPARTMENT OF SURGERY

Professor ALLEN O. WHIPPLE, Executive Officer

In retiring from the Chair of Surgery after twenty-five years of service, there are many observations that present themselves that should be of interest to the Department of Surgery and to the School of Medicine. During this period the Surgical Service has gone through the process of becoming a University Clinic dealing with both undergraduate and graduate problems; entirely different problems in their makeup and philosophy.

During the past twenty-five years there have been many changes in the plan and scope of surgical teaching in the School, but some of the courses have been kept intact in plan because of their proven worth. The first of these has been the second year course dealing with the fundamental principles of surgery, such as inflammation and injury of tissues and the healing of wounds. This course was started by Professor William C. Clarke in 1905 and has been continued by Professors A. Purdy Stout, Virginia Kneeland Frantz, and Harold D. Harvey. The Clinical Clerkship, which was formerly given in the fourth year, was changed to the third year in 1932. This improved the third year teaching but at the expense of the fourth year, when the students worked in the Out-Patient Clinic in the mornings. This defect has been corrected by having the third year clerkship lengthened to include work in the Out-Patient Clinic, leaving the fourth year students free to work in the recently organized Vanderbilt Group Clinic. In this Clinic the student studies the new admissions first hand, presents them to the instructors, hears the discussion of differential diagnosis and consultations from the specialists called in to examine the patient, and follows and reports on the therapy in whatever service of the Hospital it is carried out, which is a great advance in teaching.

Our aim in undergraduate teaching has been to emphasize the fact that surgery is a branch of the science of Medicine, differing from internal medicine only in therapy. No attempt has been made to teach the undergraduate

the elaborate techniques of operative surgery. This is a graduate subject designed for the training of residents. The intention has been to emphasize the diagnosis of the most common acute and chronic lesions requiring surgical therapy—especially those needing immediate operation—the indications and contraindications for surgery, the pre- and post-operative measures to be used to avoid complications, to stress the results of delayed diagnosis, and to give a fair presentation of the prognosis as determined by follow-up results.

During the past year numerous meetings have been held with the younger instructors and with the Attending Staff in reviewing the problems of surgical teaching. At present, a group from the Medical Department are meeting with a group from the Surgical Department to revise and improve the Combined Clinics which are given weekly to the third and fourth year students. This is one of the most important teaching exercises that is given in the school and will do more to imbue the medical student with the essential relations between medicine and surgery than any other doctrine.

In the graduate field the two types of instruction and training, post-graduate and resident, have been followed, but more emphasis has been placed upon the training of long-term residents, for in surgery, which is a combination of the science and art of therapy carried out by operative procedures, individual practice and experience of the young surgeon, under proper senior supervision, is essential to the learning and application of the many techniques. The residency is really an apprenticeship in which increasing responsibility and operative work are given the resident as he progresses through the grades of his training. It is best done in a University Hospital in close contact with the laboratories, teaching facilities, and the staff of the Medical School. It is in this most acquisitive period of the surgeon's career that staff rounds and round-table conferences provide the best type of instruction. We have made every effort to emphasize and carry out this kind of resident training.

During recent years there have been an increasing number of post-graduate surgeons, native and foreign, who have spent from two to six months in attending our surgical rounds, the Combined Clinics, and the operations and conferences on the surgical service of the Hospital. The demand for this is always a measure of the originality and reputation of a surgical clinic.

In 1921 plans were made to reorganize the clinical services of the Presbyterian Hospital in preparation for the Columbia-Presbyterian Medical Center. The new surgical staff consisted of Director Allen O. Whipple; Visiting Surgeons, Hugh Auchincloss, Fordyce B. St. John; Associate Visiting Surgeons, William Barclay Parsons, Wilder G. Penfield; Surgical Pathologists, William C. Clarke, Arthur Purdy Stout. This was a small group with two small services. All were young and knew each other well. Each was beginning to develop some field in general surgery. Each had trained under such

outstandingly able and experienced surgeons as Blake, Brewer, Lambert, and Eliot. They had taken part in the development of the Follow-up and the Unit Record system—two pioneer hospital projects at that time. They brought the best traditions of the old hospital in the reorganization of the School and Hospital affiliation under the wise and able leadership of their close friend and associate, Dean William Darrach.

There were then two unexplored fields of surgical organization in this City. One was full-time service, the other was surgical residencies. Both these systems had been and were being tried in other University Clinics, but for a number of reasons, which constitute a chapter in themselves, had not been put into practice in New York. For the period of seven years before moving to the new Center, the full-time system was tried, in one form or another, and finally a satisfactory arrangement was reached which permits a surgeon to work on full- or part-time basis, in the way most favorable to his capacities in teaching, investigation, and practice. Now the policy of limiting a surgeon's work to the Hospital with an office in the building is accepted by the majority and has eliminated the artificial barrier between full-time and part-time staff.

The lecture system in the School and the resulting extra-curricular "quiz" groups in the decades 1880-1910 developed an intern tradition in the hospitals of the City which had a malign influence on the training of younger surgeons. Because of the existing tradition in favor of the short time limited surgical internships in the hospitals in New York, the long time resident training of surgical interns was called Surgical Fellowships. This training consisted of a year as Junior Fellow following a surgical internship. From six such Junior Fellows, two were chosen for two more years as Senior Fellows. This plan soon demonstrated to the most skeptical critics that such training developed surgeons qualified to do major surgery and to take responsibility, gave the Visiting Surgeons incomparably better assistance, and provided for better care for the patients and important teaching to the surgical clerks. Furthermore, this training encouraged and stimulated original investigation.

The first four Senior Fellows were Drs. Jerome P. Webster, Harold D. Harvey, Lawrence W. Sloan, and Richmond Moore. Their work was so outstanding in separate fields that they were appointed as Assistant Visiting Surgeons. Soon after this the Fellows were designated as Residents and, before the war imposed an abbreviated training, five-year residencies were held, including one year of medical internship. During these years 112 surgeons have been trained for varying periods. Many of these Residents have since then done outstanding surgery and have filled important positions in different parts of the country. The October, 1946, number of the *Annals of Surgery* is to be made up entirely of contributions by former Residents. These are papers selected from a great many submitted for this issue of the *Annals*.

To the original staff there have been numerous additions. Of the group before moving to the Medical Center, two, Dr. Wilder G. Penfield and Dr. William Cone, left to be Director and Assistant Director respectively of the new Neurological Institute at McGill University. Both are now international figures in neurological surgery. In 1922, Dr. John M. Hanford joined the staff and has remained. In 1924, Dr. Charles L. Janssen came from the Depage Clinic in Belgium and made a unique place in our respect and affections. His untimely death in 1941, after several years of a brave fight against a serious illness, cut short his sterling work on the surgery of the colon and rectum. The only other losses during these years were those of Dr. William C. Clarke and Dr. Frederick T. van Beuren. Dr. Clarke, after more than twenty years as rare mentor, teacher, and able pathologist, retired in 1929. His interest in the Department terminated only in his death in 1943. Dr. van Beuren, after moving to the Medical Center, devoted his time to work as Associate Dean of the Medical School, but continued his interest in the Surgical Service. He died in 1943, beloved by all of us.

Since moving to the Medical Center with the increase in the size of the Surgical Staff, laboratory and clinical, new services have been developed notably in the fields of surgery of the extremities, in plastic surgery, in thoracic surgery, in vascular surgery, in tumor surgery, and in thyroid surgery.

Under the leadership of Professors Darrach and Clay Ray Murray, the surgery of fractures and the acute lesions of bones and joints has attained a unique position in this country. The amalgamation of this service with the New York Orthopedic Hospital in the Medical Center promises to develop the most modern and original surgery of the locomotor system in any clinic. Studies in the biochemistry of bone repair, the differences of electropotential in various metals used in the repair of fractures, and the use of antibiotics in the pyogenic infections of bone have been and are being studied by this group.

Professor Jerome P. Webster has developed the outstanding Plastic Surgery Service for resident training in this or any other country. The demand for resident training is so great from candidates from the United States and foreign countries that only a small fraction of those applying can be given appointments.

The Division of Plastic Surgery has grown to its present proportions since 1928, when the Medical Center was opened and Professor Webster was recalled to New York from Fellowship studies in St. Louis. The division now consists of two surgical divisions, the first being in charge of Professor Webster and the second in charge of Dr. Thomas W. Stevenson, Jr., two assistant residents, and two residents. In addition to the professional staff there is a medical artist, technician, secretary, secretary-librarian, and a research assistant.

The nucleus of what now is probably the most outstanding library devoted to plastic surgery in the world was purchased by Professor Webster in 1932. It has grown to approximately 7,000 volumes, reprints, and theses, and is valued at over \$15,000. It has been donated by Professor Webster to the Library of the College of Physicians and Surgeons, Columbia University.

The Division of Plastic Surgery contributed to the war effort in various ways. Four courses of twelve weeks each were given in 1942 and 1943 to eighty-two Army Medical and Dental officers, with approximately seventy instructors participating in each course. These were given under Professor Webster's direction in accordance with a contract drawn between Columbia University and the United States Government.

In 1945, Professor Webster was appointed Consultant to the Surgeon General of the United States Army and inspected the various plastic surgery centers in this country.

The surgery of the chronic, non-tuberculous infections and the tumors of the lungs, pleura, and thorax was assigned to Dr. Richmond L. Moore in 1928 and has since then, with the coöperation of Professors George H. Humphreys, II and Arthur H. Blakemore, included the vascular surgery of this field. At present this type of surgery constitutes one of the most important groups of the major surgery being done in the Department.

In vascular surgery, Professor Blakemore has established an international reputation in his wiring of aneurysms, his non-suture anastomosis of blood vessels, especially in shunting the portal blood to the systemic venous system in portal hypertension, and his experimental work in the treatment of mitral stenosis. With Professor Humphreys, he is one of the modern school of surgeons contributing to the problem of treating deficient or narrowed vascular beds by shunting the blood stream. To overcome the danger of clotting by the suture method in uniting vein to vein or artery to vein, Professor Blakemore has developed a newer technique of using vein-lined vitallium tubes for this shunt or anastomosis. This method has, during the past three years, been applied to the operation for shunting portal blood to the general venous circulation. During this time, some twenty-five such operations have been done, twelve of them uniting the portal vein to the cava (the so-called Eck fistula), and the others by uniting the splenic vein to the left renal vein. No other clinic has had this experience.

In thyroid surgery under the leadership of Professors William Barclay Parsons and Lawrence W. Sloan, there has been constant coöperation of the Medical Service in preoperative and follow-up studies of these patients in the combined Thyroid Clinic. In the past ten years we have averaged as many thyroid operations as hernioplasties.

Another example of the value of combined clinics with Pathology and

Medicine is the growth of the so-called Spleen Clinic in which, since 1928, disorders of the spleen, the hemopoietic system, and the hepatosplenopathies have been studied before and after treatment by the combined group. This has improved the knowledge of these disorders, has determined the therapy, has made the teaching in these disorders authoritative, and has stimulated research work in the anatomy, pathogenesis, and pathology of the splenopathies.

The surgery of tumors in general surgery covers a number of systems, notably those of the lymphatic, the pulmonary, and the gastrointestinal tract and its related organs and of the connective tissue structures. In the field of the head and neck, Professor John M. Hanford has, with the surgical pathologists and Professor Cushman D. Haagensen, developed a Tumor Clinic to which most of the cases of tumors of the parieties are referred. This, again, is a combined clinic demonstrating the advantages of group study.

Professor Hugh Auchincloss has been especially interested in the diagnosis and treatment of breast tumors and, since 1912, has contributed fundamentally to the teaching of this subject, both to the undergraduate and graduate students. His studies of the lymphatic spread of cancer in general have been outstandingly significant. Another field to which he has contributed so soundly is the surgery of the hand. In this his studies are authoritative.

Because of his knowledge of the pathology, the surgery, and the radiotherapy of breast tumors, as well as tumors in general, Professor Haagensen has contributed soundly to the Clinic, together with Professors Stout and Frantz in the Surgical Pathology Laboratory.

In the gastrointestinal field, especially the radical operations for cancer and for ulcerative lesions, there has been a notable increase each year, both in number and scope. In the lesions of the stomach and duodenum, Professors St. John and Harvey have been especially interested, and they have made follow-up studies that are unequalled in any other clinic.

Before 1935, radical operations for tumors of the pancreas were rare, and very few surgeons attempted them. In that year the first radical operation in many years was reported from this Clinic. Since then there have been some forty-two such procedures (involving the removal of the head of the pancreas, the duodenum, part of the stomach, and terminal portion of the common duct), a larger number than in any other clinic. In addition, there have been three total pancreatectomies and thirty-two excisions of tumors of islet cell tissue from the pancreas. These patients had been having uncontrollable insulin shock because of overproduction of insulin by the islet cell tumors. These operations, together with those for cysts and calculi of the pancreas have totalled 110 and have given the Clinic authority in the field of pancreatic surgery.

The Laboratory of Surgical Pathology has from the beginning been so much a part of the Department of Surgery and has so constantly contributed to the development, in training our Attending and Resident Staff in the appreciation of the pathology of the lesions studied and operated upon, that a review of the growth of this branch of the Department is essential in this report. This laboratory was started in 1905 in the old building with a desk and a pioneer spirit by Dr. William C. Clarke. In 1909 it was moved to the old Hospital building with the affiliation of the School and Hospital. By 1921 some 2,100 examinations had been recorded. The staff consisted of Drs. Clarke, McWhorter, and Stout. With the move to the Center, it was housed on N floor in the College building where it has grown under Professor Stout's direction to the largest laboratory of Surgical Pathology in this country.

Under the supervision of Professors Stout, Frantz, Haagensen and Dr. Raffaele Lattes during the past year, thirty-two men have received advanced training in the laboratory. During the past year the consultation service covered sixteen states, the Canal Zone, the Philippines, and nine foreign countries. In addition to all other departments and affiliated hospitals of the Medical Center, seventeen outside institutions used this service regularly, and many others sporadically, for consultation.

Among many research projects that have been seriously curtailed by the war, those that have been carried on during the past year should be mentioned: the development of absorbable cellulose material to control hemorrhage, which was carried out as a National Research project by Professor Frantz and Dr. Lattes; the milk fractionation studies in a mouse dairy by Professor Haagensen and Dr. Samuel Graff, to explain the mysterious milk factor in the transmission of mouse cancer; the cultivation by Professor Stout and Dr. Margaret R. Murray of tumor tissue and the growth for the first time of human striated muscle *in vitro*. During the past five years, fifty-one papers have been published from the Laboratory.

In addition to the activities in Surgical Pathology in this laboratory, there are housed on this floor Professor Frank L. Meleney's laboratory of Surgical Bacteriology and Professor Louis Bauman's laboratory for the Biological Chemistry of the Department of Surgery. Here investigative work, as well as routine examinations, are carried out and have been invaluable to the Department.

As an intern on the Surgical Service in the old Hospital, Professor Meleney became interested in the bacteriology of surgical infections. After serving in the Pekin Union Memorial Hospital, he returned with an unusual experience and purpose in this field. Since then, he has developed the largest and most productive Laboratory of Surgical Bacteriology in this country. Through some ninety-seven papers from this Laboratory, he has contributed more than

anyone else to this important branch of surgery. His monograph on the bacteriology of surgical infections is now in press and will be published this year.

One of the most constructive functions of the Laboratory is the coöperation of the Staff in studying the patients with the surgeons, both in preoperative and follow-up period. In this way, the experience of diagnosis and prognosis is shared and the same language is spoken. Furthermore, all the Surgical Pathologists have had surgical training.

A measure of the healthy growth and alert attitude of a surgical staff is its appreciation of better techniques and of new sound therapy. In 1926 the use of silk in the repair of clean wounds was first used. This technique is now used to the great improvement of the immediate and late results. In the Department's last annual review of wound healing 97.8 per cent of the clean wound, closed with silk or cotton, healed by primary union. Two years ago as a result of studies made by the Committee on Convalescent Care of the National Research Council, we began to get patients out of bed within forty-eight hours after major operations instead of the former fourteen day period. This "early ambulation," which is carried out unless there are certain contraindications, has markedly reduced postoperative complications, has improved the morale of the patients, and has very materially shortened the bed and hospital stay, as well as the expense to the patient. The only complication this has caused is the increased number of admissions, which has made the operative schedule more difficult than ever before. During the past year more operations—more difficult and prolonged because of the lesions dealt with—were performed than any year in the history of the Hospital. The total number in the operating rooms on the eighteenth floor for 1945 was 6,041.

We are justly proud of the fine record of our staff in the war effort, both in military service and in civilian research in connection with the Surgical Committee of the National Research Council. It is a great blessing to have members of the staff back from military service.

I cannot close this review without expressing my deep appreciation of the constant help and coöperation of my colleagues in the Medical School and in the Hospital in the conduct of the Surgical Department. It has been a rare privilege to work with such a Faculty and under such able Deans as Dr. Darrach and Dr. Rappleye. I feel contrite for the mistakes that have been made and for the things left undone. But I shall always be grateful for my part in the work of the Department for the past twenty-five years, for my close friends and associates on the Surgical Service, and above all for the privilege of helping to train a younger generation of residents in Surgery who will carry on the sound surgery of the Department.

One of my most durable satisfactions is the fact that one of our former

residents and my close friend and associate, Dr. George H. Humphreys, II, has been chosen by the Faculty to succeed me in the Chair of Surgery. I am confident that he will keep the good traditions of the Surgical Department, eliminate the previous faults, and add new laurels to the Faculty of the Medical School.

DEPARTMENT OF UROLOGY

Professor GEORGE F. CAHILL, Executive Officer

During the year Professor John N. Robinson, and Drs. Charles T. Hazzard and Leonard A. Hallock have returned to active service in the Department after discharge from the armed forces of the United States.

The teaching of the undergraduates has been revised for a return to peace time standards with a normal teaching faculty. The graduate teaching program has been commenced with the return of the resident staff to three year appointments; and the program is substantially the same as previous to the war period, with acceptance of residents who may qualify as candidates for a higher degree.

In conjunction with Professor Earl T. Engle of the Department of Anatomy, and Professor William E. Studdiford, Jr. of the Department of Obstetrics and Gynecology, Professor Robinson is co-establishing a study on human fertility. This investigation is made possible in part by a grant from the Mary and Albert Lasker Foundation.

Dr. Manek H. Masina is engaged in a study of the determinability of the heterologous growth of prostatic tumors as well as such growth of all urinary tumors. This is being supported by a special grant from the Charles Mayer Fund. Dr. William Ivers has been assigned to aid Dr. Thomas Hunter of the Department of Medicine in a study of the therapy of antibiotics in urinary infections. Dr. Hester Gibson has been assigned to the study of urinary infections in diabetes with Dr. Henry Marks of the Department of Medicine.

Members of the staff have continued several investigative problems in which they have been interested for several years. Professor George W. Fish has carried out for Professor Virginia K. Franz of the Department of Surgery, the determination of the value of acetate gauze in urology. The studies in the surgery of adrenal dyscrasias, hypertension related to urinary pathology, correction of urinary malformations in childhood, uremia and its therapy with study of electrolytes, have continued as heretofore. Pathological study of urinary tumors has continued under Dr. Meyer M. Melicow with classification of urinary and testicular tumors based upon his experience with the abundant material in the Department since its inception.

MEDICAL LIBRARY*

SEYMOUR ROBB, Medical Librarian

During the past year much time and effort have been spent in planning a new building, a number of highly profitable exchanges have been received, and an even closer relationship with investigators, faculty and students has been achieved. Some of the functions to which we have paid particular attention are in direct anticipation of the additional facilities that will be available when the new building becomes an accomplished fact. To this end efforts have been made to expand our "Archives," the nucleus of an audio-visual department which will eventually include films, film-strips, slides and recordings has been established; and the expansion of our bibliographic service by nearly 200% over last year has already been accomplished but is, even so, only an indication of what can be done with this service when adequate staff and space become available.

There was a tremendous increase in the normal functions of the Medical Library during the past year ranging from 35% in some cases to nearly 200% in others.

The past year has seen an unprecedented growth in the collections of the Medical Library. Since the end of the war much foreign material, both books and journals, has become available. In addition to the generous gifts of books and journals during the past year, the establishment of two new funds must be acknowledged. The Benjamin Salzer Gift made available the sum of \$200 to aid in the development of the "Archives" and Dr. Arthur H. Merritt gave \$100 to start a fund for the purchase of rare dental literature. Both of these funds have already been put to excellent use, the Benjamin Salzer Gift for the purchase of microfilms and photostats of original P & S material now in other libraries, and Dr. Merritt's for the purchase of several dental works that were beyond the scope of our ordinary budget.

In keeping with the growth of our collection during the past year, the demands on the library by students, faculty, and investigators have increased proportionately. In spite of a limited staff and the severe handicap of congestion of material, the greatest number of readers ever recorded in a given year were served. A total of 106,781 readers were in attendance (an increase of 37.2% over last year). The total circulation, amounting to 137,289 volumes, represents an increase of 35.9% over last year.

The Bibliographic Service was inaugurated in 1939-1940 when it was already obvious that the United States would be involved in World War II. In 1940-1941 when foreign journals were still available and when paper

* For complete report see the Report of the Director of Libraries, Columbia University.

shortages had not yet appeared, the Bibliographic Service sent out only 8,500 citation slips. In comparison to this figure it has distributed 11,000 slips in 1945-1946 (an increase of 29.5%). Due to the lack of help, the number of subjects treated have been restricted to approximately one hundred. We have, however, made every attempt to put the service at the disposal of men returning from the armed services and their response has overwhelmingly justified its existence.

Increased use of the Library has made it necessary to reorganize the entire library staff and has emphasized the need for additional help. This new arrangement has worked exceedingly well in so far as providing instant and trained assistance to our patrons goes.

Almost one thousand new students and members of the Faculty were given talks on the use of the library and a guided tour of the library itself. This has been done previously but never before to so many different types of students—occupational therapists, dental hygienists, physical therapists, public health students, as well as medical, dental, and nursing students. In addition the Librarian talked to the first year medical and dental class on the literature of anatomy, the Reference Librarian talked to the second year nursing students on the history of medicine, and the Assistant in Charge of Periodicals spoke on periodical indexes to two different groups. All of these talks were illustrated by material from the library collections.

In March, 1946, the Medical Library acted as host to a joint meeting of the Hospital and Nursing group and the Patients Library group of the Special Libraries Association. The Medical Librarian gave an illustrated talk on the Library of Congress and its activities. The Librarian also spoke before the joint meeting of the Biological Sciences Group and Hospital and Nursing Group at the Special Libraries convention in Boston, June 13-15, 1946. During the year the Librarian was appointed to the College and University Libraries Committee of the New York Library Association and accepted the Chairmanship of the Committee on Duplicate Foreign Material of the War Years of the Medical Library Association.

A total of 12,184 separate issues of journals were added to our records during the year for an average of over a thousand per month. Since the end of the war many titles have resumed publication and many new important journals in the specialties have begun. We have added fifty-three new periodicals to our regular collection which now gives us 1,279 titles currently received through subscription, gift, and exchange. While no statistics have been kept on the increased use of current journals, a conservative estimate is that the use of this material has at least trebled during the last twelve months. Interlibrary loan requests have approximately doubled during the past year. These increased demands from other libraries have made it necessary under

certain conditions to supply the information requested through the use of microfilm or photostats in order that our regular patrons should not be deprived of the material even temporarily.

Although it is impossible to enumerate here the 33,685 volumes, pamphlets, and journals received as gifts during the past year, several items of outstanding interest should be mentioned.

The manuscript lecture notebooks of Sir James Young Simpson (1811-1780) were given to us by Dr. Benjamin P. Watson, Professor of Obstetrics and Gynecology. It was Simpson who discovered that chloroform was a less irritating anesthetic than ether and who was the first user of anesthesia in midwifery. Simpson also introduced the iron wire suture and the use of long obstetrics forceps. He was the first to erect pavilion or cottage hospitals and he was an early user of statistical methods in medical investigations.

Through the interest of Professor Frederick A. Mettler we have received many outstanding and valuable works from the Benjamin Salzer Gift. Several of the most interesting of these are as follows:

An Incunabulum of Dinus de Garbo. This is a 1499 edition of Avicenna's Canon with notes and explanations by Dinus. This copy was printed in Venice by Johann Hamann and is an excellent example of the fine type and printing for which the early Italian printers are so justly famous.

Two editions (1755 and 1757) of the English translation of Heister's Surgery, one of the great landmarks in the history of surgery.

The first American edition of Sir Charles Bell's *System of Dissections* in the rare Baltimore (Jefferis, 1814) printing.

A 1560 copy of Alexander of Tralles work. Alexander of Tralles is the only Byzantine writer of the sixth century, whose works we have, who shows any sign of originality. He is said to be the first to mention rhubarb and to prescribe colchicum for gout.

A 1619 copy of the *Regimen Sanitatis Salernitanum*, the well known rhymed rule for healthful living.

An early edition (Philadelphia, 1817) of John Redman Coxe's Medical Dictionary—the first American medical dictionary to be printed.

NEW YORK POST-GRADUATE MEDICAL SCHOOL

WILLARD C. RAPPLEYE, Director

During the school year ending June 30, 1946, there have been 1,220 physicians enrolled in the New York Post-Graduate Medical School from 44 states, 3 territories and 19 foreign countries. Of this number 551 were veterans and 353 were former matriculates. This number has been exceeded only once in

the history of the School, in 1919-1920 when 1,399 physicians attended. The very large number enrolled this year is the more remarkable because most of the classes at the Post-Graduate are now limited in size and a great many applicants were turned away because the classes were filled.

Listed below are statistics regarding the gross number of registrations by departments:

Dermatology and Syphilology	172
Gynecology	172
Medicine	885
Neurology and Psychiatry	26
Ophthalmology	152
Orthopedic Surgery	34
Otolaryngology	26
Pathology	27
Pediatrics	163
Surgery	124
Traumatic Surgery	15
Urology	8
Interdepartmental	92
	<hr/>
TOTAL	1,896

The Registrar reports that there are more advanced registrations for the courses for the fall and winter months than usual and more even than a year ago. A number of classes to be held in the fall are already filled.

The great demand for the long course of training for specialization in dermatology and syphilology continued. The class has already been selected consisting of twenty-two physicians who will begin this course on October 1, 1947. No further applications will be considered during the coming year because it seems too early to choose the class for 1948. There were more than one hundred applicants up to June 1 for the class opening in October, 1947.

A full report of the research and teaching activities and of staff changes is contained in the published report of the School and Hospital.

SCHOOL OF TROPICAL MEDICINE*

Professor PABLO MORALES OTERO, Director

Now that normal times are gradually approaching, the School is anxious to return as quickly as possible to its peace-time program, laying special emphasis

* For complete report see the Report of the Director of the School of Tropical Medicine.

on problems of public health as related to the American tropics and, specifically, to the Caribbean area. Such a program envisages the training of personnel for public health work in these regions as well as fundamental research in the fields of nutrition and tropical medicine.

During the past year, the Special Board created the Master of Science Degree to be granted to those who complete at least two years of graduate work in one of the basic sciences, covering one hundred and thirty credits, with a thesis in their specific fields. Requirement for admission is a Baccalaureate degree from an accredited college with a grade index of not less than 1.5.

Activity on the new building, which is to house the Department of Hygiene, has progressed to the point where bids for its construction have been let by the Department of the Interior.

The sessions of the Fifth Annual Meeting of the Puerto Rico Public Health Association were held on February 6,7,8, and 9, 1946. Among the guests from the United States were the late Dr. M. J. Rosenau, Dean of the School of Public Health of the University of North Carolina; Dr. Aristides Moll, Executive Secretary of the Pan American Sanitary Bureau; Major James A. Caldwell and Major W. Myers Smith, Chiefs of Party, respectively, of the American Sanitary Missions in Santo Domingo and Haiti, and Mr. John Hepler, Chief of the Bureau of Engineering, Michigan State Department of Health, and Secretary of the Engineering Section of the American Public Health Association.

Visitors during the year included: Professor A. H. Thaysen, Director of the Microbiological Institute, Trinidad, B.W.I. Dr. Victor Johnson, of the American Medical Association, Chicago; Dr. M. Ruiz Furniz, of the University of Murcia, Spain; Surgeon-Lieutenants P. M. Jameson and Kenneth Davidson, R.C.N.V.R., Ottawa, Canada; Dr. E. J. Teeter, of the Lilly Research Laboratory, Indianapolis, Indiana; Drs. J. B. Rice and T. G. Klumpp, of the Winthrop Chemical Company; Sir Rupert Briercliffe, Director for Development and Welfare of the British West Indies and Dr. W. H. Kauntz, Chief Medical Adviser in the Colonial Office, London; Dr. Willis G. Hewatt, Texas Christian University, Fort Worth, Texas; Mr. C. L. Simering, of the State Department; Drs. William S. Boyd and David S. Ruhe, U.S. Public Health Service, Atlanta, Georgia; Professor Francisco J. Cambournac, of the Institute of Tropical Medicine at Lisbon; Major Albert J. Sheldon, of the Army Medical School, Washington, D. C.; Drs. John R. Heller and John J. Bloomfield, of the U. S. Pubic Health Service, Washington, D. C.; Dr. C. Muraine, Guadeloupe, Martinique, F.W.I., Dr. E. R. Kellersberger, of the American Mission to Lepers; Mr. Frank H. Bowles, of Columbia University;

Dr. Hazel M. Houck, Cornell University; Miss Edna R. Voss, Dr. Hugh I. Evans, Dr. E. A. Odell, Dr. Charles Remy, and Dr. H. N. Morse, all of the Presbyterian Board of National Missions, New York City; Dr. Thomas D. Slagle, of Chapel Hill, North Carolina.

A steady turnover and continuous shifting of personnel in all departments of the School and Hospital testified to the unsettled times in which the world is moving. Many of the members of the staff left for other posts or to continue studies elsewhere; others, however, returned from studies or service in the Armed Forces.

In February of this year, and after release from the service, Dr. Dwight Santiago Stevenson took up his duties as Medical Director of the University Hospital. Dr. A. Díaz Atilas, Pediatrician of the Hospital, returned after three years in the U. S. Navy. Dr. Héctor F. Bladuell was appointed to succeed Dr. John M. Porterfield, of the U. S. Public Health Service, who organized the V. D. Clinics of the University Hospital. As of July 1, 1945, Mrs. Marina P. Colón succeeded Miss Ruth A. Mercer in the position of Directress of Nurses.

Professor F. Hernández Morales, of the Department of Clinical Medicine, left in January for Tulane University in New Orleans, where he had been invited to lecture on tropical medicine for a period of three months. Professor Ramón M. Suárez, head of this same department, was likewise invited to speak at two medical gatherings taking place during the spring months—before the Academy of Medicine of Richmond, Virginia, and the American College of Physicians in Philadelphia, Pennsylvania. Another member of the department, Dr. Una Robinson, attended the meetings of the American Institute of Nutrition, held at Atlantic City in March, where she read a paper before that Institute.

Professor Irving Fox became a member of the Department of Medical Zoölogy in October 1945, as Associate in Entomology.

Professor Guillermo Arbona, Head of the Department of Hygiene, returned from the States in December, where he went to transact the purchase of surplus supplies from the U. S. Public Health Service. Mrs. Edna S. McKinnon, Assistant Professor of Public Health Nursing, resigned during the middle of this academic term to take up another post with the Institute of Inter-American Affairs. Miss Celia Guzmán has been in charge of all public health nursing activities of the department since then. Mr. Orlando Bonilla had a year's leave of absence which he spent at the University of Michigan, studying towards the M.S. in Bacteriology. Mr. Rafael Pirazzi was sent to the United States to learn laboratory procedures at the U. S. Public Health Service Laboratories, in Cincinnati. At the present time, two other members

of the department, the Misses Sylvia E. López and Matilde I. García, are observing record work in various institutions of the continent, in preparation for their duties as statistical clerks in the Department of Hygiene.

During the period under review, the Department of Pathology received the resignation of Dr. Guillermo M. Carrera, who is now on the faculty of Tulane University, and of Dr. Sophie C. Trent, who has accepted a fellowship of the National Institute of Health. To fill these vacancies, Professor I. Rivera Lugo was appointed Pathologist in the Department and Dr. Donald F. Babb, recently of the Medical Corps, U.S.A., Associate in Pathology.

Miss Carmen Pura Jiménez returned from Syracuse University which she attended for postgraduate studies in Library Science.

The Director visited the United States late in November, 1945, at the invitation of the Food and Nutrition Board of the National Research Council, at which time he spoke on the nutritional problem of Puerto Rico. In March of this year, he attended the sessions of the Anglo-American Caribbean Commission, held in St. Thomas, V.I., as adviser on problems of medicine and public health of the Puerto Rican delegation. As Chairman of the Caribbean Research Council, he took part in the discussion relative to the organization of a Caribbean Association of Public Health and Tropical Medicine. It is hoped that a meeting for this purpose can be held in Puerto Rico at an early date.

Since September last, there is being offered every Tuesday at noon a special program of educational films for the non-professional employees both of the School and Hospital. An average of seventy-five persons are taking advantage of this privilege during their luncheon recess, made possible through the coöperation of the Department of Education, the Agricultural Extension Service, and the Armed Forces. Plans have recently been drawn up for a program of health education for hospital employees, wherein the students enrolled in the Department of Hygiene—especially those taking the courses in Sanitary Science—will conduct the teaching as part of their field experience.

Respectfully submitted,

WILLARD C. RAPPLEYE, M. D.

Dean

June 30, 1946

Columbia University

IN THE CITY OF NEW YORK

Report of the Dean of the School of Engineering

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1946



MORNINGSIDE HEIGHTS

NEW YORK 27, N. Y.

PRINTED FOR THE UNIVERSITY BY
COLUMBIA UNIVERSITY PRESS

SCHOOL OF ENGINEERING

REPORT OF THE DEAN

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1946

To the Acting President of the University

SIR:

I have the honor to submit this report of the School of Engineering covering the period from July, 1945, to April, 1946, and to summarize from July, 1930, to April, 1946, the period during which I have been Dean of the Faculty of Engineering.

The past academic year has seen the termination of the War Programs in Engineering under which our School has operated on an accelerated three-term per year schedule in connection with the Naval College Training Program (V-12). A gradual transition has taken place and the peacetime Naval R.O.T.C. program has been instituted for those men in the V-12 who had not completed the full war program. In addition the civilian registration has vastly increased to the point where saturation of classroom and particularly laboratory space has forced a limitation on the numbers who can be admitted.

In engineering and science departments there is a definite limit to the number of students who can be accepted. This is reached when every laboratory station is in operation both mornings and afternoons in that particular laboratory subject which every student must take, and when the squad of students is at the maximum size consistent with safety and educational values. Beyond this point it is not possible to expand unless additional space, equipment, and trained teaching staff are available. Without such expansion of our facilities we have reached the maximum number that can be admitted for 1946-47.

This does not mean that we have reached the peak of total enrollment in the School of Engineering. This peak will be reached when each of the various classes in the School has reached the individual maximum and this peak is anticipated in 1948-49 and 1949-50.

There are many factors which have caused this sudden overload. The principal one is the returning veteran. The second one is the tremendous

interest in technology instigated by the war. The third is the great shortage of engineers and research men for industrial development for peacetime uses of the inventions and developments of the war programs.

For nearly four years the operation of Selective Service to raise the Armed Forces necessary for the prosecution of the war took practically every physically fit eighteen-year-old man. Save then for the officer training programs of the Armed Services as conducted in our colleges and engineering schools, there is a sudden demand from a four-year backlog of high school graduates as candidates for admission. In fact the backlog is greater than a four-year one since Selective Service also took physically fit men out of colleges and engineering schools with the progressive stiffening of deferment policies. These men are now returning to re-enter in the respective years of the engineering programs.

In addition to those men who would have gone to engineering school had they not been drafted, the "G. I. Bill of Rights" has now made it possible for many other men to consider entering engineering schools who otherwise would not have had the necessary financial backing. Many excellent engineering students will come from this group, for the cost of engineering education has previously deterred many poor but scholastically able boys from undertaking engineering studies.

Among the returning veterans there has been evident also a shift in type of education desired. Many veterans who had either embarked upon or were planning to enter for liberal arts programs have become vitally interested in changing to engineering studies. This tendency to change to engineering seems to result from the veterans' contacts with technological devices and equipment used in the Armed Forces during the war. The continued use of mechanized equipment of all types and the profusion of such equipment has accustomed many veterans to "mechanization," and many have found a deep interest therein where otherwise they might have undertaken other types of education.

In part also this tendency is affecting the non-veteran potential student. Wartime emphasis in the high school curricula on mathematics and science in preparation for combat service and the constant references in press, magazines and radio comment upon the great advances made in "mechanization of the Armed Forces" have awakened interest in technology which otherwise might have been dormant or non-existent.

Hence a larger proportion of the war-years high school students are now asking for engineering or science types of college study.

The wartime emphasis of general comments on mechanization is now being followed by widespread discussions of the peacetime applications of these war-developed technological devices. This too is stimulating interest in engineering studies in both the veteran and non-veteran potential student.

The approximately four-year gap in normal output of science and technological graduates prepared to enter industry as caused by the draft policies of the Selective Service System has produced an acute shortage of scientists and engineers. It is evident that even with the greatly increased enrollments in all engineering and scientific schools this shortage will not be made up for some ten to twelve years unless there shall come within that period another great and extended depression of industrial activity similar to the period of the 1930's. This shortage of qualified scientific and technological men is a common topic of popular comment. It is having a great effect upon the potential student's choice of career, leading an increasing proportion to attempt to enter engineering and scientific studies.

From the above analysis it seems obvious that our School of Engineering and the pre-engineering programs in Columbia College will be filled to our maximum capacity and many potential students will have to be denied admission. Even with the already planned development of new laboratory facilities for the School of Engineering, Columbia will not be able to admit all the qualified applicants for engineering.

Highly selective admission procedures are therefore forced upon the University to a degree never before necessary. This will have an effect upon the ratios of students in the various years of the engineering programs. The rate of failures in academic subjects is falling rapidly due to several causes. Whereas it was common with our students in prewar years that, for every hundred admitted as freshmen, on the average approximately fifty-five graduated from engineering curricula, it is evident that a much higher proportion will probably graduate in the near future years. This will occur without any change in academic standards and for several reasons.

The returning veteran has already demonstrated in our classes that

he has come back to engineering studies a much more serious and competent student than he was before leaving. The additional maturity of these men is undoubtedly one important factor but I am sure that it is not the most important. Nor do I believe that the family responsibilities which many of these veterans have assumed, important as these are in inducing serious study, are the controlling influence. I believe that the veteran has gained a seriousness, a pertinacity, and a driving motivation from his war experiences. He has seen the importance of an accurately trained mind being able to bring exact information to the solution of a problem. He has realized his own shortcomings in education and training. He is determined to give his potentialities full opportunity to grow in as rapid and as complete a manner as he is able to drive himself. He is intolerant of poorly prepared or rambling presentations of subject matter in the class or laboratories. He has been accustomed in the various service schools to a sharply pragmatic approach to every problem supplemented by a wealth of audio-visual aids to education and training.

Such a veteran student constitutes the large majority of our classes and his serious attitude toward the studies is bound to have an effect upon every other student. Academic achievement is certain to rise, and the percentage of academic failures will fall.

The highly selective admission procedures forced upon the University by the flood of applicants will naturally tend to the admission of scholastically higher-standing candidates. With potentially greater capacities to carry successfully the various courses, and surrounded by the serious attitude of the veteran component of the class, the entire academic record of the class will rise above prewar levels.

The administration of the School of Engineering must then count upon the fact that the upper classes will have a higher ratio of remaining students to the entering freshmen numbers than was common in the prewar years.

In planning the new laboratory facilities of the School great attention will have to be given to the size and layout of those laboratories which, in addition to serving the students of the particular department, serve also as "service course" laboratories for the entire School. It is these "service course" laboratories which constitute the main limiting factor in student capacity.

In addition to the limitation upon student enrollments caused by laboratory capacities, there is another limitation thereon caused by the inability of an educational institution to expand the teaching staff indefinitely. Physical facilities alone do not constitute an educational institution. It is the number and caliber of the teaching staff which determines the educational values of any program of studies, provided this staff is not unduly hampered by lack of, or overcrowding of, the physical plant. Unless qualified teachers can be found there is little value in adding physical plant alone in an attempt to care for increasing enrollments.

During the war period engineering faculties in general and the Columbia faculty in particular were called upon to release from the instructing staff a very considerable number to enter the Armed Services as officers and to enter war research laboratories both government and industrial. This placed a very heavy load upon those remaining on the faculty, particularly when the accelerated three-term per year program was adopted to rush students through the minimum program at the greatest possible rate. If it had not been for the highly standardized programs adopted in the Navy College Training Program and the possibility of using young graduates as assistants in both classes and laboratory sections which were increased in size to the maximum, the Engineering Faculty could not have carried the tremendous teaching schedules which were handled. Emeritus professors were called back to duty and did yeoman work for which the University and the School must be eternally grateful.

In order to carry forward a considerable program of war research on the campus the active staff members who remained at the University abandoned all other researches no matter how interesting or important to general technological developments. They gave up vacation periods to remain at the campus on the accelerated program and assumed teaching schedules that would have been considered impossible in peacetime. They carried these onerous duties cheerfully as their contribution to the war effort in training the potential officers for the Navy. The University owes each of them a debt of gratitude for unselfish devotion to duty.

To increase the staff sufficiently in numbers and in grades to carry the present enrollment and the potentially still greater numbers as each class increases to the maximum is the most difficult problem facing the

administration. The exceedingly heavy demand for qualified engineers in industry and the salary scales being paid by industry to attract such personnel are making the questions of staff rank and salaries in the School of Engineering most critical. To hold the qualified members of the staff, to recall those on leave for war service, and to attract new members to bring the active teaching staff for 1946-47 to the proper numbers will require an entirely new approach to the questions of rank and salary. When students just graduating from the School with the Bachelor's Degree are being offered salaries of \$2,500 to \$4,000 per annum it is obvious that staff salaries cannot remain at present levels.

All engineering schools are having to increase the size of their active staffs to handle the influx of students. This too opens additional places for competent teachers at higher ranks and salaries. The combination of industrial pressures and opportunities at other engineering schools makes it imperative that promotion policies be liberalized and salaries be materially increased if our staff is to be maintained at a high level of competence. Great difficulty has been experienced during 1945-46 and more is to be expected in 1946-47 unless prompt action is taken.

Furthermore the staff which has loyally carried on all during the war years practically without vacation has every right to expect a liberal policy on sabbatical leaves. Yet unless additional staff is recruited to help carry the tremendous teaching loads it will be difficult to arrange proper leaves.

To enable the School to carry the large enrollments of the past three years and the anticipated enrollment for 1946-47 the School has been forced to expand teaching laboratories into space used for research. This has prevented the resumption of anything approaching normal peacetime research programs for the staff. Unless opportunity is offered for adequate research the present staff cannot be retained nor will it be possible to recruit additional staff of the proper caliber. Without active research in every department the work of the School tends to become routinized instruction. During the war years our staff sacrificed the inspiration of individualized research programs and carried the standardized instruction, but that temporary condition cannot continue without great damage to the School.

Space for expansion of the work of the School of Engineering has been

one of the main subjects in every Dean's report for the past twenty-five years. Particularly since I assumed the Deanship in 1930 I have emphasized the need for new laboratory facilities annually. Since the erection of the School of Mines Building in 1906 no new building designed for the uses of the Engineering School has been erected by the University. With the construction of Philosophy Hall approximately two floors of that building were made available for the Electrical Engineering Department's Communications and Electronics laboratories—a much needed addition at that time but now seriously overcrowded. With the erection of the Chandler addition to Havemeyer Hall the Chemical Engineering Department grew into space previously used by the Chemistry Department—also a much needed addition of space but neither designed for the purposes nor now adequate for the minimum needs of Chemical Engineering. With the erection of Pupin Physics Laboratory the Mechanical Engineering Department was moved for offices, class rooms and small instruments laboratories into Pupin, thus releasing some space in Engineering.

Mezzanines have been added in many laboratories to use the cubic volume more effectively but with obvious handicaps to light, air, and supervision. Space designed originally for "Building Maintenance and Operation" has been converted to teaching and research laboratories. Existing laboratories have been rearranged to permit overcrowding of equipment to give additional "stations" until we have reached the limit imposed by safety conditions. All this has been improvisation and compromise. It has reached the absolute limit and new, properly laid out, specially designed space is imperative.

Several plans have been proposed from time to time to each of which there have been advantages and drawbacks. During this past year still another plan has been drawn up and for the first time the Faculty of Engineering is unanimously in favor of the plan. It has been presented to the Trustees and has their endorsement. No other single step that could be taken by the University could do as much for the future of the School as the early construction of a modern, adequately sized and equipped laboratory building for the entire School of Engineering. Without such new facilities Columbia cannot hold or attract a proper staff competent to keep our School in the first rank of engineering schools of the country.

Without such new facilities Columbia cannot give the "G. I." the type of engineering education to which he is entitled, or accommodate the numbers who are thoroughly qualified by the very highest of selective admission standards.

The following table will serve several purposes. It will epitomize the period from 1930 to 1946. It will illustrate the points which I have been developing. It will emphasize the necessity for additional space. It will demonstrate the need for an expanded teaching staff.

The primary interest of the Naval College Training Program in Electrical and Mechanical Engineering has changed the relative sizes of the student body in these fields very markedly. While in the prewar years Chemical Engineering had the largest student enrollment in every year save 1930-31, with Electrical next and Mechanical third, the accelerated war programs placed both Electrical and Mechanical student registrations ahead of Chemical. Whether this trend will continue or will revert to the prewar relative standing, no one can predict at this time.

Student interest in Electrical and Mechanical Engineering will undoubtedly be greater than in the prewar years because of the mechanical and electrical developments of the war and the possible peaceful applications thereof. However the chemical engineering industry is still rapidly expanding and needs young chemical engineers in large numbers. I believe that all three departments will continue to be large and probably more nearly equal in student registrations than before.

The other engineering departments will attract a lower percentage of the student body with relatively large swings from time to time depending on changes in public interest. Much will also depend upon the reputation of the particular staffs of the departments for outstanding research in the respective fields.

The recent establishment by the State of New York of a number of Technical Institutes to be operated under the University of the State of New York marks a step forward in the development of the complete range of technological education within this state. Clearly indicated for many years but emphasized and brought to a head by the wartime experiences of all technological industries, the properly organized, adequately staffed, and equipped technical institute can train large numbers of men and women in a two-year terminal program to fill a vast variety of the sub-engineering positions in our industries.

ENROLLMENT AND TREND OF STUDENT INTEREST IN THE FIELD
 OF ENGINEERING 1930-45[†]

Department	Registration in the School of Engineering						New Students	New Students Admitted from Columbia College		Students Majoring in Engineering with Primary Registration under the Graduate Faculty
	Year 1930-31	1st Year	2nd Year	3rd Year	Non-Candidate	Graduate		Total	With A.B.	
Ch.E.	21	15	8	2	...	46				21
C.E.	7	7	8	4	...	26				...
E.E.	16	16	17	10	13	72				2
I.E.	...	...	...	...	17	17				1
M.E.	10	7	7	3	27	54				2
Met.	3	1	2	3	...	9				1
Min.Dr.	...	...	...	...	...	...				...
Mining	3	1	5	1	2	12				...
Undesig.	...	...	...	...	...	...				...
TOTAL *34	60	47	47	23	59	236	132	4	53	27
Year 1931-32										
Ch.E.	16	19	16	4	10	65				18
C.E.	10	4	6	4	5	29				1
E.E.	14	11	13	9	18	65				1
I.E.	10	7	2	4	...	23				1
M.E.	20	8	9	6	23	66				2
Met.	...	3	1	4	3	11				5
Min.Dr.	...	...	...	1	...	1				...
Mining	1	3	4	1	...	9				2
Undesig.	...	...	...	...	...	...				...
TOTAL *20	71	55	51	33	59	269	141	5	55	30
Year 1932-33										
Ch.E.	13	16	21	9	13	72				25
C.E.	16	11	3	5	12	47				2
E.E.	19	15	13	5	18	70				2
I.E.	6	6	3	...	1	16				6
M.E.	10	16	7	5	10	48				2
Met.	2	...	4	3	3	12				3
Min.Dr.	...	...	1	...	1	2				...
Mining	3	1	3	2	1	10				...
Undesig.	...	...	...	...	...	...				...
TOTAL *31	69	65	55	29	59	277	131	1	52	40

[†] Summer session not included.

* Columbia College seniors exercising professional option in the School of Engineering (included in Totals).

ENROLLMENT AND TREND OF STUDENT INTEREST IN THE FIELD
OF ENGINEERING 1930-45[†]

Department	Registration in the School of Engineering						New Students	New Students Admitted from Columbia College		Students Majoring in Engineering with Primary Registration under the Graduate Faculty
	1st Year	2nd Year	3rd Year	Non-Candidate	Graduate	Total		With A.B.	Without A.B.	
Ch.E.	14	13	13	3	11	54			29	
C.E.	5	15	11	7	10	48			7	
E.E.	18	20	12	11	11	72			5	
I.E.	15	6	3	1	3	28			5	
M.E.	12	9	15	4	6	46			...	
Met.	1	1	...	3	4	9			5	
Min.Dr.	3	3	1	...	...	7			...
Mining	...	...	...	2	...	2			...
Undesig.	...	...	...	...	...	...			...
TOTAL *24	68	67	55	31	45	266	169	5	54	51
Year 1934-35										
Ch.E.	31	14	12	2	10	69			26	
C.E.	4	5	6	4	5	24			9	
E.E.	16	18	16	10	11	71			8	
I.E.	6	16	3	1	4	30			4	
M.E.	9	10	8	3	5	35			1	
Met.	2	1	1	2	2	8			5	
Min.Dr.	...	...	...	...	...	...			...
Mining	2	2	3	2	...	9			...	
Undesig.	...	...	...	...	...	...			...
TOTAL *24	70	66	49	24	37	246	106	2	59	53
Year 1935-36										
Ch.E.	19	27	9	1	14	70			33	
C.E.	9	2	4	7	8	30			11	
E.E.	22	13	16	10	19	80			11	
I.E.	3	5	6	4	11	29			4	
M.E.	13	8	9	3	3	36			1	
Met.	2	2	1	...	1	6			2	
Min.Dr.	...	...	...	...	...	...			...
Mining	5	2	2	1	...	10			...	
Undesig.	...	...	...	...	...	...			...
TOTAL *24	73	59	47	26	56	261	120	3	59	62

† Summer session not included.

* Columbia College seniors exercising professional option in the School of Engineering (included in Totals).

ENROLLMENT AND TREND OF STUDENT INTEREST IN THE FIELD
OF ENGINEERING 1930-45[†]

Department	Registration in the School of Engineering						New Students	New Students Admitted from Columbia College		Students Majoring in Engineering with Primary Registration under the Graduate Faculty
	1st Year	2nd Year	3rd Year	Non-Candidate	Graduate	Total		With A.B.	Without A.B.	
Year 1936-37										
Ch.E.	23	16	23	2	9	73				23
C.E.	3	10	2	6	8	29				7
E.E.	14	19	11	5	19	68				12
I.E.	5	4	3	2	4	18				4
M.E.	11	12	6	2	6	37				...
Met.	6	3	2	...	3	14				4
Min.Dr.	...	...	...	...	...	...				...
Mining	6	4	3	1	1	15				...
Undesig.	...	...	...	...	...	...				...
TOTAL *22	68	68	50	18	50	254	99	2	55	50
Year 1937-38										
Ch.E.	20	22	14	3	13	72				24
C.E.	4	2	6	3	10	25				5
E.E.	5	12	4	3	33	57				11
I.E.	2	2	...	1	14	19				4
M.E.	10	11	8	3	7	39				...
Met.	2	6	4	2	3	17				4
Min.Dr.	...	...	...	...	...	...				...
Mining	4	7	5	1	...	17				...
Undesig.	...	...	...	...	...	...				...
TOTAL *18	47	62	41	16	80	246	84	4	39	48
Year 1938-39										
Ch.E.	36	26	13	4	12	91				32
C.E.	12	3	1	3	9	28				17
E.E.	18	6	3	8	30	65				8
I.E.	8	3	1	4	6	22				4
M.E.	19	14	5	5	6	49				...
Met.	12	3	4	1	3	23				5
Min.Dr.	1	...	...	...	1	2				1
Mining	3	4	5	3	...	15				...
Undesig.	...	...	...	...	...	...				...
TOTAL *61	109	59	32	28	67	295	161	9	103	67

† Summer session not included.

* Columbia College seniors exercising professional option in the School of Engineering (included in Totals).

ENROLLMENT AND TREND OF STUDENT INTEREST IN THE FIELD
 OF ENGINEERING 1930-45[†]

Department	Registration in the School of Engineering						New Students	New Students Admitted from Columbia College		Students Majoring in Engineering with Primary Registration under the Graduate Faculty
	1st Year	2nd Year	3rd Year	Non-Candidate	Graduate	Total		With A.B.	Without A.B.	
Year 1939-40										
Ch.E.	30	30	21	5	15	101				21
C.E.	3	12	1	6	11	33				19
E.E.	15	16	...	15	14	60				10
I.E.	7	7	...	1	8	23				5
M.E.	15	19	9	6	5	54				...
Met.	7	12	...	1	4	24				7
Min.Dr.	...	1	...	...	3	4				1
Mining	...	3	3	4	1	11				...
Undesig.	...	...	...	...	2	2				...
TOTAL *26	77	100	34	38	63	312	128	1	67	63
Year 1940-41										
Ch.E.	28	28	20	17	17	110				27
C.E.	...	5	2	4	6	17				18
E.E.	7	18	2	16	21	64				9
I.E.	5	4	...	2	6	17				6
M.E.	19	15	13	9	6	62				...
Met.	4	8	4	3	3	22				5
Min.Dr.	3	...	...	...	2	5				1
Mining	4	5	4	6	2	21				...
Undesig.	...	...	...	3	8	11				...
TOTAL *26	70	83	45	60	71	329	144	2	66	66
Year 1941-42										
Ch.E.	28	28	14	19	14	103				15
C.E.	9	...	2	10	7	28				11
E.E.	11	7	2	25	16	61				5
I.E.	6	5	1	8	3	23				4
M.E.	17	19	6	11	9	62				...
Met.	8	3	...	...	5	16				7
Min.Dr.	...	2	1	1	...	4				2
Mining	3	3	6	...	5	17				...
Undesig.	...	...	...	...	14	14				...
TOTAL *28	82	67	32	74	73	328	182	0	73	44

[†] Summer session not included.

* Columbia College seniors exercising professional option in the School of Engineering (included in Totals).

ENROLLMENT AND TREND OF STUDENT INTEREST IN THE FIELD
 OF ENGINEERING 1930-45[†]

Department	Registration in the School of Engineering						New Students	New Students Admitted from Columbia College		Students Majoring in Engineering with Primary Registration under the Graduate Faculty
	1st Year	2nd Year	3rd Year	Non-Candidate	Graduate	Total		With A.B.	Without A.B.	
Year 1942-43										
Ch.E.	32	24	10	11	9	86				11
C.E.	11	7	...	24	5	47				3
E.E.	12	11	...	11	7	41				3
I.E.	4	5	...	5	...	14				3
M.E.	28	15	3	14	9	69				2
Met.	3	7	...	1	...	11				1
Min.Dr.	...	...	...	...	1	1				...
Mining	1	2	1	1	4	9				1
Undesig.	...	...	...	...	9	9				...
TOTAL *21	91	71	14	67	44	287	64	(Figures not available)		24
Year 1943-44	(Accelerated program)									
Ch.E.	85	29	13	68	13	208				10
C.E.	32	19	5	29	4	89				2
E.E.	144	29	8	41	5	227				...
I.E.	11	11	1	16	5	44				4
M.E.	122	66	10	27	14	239				2
Met.	4	5	3	4	1	17				1
Min.Dr.	2	...	...	1	...	3				...
Mining	4	3	1	1	...	9				1
Undesig.	...	...	...	...	3	3				...
TOTAL *15	404	162	41	187	45	839	699	(Figures not available)		20
Year 1944-45	(Accelerated program)									
Ch.E.	38	29	20	52	14	153				13
C.E.	18	18	5	28	4	73				4
E.E.	144	31	20	41	14	250				3
I.E.	5	3	10	15	5	38				4
M.E.	77	45	29	49	14	214				1
Met.	...	2	2	1	1	6				...
Min.Dr.	...	1	...	4	...	5				...
Mining	...	2	3	...	...	5				2
Undesig.	...	...	...	...	9	9				...
TOTAL *6	282	131	89	190	61	753	310	(Figures not available)		27

[†] Summer session not included.

* Columbia College seniors exercising professional option in the School of Engineering (included in Totals).

ENROLLMENT AND TREND OF STUDENT INTEREST IN THE FIELD
OF ENGINEERING 1930-45[†]

Department	Registration in the School of Engineering						New Stu- dents	New Students Admitted from Columbia College		Students Majoring in Engineering with Primary Registration under the Graduate Faculty
	(Accelerated program)							With A.B.	Without A.B.	
Year 1945-46	1st Year	2nd Year	3rd Year	Non- Candidate	Graduate	Total				
Ch.E.	39	31	4	41	33	148			13	
C.E.	20	14	...	32	12	78			3	
E.E.	79	69	...	87	19	254			5	
I.E.	13	7	...	24	22	66			2	
M.E.	40	42	...	49	28	159			1	
Met.	1		...	5	2	8			...	
Min.Dr.	...	...	...	...	1	1			1
Mining	1	...	1	1	...	3			1	
Undesig.	...	...	...	1	10	11			...
TOTAL	193	163	5	240	127	728	244	(Figures not available)	26	

† Summer session not included.

With the shortages of trained manpower in wartime to fill the increased needs, industry turned to careful job analyses leading to particularized job specifications and to the specialized training of personnel in accordance therewith. These job analyses and specifications showed that for many positions of sub-engineering nature the necessary minimum education and training could be completed in less than the four-year program of an engineering school. The success of the wartime Engineering Management Science War Time programs, conducted by many schools under the U. S. Office of Education pointed the desirability of permanent technical institutes exclusively dedicated to this particularized education and training. The special committee of the Regents of the University of the State of New York clearly recognized these needs and recent legislation, based upon the report, provides for the establishment of these Technical Institutes at state expense.

Two major problems now arise in which the public, the state and the engineering schools have deep and interlocking interests if these technical institutes are to fill the vital needs as outlined in the special committee

report. One is the problem of personnel selection and guidance of the youth of the state as they complete high school programs and, desiring additional education and training for technological employment, must make the choice between seeking technical-institute and engineering-school admission. This election will have to be made by young men between the ages of seventeen and eighteen on the average, and many of that age do not have clearly formulated conceptions either of their ambitions or of their aptitudes and capacities.

For many years prior to the war there had been developed various "testing programs" which indicated that measurements of certain types of personal characteristics and aptitudes could be made objectively. These traits were correlated with certain types of jobs, and systems of personnel selection and guidance were established. These systems were tentative since the validity of any test or battery of tests depends upon the assemblage of large numbers of cases handled in order to secure statistical averages, deviations, etc.

With the mobilization of the manpower of the nation into the Armed Services, each inductee was given one or more of these selection tests, or batteries of tests, as part of the induction center procedure. Assignments to duties within the services were based to a considerable extent upon the results of these tests. Instead of having a few hundred or thousand test results upon which to base the validity of any test as demonstrating possession of a certain aptitude, the number of test results now runs into many millions. Hence the predictive value of the tests has been multiplied many times over and it is now possible to make certain types of prediction with considerable assurance. The first necessity of any personnel selection and guidance program is now reasonably well established and is available for use by guidance experts in helping any young man to analyze his own aptitudes and capacities when making the choice between seeking admission to a technical institute or to an engineering school.

Working jointly with the already established engineering schools of the state, the University of the State of New York in connection with its Regents' examination program should seriously consider establishing an expertly manned aptitude testing program and a personnel selection and guidance program. Properly designed and administered, the combination

of aptitude tests, high school records, regents or other college admission tests and guidance programs would be of inestimable value, not only to those faced with the choice between technical institute and engineering school, but to *all* the high school graduates. It would help every graduate from secondary schools to evaluate himself as to his aptitudes and capacities, it would assist in reducing educational mortalities in the first years of higher educational programs, it would assist in proper admissions standards for the various schools of the state and, of even greater importance to the public at large, it would help youth to know themselves.

The second major problem arising from the establishment of technical institutes is the question of maintaining the character of the educational and training program offered therein. The fundamental purpose of the technical institute is to train for specific and carefully analyzed jobs and to educate for industrial employment. The programs must include certain elementary science and technology but perforce cannot proceed as deeply into fundamental mathematics, science and technology as is necessary in the pre-engineering years of properly designed engineering curricula. This fundamental difference in the two types of technological education must be carefully recognized by everyone—the public, the state, the technical institutes and the engineering schools, lest pressure build up for the enforced acceptance by engineering schools of the technical institute graduate with advanced standing, or for the award of an engineering-type degree by the technical institutes. Technological industries need both types of graduate, but the public must not become confused as to the fundamental differences between the two types of education and training.

The best teaching in engineering subjects is the outgrowth of a combination of engineering practice with continuing creative research and the power of exposition. Unless the teacher is in continuing contact with the latest trends in engineering practice his presentations to the class, no matter how elegantly delivered, tend to become routine and uninspiring. Unless the teacher is personally doing some really creative work he cannot bring that vitalizing effect to his students which will lead their minds into new channels of approach to the problems at hand. But all good

practicing engineers and all good research engineers are not good teachers. The ability to fire the student mind not only to mastery of the material at hand but to an insatiable curiosity and to development of a critical power which finds new frontiers and new methods of attack is the hall mark of the great teacher. Finding or developing such men for the teaching staff is the problem of administration of our engineering schools, and holding them after being found or developed is even more difficult.

The law of supply and demand places great premiums on such men and only when rank, salary, teaching load, research facilities and consulting opportunities are adequate and properly balanced as to emphasis can a great faculty be built and retained. Columbia is facing a most difficult period in this regard. The Trustees and the Administration will have to be prepared to accept new criteria for rank and salary, to provide new and better research facilities, to reduce teaching schedules to make time for creative research and proper consulting if the School of Engineering is to remain in the front rank.

Particularly in science and engineering there is no substitute for the close personal relationships between student and teacher. This personalized instruction calls into being and exercises to the fullest extent the student's talents and initiative. It avoids the pitfalls of mass education which plays down to the average leaving the potentially brilliant minds to loaf at precisely the time when they should be extended to the utmost. There will always be mediocre engineers; the task of a great engineering school is to develop the outstanding students into creative engineers upon whom society can depend for movement forward and onward into the unknown frontiers of new applications of science to the good of mankind.

The explosion of the first atomic bomb at Alamogordo, New Mexico in 1945, and the succeeding bursts at Hiroshima, Nagasaki, and—as I write this report—at Bikini have served notice upon the world that the energy hitherto locked up in the nuclei of the atoms has been released. These releases to date have been for destructive purposes. The utilization of this source of energy and its harnessing for the peaceful uses of man is only a question of time, international politics, and economics. The engineer of ten to fifteen years hence must be prepared to use this source of

energy. And it is the students in engineering schools of today and the next five years who will be the responsible engineers of ten to fifteen years hence.

Our fundamental training in physics must be strengthened in studies of nuclear fission theory to prepare our students to take their part in the applications of atomic energy to the everyday engineering problems of the future. By exactly the same line of reasoning the fundamental theory instruction in physics must be extended into micro-wave and electronics fields and not only for potential electrical engineers but as basic subject matter for all engineering students. These emphases will involve radical revisions in the physics subjects offered for engineers, and while some deletions or lessened emphasis on certain phases of "classical" physics may save some time, it seems most probable that additional time will have to be allotted to physics instruction. Where to find this additional time in programs already severely crowded will be a most puzzling problem for the Committee on Instruction.

If the general level of high schools physics and chemistry instruction could be lifted somewhat then the solution might be simple. But to get adequate physics and chemistry taught in our high schools seems to be an unsolvable problem. Good physics and chemistry teachers are in just as great shortage and industrial demands are just as heavily competitive as I have previously outlined in this report for engineers. Public school salaries and opportunities are so low that it is extremely difficult to obtain even reasonably good teachers in the science departments. While colleges and, in particular, engineering schools list high school science as an entrance requirement, the general mastery of basic classical science by the entering engineering student is so low that the Physics and Chemistry Departments and the Committees on Instruction insist that the freshman science subject matter presentation shall start with the most elementary principles. The wave of "general science" which swept over our high schools in the 1930-1940 period, while possibly sufficient for the average non-college preparatory student, reduced the value of high school science as an engineering and pure science preparatory subject. The wartime emphasis on mathematics and science as preparation for induction into the "mechanized" military services did help to raise the level of high school physics and mathematics. However, the induction by Selective

Service of many of the qualified male teachers of science and the subsequent failure of such men to return to high school teaching is again reducing the quality of instruction. The colleges and schools of engineering cannot depend upon such preparation to relieve the pressures on time and content in the freshman engineering physics subjects.

Hence rearrangement of the physics courses with some deletions and additions is the only practical solution, and this means an additional time allotment as a general proposition. Coincident with these pressures for more time in basic science are three other pressures for increased time.

The new applications of science and improvements in technology require constant readjustment of the material presented in the purely engineering subjects of the curricula. Each addition means either deletion of some obsolescent application, reduction in emphasis on less important applications, or additional time. The young engineering graduate must be reasonably prepared to work with existing methods and machines, hence faculties are reluctant to delete or reduce emphasis on existing engineering practice. Yet the theoretical training received in engineering school must be at the very least a solid foundation upon which the young engineer can base his progress in fitting new scientific advances into the technology of his future active career.

The third pressure for increased time allotment in the engineering curricula arises from the necessity of adequately presenting the social-humanistic stem of studies. The engineer in the active practice of his profession is concerned not only with science and technology but with men, money, and methods. It has often been stated that engineers deal with the five M's—machines, materials, men, money, and methods. Of these five M's, the science and technological courses deal principally with the first two—machines and materials, and somewhat with the last—methods. The social-humanistic studies deal principally with men and money and somewhat with methods. Hence no engineering student is adequately trained even for his purely professional duties unless his program of studies has been rationally balanced on both the scientific-technological and the social-humanistic stems of subject matter.

Engineering school education, moreover, cannot be solely a training for purely professional duties. As an integral part of the national higher-education system it must accept certain responsibilities for training its

students as men prepared to take a proper share in the shaping of the moral, religious, political, and social life of the community. Although this is true for every educational institution, it seems particularly necessary for the engineering school.

Engineers are dealing with equipment which has tremendous potentialities for both good and evil uses by mankind. The "Master of the Machine" carries a great load of civic responsibility to see that the products of his genius are used to improve the health, wealth, and safety of the world and to minimize—if possible, to avoid—the evil consequences of any misuse. His education must help to formulate in his mind an ethical code which shall govern his actions throughout life. These reasonings lead to pressure for increased attention to the social-humanistic stem of studies, and as usual for an increased time allotment for them in the curricula.

Particularly is the last argument a potent one at the present moment. Science and technology, under the pressure of the war emergency, have unlocked the Pandora's Box of nuclear fission and the release of nuclear energies in the atomic bomb. This is the most terribly destructive engine of war ever devised and used by man. Others such as bacteriological warfare, crop destruction, etc., although devised, have not as yet been used in mass slaughter. An American delegate to the United National Atomic Energy Committee recently said that civilization stood at the cross-roads—either we agree to control the use of nuclear energy only for the good of mankind or we face the annihilation of civilization itself.

Every person on the face of this globe has a stake in the peaceful solution of this, the most important problem facing humanity. But among all these persons the engineers and scientists have a multiple responsibility. They are the ones who can develop and apply nuclear energy for the improvement of civilization. They are the ones who can control this Frankenstein monster which they brought forth. To make the results of their work a potent force for world organization to save civilization, they must be trained to understand and to become vocal upon the social-humanistic relationships of their works. They can no longer shirk the responsibility for the social effects of their machines. They can no longer say that someone else is responsible for *how* the machines are used. They can no longer use the plea, "Am I my brother's keeper?" As our Blessed

Lord answered that plea when He was on earth, so He and all the civilized world with Him are saying to the scientists and engineers, "Yes, you are your brother's keeper and you are responsible for what you have launched upon civilization."

It therefore becomes all the more important now that engineering schools re-examine the adequacy of their attention to the social-humanistic studies as included in the engineering curricula. Parenthetically the obverse of this is also true: the liberal arts curricula should be re-examined to determine the adequacy of their attention to the scientific-technological studies which all truly liberally educated men and women must undertake if they are to have a comprehensive preparation for the problems of the immediate future.

And let us not forget for one moment the inescapable fact that there is an enormous pressure from the students themselves and from the Alumni for extra-curricular activities. These are "pilot-plant operations," as engineers term them, in which boys learn to become men through running their own "shows." Certainly no faculty fails to recognize the importance of these activities in building the well-rounded man. They take time and attention of the students just as do the curricular activities. There are just so many hours in every day and so many days in a school year.

What is a faculty or its Committee on Instruction going to do to meet these pressures? During the war years the "accelerated" program was given a very thorough test in almost every college and engineering school. Under this program there were three approximately sixteen-week terms per year. This kept the student in school for forty-eight weeks and afforded a total of four weeks vacation per year. It is the considered, almost unanimous opinion of our Faculty of Engineering that the accelerated program is not a desirable nor even a possible solution to the question of time. Even with the military discipline of fixed hours of rising, eating, exercise, study, and sleeping which is neither possible nor wise to consider in peacetime, the accelerated program had a generally debilitating effect upon both students and faculty. The almost continuous grind of scholastic study and laboratory work wore down the students and staff to such a degree that the relatively short vacation periods could not suffice to permit adequate recuperation. The accelerated program gave no op-

portunities for the students or the staff to engage in desirable industrial employment in the vacation periods. Such industrial employment not only gives a restful change of environment and possibility of some income, but serves also to round out the theoretical work of the class and laboratory with practical experiences in both technological and social-humanistic areas. For the staff, it gives excellent opportunities for consulting, for cooperative research, and for industrial contacts of great stimulation to the theoretical presentations to the students.

With these considerations in mind the Faculty have voted to return to the normal prewar academic schedule of two terms per year. A portion of one summer is now required of all students for attendance at Camp Columbia where field work appropriate to the particular departmental offerings is carried on under conditions so different from the city campus as to be fully restful, although very busy. Additional to the educational values of the field work are the social implications of Camp Columbia. On our metropolitan campus, only a fraction of the student body live in the Residence Halls, the great majority commuting to the campus daily from their homes. It is natural that this should be so, since approximately ten per cent of the entire population of the United States live within commuting radius of the Morningside campus. Commuting students, however, tend to lose one of the great advantages of collegiate life—the participation in extra-curricular activities run by the students which help to “develop the boy into a man.” Close friendships with classmates are difficult to form when a commuting schedule calls for a dash to the subway entrance on the completion of the last class or laboratory. At Camp Columbia, however, the entire class live, eat, work, and play together for the period of six to eight weeks. It is the considered opinion of the Faculty and of the Alumni that rich benefits are gained by these experiences in addition to the values of the educational courses carried on as field work. Alumni interest in Camp Columbia is evidenced by the capacity group which attends the Alumni Week End, now fortunately resumed after wartime suspension.

Alumni classes have gathered funds for the construction of cottages to house six students each, of which one is completed, one is under construction and another is reported to be well along in the collection of funds. These cottages will gradually replace the old wooden barracks,

which are over thirty years old, the second-story construction of which constitutes a potential fire hazard. Standard plans for the new cottages have been approved and it is to be hoped that many classes will undertake the raising of the necessary funds, the requirements being approximately \$2,000 per cottage.

With the conversion of Camp Columbia from barracks to cottages it is possible that junior staff members could be offered the use of these cottages for a very modest rental for the period from the Alumni Week End, which follows immediately after the regular student use of the Camp, until the opening of the Winter Session in September. Such vacation facilities for the junior staff would be a very welcome addition to the opportunities for membership in the Columbia Faculty family.

The intensely loyal Engineering School Alumni Association has continued over all these years to give hearty support and active work to the upbuilding of our School of Engineering in all the departments. The smokers and dinners of the Alumni Association bring together the graduates, the staff and the administration for mutual stimulation and friendship.

With the conclusion of World War II and the imminent lifting of security regulations the Board of Management of the Alumni Association has undertaken the task of assembling complete information on the war contributions of our engineering alumni and staff. Working closely with the administration of the School, every alumnus and every staff member has been sent a carefully designed questionnaire covering all war activity. From the returns of these questionnaires which are now coming in, the opportunity exists to write the History of Columbia Engineering Contribution to World War II. No one person can possibly know the entire story at present but those of us who know something of the extent of these contributions can justifiably assert that the record is one of which every Columbia engineer can be intensely proud. From atom bomb, proximity fuze, radar, underwater sound, through every stage of pure, applied and industrial research and war production to active military service and the supreme sacrifice, Columbia engineers had outstanding records of service to our country. Each alumnus and staff member should promptly and completely fill out the questionnaire and return it for compilation. The Alumni Association has one of the finest and most difficult

of its many projects under way and needs the support of every individual to complete this record for the glory of Alma Mater.

With the return to the normal prewar academic schedule of two sixteen-week terms per year plus one required summer term of six to eight weeks, there is available to the Committee on Instruction for a four-year program leading to the Bachelor of Science degree some 690 to 700 days of student attendance at classes and laboratories (calculated upon five and one half days per week and taking one week of each term for examinations, registrations, etc.). This would be scarcely sufficient time, even assuming that students could devote an average of twelve hours per day for a five and one half day week to purely academic activities, in which to cover adequately the strictly essential but purely basic instruction in science, social-humanistic and rudimentary technological subjects. It would afford no opportunities for attention to any advanced instruction.

For a number of years in the immediate prewar period, the engineering educators of the country were complaining of the overcrowding of the engineering curricula when compressed into a four-year period. The several reports of the Committee on Aims and Scope of Engineering Curricula of the then-named Society for the Promotion of Engineering Education have repeatedly pointed out that little or no advanced instruction in engineering subjects could be included in the basic four-year program but must be reserved for a fifth year of "graduate" instruction. The additional pressures for time allotments within the basic four-year program, which I have presented elsewhere in this report, emphasize anew that it has become impracticable to give a properly rounded engineering education within the confines of a four-year program. Even the great advances in student interests and capacities, which I have also outlined elsewhere, will not suffice to cover the needs. Continuous overloading of students will simply result in a breakdown of morale and reduction in thoroughness of work on the part of the students.

It seems inevitable, therefore, that one of three things or some combination thereof must occur in the near future in engineering education. There may be a general movement by the engineering schools of the country to five-year integrated programs in the engineering schools. Or—there may be a general movement, aided by the selective admission requirements now being forced upon all schools, to move the engineer-

ing schools entrance requirements to the point where those selected for admission will have had the equivalent of at least a year of present college level work in mathematics, science and social-humanistics, followed by a four-year program in the engineering school. Or—the tremendous increases in liberal arts and junior colleges and “emergency colleges” throughout the country may foster the permanent development of two-year pre-engineering programs therein to be followed by a three-year technological program in the schools of engineering, thus placing the engineering programs on the professional school level, in the same way that law and medicine now require a minimum pre-professional college program and confine their educational programs to intensified work in the purely professional category of subject matter.

Of these three possibilities or of any combination thereof, the best results in the long run for engineering education would in my opinion be secured from the third: properly organized two-year pre-engineering programs in science, mathematics and social-humanistics offered in liberal arts and junior colleges as preparation for three-year engineering programs offered in engineering schools. It must be remarked in this connection that a high degree of coöperation between the faculties of the liberal arts and junior colleges, emergency colleges, and the respective engineering schools will have to be exercised in order that the subject matters covered in the two-year pre-engineering programs will properly integrate with the professional engineering programs. This is due to the highly sequential character of engineering studies and not from any desire on the part of the engineering schools to dictate the content and arrangement of pre-engineering programs.

Should this arrangement become widespread there exists a mechanism for securing the necessary coördination between the various schools and colleges. The Committee of the Engineer’s Council for Professional Development which has accredited engineering curricula so satisfactorily to all concerned could easily draft the minimum requirements for a two-year pre-engineering curriculum. With this as a basis, each liberal arts or junior college could prepare its own program to meet these “end points” and each engineering faculty could design its various engineering curricula to begin with these stated “end points.” Hence, there are no insuperable difficulties in the way of such an arrangement.

The principal opposition on the part of engineering schools to the adoption of this arrangement may be caused by financial problems. The instruction in the elementary subjects of mathematics, science and social-humanistics offered in the freshman and sophomore years is relatively much less expensive than the instruction in the strictly technological subjects of the upper years. Inclusion of these first two years of instruction in the budget of the engineering school gives an apparent over-all lower average annual cost per student hour of instruction. Hence, there will be opposition to a plan which encourages the assignment of the lower cost educational work to another institution or to another college in the same institution, while at the same time imposing the much higher-cost educational work on the budget of the engineering school.

There are many advantages inherent in such a plan. Even with the most effective of the present aptitude tests for admission, many students enter engineering schools who find either that engineering is not their forte or that they cannot handle successfully the engineering type of studies. Such men could transfer their program of studies to other fields with little or no loss of time and with no stigma of failing to complete an educational undertaking. Only those students who were truly qualified and really wanted to study engineering would proceed from the pre-engineering programs into engineering schools.

A second advantage would be that the engineering faculties would be concentrating their professional attention upon professional students. Law and medicine have found that such arrangements are the best for professional work. Engineering education would likewise profit by being placed upon a professional level. Engineering students would profit from pursuing their basic pre-engineering studies in company with other pre-professional and liberal arts students. A broadening influence would be brought to bear upon their development which would minimize the narrowness of engineering education.

Our School of Engineering has had long and satisfactory experience with such a plan operated in conjunction with our own liberal arts college of the University, where the closest of integration between faculties of Columbia College and the School of Engineering has been possible. Extension of the plan with other liberal arts colleges, junior colleges and the presently organized emergency colleges would afford more than one

pre-engineering gateway into the School of Engineering. It would remove the bottleneck now existing because of the limitation of numbers in Columbia College.

Whether or not this allocation into pre-engineering and engineering programs is widely adopted by engineering schools, it seems certain that engineering education will be forced into some one of the longer programs outlined before. In addition, it seems clear that the percentage of bachelor's graduates who will pursue graduate professional study to keep abreast of the rapid progress of the profession will increase largely. With mounting costs of instruction and the inevitable higher tuition fees which must be charged for engineering education, many engineering school graduates will not find it possible to continue formal studies beyond the fifth year.

In great engineering centers like New York City there will be increased demands for part-time graduate professional study in the late afternoon and evening hours. Many engineering concerns are encouraging their young engineers to undertake such advanced work and the registrations for such courses at Columbia are growing rapidly. This places an additional burden upon the senior professors since it is under such men that graduate professional students want to pursue their work. Provisions must be made in faculty assignments to take this important instructional load into account without overloading. Our School of Engineering has an outstanding opportunity to continue to develop this aspect of the service it can render to the profession in the metropolitan region.

Young engineers who are not located in great engineering centers with engineering schools offering such part-time graduate instruction find it most difficult if not impossible to undertake graduate level professional studies. They cannot afford to resign nor to ask leave of absence in order to return to engineering schools for a full year of graduate studies. At the time when they could profit most from such study, say five to ten years after graduation, they have family responsibilities which would make it most difficult, if not impossible, to forego earnings and undertake additional expense. The competition for promotion within their companies is at its peak and they would be reluctant to leave the field clear for others during the time necessary for advanced study. Companies also are reluctant to grant year-long absence for graduate study, even

when they recognize the desirability of having their men brought up to date and improved in the theoretical background of new developments.

A plan has been devised by a special Faculty committee which seems to overcome most of these difficulties and which offers a large part of the advantages of advanced study. This report was presented to the Advisory Committee on Educational Policy at exactly the same time that an almost similar plan was presented by the Faculty of Journalism. The Journalism plan has been supported by the newspapers of the country and will begin operating in the fall of 1946. Support should be found for the Engineering plan so that it may begin in the summer of 1947 on an experimental basis. I believe that the plan has great merit, that it will meet a great need in engineering education and that when once demonstrated, support of a liberal magnitude can be secured from the industries of the country. The Faculty Committee which originated the plan is enthusiastic and needs only the authorization to demonstrate that it can make it work. It is a challenging opportunity for Columbia to make a contribution to the development of highly advanced engineering education. It should be considered by the Trustees and the Administration as an educational research project of great promise.

This report is the final official duty of the writer, whose resignation from the Deanship has been accepted by the Trustees effective April 1, 1946. For nearly sixteen years it has been my privilege and honor to work for the School of Engineering and the University with my colleagues of the Faculty and of the Administration. To President Butler, to Provost and now Acting President Fackenthal, to the administration officers, faculty, alumni, and students I want to express my gratitude for their coöperation and to render thanks for the aid and support I have received. Working with our Faculty colleagues has been a wonderful experience in the benefits of a wholehearted coöperation, the memories of which I shall carry with me. The staunch support of the Trustees, Administration and Alumni, and the pleasurable contacts with the students as they developed into competent and worthy engineers gaining distinction in their chosen fields of endeavor cannot be forgotten.

The Trustees have selected Associate Dean James Kip Finch, the Renwick Professor of Civil Engineering, as the Dean. During the difficult war years and my part-time leave of absence from the University

to be Special Assistant to the Secretary of the Navy, Dean Finch has carried forward the work of the School. No more loyal associate could there have been and his appointment as Dean rounds out a lifetime of service to Alma Mater and the School of Engineering. With Dean Finch leading we can expect to go forward into new developments, of great import to the School and University, that will have the most loyal adherence of his faculty colleagues and the staunch support of Trustees and alumni.

Respectfully submitted,

J. W. BARKER
Dean

April 1, 1946

Columbia University

IN THE CITY OF NEW YORK

Report of the Dean of the School of Architecture

FOR THE PERIOD JULY 1, 1945, TO
JUNE 30, 1946



MORNINGSIDE HEIGHTS
NEW YORK 27, N. Y.

PRINTED FOR THE UNIVERSITY BY
COLUMBIA UNIVERSITY PRESS

SCHOOL OF ARCHITECTURE

REPORT OF THE DEAN

FROM JULY 1, 1945, TO JUNE 30, 1946

To the Acting President of the University

SIR:

I have the honor of submitting the annual report of the activities of the School of Architecture for the academic year 1945-1946.

In the next ten years, the appearance of American cities will have changed very considerably. Not only will there be other buildings and more buildings, but also they will have been built in the contemporary manner—a manner which will clearly indicate that the eclecticism of the last fifty years is a style of the past. The projects even now on the drafting tables are sufficient in number to warrant this statement which must stimulate the imagination of both practitioner and layman.

The contemporary manner is an expression which is new and flexible, but which has nevertheless reached the stability and efficacy achieved by some twenty-five years of experiment. It is the expression of form, function, and beauty that has evolved from the materials, needs, and ideals of the twentieth century, and it is now generally accepted, in spite of the protests of the conservatives. It is the style and idiom in which young architects spontaneously express themselves, and their conviction will presently be added to that of the older practitioners who have been responsible for the changes in architectural design. The rapid production of new buildings will familiarize the public with contemporary design, so it is a warranted supposition that the new style will flourish, not only in business districts, but also in suburbs and in residential sections.

For the past few years the annual reports of this School have foretold the inevitable revival of building on a large scale throughout the country, and the consequent enhancement of the position of the architect. It is needless to say anything further on this subject, as everyone is keenly aware that a great building era is before us. Actual construction has not yet begun on a large scale, but it is common knowledge that the nation—and the world—is impatiently awaiting the manufacture of the necessary building materials (and also price stabilization) to begin to erect the enormous quantity and variety of structures for which there is such press-

ing need. How long this building boom will last is a matter of conjecture; but it seems reasonable to suppose that it should continue for at least fifteen or twenty years following the period of abnormally intensive productivity during the next five to ten years.

Estimates of only three or four years ago on the amount of building necessary are now doubled or tripled. Prices are so unpredictable at present that many wonder how it will be possible to build. But such conditions have occurred repeatedly in this country. In time, there is an economic stabilization, and life goes on. There is little doubt therefore that construction will proceed, and on a magnificent scale.

Although building activity is not yet apparent to the casual observer, it is very evident to the professional. Architects' offices are busier than they have been for many years. Some offices have even had to refuse new work temporarily because of various shortages, and because of the serious dearth of trained assistants.

The building activity is, of course, reflected in the professional schools. During the depression and war years, registrations in schools of architecture throughout the country suffered greatly; and during the last two years of the war the number of students was pitifully small—dangerously so for the future of the profession.

But the practice of architecture is again making its appeal to those who are suitably endowed. Because of the evident need for construction, the schools of architecture are swamped with applicants. True, all schools in all universities are struggling with the problems of unduly rapid expansion, but the schools of architecture have never before had so many applicants, even during their best years.

Two years ago this School had but twenty-seven students enrolled in its four professional classes. This year's entering class of twenty-five (which we have considered a normal first year class), plus a number of former students returning from the services to enter the upper classes, and a few transfer students from other schools, have brought our registration to a total of sixty-seven, or roughly the number we had in the School during the period 1935-1941.

By mid-May of this year we had received 175 applications for admission for the coming academic year 1946-1947. How many inquiries were made by persons without the necessary academic prerequisites it is hard to say, but a conservative guess would probably double the above figure.

After due consideration the Faculty decided to accept an entering class of thirty students, rather than twenty-five which had hitherto been considered our limit. This was made possible by the generous appropriation made to the School by the Trustees of the University, for new tables, stools, and lockers for the drafting-rooms.

With this entering class of thirty, plus our returning students, transfers, and graduate students, the enrollment for the coming year 1946-1947 should be as follows:

1st year	30
2d year	28
3d year	21
4th year	15
Graduates	21
	<hr/>
Total	115

The small enrollment in the fourth year is due to the fact that this class is the last class of our "accelerated program" to be graduated. Also, because of our schedules of instruction and requirements for the professional degree, it is difficult to admit transfer students to the fourth year.

Under present conditions it is reasonable to expect a capacity registration in all classes in the School for the following academic year, 1947-1948.

During the summer our students are in the field, working in architects' and builders' offices to obtain practical experience. As far as we know, none have had any difficulty in finding employment.

Evening classes in Architecture as well as day classes have shown a sharp increase in registration—so much so that several new sections were formed. There were over 108 persons registered in these classes during the past school year.

Registrations for next year are already so numerous that many of the classes are now filled to capacity; our drafting and class room facilities will not permit us to form more sections than we now have.

Classes in Drawing, Painting, Sculpture and the Graphic Arts continue to expand. This year the classes were filled with returning veterans, both men and women, and our space was taxed to capacity day and night. Registrations totaled 611. Because of space limitations, we have now

reached maximum enrollment in our present quarters. The return in September to our old building, East Hall, which was occupied by the Midshipman's School during the war, will give us somewhat more floor area and two more studios than we have at present.

The success of these classes is proven by the continual increase in registrations. However our physical equipment is most inadequate; there is the most urgent need for better quarters and acceptable equipment for this work. We hope that a new building may be had for them in the not too distant future.

The Charles T. Mathews Foundation Lectures on medieval art and architecture were delivered this year by Professor Meyer Schapiro of the Faculty of Fine Arts and Archeology of this University. After discussion with the Dean of Education of the Metropolitan Museum of Art, where these public lectures are offered, it was decided to give them on Saturday afternoons instead of on Wednesdays as heretofore, and to offer the lectures as two correlated series of five lectures, instead of as one series of ten lectures as had been the custom in the past. The new plan proved very successful. The attendance of over 350 for each lecture showed an increase of about 100 persons per lecture over the average in past years. Professor Schapiro entitled his two series "Gothic Architecture: the forms and the vision" and "Gothic Art: image and model of mediaeval society."

Numerous exhibits were shown in the School during the year.
In Avery Hall:

- 1 Exhibition of student work
- 2 Views of Rockefeller Center
- 3 Chinese art
- 4 Sculpture by Oronzio Maldarelli
- 5 Exhibition of student work
- 6 French Modern Masters
- 7 Architecture of Trinidad (photos by Alan Burnham)
- 8 Exhibition of student work

In Avery Library:

- 1 Illustrated Costume Books
- 2 Greek Revival Architecture in America
(an exhibition of photographs from the collection of Mr. Talbot Hamlin)

- 3 The Christmas Story in European Painting
(an exhibition of reproductions of XIV–XVIII century pictures)
- 4 Art Books Published in the Orient
(an exhibition of publications from the East Asiatic Collection, Fine Arts and Avery Libraries)
- 5 Exhibition of the Charles Coolidge Haight Architectural Drawings
- 6 An Exhibition of Photographs of Early Kentucky Architecture
(photographs by Alfred Andrews)

In the Drawing, Painting and Sculpture Exhibition Gallery:

- 1 Exhibition of student work
- 2 Paintings of students at Dana Hall, Mass.
- 3 Paintings by George Picken
- 4 Paintings by Siuling Wong
- 5 Sketches by Harry Carnohan
- 6 Exhibition of student work
- 7 French prints (loan exhibit from Metropolitan Museum of Art)
- 8 Tenth annual Faculty Exhibit
- 9 Paintings by Eleonore Heusser
- 10 Exhibition of student work

Although the School has always received many visitors, both American and foreign, it is significant that the number has increased sharply this past year. Visitors have come from Argentina, Australia, Bolivia, Canada, Chile, China, Cuba, Ecuador, France, Spain, Poland, England, and many parts of the United States. In most cases they were professors from various schools of architecture who came to see our equipment, inspect student work, and to discuss teaching methods with the Staff.

The School of Architecture has undertaken to sponsor the preparation of an important publication tentatively entitled "The Forms and Functions of Twentieth Century Architecture." In 1894 Julien Guadet published four volumes on architectural elements, principles of design and building types. Guadet's books have since been the standard source of reference, as no comparable work has been produced. But Guadet's volumes were based on lectures which he began to give in 1872, and the material has never been revised. Building requirements, construction methods, and the esthetic point of view have changed since the nineteenth century.

Talbot Hamlin resigned as Avery Librarian as of June 30, 1946 to become the editor of this work. He will write some of the text, but special-

ized articles have been assigned to recognized authorities. An Advisory Board has been composed of the following members: Turpin Bannister, Dean of the School of Fine Arts, Alabama Institute of Technology; Jean Labatut, Professor of Architecture, Princeton University; John C. B. Moore, architect, and Morris B. Sanders, architect and industrial designer, both of New York. The Dean of this School will act as chairman of the Advisory Board.

It was deemed too early to announce a competition for the Schermerhorn Traveling Fellowship. However the following medals and prizes were awarded:

Alumni Association Medal—Waldemar Kuetzing
 The American Institute of Architects Medal—George Marc Raymond
 Charles A. Harriman Prize—Judith Hochberg
 Construction Prize—Irwin Luckman (Ex-Aequo)
 Bart Valvano (Ex-Aequo)
 Sherman Prize—George Marc Raymond
 Hamlin Prize—Don P. Reimann
 Boring Prize—Robert L. Schenker
 Ninth Charles Peck Warren Prize—Robert L. Schenker
 Henry Wright Memorial Prize—Judith Hochberg
 Lucille Smyser Lowenfish Memorial Prize—Reginald Knight

Professor Kenneth A. Smith, on sabbatical leave during the winter session of 1946–1947, has been designated as one of the representatives of the American Society of Civil Engineers at the following meetings:

International Technical Congress in Paris, France, 16 to 21 September 1946
 Sixth International Congress of Applied Mechanics, in Paris, France, 22 to
 29 September 1946
 International Congress for Planning and Housing in Hastings, England,
 7 to 12 October 1946

Professor Leopold Arnaud has been appointed Vice Chairman and Secretary of the Committee on Foreign Relations of the American Institute of Architects.

Respectfully submitted,

LEOPOLD ARNAUD

Dean

June 30, 1946

Columbia University

IN THE CITY OF NEW YORK

Report of the Dean of the Graduate School of Journalism

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1946



MORNINGSIDE HEIGHTS
NEW YORK 27, N. Y.

PRINTED FOR THE UNIVERSITY BY
COLUMBIA UNIVERSITY PRESS

GRADUATE SCHOOL OF JOURNALISM

REPORT OF THE DEAN

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1946

To the Acting President of the University

SIR:

I have the honor to submit a report for the academic year ending June 30, 1946.

In the first third of a century of this School's existence there have been two significant developments in the education of men and women for journalistic careers. One was the creation of the first graduate school of journalism. The other and most recent development was the establishment of the American Press Institute. In each case we have pioneered.

These two advances in the field of education have received the firm support of the press.

Application for the first seminar of the Institute for managing editors and news editors, which will open in September, exceeded our capacity. It was impossible to accommodate all the daily newspapers which nominated candidates.

Admissions to the Graduate School of Journalism for the academic year 1946-1947 closed on July 1. The number of applicants exceeded our capacity by approximately 335.

The measurements we have used in support of our assumptions that these developments record progress are the following:

(1) In the Graduate School of Journalism there has been a progressive rise in the quality of the academic records of the applicants. Our requirement of 96 points of liberal arts and sciences, supporting a baccalaureate degree, is, in so far as we know, higher academically than any other graduate professional school in the United States.

(2) A review of our applications indicates also an annual rise in indications of professional aptitude.

(3) By limiting the number of students each year to approximately sixty-five, we have provided for intensive individual instruction.

By limiting the number of men in each seminar to twenty-five we will offer the same individual opportunities to members of the Institute.

(4) The support of the press and of other individuals interested in the

advancement of journalism may be measured by the success of our graduates in their jobs, by the number of recommendations received annually from newspaper publishers, editors, and writers, and by financial support. Since 1935 this School has received gifts of approximately three quarters of a million dollars. This is the first time since Joseph Pulitzer's original bequest that the School has received substantial financial support. If the Institute succeeds, as we believe it will, I hope it will appeal to someone who is interested in creating an endowment comparable to Joseph Pulitzer's gift.

The purpose of the Institute is to contribute to the improvement of American newspapers.

It is significant that the idea for this educational project originated in a newspaper office, was financed by contributions from thirty-seven publishers, representing newspapers from New England across the country to the Pacific Coast and from Michigan to Alabama and Texas.

The educational program of the Institute is based upon the proposition that the basic way to improve American newspapers is to provide opportunities for experienced policy-making executives and practitioners to meet in a series of conferences, under discussion leaders, to consider the social, economic, and political aspects and impact of their daily work and the utilization of their tools—words, presses, and radio—for public education. To improve the services of the press to the people, the practitioners of journalism who attend the seminars will examine newspaper technique and policies in the light of experience and the idealistic objectives which inspire men who make our daily newspapers.

Beginning in September and continuing until the latter part of May, there will be six seminars for (1) managing editors and news editors, (2) picture editors, (3) city editors, (4) editorial writers, (5) reporters of municipal affairs, (6) general reporters.

Attendance at each seminar for the first year will be restricted to twenty-five men who will be selected with care on the basis of nominations by newspaper publishers. No one will be admitted who has not had a minimum of five years experience. In each case the editor or reporter must possess qualities which will make him a contributor and not simply a listener to the daily schedule of study, examination, research, and discussion.

In the course of the first year 150 men will be admitted. The seminars will begin at nine o'clock in the morning and continue throughout the day and evening, five days a week. Members of the seminars will live in the same residence hall. They will take their meals together in a private dining room so that there may be intensive directed application to the serious tasks before them. There will be stricter discipline than is customary in an academic institution, inasmuch as no one will be excused, except for illness. No tardiness will be allowed and conferences, at the discretion of the Director, may be continued throughout luncheon, dinner, and evening hours. Thus in practice members of the seminar may be required to carry three times the ordinary graduate academic load.

It is significant also that only nine and one-half months elapsed between the date of the original proposal, submitted by Sevellon Brown, editor and publisher of *The Providence Journal* and the *Evening Bulletin*, and the printed announcement of the University which was mailed to publishers, managing editors, and city editors of daily newspapers in all cities of the United States with a circulation of 15,000 or more.

For the historical record I wish to refer to Mr. Brown's first letter of August 23, 1945. He asked me to inquire whether Columbia University would be interested in a project which he outlined as follows:

"For a long time I have been mulling over the possible value to American journalism of an Institute system of instruction to working newspapermen. By such a system I mean the co-operation of outstanding newspaper organizations with a large university in carefully planned short courses of study. I believe the whole project would develop higher professional standards and better morale in newspaper offices throughout the country. I believe, further, that such development is imperative in the light of changes which newspapers face today.

"Education for journalism has always been a particularly difficult problem. Indeed there are many who believe that you cannot educate men specifically for journalism. You can, they say, increase skill in numerous techniques of the profession—headline writing, foreign news editing, photography, caption writing, etc.—but not educate for journalism as such. The field is too broad, too inclusive. The Columbia School of Journalism, for example, gives excellent instruction in the techniques; but there has always been a dispute at Columbia over whether the School

should not limit itself to these techniques and not attempt the more ambitious program.

“Even in technical training Columbia is faced with the difficulty of instructing students before they have had adequate experience as working newspapermen. These students receive instruction in the techniques of editorial writing, feature writing, dramatic criticism and many other specialties long before they are likely to use these skills in a newspaper office. And all of us know how swiftly such instruction can evaporate.

“Which brings me back to my hopes of an institution where men and women actively at work getting out newspapers can tie in their work, as science and industry have tied it in so successfully, with definite educational courses. I have in mind seminar courses to give essential background as well as courses to sharpen particular skills.

“My idea would be to encourage men to go back to these courses from time to time as they progressed with their newspaper work. A youngster with three or four years of practical experience might be sent to learn the latest techniques in photography and caption writing; then some years later attend as a feature writer and after that as an editorial writer.

“Thus all types of newspapermen—reporters, sub-editors or deskmen, editorial writers and specialists in many branches—could be given the opportunity for refresher courses with the advantages of contacts and discussions with authorities and also technical instruction in the best journalistic practices. I believe that editors and publishers would derive great profit by assigning key men to certain courses for, perhaps, 60 to 90 day periods. [This time period was decreased to shorter seminars from two to four weeks.]

“For the purposes I have in mind, Columbia presents ideal opportunities. If the courses which I have suggested were installed there, I am sure the co-operation and resources of all New York newspapers would be available for the study of the best techniques used by those publications. The faculty of Columbia University could assign to the Institute excellent men in many fields to contribute to the general educational side of the Institute for the discussion of current topics and problems. It would be a simple matter to attract outside authorities for seminar discussions and also to bring to them the top-ranking journalists in any field, including both those from abroad and at home.”

Mr. Brown added that he would recommend to the Board of Directors of The Journal Company an initial contribution of \$10,000 "to finance research and study by a selected group of active journalists and educators to report upon the feasibility and desirability of such an institute procedure."

I discussed the proposal with the Acting President of the University. It was not necessary to make a study as proposed by Mr. Brown because we had been considering related ideas for a number of years. Many newspapers had inquired whether they could send their staff members to New York for short courses of study. At a meeting of Associated Press managing editors in Kansas more than ten years ago the idea of courses of study for working newspapermen was explored. During the intervening years at the annual meetings of the American Society of Newspaper Editors the idea was kept alive by the obvious need and interest of the members. The Acting President of the University was familiar with these matters. Therefore, with his support I reported to Mr. Brown within a few days that we were prepared to create an American Press Institute, providing we could obtain contributions of \$120,000 to finance the Institute for a two year period.

Mr. Brown's interest in this School was based upon many years experience with our graduates. He had employed them annually. In addition, his two sons are among our graduates.

With Mr. Brown's assistance and support we presented the idea, first to George B. Parker, editor-in-chief of the Scripps-Howard Newspapers, to Byron Price, who was then Director of Censorship, to the editors and executives of *The Evening Star* in Washington, D. C., to Eugene Meyer, publisher of *The Washington Post*, and to Norman Chandler, publisher of the *Los Angeles Times*.

Within a few days we had assurances of financial support amounting to \$50,000. Mr. Brown and I continued to call upon newspaper publishers and editors whom we knew personally. Within a few weeks we had exceeded our goal by \$43,000.

This is significant also because I know of no other educational project in journalism or in any other profession which was financed so generously or so extensively or by such recognized leaders of any profession or industry. Gifts to medical schools have greatly exceeded the amount

here involved, but many of these gifts have come from foundations or wealthy individuals, not from a group of practitioners. There have been substantial gifts from lawyers and judges to schools of law, bankers and business men have made large gifts to schools of business. Engineering schools have had their generous benefactors. But I do not know of any institution in any other profession or industry where a group of active owners and administrators have coöperated as have the Founders of the American Press Institute.

Neither in medicine, business, law, engineering, architecture, or radio is there an institute similar to the one which we have established.

The seminars will operate on the basis of experienced clinical practice for managing editors and news editors. The newspaper's relationship to all civic problems will be examined in the light of the best service of the daily press to the people and institutions of the community. This will cover a wide range of subjects because the daily news necessarily draws into its daily net everything from juvenile delinquency, accidents, and family troubles to the objectives of charitable, educational, and religious groups. Within the net also each day are the current urgent labor controversies and the dynamite issues of race and religion in their impact upon each community. At the same time that these problems are diagnosed the editors will be considering newspaper policies and techniques, such as news evaluation and display, selection of news items, and headlines, libel and ethics.

When editorial writers meet next January the subject matter will be American foreign affairs with emphasis upon the relations of the United States and the Soviet Union, including all of the world-wide ramifications of capitalist-communist antagonisms and propaganda from Latin America to Europe and Asia. Again the technique of editorial presentation and interpretation will be presented and debated so that the participants in the seminar will be able to give and receive ideas and consider their practical application.

Communities, like individuals, suffer from a wide range of diseases, physical and mental, and the newspaper is as much if not more concerned with these manifestations than any other responsible civic institution.

In our seminars for reporters we shall not only attempt to diagnose civic diseases but will bring into the seminars men with vision who will have

ideas to present for the improvement of communities through civic planning, housing, recreation, traffic control, improved transit, better hospitals, etc. In the same seminar there will be discussed the best techniques for obtaining, presenting, and interpreting information for the education and enlightenment of newspaper readers.

The Institute is not an experiment. For years there have been regional and national conferences of editors and publishers for two or three days, annually or semi-annually. On each occasion the participants have extracted values which they have taken back to their newspaper shops and put into use.

Even the Institute procedure which we have outlined has passed the experimental stage because we have already held two conferences in New York of editors and managing editors of sponsoring newspapers. At these conferences the men have attended long daily sessions and examined around the conference table the subject matter and the techniques which we will consider in each seminar. We know already that the plan is sound and we have every confidence that it will work in practice.

At the first conference of the editorial representatives of the Founders an Advisory Committee was elected. All of these men have had years of experience, are leaders in their communities, and occupy high and responsible posts on their respective newspapers.

The members of this Committee are as follows:

TURNER CATLEDGE (1947), Assistant Managing Editor, *The New York Times*

W. S. GILMORE (1947), Editor, *The Detroit News*

GROVE PATTERSON (1947), President and Editor, *Toledo Blade*

SEVELLON BROWN (1948), Editor and Publisher, *The Providence Journal*

JOHN H. CARTER (1948), Editor, *Lancaster Newspapers, Inc.*

A. H. KIRCHHOFER (1948), Managing Editor, *Buffalo Evening News*

LLOYD GREGORY (1949), Managing Editor, *The Houston Post*

ALEXANDER F. JONES (1949), Managing Editor, *The Washington Post*

M. H. WILLIAMS (1949), Executive Editor, *Worcester Telegram*

The Director of the Institute is Professor Floyd Taylor, who has had many years of metropolitan newspaper experience on the *New York World-Telegram* and on the *New York Herald Tribune*. The Associate Director is Claude A. Jagger, assistant general manager of The Associated Press, who has been granted a year's leave of absence to serve the

Institute. These men complement each other in their experiences. They are highly competent administrators. Assisting them in their seminars will be discussion leaders selected from important newspapers throughout the country and from representative community and national organizations and institutions who will bring to the seminars their vast fund of knowledge and experience.

The list of Founders of the Institution is impressive, not alone because of the names of great newspapers, but because in each individual case the publisher is a man who is respected for his own management and integrity. The Founders are:

- FRANK S. BAKER, Publisher, *The Tacoma News Tribune*, Tacoma, Washington
- PAUL BELLAMY, Editor, *Cleveland Plain Dealer*
- GEORGE C. BIGGERS, Executive Vice President and General Manager, *The Atlanta Journal*, Atlanta, Georgia
- PAUL BLOCK, JR., Publisher, *Toledo Blade*, Toledo, Ohio
- GEORGE F. BOOTH, Editor and Publisher, *Worcester Telegram* and *The Evening Gazette*, Worcester, Massachusetts
- JAMES WRIGHT BROWN, President, *Editor and Publisher*, New York, N. Y.
- SEVELLON BROWN, Editor and Publisher, *The Providence Journal*, Providence, Rhode Island
- EDWARD H. BUTLER, Editor and Publisher, *Buffalo Evening News*, Buffalo, New York
- NORMAN CHANDLER, President, *Los Angeles Times*, Los Angeles, California
- R. B. CHANDLER, Publisher, *The Mobile Register*, Mobile, Alabama
- ROBERT CHOATE, Publisher, *The Boston Herald*, Boston, Massachusetts
- W. H. COWLES, JR., Publisher, *The Spokesman-Review*, Spokane, Washington
- JAMES M. COX, Publisher, *Dayton Daily News*, Dayton, Ohio
- EDWARD M. DEALEY, President, *The Dallas Morning News*, Dallas, Texas
- DOW H. DRUKKER, JR., Publisher, *The Herald-News*, Passaic, New Jersey
- E. W. FAIRCHILD, President, *Fairchild Publications*, New York, N. Y.
- MARSHALL FIELD, Publisher, *The Chicago Sun*, Chicago, Illinois
- GUY P. GANNETT, President, *Gannett Publishing Company, Inc.*, Augusta, Maine
- E. K. GAYLORD, President and Publisher, *Daily Oklahoman* and *Oklaoma City Times*, Oklahoma City, Oklahoma
- W. P. HOBBY, Publisher, *The Houston Post*, Houston, Texas
- K. C. HOGATE, President, *Dow, Jones and Company, Inc.*, New York, N. Y.
- P. L. JACKSON, Publisher, *Oregon Journal*, Portland, Oregon

JAMES KERNEY, JR., Editor and Vice President, *Trenton Times Newspapers*,
Trenton, New Jersey

D. J. MAHONEY, Vice President and General Manager, *Miami Daily News*,
Miami, Florida

ROBERT McLEAN, President, *The Evening Bulletin*, Philadelphia, Pennsylvania

EUGENE MEYER, Editor and Publisher, *The Washington Post*, Washington,
D. C.

EDGAR MORRIS, General Manager, *The Daily News-Sun*, Springfield, Ohio

FRANK B. NOYES, President, *The Evening Star*, Washington, D. C.

WILLIAM J. PAPE, President and Publisher, *Waterbury Republican and Water-*
bury American, Waterbury, Connecticut

JOSEPH PULITZER, Publisher, *St. Louis Post-Dispatch*, St. Louis, Missouri

OGDEN REID, Editor, *New York Herald Tribune*, New York, N. Y.

FRANK D. SCHROTH, Publisher, *Brooklyn Eagle*, Brooklyn, New York

W. E. SCRIPPS, President, *The Detroit News*, Detroit, Michigan

PAUL C. SMITH, Editor, *San Francisco Chronicle*, San Francisco, California

MERRITT C. SPEIDEL, President, *Speidel Newspapers, Inc.*

J. HALE STEINMAN, President, *Lancaster Newspapers, Inc.*, Lancaster, Penn-
sylvania

ARTHUR HAYS SULZBERGER, Publisher, *The New York Times*, New York,
N. Y.

Scripps-Howard Newspapers

At the same time that we are making this advance in the field of education for the improvement of newspapers, we intend also to improve the Graduate School of Journalism. Under my direction the Institute and the School will operate as two departments, with two Associate Deans: Professor Taylor, Associate Dean serving as Director of the Institute, and Professor Roscoe Ellard, Associate Dean in charge of educational policy and instruction for the Graduate School.

Professor Ellard's plans for the year of 1946-1947 will set a new standard in the application of newspaper knowledge to the classroom. We will increase the staff of active newspapermen who will give instruction. The following list of their names will indicate to newspapermen the seriousness of our purpose and will readily reveal to incoming students the experience and outlook of their instructors.

FRANK S. ADAMS
HARRY W. BAEHR

The New York Times
New York Herald Tribune

THEODORE M. BERNSTEIN	<i>The New York Times</i>
MARQUIS W. CHILDS	Washington Columnist
WILLIAM W. COOK	<i>The New York Times</i>
RICHARD F. CRANDELL	<i>New York Herald Tribune</i>
ROBERT R. DWYER	<i>New York Daily News</i>
WILLIAM C. ECKENBERG	<i>The New York Times</i>
LEWIS S. GANNETT	<i>New York Herald Tribune</i>
ROBERT E. GARST	<i>The New York Times</i>
CLAUDE A. JAGGER	<i>The Associated Press</i>
LEWIS JORDAN	<i>The New York Times</i>
HERBERT MAYES	<i>Good Housekeeping</i>
DONALD F. ROSE	<i>The Philadelphia Evening Bulletin</i>
HARRISON SALISBURY	<i>United Press Associations</i>
RICHARD L. TOBIN	<i>New York Herald Tribune</i>
WILL C. WENG	<i>The New York Times</i>
ARCHER WINSTEN	<i>New York Post</i>

By enlarging our teaching staff we shall be able to provide a greater measure of individual instruction for every student than has been possible in previous years. In addition, we shall be able to intensify the day's work, thereby approximating the tempo and pressure of the daily newspaper office.

Under the direction of Professor William O. Trapp, we have selected from over four hundred applications sixty-five incoming students with high academic qualifications and professional promise.

Thus the development of the services of this School continues to advance.

Since the School of Journalism was opened in 1912 there has been a progressive rise in our entrance requirements, in our classroom standards, and our educational objectives. For twenty-three years we operated as an undergraduate school offering as a by-product courses leading to a Master's degree for a few students only. During the undergraduate period 795 students received the B.Litt. degree; 134, the B.S. degree.

In 1935 the Faculty of Journalism recommended and the Trustees approved the establishment of the Graduate School of Journalism, the first and only exclusively professional graduate school of journalism. During the ten year period 1936-1946, 747 students have received the M.S. degree.

In 1944 the Faculty increased the academic entrance requirements to 96

points in liberal arts and sciences, thereby raising the educational substance of the required Bachelor's degree to a level as high as any other school or department of Columbia University or of any other School of Journalism.

We pioneered also in abandoning the mass production system of education which was so academically proper up to the economic depression of 1929. We decided to restrict registration to approximately sixty-five students annually in order that we might concentrate on the development of the individual student.

This was also in accord with the agreement between Joseph Pulitzer and the Trustees of Columbia University of April 10, 1903. Mr. Pulitzer directed the University to "maintain the School in such a liberal spirit as to make its advantages available to the largest number of students consistent with the highest degree of educational efficiency." The agreement also provided that "the course and plan so adopted may be modified from time to time by the University as experience or changing conditions may render necessary or desirable as tending to increase the usefulness of the School."

The raising of our educational qualifications in order to serve the best interests of the individual student was also in accord with the rising requirements and standards of the editorial and news departments of newspapers and periodicals.

Journalism is becoming not only a more exacting profession but it needs and requires the services of men, and to a limited extent of women, whose academic education is at least on a par with their professional training and abilities. More and more the demand is made upon the School of Journalism for graduates whose knowledge and understanding of government, politics, English, history, sociology, and other subjects of academic study are of such a character as to fit them for the changing requirements of the profession.

The "usefulness" of the School, to use Joseph Pulitzer's term, may be and can be greatly expanded if its graduates possess both the finest possible academic background and sound professional training and high ideals of public service. Thirty years ago it was natural and logical to emphasize technical instruction. Today the emphasis must be not only on technique but also upon a liberal education.

The response of students to our high requirements and personalized instruction is indicated in the statistical record of applications:

<i>Year</i>	<i>Applicants</i>
1933	91
1934	115
1935	139
1936	168
1937	205
1938	164
1939	135
1940	140
1941	131
1942	96
1943	95
1944	153
1945	220
1946	402 (<i>incomplete</i>)

It will be noted that the lowest numbers were in 1933, the academic bottom of the world economic upheaval of 1929 and in 1942-1943, the period of war preparations when men entered the Armed Services.

The position this School attained by resisting popular clamor and competitive pressure for accelerated courses and lower wartime standards is reflected also in the statistics. In the academic year 1943-1944 when all educational institutions suffered drastic declines in registration, we operated at capacity. In that year, according to *Journalism Quarterly* of December, 1944, there were 155 students studying for the Master's degree in forty schools of journalism in the entire United States. Sixty-four of these students were enrolled at Columbia University.

While these statistics are gratifying they do not reflect our potential maximum because we do not encourage every prospective student, who comes to be interviewed or who inquires by letter, to submit an application. We make our selections progressively throughout the year. We seek graduates of many colleges and universities; from many states and foreign countries. In this way we achieve national and international representation in our student body.

During the ten year period of the Graduate School our students have

come from forty-four states and held Bachelor's degrees from one hundred eighty-six universities and colleges.

In recent years there have been a number of faculty changes. Professor Henry F. Pringle resigned to devote his entire time to the Fellowship of the John Simon Guggenheim Foundation to prepare a history of World War II. Professor Herbert Brucker, following two years service with the Office of War Information was appointed associate editor of *The Hartford* (Connecticut) *Courant*. Associate Professor John Chamberlain became a full-time member of the staff of *Life* magazine. Dr. William O. Trapp, formerly of the *New York World-Telegram*, was appointed Associate Professor and advanced to Professor of Journalism following the completion of his postgraduate work at Cornell University. Professor Harold L. Cross spent one year in Chungking as Dean of the Post-Graduate School of Journalism in China's war-time capital and then returned to his lectures on the law of libel and freedom of the press. He was succeeded in China by Professor Rodney Gilbert, who directed one seminar when we were in need of an authoritative interpreter of Asiatic affairs after Pearl Harbor. When Floyd Taylor returned from a year in China as an expert on the staff of the Department of State he was appointed Visiting Associate Professor and subsequently promoted to a full professorship. For a two year period Arthur S. Rudd of Publishers Syndicate, Chicago, joined our faculty as Visiting Associate Professor. During my absence on the World Free Press Mission of the American Society of Newspaper Editors, Professor Eleanor Carroll performed her services as Assistant to the Dean with conspicuous success. We were able to make these faculty adjustments without interrupting the continuity of our teaching and without disturbing the basic concepts of our philosophy of journalistic instruction. From an administrative standpoint the controlling factors in selecting and retaining teachers are the prestige of the School and the welfare of students. An educational institution should exist for the benefit of students and the advancement of the School's public services. It should not be a teacher's snug harbor.

Two deaths in the calendar year 1946 directed attention to the passage of time in the history of the School. When the School opened in 1912, Dr. John W. Cunliffe was the Associate Director and Robert Emmet MacAlarney was Assistant Professor. Dr. Cunliffe succeeded the first director,

Dr. Talcott Williams, in 1919 and remained as Director until 1931 when the Trustees appointed him Director Emeritus. Professor MacAlarney left the School in 1920 and returned as Professor of Journalism in 1943 continuing until the end of the academic year 1945.

The death of Professor MacAlarney occurred on November 15, 1945; of Dr. Cunliffe on March 18, 1946. Memorial services for these teachers were held in St. Paul's Chapel on November 17, 1945, and April 5, 1946, respectively.

These men were among the pioneers in the teaching of journalism. In the lives of many graduates the influence of these men will continue for a long time. The longevity of a teacher is in fact greater than his years.

During the current academic year we invited a number of distinguished editors, writers and publishers, and government officials to talk to our students. Thus the students in the course of one year have had opportunities of listening to experts and of meeting and conversing with them.

To these guest lecturers we record with gratitude their cordial and helpful contributions to classroom instruction.

CYRILLY ABELS, Managing Editor, *Mademoiselle*

HUGH BAILLIE, President, *United Press Associations*

JOSEPH CLARK BALDWIN, Member of Congress from New York

TOM BARRY, Director of Publicity, Republican State Committee

W. A. H. BIRNIE, Editor, *Woman's Home Companion*

BETSY TALBOT BLACKWELL, Editor, *Mademoiselle*

RICHARD W. CHILDS, President, Citizens Union

MERLE CROWELL, Senior Editor, *The Reader's Digest*

ROBERT E. CUSHMAN, Goldwin Smith Professor of Government, Cornell University

GEORGE DAVIS, Fiction Editor, *Mademoiselle*

FRANK DOYLE, Director of Publicity, Democratic State Committee

MAXIMILIAN ELSER, JR., Publicity Department, J. Walter Thompson Co.

GEORGE H. GALLUP, Founder of the American Institute of Public Opinion

ARTHUR GORDON, Editor, *Cosmopolitan*

GEORGE H. HALLETT, JR., Executive Director, Citizens Union

ELINOR M. HERRICK, Personnel Director, *New York Herald Tribune*, former Regional Director, National Labor Relations Board

FRANCES HUGHES, Special articles, *Mademoiselle*

HU-SHIH, former Chinese Ambassador to the United States, President of the National University at Peiping

H. ELIOT KAPLAN, Executive Director, National Civil Service Association

- VLADIMIR KAZAKEVICH, Lecturer, Council of American-Soviet Friendship
CHARLES E. KEEGAN, former U. S. Military Governor of Bavaria, now New York City Councilman
BRADLEY KELLY, King Features Syndicate
HENRY LACOSSIT, Editor, *Collier's*
JOHN F. X. MCGOHEY, U. S. Attorney, Southern District of New York
JOSEPH D. MCGOLDRICK, former Comptroller of the City of New York
BURT MACBRIDE, Senior Editor, *The Reader's Digest*
J. NOEL MACY, State Department, Washington, and President, Westchester County Publications, Inc.
JAMES MARSHALL, Member of the New York City Board of Education and observer at UNESCO conference, London
JOHN SCOTT MABON, Associate Editor, *Ladies Home Journal*
HERBERT MAYES, Editor, *Good Housekeeping*
AGNES E. MEYER, *The Washington Post*
MACNEIL MITCHELL, Member of the Assembly of the State of New York
NEWBOLD MORRIS, former President of the New York City Council
KATE PAPERT, Division Head, New York State Department of Labor
OXIE REICHLER, Managing Editor of *The Herald-Statesman*, Yonkers, N. Y.
GEORGE ROGERS, *Toronto Star Weekly*
FREDERICK T. ROPE, Executive Secretary, Public Education Association
STUART ROSE, Associate Editor, *The Saturday Evening Post*
WILLIAM A. SEIDL, Legal Department, State Insurance Fund
JESSIE A. SLEIGHT, George Matthew Adams Syndicate
WILLIAM C. VLADECK, of the New York City Housing Authority
LOUIS WALDMAN, Labor Lawyer, Co-founder, American Labor Party

During the absence of Professor Eleanor Carroll on leave we had the good services of Miss Nannine Joseph, who made an outstanding record as an instructor in magazine article writing. In the course of the year several students succeeded in placing manuscripts with the leading magazines of the country.

After three years' service with the Army, Mr. James D. Allen returned to serve as Associate Professor and Assistant to the Dean, and during Professor Carroll's absence was secretary *pro tem* of the faculty.

My last annual report was published in 1944 reviewing the work of the previous year. A second edition was printed at the request of The Canadian Press and contained the resolutions of the American Society of Newspaper Editors on freedom of international news. In 1945 the University published my report on the operation of the Chinese Post-Graduate

School of Journalism. Last year also *Editor & Publisher* issued the report of the ASNE committee which traveled around the world on a mission to implement the Society's resolutions. I had the honor of serving on that committee. These several publications covered adequately the activities and interests of this School.

Respectfully submitted,

CARL W. ACKERMAN

Dean

June 30, 1946

Columbia University

IN THE CITY OF NEW YORK

Report of the Dean of Barnard College

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1946



MORNINGSIDE HEIGHTS

NEW YORK 27, N. Y.

PRINTED FOR THE UNIVERSITY BY
COLUMBIA UNIVERSITY PRESS

BARNARD COLLEGE
REPORT OF THE DEAN

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1946

To the Acting President of the University

SIR:

I have the honor to submit the following report on the condition and progress of Barnard College during the academic year 1945-46. It has of course been a difficult year, as the College began to adjust itself to postwar changes and uncertainties.

The enrollment of students who were candidates for the degree through Barnard College was as follows:

	1944-45	1945-46
Seniors	208	208
Juniors	314	360
Sophomores	314	360
Freshmen	324	311
Unclassified	56	40
	1,216	1,279
Total		

Besides these candidates for the degree we had our usual little group of special students, 27 in number, making a total of 1,306 primarily registered in Barnard College, an increase of 69 over last year.

The number of students coming to us from other parts of the University for a course rose again slightly, amounting to 98, and producing a total registration of 1,404, the largest in our history.

Of course we never had as many as this at any one time, mercifully, but even so the college was excessively crowded and gravely handicapped in its work by shortage of space. We felt under moral obligation to admit as many as we possibly could and thus help to the utmost of our ability to give educational opportunities to the vast numbers of young Americans now seeking college training. For women as well as men, it is at present very hard to gain admission. We had thought, for some years, that our registration should be stabilized at 1,000, but we now plan for approximately 1,200, which expands a bit at times without our intending it.

The number of our candidates receiving the Bachelor of Arts degree during the year was 273, the largest we have had.

In spite of our overcrowded condition we decided we should do something for women veterans, who were feeling rather neglected. Accordingly we admitted for the Spring Session beginning in February, 34 veterans, of whom 13 had already attended college, before their military service, and 21 were carefully selected freshmen, chosen with the help of the College Entrance Examination Board's Special Veterans' Aptitude Tests. For this group of freshmen we organized a special course in history, and a special section of Freshman English conducted by Professor Elizabeth Reynard, herself a veteran. It is a pleasure to report that these women veterans have done well in their first college term.

The Admissions Office of a college in these days is a busy spot indeed, and the task of the Committee on Admissions in selecting from a multitude of good candidates those who are likely to produce the best results for themselves, for the college, and for the country is extremely difficult. Miss Mary V. Libby (Mrs. Raymond Browne) has served as Secretary to the Committee for twenty-six years and carried with great success the chief responsibility in this work. We were therefore distressed to learn that she wished to retire. After long search we have found her successor in the person of Captain Jean Palmer USNR (WR), at present Director of the WAVES, who will shortly retire from the Navy and, we are happy to announce, assume her new post as Assistant to the Dean in Charge of Admissions at Barnard in September. A graduate of Bryn Mawr, she had already before the war had considerable experience in administrative work.

The Board of Trustees has experienced several changes during the year. The resignation of Miss Mabel Choate was accepted with deep regret and with an expression of warm appreciation of all her service to the College for twenty-seven years and of the association of her family with Barnard since its earliest beginnings. Mr. Reginald E. Gillmor was elected to membership on the Board and Mrs. David S. Muzzey (Emilie Young '19) became Alumnae Trustee for the term 1945-49, succeeding Mrs. Alfred F. Loomis (Priscilla Lockwood '13). Dr. Donald Aldrich and Mr. Bayard Rives returned from war service.

At the suggestion of Mr. Pierre Jay, the Trustees spent the better part

of two days at the College in April, dining with the Faculty, lunching with the Undergraduate officers, visiting classes and inspecting buildings. This busy program, colloquially called "Mr. Jay's Roman Holiday," was considered a great success in making the Trustees better acquainted with the College and will probably be repeated next year. Mrs. Harold S. Osborne for the Trustees and Professor Virginia D. Harrington for the Faculty and Administration deserve our thanks for carrying out the plan so competently.

We welcomed back with great pleasure five members of the teaching staff who had been absent on war service: Professor Henry A. Boorse of the Department of Physics, Professor Elizabeth Reynard, English and American Studies, Professor Raymond Saulnier, Economics, Professor Richard P. Youtz, Psychology, and Instructor David Robertson, English. Professor Jane C. Carey, Government, will return to full-time work in the autumn. We regret that Professor Harold C. Bold, Botany, and Professor James H. Oliver, History, are not planning to come back to Barnard.

The Faculty suffered a sad loss in the sudden death on July 26 of Professor Willard Waller, who had been for eight years in charge of our work in Sociology and was of great value to the College. In this emergency Professor Mirra Komarovsky served ably as Acting Executive Officer of the Department and Dr. John H. Useem came as Visiting Lecturer to take over some of Professor Waller's work. After long and careful search by a Faculty Committee we have secured as our new Associate Professor of Sociology Dr. Conrad Arensberg. Trained at Harvard, associated for a time with the Massachusetts Institute of Technology, he has been in charge of Sociology at Brooklyn College, and most recently in the Army with the U. S. Strategic Bombing Survey in Japan.

Our distinguished Professor of Psychology, Dr. Harry L. Hollingworth, creator of this department, is retiring at the end of this year after thirty-nine years at Barnard. He will become Professor Emeritus and carry with him the gratitude and affection of his colleagues and students. Professor Youtz has succeeded him as Executive Officer of the department.

There have been changes in the administration of two other important

departments. Professor Greet succeeds Professor Latham in English and Professor Lorch takes over from Professor Mullins in Mathematics.

We regret that Professor James C. Clifford of the Department of English and Professor Peter M. Riccio of the Department of Italian are being transferred from the Barnard Foundation to Columbia, but are glad they will continue to do some teaching of Barnard students.

Several promotions have been made in the Faculty for next year. Two Associate Professors become Professors: Dr. Cabell Greet in English and M. Frédéric Hoffherr in French. Three Assistant Professors become Associate Professors: Dr. Raymond J. Saulnier in Economics, Miss Elizabeth Reynard in English and Dr. Marion Lawrence in Fine Arts. Two Instructors become Assistant Professors: Dr. Mary Elizabeth Ladue in Mathematics and Dr. Gertrude Rich in Philosophy.

Two new appointments to professorial posts have been made for next year, besides the one in Sociology already mentioned. Dr. Aubrey Gorbman comes to us from Yale to be Assistant Professor of Zoölogy and Dr. Edward J. King, also from Yale, to be Assistant Professor of Chemistry.

We are glad to welcome to the Department of English as Associate for next year Mr. John Kouwenhoven, now Associate Editor of *Harper's*, who will be concerned largely with English Composition.

To our regret Miss Helen M. Carlson has decided to give up the position of Assistant to the Dean in Charge of Residence Halls, in order to devote herself mainly to the teaching of French. We are welcoming to this extremely important Residence Halls post Miss Mary Macdonald, a graduate of the University of Michigan, with an M.A. from Columbia, who has had experience in school and college work, followed most recently by important service in the WAVES.

The increase in the number of students has made the burden of academic advising very heavy, especially for the Associate Dean and the Committee on Transfers. To relieve them and to provide more opportunity for students to talk over their plans and problems with a sympathetic and wise counselor, we began last spring to experiment with a Sophomore Adviser. Miss Eleanor Hyde, Lecturer in English and American Studies, started this work successfully, and will carry it on more extensively next year.

The Dean was absent on leave from February 20 to April 4, serving as a member of the American Education Mission to Japan appointed by the War and State Departments. Associate Dean Gregory served as Acting Dean.

In the autumn, as the war was over, the Dean raised again the question of her own retirement and expressed to the Acting President and the Trustees her desire to have this take place not later than June 30, 1947. A committee of Trustees was appointed to seek candidates and a committee of the Faculty to express Faculty opinion. Alumnae have been invited to send in suggestions through the senior Alumnae Trustee, Mrs. Harold S. Osborne. It is to be hoped that the choice of the next Dean may be made by next autumn, so that the very important new plans now necessary for the strengthening and development of the College may go forward without undue delay.

The financial problems of the College have of course been perplexing. In this Barnard is not peculiar, for a long period of war conditions and the recent rapid rise of expenses have complicated the situation for all colleges.

For the fiscal year 1944-45 we had an operating surplus of \$75,202. For 1945-46 this changed to a deficit of \$13,519, and this in spite of an increase in income. The change of \$88,721 was caused largely by the absolute necessity of increasing the wages of our employees and the appropriations for food and other supplies. It was due also to an amendment of our retiring allowance system. In order to provide in future adequate retiring allowances for our teaching and administrative staff, it became necessary for Barnard, following the new practice of Columbia, to increase the annual contributions on each side from 5% to 7½%. This adds 50% to the annual cost of retiring allowance provision borne by the College.

The great question of salaries of the teaching staff remains to be further considered. We were able to give some additional stipend to junior officers during the Spring Session, following Columbia's example, and to raise the top salary of an instructor from \$3,000 to \$3,300. In the upper levels a considerable number of increases have been made in individual cases, according to the usual scales. But it is obvious that if inflation continues something more fundamental will have to be

undertaken very soon. Nothing is more important to the College than enabling its professors to lead personal lives free from undue financial worry and adequate in opportunity.

It was evident that fees must be increased immediately to meet at least part of the rise in the cost of operating the College. Accordingly the Trustees voted to add \$100 to the tuition fee, making it \$550, and \$10 to the residence fee, which had been recently somewhat increased, lifting it to \$650 and thus producing a total for room, board, and tuition of \$1,200. This does not put Barnard out of line with its sister colleges, most of which are raising their fees.

Obviously if inflation develops still further we must make an additional charge. Probably the residence fee may be raised again a year from now.

Coupled with the increase in the tuition fee is a requirement that a deposit of \$100 be made by May 15 to reserve a place for the following year. This will enable us to know more accurately how many former students are returning and how many new ones we can admit.

An increase in scholarship appropriations from General Income was also made, of course, to help students to whom the higher fees might cause undue hardship. So far there do not seem to be a great number of such cases. However, we must continue to seek new gifts for scholarships.

Besides increasing fees we should also try to add to our general endowment, because the falling interest rate has seriously cut our income from this source.

But above all other Barnard needs at the moment rises that for two new buildings. The erection of the east wing to Brooks Hall, to be much shorter than Hewitt but house about 100 students, would happily solve our very perplexing residence problem. During the past year about seventy Barnard students, not with their own families, have been living in various places in the neighborhood. Some of these rooms will not be available next year. What are we to do with our excellent applicants from a distance? Following the example of many other colleges we are installing double-decker beds in about thirty of our rooms, but this should be only a temporary expedient.

The cost of the new Brooks wing is estimated at approximately \$600,000. Can we not find some sympathetic donor who would like to gather our wandering flock under our own roof on our own campus?

Even more vital is the need for the new academic building on the superb Riverside site, urged in these reports before the war held up for so long all possibilities of construction. The past year we have been studying the question of just what should be in this new building. All the departments were asked to set forth their probable needs over the next twenty-five years, and these statements were discussed and correlated by group conferences and the Committee on Instruction. A conference was also held by representatives of the Trustee Committees on Buildings and Grounds, Education, and Finance with the Committee on Instruction. It is to be hoped that in the autumn the results of these studies can be crystallized in some fairly definite plans and estimates. Unless the new academic building can be provided soon, to give space and modern equipment, it will not be possible for Barnard to maintain the highest level of academic work.

Over the next few years the College could use to excellent advantage about five million dollars of new gifts. The Trustees already have under consideration the organization of a long-term effort to secure financial support. For a college which has made such a good record of usefulness and leadership it should not be impossible to find these needed funds.

The total of cash gifts for the year was \$65,104; we were given also U. S. Savings Bonds with a maturity value of \$3,525. Of the cash gifts \$28,918 came from the alumnae. This last figure includes the very generous donations of Mrs. Eugene Meyer towards our Community Institute; a contribution of \$3,000 for scholarships from our enterprising Thrift Shop; a bequest of \$2,500 from the estate of Gladys Cripps; \$750 from Louise Laidlaw Backus to be added to the Harriet Burton Laidlaw Fund; a gift of \$500 from the estate of Sidney Miner; and a gift of \$1,000 from Mr. De Witt Endicott in memory of his mother, Ellinor Reiley Endicott, 1900, a most devoted and valued graduate of the College.

To our great gratification Mr. W. Merton Rice has given \$24,000 to endow permanently the Grace Potter Rice Memorial Fellowship, which he has been supporting with annual donations.

So successful were the two tennis courts resurfaced by the kind gift of Elizabeth Arden last year, that she has generously added \$2,500 to re-surface two more.

Our good friend of many years, Mrs. Andrew Carnegie, made what

turned out to be her last gift to us in the shape of \$1,000 to strengthen our offering in the international field.

We received a number of special donations for scholarships, including \$2,700 from Independent Aid, \$1,000 from Mr. John S. Stubblefield, and \$500 from Mr. Oscar Houston for Chinese students, a very welcome purpose.

Other gifts which should be mentioned are \$500 from Mr. James Hazen Hyde, a combination of donations totalling \$920 for equipment for the Spanish Department, some precious microscopes given by alumnae doctors for our science departments, and a complete set of the writings of Helen Dawes Brown, one of our original Board of Trustees, most kindly collected by her family.

Discussion of the curriculum was resumed in the autumn. After consideration by individual departments separately, departmental chairmen met by groups, and eventually a report embodying the opinions and recommendations of the departments in all three groups was submitted to the Committee on Instruction and discussed at length. Since it was felt that many of the major decisions regarding curriculum were inextricably bound up with considerations of space, equipment, and staff, it was agreed that the studies of requirements for the next twenty-five years, already mentioned, should be undertaken. On the basis of these the Committee began to prepare a statement of the long-range objectives of the College and the directions in which it expects to develop over the next quarter of a century.

The Dean's Annual Reports for the last two years have briefly discussed the curriculum. It remains inevitably true that Barnard will always be a college of liberal arts and sciences within a university and therefore permanently committed to a program of general education for personal life, for enlightened citizenship, and as a basis for professional training. The subjects of our present curriculum, classified in three great groups—Languages, Literatures and Other Fine Arts, Natural Sciences and Mathematics, and Social Sciences—will remain the fundamental stuff of which any "liberal arts and sciences" college curriculum must be made. Though specific offerings and regulations will change, we cannot conceive that at any time in the next twenty-five years it will become unnecessary to offer instruction in languages and literatures, in the

other fine arts, in mathematics and the natural sciences, and in the social sciences. But obviously there will be alterations in emphasis as the years go on. Fashions in education will change, the conditions of each era will require some new material and varying applications of it, and some new grouping of subjects. Moreover, every college has its own particular bent. It is especially interested in certain fields; its peculiar circumstances enable it to do some things particularly well. For Barnard it is possible to prophesy without difficulty what the emphases should be during the next quarter century.

In the present turmoil of political, economic, and scientific problems we must not forget that Barnard possesses outstanding advantages for the study of the fine arts and we must always emphasize this field in planning for the future. Music, painting, sculpture, architecture, the dance, the dramatic arts, are studied at Barnard as part of a general liberal education and often as preparation for work in the world. With the unparalleled advantages of New York City and Columbia University to aid us, we must continue to improve our offerings in this field.

This is an age in which the natural sciences conspicuously affect the minds and lives of men. It seems highly probable that the importance of the natural sciences and the interest in them will continue during the next twenty-five years. Barnard has done good work in the natural sciences in the past. Its connections with the graduate departments of Pure Science, its preparation of many students for medical schools, give added emphasis to these subjects. Obviously we must greatly increase the space allotted to the natural science departments and modernize their equipment in the light of new discoveries if Barnard is to meet the needs of future years. Physics, for example, has become during the war almost a new subject.

There is another field of interest equally prominent in the minds of men at the present moment—international relations. Its critical connection with the field of science is high-lighted dramatically by the proposal to place the control of atomic energy under the United Nations. It seems certain that during the next twenty-five years the importance of this field of international relations will continue; and it is the field above all others in which Barnard is able to develop exceptionally good work.

We were among the first colleges to set up interdepartmental courses

and majors in American Studies and International Studies and have been experimenting with them over the last four or five years. We are able to draw on the resources of Columbia University for our students in these majors: for example, to send those concentrating on the Far East to Columbia for language courses in Chinese and Japanese, and the students of the Near and Middle East for Arabic. The new graduate School of International Relations and Area Studies, with its affiliated Russian Institute, will, we hope, still further enrich our local resources.

Our own Barnard interdepartmental majors in these fields have been restudied by the Faculty during the past year and somewhat reorganized. American Studies and the former International Studies have been grouped together as "International and Area Studies" under a Faculty Committee headed by Professor Thomas P. Peardon, with three subdivisions: American Studies, Foreign Area Studies, and a new major, International Relations.

American Studies, with Professor Elizabeth Reynard back from the Navy in charge, is being further developed. It is defined as "designed to permit students to concentrate on the character of our own country, its traditions, its ideals and its institutions; and also its relations to other nations and its place in world affairs." There will be forums and field trips for juniors, and several interesting new courses in American Sources for Creative Writing, the Legend of America, and the History of American Thought.

The Foreign Area Studies offer concentration on England, the Far East, France, Germany, Italy, Latin America, the Near and Middle East (some aspects), and Russia. We have enriched our offering in these fields by new courses on the Soviet Union and the Far East and expect to add two more on Latin America. Our aim is to enable the student to gain knowledge of the nation or area of her choice through study of its characteristics, its language, literature, history, traditions, economic, political, and social conditions, and what was called at San Francisco its "personality."

The third group of majors, those in International Relations, are the students who, with a special interest in the social sciences, wish to concentrate on the structure, forces, and problems of modern international society. They will of course study foreign languages and will

take courses in international politics, international trade and finance, and in recent history.

Since we began to set up these programs, an unexpected event has added immeasurably to Barnard's already great resources for instruction and experience in the international field: the arrival in New York of the United Nations and the establishment here of the capital of the world.

The Faculty adopted at its April meeting a resolution extending to the United Nations a warm welcome to our city and offering all possible hospitality and assistance from the officers and students of the College. This was graciously acknowledged by the Secretary General. We hope to be able to be of some help, even though it may be of a humble sort, to the officials and the personnel of the United Nations and the foreign delegations. We hope also to give our students some illuminating opportunities to observe at first hand international organization and activities.

The new academic building which we wish to erect on Riverside, overlooking the Hudson, will provide the indispensable tools which Barnard must have to enable it to rise to its rare opportunities in these various fields, and educate its young women over the years to come to play their parts bravely and wisely in the world of tomorrow.

Respectfully submitted,

VIRGINIA C. GILDERSLEEVE

Dean

June 30, 1946

Columbia University

IN THE CITY OF NEW YORK

Report of the Dean of the College of Pharmacy

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1946



115 WEST 68TH STREET

NEW YORK 23, N. Y.

PRINTED FOR THE UNIVERSITY BY
COLUMBIA UNIVERSITY PRESS

COLLEGE OF PHARMACY

REPORT OF THE DEAN

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1946

To the Acting President of the University

SIR:

In conformity with the Statutes of Columbia University I herewith submit a report on conditions at and affecting the College of Pharmacy during its one-hundred and sixteenth year.

The continuous program of three sixteen-week sessions each calendar year which began with the Summer Session of 1943 has been maintained during the period covered by this report. The total number of students in residence and their distribution by classes are shown in the following tabulation:

	<i>Men</i>	<i>Women</i>
Undergraduates		
Freshman year	93	11
Sophomore year	52	17
Junior year	29	3
Senior year	11	1
Total	185	32
Graduate students	2	0
Special students		
Undergraduate	6	1
Graduate	2	2
Extension students	122	80
Total	317	115

Under the accelerated program the baccalaureate degree was conferred on eleven candidates at special exercises June 21, 1946. The degree of Master of Science under the faculty of Pharmacy was conferred on one candidate in October, 1945.

With the ending of hostilities the Pharmacy Council of the New York State Education Department recommended that the wartime accelerated program be abandoned, effective November, 1945. The Council also recommended that the pharmacy colleges in this state be permitted to maintain a regularly organized summer session through which students entering in the Spring could attain Sophomore standing by the following Fall term. While the acceptance of two entering classes yearly is approved for a limited time, we plan to return to a single entering class.

Although our enrollments during the war years were continuously depleted by the students being called to service, it is gratifying to note that the greater number have already resumed their studies or intend to do so in September. There has been little difficulty in placing these former students for most had completed at least one year of study before the interruption. However, the number of new applicants for the Spring Session was above capacity and some means of selection beyond those formerly employed became necessary. Our Faculty Committee on Education had previously devised and made several trials of a test for purposes of record and, at the suggestion of the Director of Admissions, a satisfactory score in this test will hereafter be an important factor in acceptance.

There has been some apprehension about the ability of a certain proportion of the veteran applicants to successfully pursue college education and it is conceded that there are instances where the ambitions far exceed capabilities. We have made a survey of all students in residence during the Spring Session to determine how veteran students compare with non-veterans and find that the former group is decidedly superior in scholarship.

With pharmacy sharing in the overwhelming influx of students, there is considerable concern about an excess production of licensed pharmacists such as occurred after the previous war. This matter is now being given serious attention by the Boards of Pharmacy, the Association of Colleges of Pharmacy, and other pharmaceutical bodies. Undoubtedly some reasonable means of adjusting supply to demand will eventually be proposed, but in the meantime the colleges can shape their admission policies toward this end. Operation at full capacity for a short time is

advisable as a means of overcoming the deficiencies of the war years. However when this has been accomplished, enrollments should be adjusted so that the graduate may have a reasonable expectation of realizing on his educational investment.

With new methods and materials rapidly supplanting the old, every professional curriculum can benefit by periodic reappraisal and modification to better fit the graduate to meet present conditions in his chosen field. The question of how well the standard pharmacy curriculum meets the present day demands of the various activities in which our graduates engage, has been current for some time but because of war conditions, little could be attempted toward an authoritative answer. The former survey of pharmaceutical practice in relation to pharmaceutical education, under the direction of Dr. W. W. Charters, was completed in 1927. It was made at the time when the two- or three-year applied programs were in effect and it was largely restricted to the educational needs of those entering the store field. Meanwhile the four-year program has been established, there have been considerable changes in store practice and above all, the demand for pharmacy graduates in the industrial field has increased greatly. It can now be reported that the American Foundation for Pharmaceutical Education, on recommendation of the Association of Pharmacy Colleges, has authorized the American Council on Education to make an exhaustive study of the several fields of pharmacy and the educational needs thereof. This survey is under direction of Dr. E. C. Elliott and is now in progress.

After long study our Faculty Committee on Education submitted two rearrangements of the present program with a view toward the general collegiate studies preceding the professional. In one instance these general studies occupy the first two years, while in the other as many as possible are placed in the first year with the remainder in the second.. The latter plan became effective with the entering class of March and it will greatly facilitate the admission of the increasing number of students who come to us with one or more years of previous collegiate study. If, or when, the present limitation of one year of time credit toward the pharmacy degree for previous study in a non-pharmaceutical institution is modified, the Faculty is on record as favoring the present University

plan of two years of general study followed by two years of professional instruction.

A further feature of the rearranged curriculum is the merging of several minor courses in the Division of Pharmacy with the major courses to which they are related. Obligatory one or two point courses in pharmaceutical Latin and calculations are traditional, but we believe that a closer integration of these subjects with the courses in which they are applied, will make for more effective teaching in both. These modifications have not been accompanied by abridgement of time or content but the total number of courses in the Division of Pharmacy has been reduced to twelve as against eighteen under the former program.

The Alumni Association marked the resumption of activities by arranging a two-day seminar May 28-29, with a program of well-known speakers on a wide range of professional and business topics. The social features included luncheons and a general reunion dinner. The reaction was so favorable that the Association plans to continue the seminar as an annual event. The Association also began a publication of a newsletter to all graduates.

Appointments to the staff during this period include Mrs. Margaret Staud, A.B., A.M., as Instructor in Zoölogy for Winter Session; Mr. Horace M. Carter, B.S., as Associate Professor of Pharmacy; Miss M. Irene Bailey, Ph.D., as Instructor in Chemistry for Spring Session; and Mr. Charles J. Heimerzheim, B.S., M.S., as Associate in Pharmacy. Mr. Edward Anzelmi, Instructor in Chemistry, was granted leave of absence for Spring Session because of ill health.

After forty years of service, Associate Dean and Professor Curt P. Wimmer will retire from active teaching at the conclusion of the current year. Professor Wimmer is one of the few remaining members of the staff who has participated in the gradual evolution of the present four-year curriculum from the former two- and three-year programs. Recognizing the need for systematic instruction in the production of perfumes and cosmetics, he was responsible for the organization of the present extension courses in this field. As a ready writer and versatile speaker he has done much to advance the interests of the College in many ways. Although Professor Wimmer will relinquish his teaching duties he has

been designated Professor of Pharmacy, Emeritus, and we are assured that his interest in the College will continue.

Although the pressure of teaching duties has given staff members little opportunity for investigational work, Professor Taub reports the following studies in progress: ointment medications in burn therapy, the production of stable aluminum hydroxide hydrogels and the stability of vitamin A in non-oil solutions.

The activities in which several staff members have participated are: Professor Taub, Vice-President of the Association of Consulting Chemists and Chemical Engineers; Professor Liberman, teaching in chemistry during Summer Session 1945 and in University Extension 1945-1946; Professor Pokorny, member of professional relations and health insurance committees of New York Pharmaceutical Council, Secretary of New York branch of the American Pharmaceutical Association, recipient of Selective Service Medal for duties as chairman of advisory board to Local Board 192; Dean Ballard, member of executive committee of The Association of Colleges of Pharmacy, recipient of Selective Service Medal for duties as member of advisory board to New York City Selective Service Headquarters.

Three stated meetings of the College membership were held during the year, and one of these was given over to a toilet goods forum under direction of Trustee Herman Brooks. The speakers at this forum represented the production, advertising, and merchandising angles of this sizable industry and the attendance was beyond capacity of the College auditorium.

The American Foundation for Pharmaceutical Education has continued the allocation of \$400 annually for scholarship purposes. The Foundation also continued its wartime policy of making grants toward general expenses to colleges in need of such assistance and we have again been the recipient of generous financial support from this source during the year.

Scholarship assistance provided through the Henry Pfeiffer Memorial was granted six students during the year. The Foundation scholarships were awarded to three students. The recipient of the Vick Scholarship, having demonstrated superior scholastic ability, retains this award. The

Plaut Fellowship for the graduates of this year was not awarded although it is anticipated that Mr. Leon Rand, B.S., will now be able to pursue graduate studies under the Plaut Fellowship previously bestowed upon him.

The changes in the officers and trustees are: Frank Diehl Fackenthal as Acting President in conformity with the Articles of Affiliation; Calvin Berger '16 as Assistant Treasurer; Fred S. Frankfurter '99 and Frank L. Grennie '23 to fill vacancies on the Board of Trustees.

I regretfully report the deaths of Richard H. Commons, life member; Smith Ely Jelliffe, M.D., Professor in the Division of Materia Medica, 1894 to 1907; and Harry Taub, Assistant Professor in the Division of Materia Medica, 1923 to 1945. With the passing of Professor Taub during the Winter Session, the College has lost a member of its Faculty who will long be remembered as an inspiring teacher as well as a friend to all the students under his charge.

The gifts for general purposes received in this period aggregate \$20,275.14. The sixty-three donors include alumni, individual and corporation pharmacies, chemical and pharmaceutical firms, and the Foundation for Pharmaceutical Education. Because of the drastic reductions in tuition income during the year these gifts, large and small, have played an unusually important part in enabling the College to come through the fifth war in its history. In addition to the gifts for general college maintenance, five gifts aggregating \$3,000 were received for the following specific purposes: endowment fund, purchase of equipment, prizes and scholarships.

In plans for the future, expansion of our graduate educational activities appear to warrant first attention. The most that could be hoped for under war conditions was to keep the bare framework of graduate instruction intact and this has been done. Expansion will necessitate additional staff and equipment especially for manufacturing pharmacy and I am happy to report a grant from The Roon Foundation, through the interest of Mr. Leo Roon, '10, which will enable us to make a start in this direction. Applied pharmacology is another essential graduate field in pharmaceutical education, for which, despite difficulties as regards equipment and staff, we hope to make provision at an early date.

This expansion of our graduate instruction should be such as to lead to the doctorate degree. Several of the university schools of pharmacy in other sections of the country have long had provision for study leading to the Doctor of Philosophy or Doctor of Science degrees, but graduate study at this level is not now offered by any of the colleges in this northeastern area.

By reason of the accreditation requirements, the doctor's degree is becoming a *sine qua non* for professorial rank in pharmacy schools and preference is given those who possess it. The Foundation for Pharmaceutical Education recently gathered information from the colleges regarding their estimated needs for teaching personnel in the next ten years. The results of this survey show that a large number of the present teachers are age 60 or over and aside from necessary replacements for these in course of time, many schools anticipate enlarging their faculties as soon as teachers are available. With the need for future teachers so clearly apparent, the Foundation is encouraging graduate study through fellowships and grants, but preference is being given applicants who can pursue their studies toward the doctorate.

With the revision of our undergraduate instruction now an accomplished fact, it is hoped that a similar study of the graduate activities will result in concrete proposals for educational advancement in this direction.

The year ahead will bring the problem of readjustment to a peace-time program and that of providing for a peak enrollment. Both will impose heavy burdens on the teaching and administrative officers and with but little respite from the problems of another sort arising from war conditions. I am confident that these future problems and others which may arise can be solved with due regard for the best interests of the College and pharmacy as a whole.

Respectfully submitted,

CHARLES W. BALLARD

Dean

June 30, 1946

Columbia University

IN THE CITY OF NEW YORK

Report of the Director for the Summer Session of 1946



MORNINGSIDE HEIGHTS

NEW YORK 27, N. Y.

PRINTED FOR THE UNIVERSITY BY
COLUMBIA UNIVERSITY PRESS

SUMMER SESSION

REPORT OF THE DIRECTOR

FOR THE SUMMER SESSION OF 1946

To the Acting President of the University

SIR:

The forty-seventh Summer Session of Columbia University, which threatened to engulf us and which was indeed the largest we had ever seen, turned out to be one of the most agreeable and successful in our experience.

The registration was 16,508, which does not include the 610 students in the School of Law and the additional registration in the August-September period of 88. Of the total, 8,028 or 48.63 percent were men and 8,480 or 51.37 percent were women, so that it is fair to say that the division was about equal. In 1943, women formed 80 percent of the population. The veterans numbered 6,428, of which 460 were women. It would be near enough to the truth to say that veterans represented 40 percent of the Campus population this summer, and they account for most of the increase over last summer.

For the first time in our history, the registration was about equally divided between Teachers College and the rest of the University, and the income broke correspondingly. There were 782 foreign students from 60 countries. There were also five students from Nevada, which is the only state in the Union which occasionally fails to send a delegation.

The increase in the registration for 1945 over 1944 and 1946 over 1945 can be expressed in terms of percentage for each of the several geographical divisions as follows:

	<i>Percentage Gain</i>	
	<i>1945</i>	<i>1946</i>
North Atlantic	17	74
City of New York	27	90
South Atlantic	36	27
South Central	31	22
North Central	18	36

	<i>Percentage Gain</i>	
	<i>1945</i>	<i>1946</i>
Western	49	87
Territories	47	19
Total United States	22	58
Foreign countries	25	84

These figures describe somewhat coldly an operation of great magnitude. Mere magnitude, except as a sporting proposition, is of small importance, but as an index of the University's capacity to be of use in the present educational crisis magnitude takes on a meaning. One might have predicted that 2,500 students more than we had in the peak year of 1931 would exceed our resources. We did, however, manage. The weather was kinder to us even than its wont, and that has helped; but if the Summer Session of 1946 is remembered by most concerned with it as a success, and even a great success, it must be owing to the skill, resourcefulness, and devotion of a great many people. How the Registrar and Bursar and the Registry of Off-Campus Accommodations, which was never at any time without help for the shelterless, took care of such crowds; how instructors contrived to impart knowledge to swollen classes with hammering going on about them; how the Medical Office could care for a number nearly double that for which their staff is geared; all this must remain a trade secret and as insusceptible of rational explanation as anything else in the realm of the miraculous. What we learned from this is that we can handle larger numbers than we supposed, and that there need be no fears for next summer. Indeed with the expected increase in classroom space and by expanding the offering of evening courses for the benefit of the metropolitan population that may be employed during the day and with the several improvements in the registration process which are under consideration, I believe we could handle 20,000 students. If this is an emergency, let's have a good one and have it in public.

Evening classes have already steadily expanded as the following table shows:

EVENING REGISTRATIONS

1942	258
1943	309
1944	475
1945	562
1946	1,041

What is proposed amounts to putting University Extension, not totally but substantially, into the Summer Session, and without disturbing the habits or convenience of our present Summer Session students, to make the University available to more and different people than has hitherto been the case. Whether education, as it bids fair to be carried on in the crowded world we occupy, suffers any decline from the remembered ideal of a more tranquil day is a question to which different people might return different answers. Undoubtedly, there is the possibility of some loss, but I have yet to find an instructor who will not say that he never had a more able and eager group of students. A rugged generation is certainly doing its part uncomplainingly and devotedly.

The chief danger in the new crowded and hurried education threatens the graduate student and his overburdened instructor. The Graduate Faculties might well consider limiting credit toward the higher degrees to six points in any summer. This, I am convinced, is better worth consideration than some plan to lengthen the Summer Session for Graduate Students beyond the six weeks.

Looking forward to next summer it may be hoped that "acceleration" beyond the six-weeks period, at least in undergraduate courses, may be reduced to a minimum. "Acceleration," which turned out to be one of the minor horrors of war, was, in less horrible form, no new idea at Columbia. For forty years we have "accelerated" at a rate which experience has shown to be the limit of human endurance, beyond which point the diminishing returns set in rapidly. The concessions to acceleration made in the Summer Session of 1946 were mainly with a view to helping our own undergraduates, particularly pre-engineering students, to straighten out their records for entrance upon the Winter Session. We make no attempt to furnish an opportunity for students all over the country to pick up a few points.

Desirable as it is in my opinion to do no more of this than is absolutely necessary, one idea did develop which merits continuance. The short intensive three-weeks courses in foreign languages appear to be justifying themselves educationally and serve the convenience of those students who, whether rightly or wrongly, wish to maintain almost continuous classroom activity or who welcome an opportunity to get a required subject out of the way or gain a useful tool for study. Mathematics is another subject that might lend itself to this sort of intensive treatment with similar useful objectives. Such small groups of courses in June and in August-September should, together with the full six-weeks program, satisfy all the needs of students in the next few years. In saying this no judgement is passed upon the special and temporary problems of such schools as those of Law and of Business.

There remains one problem for the consideration of the University authorities. The scale of payment of instruction in the Summer Session adopted in 1941 was moderately increased in 1946. Even with this increase, there are those who properly note that though prosperity has returned to the Summer Session, they are not sharing in it to the degree they did in the twenties and thirties. With the increase in the size of classes and because everybody has, during the last few years, done more teaching than he should, and in view of the need for a large number of instructors, it is a question whether even this year's schedule will maintain morale and produce the requisite staff to undertake the increasingly arduous labor of Summer Session instruction. I would therefore strongly urge that we again revise the salary scale up to and even beyond pre-Pearl Harbor levels.

Something of this sort I believe will be necessary if we are to maintain our present structure. In that structure there are undoubtedly some inequities and illogicalities. Many teachers, particularly in the laboratory sciences, who remain on the Campus most of the summer find themselves subject to demands from students, but if they do not give a "course" they receive no extra remuneration. It has been remarked that people are paid to "teach" and to "administer," but not paid to engage in "research." Departments representing widely different fields of study are unlike each other in their practices and it is difficult to get any uniform procedure that does not seem to somebody to be out of line. In

dealing with this situation I have personally tried to take the view that what the departmental executive says is full work for one of his colleagues is just what he says it is and deserving of appropriate remuneration. The thoughts here offered are not perhaps a very substantial contribution to the clarification of a situation that deserves further study, but they may serve to promote such consideration, which would have as its object some reassurance to all of us that we are managing all this about as well and as fairly as can be done.

Some of the events in the Summer Session which should be recorded are the Writers Club Discussions; All-College Lecture-Discussions on Education; General Curriculum Workshop; Work Conference on the Development of Community Policy on the Character and Cost of Education; Work Conference on Teacher Education; Conference on Responsibilities and Work of Secretaries to Principals, Directors, Superintendents, and Other Administrative Officials; Fifth Annual Work Conference on Administrative Problems of Superintendents of Schools and Other General Administrative and Supervisory Officers; Fifth Annual Work Conference on Elementary School Administration; Second Annual Workshop of Secondary School Administration; Conference on the Teaching of Mathematics; Conferences on the Teaching of Natural Sciences; Eighth Annual Course for Building Service Employees; and Twenty-sixth Annual Conference for Ministers and Religious Leaders.

For the first time in many years there was a substantial registration in the course given in the University of Wyoming on the geology of the Rocky Mountains. Under the leadership of Professor Sherwood L. Washburn and with substantial aid from the Viking Fund, eight of the leading physical anthropologists joined in a seminar of unusual importance. The Institute of Arts and Sciences conducted a highly successful series of lectures. There were also several musical recitals at Teachers College; a two-piano recital by Raymond Burrows and Anthony Loudis on July 24; the Teachers College Orchestral and Choral Concert on August 7; social meetings of the state clubs, the Russky Kruzhok (Russian Circle), Klub Polski, Casa Italiana, Casa Hispánica, and Maison Française. The Play Production classes under the direction of Professor Milton Smith presented "Day After Tomorrow," an origi-

nal play by Anne Walters, on August 7, 8, and 9 in Brander Matthews Hall. The opera Workshop gave a public demonstration on August 14 in McMillin Academic Theater presenting "The Old Maid and the Thief" by Menotti, and excerpts from "The Frantic Physician" by Gounod, and "Martha" by Flotow. The series of State Club dances in the Gymnasium were generally felt to be in every way the most successful we have had.

Regular services were held in St. Paul's Chapel and at Union Theological Seminary, and a full program of meetings at Earl Hall.

There were a score of artists' recitals and several students' recitals at the Juilliard School of Music which were generously thrown open to students in the Summer Session.

Respectfully submitted,

HARRY MORGAN AYRES
Director

September 28, 1946

Columbia University

IN THE CITY OF NEW YORK

Report of the Director of University Extension

WITH THE REPORT OF THE

Institute of Arts and Sciences

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1946



MORNINGSIDE HEIGHTS

NEW YORK 27, N. Y.

PRINTED FOR THE UNIVERSITY BY
COLUMBIA UNIVERSITY PRESS

UNIVERSITY EXTENSION
REPORT OF THE DIRECTOR

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1946

To the Acting President of the University

SIR:

The academic year 1945-46 in University Extension was made memorable and at times a little difficult by the great increase in registration during the Spring Session. Usually the Spring registration falls below that of the Winter, but this year it was much greater. We started in September with eighteen sections of English A and ended with thirty-two, and in many departments the registration was more than double what might have been expected on the basis of the Winter figures. University Extension found places for more than three thousand veterans, and it may be said that no veteran qualified to do work on the college level was turned away from Columbia University. There are doubtless limits to our capacity both in terms of classrooms and of competent teachers; these limits, although approached in spots, have not yet been reached. The September registration will doubtless find them. University Extension would be glad to welcome more full-time students even to the temporary exclusion of the student taking a course or two without concern for academic credit. The Office of University Admissions, however, early reached its capacity to pass on the credentials of such students, and we can take only what they send us.

During the year every effort has been made to gain the fullest use of all available space in the University, an effort which must not be relaxed until we are satisfied that there is no corner or cranny unused between the hours of eight in the morning and eleven at night.

A group of instructors in University Extension have continued the practice started last year of meeting from time to time as a kind of Committee on Instruction. As a result of their deliberations the undergraduate courses in several departments, notably Economics, Government, and History have been considerably increased, so that it is less difficult for candidates for a degree to find a major in these fields. With the increase in the number of students following a preprofessional course or proceeding toward a degree it has seemed advisable to reorganize the staff of

advisers in accord with the plan successfully followed by Columbia College. The advisory staff now numbers ten and will be increased as need and opportunity indicate.

Courses in dramatic arts have been moved from the Department of English and grouped with the courses under the caption of Creative Arts. Dean Arnaud has kindly consented to act as Departmental Representative for this "department" with Professor Donald L. Clark as the representative for University Extension. Professor Milton Smith, Director of Brander Matthews Theater, is in charge of the courses in Dramatic Arts.

The courses in Drawing, Painting, and Sculpture now form the second largest art school in the city. Here, as in dramatic arts and music, only limits of space and equipment keep us from realizing our potentialities. Interest in the courses in radio has been maintained throughout the year. We may take pride in what we have been able to contribute to an expanding University program in this field.

Final arrangements have been made for the transfer of the courses in Graduate Medicine and Graduate Dentistry to the School of Medicine. Four refresher courses in optometry were offered in University Extension for graduates in Optometry.

I believe it can be truthfully said that the University would have been sorely put to it in the present emergency if it had not had University Extension to fall back on. We have done the best we could. We expect to be more severely tested in the autumn, but we shall again do our best. Office space is cramped and classrooms are hard to find. In many subjects teachers are scarce. When we have done all we can, we shall stop there. But when that happens, University Extension, with us a very different thing from "extension" as generally conceived, will be more than ever a strictly academic affair. Under the pressures of the present day, regular academic training is perhaps the greatest need in adult education. There is however something else needed for a balanced solution of the problem and this will be found discussed in Dr. Potter's report for the Institute of Arts and Sciences.

In December, 1945, the head of the English Department of the United States Military Academy at West Point asked the Director of University Extension if it would be possible for the staff of their English Department for the academic year 1945-46 to be given review courses in the subjects they were to teach at the Academy. The United States Military

Academy is broadening its curriculum and is giving the cadets more work in cultural subjects. Professor John H. H. Lyon, Departmental Representative in English in University Extension, arranged five courses meeting from three to four times a week for twenty-two officers, many of them holding the rank of Lieutenant Colonel in the Regular Army. The Department of English of the Academy and the young men in the courses have expressed warm appreciation of this opportunity afforded them by our University.

Since there is a constant increment to the University family who do not understand about University Extension and many old residents who need constantly to be reminded, no opportunity should be passed over to restate its structure and several purposes.

First, there is a curriculum of collegiate or undergraduate courses from Anthropology through Zoölogy used for the acquisition of a first degree. With a few exceptions, such as Speech and some exotic modern languages, these courses closely parallel those given for undergraduates in Columbia College and Barnard College. For the staffing of these courses, University Extension has the same right to look to the Departments concerned for instruction not inferior to that offered on a comparable level elsewhere in the University. It looks to the Departments, because they are the only source of instruction; and the fact that Extension is the only division of the University that comes anywhere near to paying its way should not impair its right to service of high quality. Students following these courses have also open to them a wide range of graduate courses given under the several Graduate Faculties.

The second large unit in University Extension, made up of courses in music, professional writing, dramatic arts, radio, drawing, painting, and sculpture, commercial design, and graphic arts, is given the caption of Creative and Applied Arts. Very little of this work can be found anywhere else in the University.

Third, there are the courses offered under the supervision of the several professional schools. Architecture has a program of professional courses leading to the degree of Bachelor of Architecture, closely supervised by the Dean of the School of Architecture and his representatives. There is a large offering in courses in the field of Business, some of which may be counted for a professional degree and others not. A substantial part of the work for graduate degrees in Engineering may be done in the courses

offered in University Extension. Since this is a report and not an advertisement, it may be said that the control of courses in both Business and Engineering and the advising of students who propose to take them could be improved. The offering in Law is small, but increasing. Library Service is small. Journalism does not appear at all. Graduate courses in Medicine and Dentistry have heretofore been very large, but now pass wholly under the control of the School of Medicine. Both Teachers College and the College of Pharmacy open some of their courses to University Extension students.

Fourth, the courses grouped under the head of Service Courses are designed to assist the student in making up small deficiencies in English, Mathematics, and Modern Languages, and in equipping him with a useful skill as in the case of Secretarial Studies. An important aid to the whole University comes from the courses in English for educated foreigners. Other courses in this group are designed to be of use to the business community. This area calls for continual study and occasional curtailment or expansion.

Finally, the Institute of Arts and Sciences is designed to reach the widest public on a non-academic level.

These various purposes do not conflict with each other. They form a whole that is complicated, but not confused. The purpose of this analysis is to persuade colleagues not to look at it as a whole and not to rate it all on the level of what they like least, but to give consideration to the special function of that part of the whole which may momentarily claim their attention.

The name University Extension no longer describes what we do, and it causes widespread misunderstanding and dissatisfaction. A designation at once more seemly and less unsavory, which would suggest that the important field of adult education is cultivated in a school that is genuinely a part of the University, would be a great help, and I urge that consideration be given to the simple but possibly far-reaching solution of a change of name.

Respectfully submitted,

HARRY MORGAN AYRES

Director

June 30, 1946

INSTITUTE OF ARTS AND SCIENCES

REPORT OF THE DIRECTOR

FOR 1945-1946

To the Director of University Extension

SIR:

I have the honor to present herewith the annual report of the Director of the Institute of Arts and Sciences covering the academic year 1945-46, the thirty-third year of the Institute.

I like a statement made by our Professor Eduard D. Lindeman in his foreword to Mr. Huzsar's brilliant little book, *Practical Applications of Democracy*: "Democracy, like all other good ideas, may be drowned in words." I like it because I think it is true of a certain danger that surrounds democracy now, and I like it because I think it is equally applicable to adult education. Substitute the phrase "adult education" for the word "democracy" and you have a statement that sums up very neatly the position in which adult education now finds itself.

Adult education has been an organized activity in this country for a good many years now. Hundreds of thousands of dollars have been spent in so-called research designed to find out what it is and why. Books have been written, courses organized, conventions and conferences held. State departments of education have organized bureaus and offices of adult education, and teachers colleges the land over have appointed professors of adult education.

Yet, with all the high priests of the movement toiling valiantly at their typewriters, it has remained for a layman to state the basic philosophy of adult education. At a large national convention of adult educators held in Detroit this spring, R. J. Blakely, a practical newspaperman from Des Moines, Iowa, had this to say:

Behind adult education is a philosophy which is perennially radical, because it states that the average man is educable, that he has rights, that when educated he can be trusted to exercise those rights. But when you teach people to think, who can tell what they will think? No one, least of all those in power. That is what terrifies some people.

The philosophy behind adult education is the philosophy of the Declaration

of Independence, which sets up infinite goals and exhorts man to seek them. When revolutions limited in concept and faith have run their course to become in turn the enemies of change, the democratic philosophy is as explosive as ever. As Caspar Rausch said before the firing squad, "When the things for which I die have lost their meaning, strive with your lives that they be overthrown!" . . .

And in basic philosophy I hold with Lincoln, this time concerning the entire world, "No men are more worthy to be trusted than those who toil up from poverty; none less inclined to take or touch aught which they have not honestly earned." I quote this because it is all too easy for persons dealing in adult education to regard the poor and ignorant as guinea pigs and to conclude that their real allies are those with whom they can dine and drink and discuss the latest books.

Later in his address Mr. Blakely went on to offer this bit of advice:

We must be vastly more skilled than we are in presentation. We must learn how to put things simply and dramatically. We must learn how to touch the liver and the heart as well as the mind.

The first essential is sincerity . . .

If people are given the truth and if they are asked to do what is right and what is their duty, they will respond. People have an incorruptible sense for both reality and duty once issues and appeals are made straight.

Being popular does not mean being false. It means the translation of symbols as mysterious as mathematics into terms which move the hearts and minds of us all, sophisticated or ingenuous.

Mr. Blakely's simple and sincere statement cut right through the jungle of professional prattle about adult education. It was like a fresh west wind blowing suddenly through the muggy heat of a mid-August afternoon. In the minds of many of us who heard it, thought of it remains like a ringing challenge.

For the simple fact is that adult education in this country is failing to meet its obligations and failing to grasp its opportunities. This is a sweeping generalization, and I realize of course that there are exceptions to it. Very often these exceptions are to be found in surprising places—within labor unions, for example, in service clubs and organizations, in personnel departments of large companies and industrial plants, in women's clubs, in state departments of education. Sometimes they exist on a more personal basis, as in South Bend, Indiana, where an individual (who happens to be a busy and successful dentist) and his wife sponsor and

arrange a splendid travel series of ten events each year that compares most favorably with the more extensive Friday evening series sponsored by the Institute here.

Part of the trouble lies with the adult himself, part with the teacher, and part with the whole structure of our educational system. We spend sizable sums on public and private education in this country (although not enough in comparison with what we spend for cosmetics and automobiles!) and our society is convinced that every child is entitled to an education through high school at least. But much of this is lip-service, and so we pay our teachers less than we pay our janitors, our plumbers, and our house painters, and we turn most of the job over to women who much of the time go into this work, not as a life-job, but as an interim-occupation between college and marriage. Along with this there is the common belief that when a person finishes school, be it high school or college, he is "educated." We fail to realize in any vital, active way that education is indeed a life-long process; and that, as the patterns of life are constantly changing, so the patterns of education must constantly change. The result is that, in most communities, while the public school system, the university system, the professional school system are all well organized and function as socially integrated forces, the adult education system—where it exists at all—is not organized compactly and is definitely not integrated with the society in which it exists.

One reason for this is that adult education is comparatively new in our society and has not yet established its proper place. It is at the moment like Topsy—"jest growing." Another reason is that the average adult American shies away from the word "education." He has had, he feels, enough of it. And when the professional educators invented the phrase "adult education" they did so obviously without having consulted the psychologists and sociologists within their own ranks! The phrase itself sticks in the throat of the average man, to whose mind it recalls the all-too-many dull hours spent in classroom and study hall.

Furthermore, since adult education is new and has been accorded only the rights of a foster-child, the proper and adequate tools and techniques for its successful practice have not been developed. Teaching adults is a vastly different task from that of teaching adolescents, and the techniques that are successful in the college classroom are often failures with the

adult group. The difference is not only one in calendar years. Indeed, that is the difference of least importance. The main differences are to be found in terms of wider experience, varying motives, conflicting interests, and the ability to concentrate both time and energy.

These differences must be recognized, and new ways of teaching must be found. Let me quote again Mr. Blakely's advice, for I think it is important and to the point: "We must be vastly more skilled in presentation than we are. We must learn how to put things simply and dramatically. We must learn how to touch the liver and the heart as well as the mind."

This is a statement that the academically straight-laced professor will frown upon. Such teaching, he will say, is undignified and superficial. Applied to classroom teaching, let us grant that he is right. But I am talking about a different job—that of teaching adult-minded men and women. And in that field I think he is dead wrong, and one reason for much of the failure of adult education efforts lies in the fact that the teaching has been left to those professional educators all of whose experience has lain in the formal classroom and who have failed to recognize the different claims that an adult group makes upon them.

In other words, the real need in the field of adult education is for teachers who know their job thoroughly and who are sympathetic to the interests and the problems of the adult learner. They may be indeed college and university professors, or they may be dentists or lawyers or doctors or housewives. But they must all have, in addition to complete mastery of their subjects, an enthusiasm and a personal drive that is not, alas, always to be found in the classroom. They must be not only willing but eager to "popularize" their material, to make use of new techniques and tools—the motion picture, the radio, the popular magazine, the film slide, etc.—to experiment.

Such people need training, counsel, and advice. Therefore I propose that University Extension establish a Leadership Institute in Adult Education, to be held annually in June or in August, for a two- or three-week period. Morning sessions of this Institute would be devoted to intensive study of the following: 1) forum leadership and discussion techniques, 2) the psychology of the adult, 3) the sociology of the community, and 4) tools, techniques, and methods. Afternoon sessions would be devoted to practice groups, to informal seminars, and to field trips.

There is very definitely a need for such an Institute, and it is confidently felt that the response would be gratifying. Properly managed the project should be self-sustaining from the outset.

II

Another need, particularly in this metropolitan community, is for more courses designed to meet the interests and the needs of the adult learner. I realize that the current bulletin of University Extension announces more than five hundred courses in as many different subjects, many of which fall within the general field of "adult education." But these are all formal University Extension courses which follow, with some few exceptions, the University Extension pattern of fifteen meetings per session, regular classroom routine, formal registration, and the like. They are not designed primarily for the adult learner.

So far as these courses are concerned, this is as it should be; and what I am saying here is in no way a criticism of the greatly varied and worthwhile offerings to be found in University Extension. I am calling for the organization of a different type of course, a course that would be

1. shorter in duration (not more than ten meetings, and perhaps eight),
2. freed from all the academic abracadabra of formal registration and presentation, and
3. "led" or "conducted" rather than "taught."

The students in these courses would be mature persons who would not be carried on the university rolls as registered students. They would take no examinations, submit no "term papers," and receive no academic credit. It is assumed that persons enrolling in these courses would seek neither diplomas nor academic certificates of any kind, but rather the opportunity of pursuing independent study under competent authorities.

During the year that has just closed the Institute has explored the possibilities in this field, with results most gratifying. Without any addition to the staff there was organized within the general framework of the Institute a "Division of Short Courses." This new division offered two courses during the spring: "Poetry and the People," led by the distinguished young American poet, Muriel Rukeyser, and "A Practical Course for the

Home Builder," led by two well-known New York architects, Frederick J. Woodbridge and Harold R. Sleeper. Registration for the former was 19; for the latter, 152.

So successful were these experimental courses and so real is the need for this type of course that the Institute plans to offer four and perhaps five such courses next spring. That is only a drop in the bucket, and we should be preparing to offer twenty or twenty-five such courses, and not only during the Spring Session but throughout the entire year. But with our present staff that is the best that we can do. It is therefore urgently recommended that the Institute staff be increased by one person so that we may render this additional educational service and offer special short courses in anthropology, psychology, literature, music, the arts, contemporary thought, economics, national and international affairs, and history.

III

Perhaps the most exciting thing that has happened in the allied fields of adult education and university extension in the past quarter of a century is the emergence of FM broadcasting and the decision of the Federal Communications Commission to reserve for educational and cultural uses a generous segment of the new FM band.

"Educational broadcasting" is no new thing in this country, but it has been done—and continues to be done, with a very few rare exceptions—in a most unsatisfactory fashion. There are several reasons for this. One is the expense of operation. Radio is not an inexpensive plaything, and all too many educational broadcasters have been hamstrung from the very first by lack of adequate budgets. Another reason is the timidity of the broadcasters themselves. Radio is a new tool, the programmatic and psychological resources of which have not been adequately explored. Still another is the apparent unwillingness of college and university professors to submit to the discipline which successful broadcasting requires. All too many of them continue to think it is simply an extension of classroom lecturing. It is not. It requires fresh preparation of material, different methods and manners in presentation, difference in timing, even a vast difference in the selection of the words used.

FM radio, as Charles Seipman declares in his recent book, offers American radio its second chance. It also offers education its second

chance in radio. The first chance, with the introduction of AM or standard broadcasting, was badly muffed by education. Of the nearly one hundred and fifty educational stations which began broadcasting, only thirty-two or thirty-three remain. Now the field is open again, thanks to the inventive genius of this University's Professor Edwin H. Armstrong, and it remains to be seen whether the professional educators have yet caught up with the rest of the world and are ready to use this new and magnificent instrument of education.

It is gratifying to note that this University, the first great privately-endowed university in this country to apply for an FM license, is making definite plans to enter the educational broadcasting field. It is also reassuring to note that the Radio Committee is recommending that actual classroom meetings and auditorium lectures shall not be broadcast, but rather that everything which is broadcast be specially adapted for radio.

A new period of extended service will open for University Extension, for the Institute of Arts and Sciences, and for the Division of Short Courses when Station WCUV (the call letters assigned to the University by the FCC) actually goes on the air. Let us be ready to meet this new challenge and opportunity when it comes!

IV

The thirty-third season at the Institute opened Monday evening, October 22, with a joint discussion by Walter Duranty and Ray Brock on the subject "What Does Russia Want?" Dr. Fackenthal opened the Institute season and presented the speakers to the audience. The season closed on Saturday evening, April 13, with a piano recital by Rudolf Serkin as the final event in the Institute Concert Series.

Between these opening and closing dates the season brought to Morningside Heights many other distinguished visitors, among whom may be mentioned:

Franklin P. Adams, newspaper columnist

Louis Bromfield, novelist and "farmer"

John Mason Brown, book and theater critic

Sir Sarvepalli Radhakrishnan, Vice-Chancellor of Benares Hindu University

Bernard De Voto, author and editor

Helen Gahagan Douglas, Congresswoman

Louis Fischer, writer

Dean Virginia C. Gildersleeve, of Barnard College
 Maurice Hindus, writer on Russia
 Edward Alden Jewell, art critic
 H. R. Knickerbocker, foreign correspondent
 Owen Lattimore, authority on China and the Far East
 Carey McWilliams, sociologist
 Andre Maurois, novelist
 Paul V. McNutt, High Commissioner to the Philippine Islands
 Felix Morley, President of Haverford College
 Mme. Pandit, President of the All-India Women's Conference
 Houston Peterson, philosopher
 Vincent Sheean, foreign correspondent
 Frank Tannenbaum, authority on South America
 Nora Waln, writer on Germany
 Olga Coelho, Brazilian singer
 Jane Dudley—Sophie Maslow—William Bales, Dance Trio
 Rosalyn Tureck, pianist—three Bach recitals
 Paul Robeson, bass
 Zino Francescatti, violinist
 Jennie Tourel, mezzo-soprano
 Budapest String Quartet

The Institute has maintained this season the small but constant advance which it has shown for the past several seasons, as is indicated by the following table covering the past four years:

	1942-43	1943-44	1944-45	1945-46
Total Members	1,749	2,147	2,600	2,835
Guest Admissions	2,938	3,100	3,523	3,727
Average Attendance	444	536	685	690
Number of Events	98	88	84	84

With an adequate auditorium there would be almost no limit to the Institute's possibilities for service. Therefore I again recommend that the University provide proper and adequate auditorium facilities. I realize that during the past sixteen years this recommendation has been urgently made so many times that it echoes like a refrain through the reports submitted to you. Nothing has happened—but some day, some day . . . something will!

In the meantime we must continue to make do with what we have. Handicapped as we are with an ill-lighted, ill-ventilated, misshapen,

uncomfortable place in which to function, we must still manage to meet the need and the demand of a great many people for a strong, well balanced and varied program which is designed not only to inform but to refresh and reinvigorate.

A summary statement on membership and attendance is attached hereto, together with a complete list of events sponsored by the Institute. Financial statement will be added as soon as possible after the close of the University's fiscal year.

Respectfully submitted,

RUSSELL POTTER
Director

June 30, 1946

Columbia University

IN THE CITY OF NEW YORK

Report of the Dean of the School of Business

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1946



MORNINGSIDE HEIGHTS
NEW YORK 27, N. Y.

PRINTED FOR THE UNIVERSITY BY
COLUMBIA UNIVERSITY PRESS

SCHOOL OF BUSINESS

REPORT OF THE DEAN

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1946

To the Acting President of the University

SIR:

I have the honor to submit the thirtieth annual report of the School of Business for the year ending June 30, 1946.

The return of veterans in large numbers to resume their education was the notable event of the year in all branches of education. Business courses were in great demand among these service men. Inquiries and applications in the School of Business reached proportions that taxed our capacity to handle them. Great numbers of veterans came personally to the University for counsel. Advice was given generously and expeditiously. But to perform this service, it was necessary for the University to enlarge the facilities of the Office of Admissions, establish a system of veterans' advisers, and in the School of Business to provide an assistant to the Dean to advise veterans and other students.

The flood of veterans in the School of Business did not reach its crest in 1945-46. Applications for 1946-47 far exceed those for the year now closing. In September 1945, students numbering 121 were admitted, and 171 were admitted in February 1946. All but a few of these students were veterans. Total registration in the Winter Session was 215 and in the Spring Session increased to 385. A total of 430 individuals registered during the year. This figure is somewhat below the prewar enrollment of 489, a figure that will be exceeded by 200 or more in the coming year.

The performance of these returning service men merits the highest commendation. Contrary to the early expectations of many, the rigors of war have not undermined the intellectual and moral fibre of these men; the years lost have not been merely so many years wasted; and the provision of free education at public expense for these veterans is proving not to be the demoralizing extravagance some expected. Instead the veterans exhibit admirable maturity, seriousness of purpose, intellectual interest, diligence and resourcefulness. Their maturity and purposefulness afford a foundation for more effective instruction than we have ever succeeded in giving to students before. The G. I. educational benefits constitute a

sound and important investment in the largest undeveloped resource we possess—the people of the nation. It will be no surprise to those who are teaching these veterans, if twenty-five years hence, this venture is regarded as one of the wisest educational expenditures the Federal Government has ever made in behalf of the people.

This educational enterprise has special significance for the field of business and economic affairs. The personnel for these endeavors has heretofore been drawn from all walks of life, and special educational preparation has been the exception rather than the rule. But as the technical, economic, and psychological aspects of business and government become complex, it becomes increasingly clear that specially trained men are needed for the management of our highly organized economy. Developing the competence of men for such careers is the function of a professional school of business. The number of veterans who are seeking business training is itself evidence of the growing realization that professional education is desirable. From the thousands of men who will receive formal business training, improvement in the management of affairs may be expected.

In selecting students for the School, we have maintained the high standards agreed upon a year ago. The Committee on Admissions has considered all applications with great care. It has selected only applicants who had demonstrated exceptional ability and promise. In consequence the School has never had a more purposeful, able, and serious group of students. By adhering to these high and professional standards of admission, we can in time develop here the sort of professional training that we consider to be necessary for the management of the economic machine that men are erecting.

The professional interests of our entrants have been diverse. Accounting, labor relations, management, and merchandising have led the list. Advertising and foreign trade have attracted many students, while banking and finance lag far behind the position they occupied during the nineteen-twenties.

In the two-year graduate program, leading to the degree of Master of Business Administration, which was initiated at the beginning of the year, forty-nine fully qualified students were enrolled. Four or five times this number is expected next year.

The geographical source of students broadened considerably during

the year. Three hundred and twenty-two, or seventy-five per cent, came from the North Atlantic Division, sixty-nine were from other states, and thirty-nine were from foreign countries. In all, thirty-seven states and fifteen foreign countries were represented. The students came from 159 domestic institutions and thirty-four foreign institutions.

Seventy-six degrees were awarded in 1945-46, thirty-eight being conferred on candidates for the degree of Bachelor of Science, thirty-seven on candidates for the degree of Master of Science, and one on a candidate for the degree of Doctor of Philosophy.

TABLE I

STATISTICAL SUMMARY AND COMPARISON

	<i>Ten-year Average 1930-40</i>	<i>Year 1944-45</i>	<i>Year 1945-46</i>
Number of registrants	489	194	430
Men	387	102	344
Women	102	92	86
Candidates for B.S.	200	44	171
M.S.	179	70	137
M.B.A.	0	0	49
Ph.D.	34	5	12
Other students	76	75	61
Number of students by residence:			
North Atlantic Division	396	142	322
Other United States	66	25	69
Foreign Countries	28	27	39
States represented	34	21	37
Foreign countries represented	14	9	15
Domestic institutions represented	130	97	159
Foreign institutions represented	25	29	34
Degrees awarded	130	45	76
B.S.	82	25	38
M.S.	44	17	37
Ph.D.	4	3	1

THE FACULTY

The School was fortunate to have all absent members of its staff return from war-time service during the year. Among these were Professor John E. Orchard, who had been serving as Special Assistant to the Assistant Secretary of State; Professor Victor Z. Brink, Lieutenant Colonel in the Army; Professor Eli Ginzberg, special assistant in the Surgeon General's Office of the War Department; Professor Paul F. Brissenden, Vice-Chairman of the War Labor Board of the New York Region; Professor J. Brooke Willis, with the Office of Strategic Services; Mr. Rollin F. Bennett, with the Columbia Division of War Research.

Several important changes in the staff occurred during 1945-46. The problems of real estate and urban land economics are of such importance generally, and especially here in New York City, that it has seemed desirable for some time to develop here a program of instruction and research in this field. The School welcomes Dr. Ernest McKinley Fisher, who on December 1, 1945 became Professor of Urban Land Economics, and who will direct the work in real estate and urban land use.

Mr. Louis E. Bloetjes was appointed Assistant to the Dean in October to take charge of counselling and other administrative duties within the School.

With deep appreciation for their many years of loyal and effective service, and with regret at their leaving, we report one retirement and two resignations. Mr. S. Bernard Koopman, Lecturer in Accounting, retired on June 30, 1946 after eight years as a member of the staff. On the same date Ralph W. Robey, Assistant Professor of Banking, resigned to devote his full time to his work with the National Association of Manufacturers, and Dr. Victor Z. Brink, Associate Professor of Accounting, resigned to enter business as vice-president of Continental Industries. We note also with regret the resignation of Walter Hausdorfer, Librarian of the School of Business Library, who is to become Librarian at Temple University.

ACTIVITIES OF THE STAFF

After three years of reduced registration, teaching has again come to command the principal attention of the staff. But other activities—research, writing, speaking, public service, and counselling—properly occupy nearly all members of the faculty.

Publications of the staff include notably: two articles by Professor Ralph S. Alexander on "Wartime Adventures in Equitable Distribution Short of Rationing" in the *Journal of Marketing*, July and October, 1945; "Survey of Accident and Health Insurance" by Professor Ralph H. Blanchard in *Bulletins 1, 2, and 3* of the Social Security Board, November, 1945; two articles by Professor James C. Bonbright—"Contributions of the Federal Power Commission to the Establishment of the Prudent Investment Doctrine of Rate Making" in the *George Washington University Law Review*, December, 1945, and "Federal Power Price Policies" in the *Proceedings* of the American Economic Association, March, 1946; an article by Professor Victor Z. Brink on "Internal Control and Internal Auditing" in *The Controller*, May, 1946; several short notes by Professor Thomas W. Byrnes in the *New York Public Accountant*, 1945-46; a monograph by Professor Joel Dean (with Lawrence C. Vass) on "Fuel Oil Rationing," U. S. Bureau of the Budget; two articles by Professor James L. Dohr on "Power Price Fixing" and one on "Accounting for Compensation in the Form of Stock Options" in the *Journal of Accountancy*, July, August, and December, 1945; a supplement of cases and questions to his *Law of Business* (Ronald, 1946), and, in collaboration with Professor Howell A. Inghram, a thorough revision of their *Cost Accounting* (Ronald, 1946) and their *Cost Accounting Problem Book* (Ronald, 1946); by Professor R. Parker Eastwood, a chapter entitled "Marketing Statistics, Graphics, and Sales Mathematics" in the *Marketing Handbook* (Ronald, 1946); several articles by Ernest M. Fisher in *The Mortgage Banker*, *United States Investor*, and other financial publications; an address by Professor Eli Ginzberg on "Tomorrow's Economist" in the Conference on Science, Philosophy, and Religion, August, 1945; a series of articles in the *Richmond News Leader* by Professor Robert M. Haig on "Richmond's Financial Problem," Professor Howell A. Inghram's revision of his book, *Accounting* (American Institute of Banking, 1946); Professor Roy B. Kester's revision of his book, *Advanced Accounting* (Ronald, 1946); Professor Howard K. Nixon's article on "Internal Evidence of Validity of a Rating Scale" in the *Journal of Psychology*, July, 1946; and Professor J. Brooke Willis' two monographs in "Bank Capital" and "Analysis of the Effects of Debt Retirement on the Banking System" (Chase National Bank, 1946).

It has been our policy to emphasize research as an essential activity of the faculty. This emphasis is warranted, we believe, by the importance of problems that await investigation, by the contributions which an academic staff is peculiarly able to make, by the improvements that will accrue to instruction, and by the service that is rendered to the whole community. To expand knowledge through research and to disseminate the results to this larger audience are engagements that cannot safely be relegated to a subordinate place in any school that aspires to leadership in its field. Accordingly it is gratifying to note that, as the distractions of war have allowed, the staff has turned more and more to the investigation of problems in their several fields of interest.

Many research projects are now in progress, some sufficiently advanced to result in early publication. Among these are Professor Dean's study of commodity rationing in the United States during World War II; Mr. Bennett's investigation of cyclical fluctuations in foreign trade; Professor Fisher's work on the urban real estate market and its financing needs; Professor Ginzberg's study of labor leaders; Professor Mill's research on prices in business cycles; Professor Nixon's work on familiarity with brand names; Professor Orchard's study of industrialization of China; Professor Shoup's investigations of national income and of economic aspects of public finance; and Professor Van Metre's study of the history of transportation.

Most members of the staff engage actively in some form of public service, as consultants to public agencies, as advisers to business concerns, as speakers before professional and business groups, and as committeemen of professional associations. Only a few of these numerous activities can be detailed here. It is worthy of note, however, that Professor Alexander was Chairman of the Definitions Committee of the American Marketing Association; Professor Blanchard was appointed chief consulting economist of the Social Security Board; Professor Brissenden resumed his membership on the Millinery Stabilization Commission; Professor Dodd was elected vice-president of the American Finance Association; Professor Dohr served as a member of the Committee on Accounting Procedure of the American Institute of Accountants; Professor Fisher was appointed to the Board of Directors of the National Committee on Housing and a member of the Committee on Housing

Research of the Social Science Research Council; Professor Ginzberg was appointed by President Truman to serve as the United States Representative to the Five Power Conference on Reparation for Non-Repatriable Victims of German Action, serving in London and Paris on this mission; Professor Haig was appointed adviser to the Governor of Puerto Rico on the subject of tax revision; Professor Mills was elected vice-president of the American Association for the Advancement of Science, and chairman of its Section K; Professor Orchard was designated senior consultant to the Office of the Foreign Liquidation Commissioner in the Department of State; Professor Otte served as consultant to the New York State Department of Commerce; and Professor Shoup was consultant to the Division of Tax Research of the United States Treasury Department.

PLACEMENTS

The Faculty Committee on Employment experienced a marked increase in Alumni registrations, a thirty-three per cent increase in requisitions from employers, and a similar expansion of referrals. The comparative figures are shown in Table II. The placements made through the University Appointments Office are not reported here.

TABLE II

DATA ON PLACEMENTS FROM THE FACULTY COMMITTEE ON EMPLOYMENT,
JUNE 16, 1945, TO JUNE 15, 1946, WITH COMPARATIVE
DATA FOR 1944-45

	<i>1944-45</i>	<i>1945-46</i>
Registrations (new):		
Students	45	98
Alumni	245	328
	<hr/>	<hr/>
Total	290	426
Requisitions received from:		
Business firms	132	176
Educational institutions	54	131
Government agencies	25	15
	<hr/>	<hr/>
Total	211	322

	1944-45	1945-46
Referrals to jobs:		
Students	58	191
Alumni	250	291
	<hr/>	<hr/>
Total	308	482
Placements:		
Students	14	36
Alumni	20	15
	<hr/>	<hr/>
Total	34	51

PROSPECTS

Some years ago the Faculty of Business set out to find the proper sphere and scope of its activities to the end that it might best serve the interests of business education, the interests of its students, and the interests of the national economy. It soon concluded that these ends could best be promoted by developing here an outstanding program of graduate instruction that would appeal to the most capable and promising students desiring a professional career in the administration of business and economic affairs. The introduction of the degree of Master of Business Administration was a step in this direction.

Our experience this year with the M.B.A. degree confirms our estimate that graduate students constitute generally a more capable, more promising and professionally a more interested group of students to train than the less mature undergraduates. During the year we have found that applicants for the degree of Master of Business Administration have generally been superior in scholarship, performance, and promise to those applying for the Master of Science degree, and both groups of graduate students have been notably superior to the majority of undergraduate applicants. While we have admitted only exceptional students from both groups of applicants, we believe that the differences in the qualifications of the two classes of students are significant.

The student who elects graduate work is self selected; he is usually a student who wants knowledge and a career in which he will use his intellect; he is fairly certain of his objectives; he has an appreciation of his own capacities; he often has some amount of experience; he has con-

siderable formal education; he realizes the importance of acquiring personal competence for his career.

The undergraduate, on the other hand, is too frequently the youth who has formed no professional aspirations, who is still trying to find himself by trial and error, who is unwilling or unable to apply himself diligently to his intellectual development, who is unqualified for other professional studies, or who is rejected by other professional schools. Too many are unsuited to intellectual work and choose business only because they must make a living and are unqualified to make it elsewhere. Having no adequate professional interest in business, they often lack ambition to reach the top through superior competence, and they have little disposition to do better in business studies than they have already done in other studies. In brief, they want only to make a living and to make it where distinction may not be required.

Universities should do what they can to upgrade such students and business must do what it can to absorb them, but the leadership of American business cannot safely be reposed in men of this sort. If business is to have the leadership it requires, it must attract the intelligence it needs. Moreover, if average men are to be made productive and effective, others of superior capacity must find the ways, provide the means, and lend direction to their effort. It is this latter group that we at Columbia should select and train. The leadership and direction that they will give will have benefits for the many and have importance out of all proportion to the numbers trained.

Thus, it has seemed to us that the Columbia School of Business has a special role to play in training men professionally for business and related economic affairs. Our location gives us a unique opportunity to play this role. We believe the greatest advance in professional training can be made by becoming a graduate school exclusively—a graduate school for the most capable students. Accordingly, the Faculty voted this year to cease admitting undergraduate students in 1948 and to drop the undergraduate instruction as soon thereafter as feasible.

This notable step must be followed by further integration in the curriculum. More emphasis should be given to administration and management and to the development of skills that administrators and managers need. The program should have as its focus "how to manage affairs"

rather than the more limited, passive, and impersonal concern of "how affairs are managed," or "how the economy operates."

The objective is sufficiently broad to elicit the best thought and energies of scholars from nearly all branches of human knowledge. But it would be an illusion to suppose that any significant advance will be made unless and until men with a scientific turn of mind apply themselves to the fundamental problems with which administrators are concerned.

To date little more than a beginning has been made. Witness the perplexing, unresolved problems of economic policy, of labor-management relations, of international economics, of business organization, of control over the business cycle, of effective administrative techniques, of innovation and technological change, of private and public investment, to mention only a few of the large issues that the human mind must master before men can be properly trained to manage such affairs with appropriate knowledge and skill.

In finding ways and means to deal with these and related problems and in training men capable of dealing with them the School of Business can make a contribution of inestimable value to our students and to the society they will serve.

Dedicated to these purposes the School has before it unlimited opportunities—opportunities which can be developed, however, only as time, personnel, and resources become available for the purpose.

Respectfully submitted,

ROBERT D. CALKINS

Dean

June 30, 1946

Columbia University

IN THE CITY OF NEW YORK

Report of the Dean of the School of Library Service

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1946



MORNINGSIDE HEIGHTS

NEW YORK 27, N. Y.

PRINTED FOR THE UNIVERSITY BY
COLUMBIA UNIVERSITY PRESS

SCHOOL OF LIBRARY SERVICE

REPORT OF THE DEAN

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1946

To the Acting President of the University

SIR:

I have the honor to report, in accordance with the Statutes, on the conditions, the activities, and the needs of the School of Library Service.

Faculty groups representing the principal areas of the School's curriculum worked with Professor Ernest J. Reece, the Associate Dean, throughout the greater part of the year toward reshaping the course of study for the Bachelor of Science degree. Draft proposals were laid before the faculty as a whole in March. A series of unusually stimulating discussions followed, lasting through the spring and into the summer. Formal action was hardly conclusive enough to be reported to the public, but two results should be mentioned which appear nowhere in the minutes of our proceedings. First of all, we sought through these discussions a common point of view, and they served this purpose well. We agreed that Columbia should concentrate attention on the kind of educational program which is needed at the graduate level, even though the library profession, and we ourselves, might be hard put to it to state exactly what is needed at that level. We agreed, too, that the student should, under certain conditions, be encouraged to supplement his work in the School by taking courses elsewhere in the University; that the new program should place greater emphasis upon knowledge of books; that it should afford, through suitable background study, a deeper understanding of library history and objectives than is commonly afforded at present.

A second development was a deepening conviction that what is needed is not a scissors-and-paste revision of courses in a single library school, or even in all schools, but revision of the whole scheme of professional education of which the B.S. program is only one part. The trend of opinion in this direction began before the war. Impetus was given to it by the appearance in 1943 of Ernest J. Reece's *Programs for Library Schools*. Postwar developments which have accelerated the trend include:

approval by the Council of the American Library Association in December, 1945, of a proposal by Robert A. Miller to increase the availability of undergraduate library instruction; Joseph L. Wheeler's kindly but searching study, *Progress and Problems in Education for Librarianship*, published by the Carnegie Corporation; discussions fostered by the Board of Education for Librarianship; and J. Periam Danton's *Education for Librarianship: Criticisms, Dilemmas and Proposals*, published by the School of Library Service. Dr. Danton, Dean of the School of Librarianship of the University of California since July 1, was associated during the Spring Session of 1945-1946 with the Columbia faculty and this study was one of his accomplishments during his too-limited period of residence with us.

The greatest impediment we face in concluding our discussions of the first-year curriculum lies in the paradox that, while firm conclusions about it cannot be reached until it is clear how that curriculum is going to fit into over-all arrangements for educating librarians, these arrangements depend in turn on what is done about the present B.S. program. This being the case, it would perhaps be useful at this stage to turn the problem around and examine it, not so much from the standpoint of what the first-year curriculum is going to be as from the standpoint of what is going to be the educational structure into which that curriculum is to fit.

There is a surface orderliness in present arrangements for educating librarians, but beneath the surface there is confusion on matters as fundamental as the degrees which are to be offered and the basis of accreditation. For example, library schools are accredited as Type I, Type II, or Type III. This classification would lead one to suppose at first glance that a school in one class is looked upon as offering a course of study which is in some respect or other superior or inferior in quality to a school in a different class. However, the accrediting body, the A.L.A. Board of Education for Librarianship, makes it clear with each listing, in correct observance of its mandate from the A.L.A. Council, that "classification of the schools neither includes nor implies a comparative rating or grading." One of the most fundamental recommendations of the Williamson report was that all courses of study be placed at the

graduate level. This recommendation was neither accepted nor rejected; the present ambiguous formula of "typing" schools was adopted instead. For rating purposes, we have as a result little more than two classes of schools—those which do, and those which do not, satisfy the Board that they have met certain minimum requirements as to organization, administration, faculty, etc.

What responsibility do institutions of higher learning have to help straighten out this situation which ostensibly is one of accreditation? More than first meets the eye. They did not bring themselves to a united position on the Williamson recommendation mentioned above and thereby shouldered responsibility (for better or worse depending on the point of view) for freezing into the plan adopted by the Council of the American Library Association in 1933 the practice of having substantially the same first-year curriculum offered indifferently at the undergraduate level in one school and at the graduate level in another. This action in 1933 gives the Board of Education for Librarianship its mandate, and the indirect part which institutions of higher learning played in the matter leaves them partly responsible for the weak accrediting scheme that we have.

An obligation over on the positive side stems from the fact that so generous a share of society's best experience in educational matters is available at colleges and universities. Recognition of this was a factor in deciding a generation ago that the place for a library school is at one of the established seats of learning. The accrediting policy of American librarians reflects this dependence on institutions of higher learning as partners in a common task: that policy rests on the assumption that, if those institutions which are best equipped to do the job are publicly identified, they can be depended upon to carry on together from that point.

Here is a challenge to colleges and universities which, like Columbia, are vested with the confidence of American librarians. What should this library school be and do to meet that challenge and help improve education for librarianship? Following is an attempt to sketch an answer to that question. We shall take care not to trespass on the premises of sister institutions; but it will be recognized throughout that we do not live

alone and that if we succeed in outlining a program of action which this University can support, it will probably be of some use to other institutions which share responsibilities in this field with us.

The proposal outlined below is before the Faculty of Library Service at the time this paragraph is written, and it is also before a committee drawn from other faculties of the University. However, the gentle strictures of annual reports have allowed neither group time to conclude discussing it, although the University committee, which is small enough to act more quickly, has approved the proposal in principle. I should add that any defects in the statement are wholly my own, but I have too long taken counsel with too many colleagues to lay private claim to its merits.

SPECIFICATIONS FOR DEVELOPING THE SCHOOL OF LIBRARY SERVICE

A SUGGESTED PROGRAM OF ACTION FOR COLUMBIA

Make room for an emerging division of labor between what may be called regional library schools and national library schools.

In this report, I shall use the term "national library school" to refer to a school—any school—which undertakes to serve the library profession as a whole, not some particular region in the nation or some part of the profession such as, for example, school libraries. The rapid increase in the number of library training agencies has been watched with some concern by those who know that it is costly to maintain a first-rate library school and that per capita costs increase as enrollment is dispersed among an ever-growing number of library schools. A good many of these schools were set up because of regional needs which were not being met by the national library schools. Those in charge of schools equipped to do good work are usually ready to join in maintaining high standards of professional education, but they would like to believe that the handling of standards could be imaginative enough to deal convincingly with hitherto neglected personnel problems of their own region. Columbia has, since the depression, found itself called upon with increasing frequency to

pick up where these more recently established schools leave off and to offer higher work for those young people who wish to go on up the ladder. We have been able to meet this situation without lowering our standards, and in so doing we have had the satisfaction of seeing a lengthening list of young people prove themselves, sometimes in the face of heavy deficiency requirements imposed because of weak preparation elsewhere. By taking thought of our national role, we may aid in finding a way whereby national library schools and regional library schools can work together as acknowledged partners, thus smoothing the way for young people who ought to forge ahead.

Continue to require college graduation for admission to work toward the first professional degree but clarify what the college course should contain.

John Dale Russell has observed* that, while the functions performed by librarians differ considerably from one to another, a good many librarians in various positions serve in five important capacities: (1) as a citizen with broadly-developed interests, capable of some leadership in the community where he lives and serves; (2) as a scholar in a more or less compact group of scholars; (3) as an administrator of a complicated organization, the library itself; (4) as a personnel worker who has extensive dealings with people of many kinds; and (5) as a technician who must know the intricacies of selecting books, arranging them for the most ready use, and assisting those who need to use them. He then stresses the point that, while educational experiences of the prospective librarian need to be planned to develop all of these characteristics and abilities, the emphasis in the professional preparation of librarians has, in the past, fallen heavily on the last one of these functions. The other functions mentioned are important, and admission requirements should be formed so as to give the prospective librarian better guidance than he has at present in planning his education before he applies for admission.

* John Dale Russell, "Professional Education for Librarianship," *Library Quarterly*, Vol. XII (1942), pp. 775-793.

Raise the standard of the graduate professional curriculum by enriching the content and lifting entrance requirements.

One of the severest indictments of the present library-school program is that, while many young people qualify themselves through it for positions on the upper levels of library work, it is not well designed for that purpose. We need to revise arrangements and raise our standards for positions on these levels. The fifth-year curriculum as it stands, however, is packed full, and stipulation of six years of preparation for every library position which requires some kind of systematic preparation cannot be justified educationally or economically. Enriching the graduate professional program and lifting entrance requirements to it offer a possible means—to be described at length in succeeding paragraphs—of raising training standards for positions which need it without forcing us to cram more work into an already-crowded fifth year.

Coöperate in replacing the present first-year curriculum with two programs, one to be the main professional program, the other to be auxiliary to it.

It has become progressively clear in recent years that the single curriculum which does all things to all aspirants for practically all library positions has outlived its usefulness. On the other hand, it is commonly recognized that there is a minimum professional knowledge, a hard core of library experience and insight, which ought to be transmitted from one generation of librarians to another, preferably (because most economically) by the orderly processes of systematic instruction. Hence, if the single, all-purpose curriculum must give way, what, this side of chaos, is to take its place? Shall we distinguish libraries by type and create separate programs for prospective public librarians, college librarians, research librarians, special librarians, and the rest? Shall we concentrate rather upon librarians than libraries, divide them into classes, consisting of administration and the ranks, and offer separate degree programs for each of the two classes?

These are two bases of action which have been entertained and they are plausible possibilities—plausible but not solid enough, either of them,

to rest the future of the library profession upon. Neither offers a basis for setting up courses with content sufficiently precise to stay put. Both needlessly exaggerate differences. The first would, by disregarding the things librarians hold in common, weaken a cohesiveness among them which has exerted a powerful influence on the library movement, particularly in the United States. The second would tend to create a kind of class distinction within the profession which would correspond closely enough to management and labor in industry to raise some question as to whether it is the wise thing to do. Not everyone in the ranks is going to reach an administrative post; but this fact should not be handled in such a way educationally that the handling closes the door of opportunity to those at the bottom of the ladder.

A more solid foundation for stratifying professional education is to be found in one of the accepted distinctions between an art and a science. It is a distinction librarians are in a preferred position to understand, for on it turns the difference between the 500's (Pure Science) and the 600's (Applied Science) in the Dewey decimal classification. Thus science, when not considered as method, is accumulated or accepted knowledge, the organized result of the intellectual enterprise. Art is, on the other hand, a form of practice, however enlightened or unenlightened the practice is; or, to revert to terminology in use before the rise of pragmatism around the end of the century, it refers to the application of knowledge. Thus, science and art, while separable within recognizable limits, will not, in the sense used here, yield to being divorced from one another. If a body of laws and principles, as of rhetoric, is exhibited in an ordered system, it has the character of a *science*. When these laws and principles are exhibited in actual use, as in the construction of discourse, they are the working rules of an *art*.

Library schools are called upon to prepare young men and women for positions in two classes. One class requires broad understanding of library materials, the methodology of librarianship, and the social and theoretical foundation of the library. For convenience, call this the Class I library position. In contrast, there are Class II positions for which equal training, while possibly desirable, would amount to over-professionalization, and in behalf of which little more than acquaintance with a

certain body of standard professional aids and library practices can be defended as indispensable, at least under long-standing economic conditions. To Class II belong some one-man library positions, a certain number of which are now filled with persons who have received no formal training whatsoever. These one-man libraries are too numerous and too important in this democracy of ours to be ignored by the accredited training agencies which, in the name of standards, have very nearly succeeded in placing formal training out of the reach of these libraries. They tend in consequence to be left as a charge of state commissions or state departments of education which have faced the problem valiantly but which are obliged to divert any attention they give to professional education from their main task of leadership in popular enlightenment.

To Class II also belong an undetermined number of positions in larger libraries which lie in that twilight zone between "professional" and "clerical."

The proposal made under this heading is that the fifth-year curriculum be replaced by two programs, the *main program* to be designed to qualify librarians for Class I positions, and an *auxiliary program* to be designed to qualify librarians for Class II positions. One reason why this proposal should be published before it is formally approved by the University lies in the fact that coöperation of libraries will be required to adjust position classification schemes to two orders of training. The main program is looked upon as basic in the sense that completion of it is deemed essential to achieving full-fledged professional standing. It is assumed that one who has completed the auxiliary program would be looked upon as a member of the fraternity of librarians whose status would be that of a novice—which is to say, a professional fledgling. His position in this respect would not be radically unlike that of the instructor in the fraternity of scholars.

It should be stressed that the proposal to adopt a two-program policy of professional education rests upon a classification of positions, not persons. Some persons will never get past the first rung of the ladder. They will find that that level corresponds to the water-level of their ability, or marry and leave the profession—and so on. To any young person

who has it in him to go ahead, however, the door is left open to his professional advancement. That will be made clearer below when the degree structure is discussed. Of course, entrance requirements to the main program should be framed, not for the convenience of those who fail to bring with them convincing evidence of a good liberal education, even though they are the unhappy victims of misguided professional advice earlier in life; they should be framed instead to serve the best interests of librarianship. Regulations governing the auxiliary program can, and should, be made strict enough to safeguard the high standards of pre-professional education which this statement presupposes.

Divide the field of library studies between these two programs.

In view of what has been said, it would be folly to act on any supposition that library science can, or should, be completely divorced from the art of librarianship. As has been stated, however, library *jobs* can be separated into two classes distinct enough to justify setting up separate training programs for them. The purpose of this section is to define the objectives of these two programs and to show how the field of library studies can be divided between them.

The title of the first member of a faculty of an American library school was Professor of Library Economy. Recently that term, library economy, was defined as "the practical application of library science to the founding, organizing and administration of libraries."* Viewed in relation to the library school curriculum, that definition is too broad and a little ambiguous. The Professor of Library Economy had little library science to draw upon. His task was to equip students to go out and take charge of a small library immediately upon completing his course. The program designed for this purpose was called "systematic apprenticeship." It consisted of lectures and first-hand experience, both of which were pointed toward giving the student a maximum "know-how" before he went out on his own. The subject matter consisted of a body of accepted—or recommended—practice together with concrete library activities in which the student participated. The best brief characterization is to call

* A.L.A. Committee on Library Terminology, *Glossary of Library Terms with a Selection of Terms in Related Fields*, Chicago, American Library Association, 1943.

it a *practical* program of instruction—in the sense in which “practical” is the adjectival form of the noun “practice.”*

The purpose of the auxiliary program can be stated in similar terms. It would offer instruction in what we may call, for convenience, the body of standard library practices. It would not be as broad as the art of librarianship, although the point of view would be that of producing a good craftsman. It would reduce library theory to a minimum and would stress those common elements of library work where mastery involves memorization or participation in overt activity, and would pay special heed to the training needs of the small library.

Freed of responsibility for the Class II position and allowed to presuppose some familiarity with the more common library practices, the main program would then be planned to offer tuition in the accumulated body of knowledge which underlies librarianship at its best. The student would seek through this program to understand and evaluate library aims and policies, to learn the methods and materials used in conducting library programs, to enlarge his vision and develop intellectual and professional power.

Following is an outline of library studies organized around these two sets of objectives. It is not a listing of courses as such, but an attempt to lay out the boundaries of the field which may be said to belong to a faculty of library studies.

A. INSTRUCTION IN LIBRARY PRACTICE

1. *Introduction to the library.* Not a philosophical but a practical introduction is envisaged by this heading. The object would be to teach the student how to open up the resources of learning through skillful use of a library. The uses of the card catalog and the shelflist; how to make use of standard reference works, such as word and name dictionaries, encyclopedias, periodical indexes, handbooks of ready information, and the most general sources of information about books and related library materials.

* When used technically in this report, the term “practical” will carry this meaning. Thus, “practical instruction” will be the equivalent of instruction in library practice, or practices, and will refer to a program which, heedless of library theory, aims at producing good craftsmen. This distinction is quite different from that of “practical” as the contradictory of “impractical.” It is a distinction of importance in a discussion of this kind, for a clear verdict has been reached in the library profession that it is impractical at the present advanced stage of library development to rely upon instruction in library practice and nothing more.

2. *Standard library procedures and services.* How books are selected, ordered, embossed, accessioned, and prepared for circulation; how to apportion the book fund, select a dealer, place an order for books, subscribe for periodicals, procure government publications, pay invoices, and keep library accounts; binding problems and A.L.A. minimum specifications, preparation of books for the bindery, simple book repairing within the library; what library equipment and supplies are needed and where to get them; standard catalog rules, practice under supervision in applying them, filing rules, the Dewey decimal system of classification, card services of the Library of Congress and the H. W. Wilson Company; how to register borrowers, circulate books for home use, manage reserve books, and handle library publicity; how to arrange the book collection, weed it and take inventory; statistics, reports, handling of untrained assistants, and where to turn for dependable advice when in need of help.

Instruction in library practice would bring the learning process as close as possible to what the athletic coach would call "game conditions." The introduction to the profession would be concrete, and what is learned would be immediately applicable. While it would be different from apprenticeship, because less prodigal with time and better planned, it would amount to vicarious library experience under competent tutelage. The educational values would be comparable to those derived from introducing the student to a foreign language through instruction which simulates experience in a land where the new language is the native tongue.

B. INSTRUCTION IN LIBRARY SCIENCE

I. FOUNDATIONS OF LIBRARIANSHIP

1. *Library history and theory.* The emergence of the library as an institution. Its early origins, the relation of its development to the invention and spread of printing, to the growth of political freedom, the industrial revolution, and the spread of literacy. The emergence of the modern library movement in the United States and Canada.

Comparative study of libraries of the world. Survey of library activities. Analysis of factors which have conditioned library development in representative countries, and the extent to which reading has become a social force in each. The history of international coöperation in library affairs and of the stimulation of reading generally. The outlook for the future.

2. *The institution of free intelligence.* This heading is intended to link library history and theory with what has been called the arts of expression, communication, and record.

The story of the diffusion of knowledge: the role of ideas, and especially of reading, in the cultural process; contrast between literate and illiterate cultures; major changes in forms of communication from the origin of writing to the beginnings of the modern scientific movement and the emergence of authorship as a career; the growth of knowledge and the gradually increased dependence on reading. The ferment associated with the diffusion of knowledge and the more important social changes that followed; rival theories as to the capacity of the common man, without guidance outside himself, to find his way to truth; and the ascendancy of the principle of free, self-reliant intelligence. Principal agencies used in diffusing ideas through reading. The evolution and the growing complexity and importance of communication, particularly in the twentieth century; progress in developing new instruments of communication and their bearing on the diffusion of knowledge; the importance, in our time, of popular enlightenment through reading and other forms of communication, and how this bears on library policy.

3. *The book arts.* Chapters in the graphic arts which treat the production, care, and reproduction of the book considered as a physical entity and an aesthetic object; the manuscript book, printing and the printed book, book-binding, design and illustration, photographic reproduction.

4. *Library research.* Study of methods of investigation used in the humanities and the social sciences which are applicable in the area of library studies. (Librarians at work in the natural and physical sciences will of course acquaint themselves with methods of investigation used in those fields.)

II. READERS AND READING

1. *The phenomenon of reading.* Mechanics of reading; wide variations in reading ability; development of ease, speed, and skill in reading; handicaps; remedial reading.

2. *Library readers.* Technical and functional literacy; interest, purpose, and effort in reading; the attitudes and habits of readers; classes of readers and community groups served by libraries.

3. *Methods of planning and conducting library services to readers.* The role of guidance in the reading behavior of the literate population; difference and similarity in the role of the library in formal and informal education; methods of guiding individual readers; methods of community education; use of other media of communication than print, such as films and the radio; methods of conducting group discussion.

III. METHODS OF LIBRARIANSHIP

1. *Administration and government.* Theory of administration. The internal operations of organizations. Methods of organizing and controlling people and activities and of directing them to defined objectives. Coördination between subordinate and primary objectives of an enterprise. Organization and government of libraries. The relation of library administration to public administration. Methods of organizing and directing library activities. Management of library finances. Library personnel programs. Library buildings. Care, maintenance, and supervision of the physical plant.

2. *Library programs and services.* The library program as an expression of aims and policies. Stages in program planning.

Comparative study of programs of libraries of different types—public libraries, special libraries, school libraries, college and research libraries. Programs of the major library associations. Library interests of the leading foundations, learned societies, national governments (especially the U.S. Government), UNESCO, etc. Contrast between a book-centered program and a reader-centered program. A review of the best library experience in making reading and the library a significant force in the life of the community. Kinds of communities served by libraries. The position of the library program in the activities of the community as a whole; its relation to formal education, and its part in popular enlightenment.

3. *Technical services.* Study and analysis of that phase of the library program which lies back of services to readers: acquisition of books, cataloguing and classification, the book conservation program, and the rest of the life cycle of the book in the library. Aims and objectives, problems of organization and costs. Comparative study of principles and procedures.

4. *Bibliographic description.* The description of books. Different canons of correctness as to how books and other library materials should be described. Their respective uses and limitations. How recording of library holdings and thorough bibliographic description differ in purpose and method. The significance of bibliographic description.

IV. LIBRARY RESOURCES

1. *The cultural record.* Library collections constitute our most valuable record of the career of the mind. They provide the resources for study in all departments of knowledge, and for such study in subject fields there is no short cut. But just as the morphologist disclaims any pretense of exhaustive knowledge of living beings whose general shape or structure he studies, so the student of the cultural record need not master, or pretend to master, all

that is contained in that record. Every librarian associated with a general collection of books gains, year by year, deeper insight into the corpus in his charge, and the aim here envisaged is simply to make such study somewhat less prolonged and more systematic.

2. *The field of bibliography and reference.* The evolution of tools to control the growing volume of knowledge. Factors which accelerated the production of these tools in the twentieth century. Critique of the principal bibliographical tools and other works of reference. Guidance technique in the use of the resources of the modern library. Organization and supervision of the reference service.

3. *Library resources in the main fields of learning.* Separate study of the history and literature of the fields generally represented by library collections.

This description is imperfect enough, but it perhaps has some merit in spotting the richest lodes of content which, by a sort of right of eminent domain, belongs to a faculty of library studies.

An organization of subject matter along these lines sets forth academic content which, though it falls logically in the sphere of a faculty of library studies, is akin to studies under the three Graduate Faculties of the University. If we succeed in capturing the intellectual ingredients of librarianship at its best, and if we organize that material along sound academic lines, a curriculum can be developed which can be defended as of graduate quality. Being organized along sound academic lines, it would lead the inquiring mind beyond formal courses for the first degree into areas of specialization—foundations, readers, methods, resources—which call for intensive study over a more prolonged period. Lack of well-chiseled academic content and pulverization of that content by multiplying courses to serve over-refined professional objectives have in the past hindered the program of this library school, as of others, from earning the academic respect to which intrinsic elements in librarianship seem to entitle it.

Offer the main program for the degree of Master of Science.

Turning to the question of academic credit, courses in the main program could be taken in two ways: in one block leading to a degree under the Faculty of Library Service; or interspersed with work leading to a degree—say the Ph.D.—regardless of the faculty under which the degree

is to be taken. The first alternative would lead toward the degree of Master of Science, requirements for which would include the following:

Admission to the Master's program to presuppose (1) completion of a satisfactory program of study in Columbia College, in Barnard College, or in a college recognized by the University as of similar standing; or (2) evidence of equivalent education based on special examination.

The course of study to consist of instruction in *library science*, as described above, except that students (1) who have had no library experience or (2) who on examination fail to show satisfactory acquaintance with the library will *add* instruction in library practice to fulfill requirements for the degree.

Students who *have had* a year or more of acceptable library experience will be required to complete a minimum of 30 points of instruction—that is, a normal year of academic work. The number of additional points of practice instruction required of those *who have not had* (1) acceptable library experience or (2) acceptable preparation in an approved library school, to be fixed by faculty regulation.

Deficiency in general education or in language facility will likewise have to be removed to the satisfaction of the School.

At present, students are required to secure a second Bachelor's degree before entering upon candidacy for the Master's degree. While there are some arguments in favor of continuing this arrangement, in practice it loads the scheme of preparing librarians too heavily with narrowly professional courses and is somewhat circuitous for those who push on toward the doctorate. The present proposal is to tighten entrance requirements to the graduate library school, and to admit to the Master's program students who measure up to them, with no fifth-year Bachelor's coming between.

Admit undergraduate students to the auxiliary program.

What role the School of Library Service should play in undergraduate instruction depends on the division of labor worked out with other institutions, including national library schools. As here envisaged, the auxiliary program would not involve many courses; good students could probably cover the ground in nine to twelve semester hours of work. That would not be enough in itself to be regarded as an area of concentration—or "major."

Three useful purposes would be served by making such undergraduate

instruction available in institutions capable of maintaining high academic standards. In the first place, liberal education and professional education, like library science and the art of librarianship, cannot be completely divorced from one another. In a society where higher education is planned, not for a leisure class but for youth who are equipping themselves to carry their share of the world's work, vocational pointlessness is not a proper goal for a college education. Inclusion of nine to twelve semester hours of instruction in library practice would open up to the college student a field of increasing social potentialities without significantly affecting the impact which the liberal arts college could otherwise be expected to make upon him. Second, inaccessibility of introductory library courses at present denies too many gifted college students an opportunity to consider librarianship as a career at the time they are deciding upon their life's work. Third, experience indicates that instruction such as that involved in the auxiliary program, important as it is acknowledged to be, does not belong at the graduate level. Arguments for placing it there are not based on what is the educationally sound thing to do for the college graduate but on how placing it there simplifies certain administrative problems for libraries. A profession which is solicitous about recruiting has a double reason to use its schools, not as substitutes for position classification or certification schemes, but as a means first of all of affording good students a good education.

While it is proposed that Columbia depart from its present practice and recognize a place for undergraduate library instruction, it is proposed that that instruction be limited in amount and kind in order scrupulously to avoid siphoning away for vocational study time which the student ought to put into a liberal education of the kind for which Columbia stands. The experience of other professions, such as law and medicine, supports what I believe is the view of the majority of librarians that a liberal education, while difficult to describe and even more difficult to achieve, is more than general education in the technical meaning of that term, and that it is short-sighted professionally not to maintain admission standards carefully designed to insure both.

The suggestion that undergraduate instruction in library practice be held to nine to twelve semester hours is intended to apply only to the

student who may wish in time to become a full-fledged professional librarian. Some librarians believe that libraries have become sufficiently complex that they can use in sub-professional positions a larger proportion of college graduates with little more in the way of special equipment than a good working knowledge of foreign languages. Some institutions may decide to minister to this need or some other—such as offering a heavy undergraduate program of professional education for the school librarian who wishes to take the Master's degree in education. In either case, the college course might be expanded to include all the training the student can make use of. However, the national library schools can ill afford to sanction such perilous expansion. Until they are prepared to do so, it would fall to the undergraduate institutions which decide to offer more than a recognized maximum in the field of education for librarianship to apprise their students of the way the road forks: the farther they go past the recognized limit the more deficiencies their students will face if they later decide to apply for admission to a first-rate graduate library school.

Performance of departmental functions.

The University Statutes recognize a School of Library Service and a Department of Library Service. The function of academic departments is to offer instruction in their respective fields (i.e., their respective "departments") of knowledge wherever such instruction is called for. Other degree programs than those under the jurisdiction of the Faculty of Library Service are coming to recognize a need for library instruction. Meeting this need should be accepted as a welcome responsibility, as of course it will be.

Better correlation of work in the School of Library Service with work elsewhere in the University.

Reference has already been made to the fact that belonging to a university gives a library school an opportunity to draw upon society's best educational experience in developing its program. Another advantage is the opportunity to draw upon the resources of the university as a whole in teaching librarians. Students should receive encouragement

from the School to take work elsewhere in the university when it will strengthen their professional preparation to do so, and similarly the other way around for students in other departments. The desirability of developing the library school as one of the interdependent parts of the university was expressed a few years ago by a staunch friend of education for librarianship, Frederick P. Keppel, as follows:

As contrasted with the situation twenty years ago, the library school of today is typically a university school. What difference has this change made and what difference is it making in the influences to which the student is exposed? To answer this question, one must consider not only the stimulation which comes from contact with young people of different interests, not only the general cultural facilities of the university, but also the place of each professional school in the corporate life of the institution including the inter-relations, formal and informal, between its faculty and other teachers and investigators. There is a real danger, and this applies not alone to librarianship but to any one of the relatively younger professional groups, that the newcomer in the academic pattern may become encysted in the university organization instead of becoming a vital part of that organization, bathed in its blood stream and stimulated by its nervous system. . . . It may be easier and simpler, administratively, for the school to pursue a policy of isolation, and conceivably stricter standards may for the moment be maintained thereby; but in the long run any professional school will prosper in terms of its integration in the life of the university. Unless this vital relationship is established neither faculty nor student can profit to the full by university membership; nor, by the same token, are the members of the profession in after years likely to take their full share in the broad professional life of the country.*

Encourage study leading to the degree of Doctor of Philosophy.

In completing requirements for the degree of Doctor of Philosophy at Columbia, a matriculated student must prepare a dissertation embodying the results of careful research, must present himself for final examination, and must have pursued advanced studies for at least two academic years. To matriculate, a student under the Faculty of Library Service must qualify for admission under one of the Graduate Faculties of Political Science, Philosophy, or Pure Science and must satisfy the

* Munn, Ralph, *Conditions and Trends in Education for Librarianship*, 1936 (New York), Carnegie Corp., pp. 48-49.

Joint Committee on Graduate Instruction on four points as follows: that the program of studies he has pursued or expects to pursue is well conceived, that he has a reading knowledge of two or more foreign languages, that he has mastered one or more broad subjects of learning, and that the subject on which he proposes to write his dissertation is well chosen.

In order to promote scholarly inquiry in the field of library studies, the Faculty of Library Service should encourage students with requisite interests and ability to push on to the degree of Doctor of Philosophy. Two paths are open to such a student at present. One leads straight to this degree from college graduation, with an approved program drawn from the offerings of two or more faculties. A second would, with the Master's program envisaged for the School, lead first to this degree and thereafter to the degree of Doctor of Philosophy. As a means of strengthening this set-up the School is ready to take two further steps at the appropriate time: (1) to request the creation under the Joint Committee on Graduate Instruction of a standing committee for the guidance of our students toward the degree of Doctor of Philosophy; and (2) to request authorization for students who receive the Master's degree from the School to offer the work they have done there in lieu of thirty points toward the fulfillment of the residence requirements for the degree of Doctor of Philosophy.

The degree of Doctor of Philosophy at Columbia, as at other leading universities, stands for rigorous standards of scholarship for which there is no substitute. Work toward this degree should be, and is, open to all librarians and should be pursued by more of them. In no other way is the field of library studies going to have its normal complement of scholars. Faculty positions in national library schools provide one outlet for men and women equipped with such training; and there are others, particularly positions where the highest professional service presupposes competence in a subject field.

But the demands on the fraternity of librarians are varied, and the type of specialization necessary to fulfill appropriate academic requirements for the Ph.D. is not always the best means of meeting leadership requirements of the library profession. One way to cope with these de-

mands is to define the intellectual specifications for social leadership with care approaching that with which specifications for technical scholarship have been defined, and then to incorporate these specifications into requirements for the degree of Doctor of Philosophy. Another way is to offer a separate degree, possibly a doctoral degree, for an advanced program aimed at producing a somewhat different kind of intellectual authority—authority symbolized by the respected leader in contemporary affairs rather than the authority symbolized by the respected specialist in a particular segment of one of our numerous highly-specialized fields of instruction and research. Some attention has been given to the second alternative, but the School is not prepared to advance a specific proposal for three reasons.

In the first place, our registration for advanced study is expected to be so small that it would be preferable to join hands with others and thus avoid the necessity of offering our own degree—say, the degree of Doctor of Library Service. That way out tends to multiply degrees of indeterminate standing.

Second, the name of a doctorate which meets acceptably the objection just stated has not yet presented itself.

Third, the launching of a new doctorate has a bearing on the work of other faculties and other universities. The whole problem should be considered, therefore, not as the private affair of a single professional school, but rather more from the broader standpoint of the standards and social aims of universities than opportunity has yet afforded locally. It is improbable that librarianship is the only field where a need for a kind of intellectual authority is felt which requirements for the Ph.D., as we usually apply them, do not always establish. We have been catapulted into an era where unprecedented dependence has to be placed on leaders—many leaders in many fields. It would be a convenience, particularly for the lazy of mind and the faint of heart, if we could get along with only one leader and let him do our thinking for us. We have seen something of the kind tried out to our sorrow in our time; the idea exploded, and the explosion nearly blew our world to pieces. A substantial part of the world is now convinced that we are left with the implacable necessity of having leaders in many avenues of life equipped to lead not

so much with any external symbol of authority as with an inner strength which they themselves and their fellows can afford to trust. Holders of the Ph.D. individually are magnificently demonstrating that they are up to what we expect of such enlightened leaders; but the Ph.D. program itself, as we define it, aims at qualifying men and women for such leadership only to the extent that technical scholarship in a field of learning—and sometimes it is admittedly a very narrow field—is the essential qualification. Such a program insures an adequate supply of trustworthy specialization to meet society's research requirements; but it hardly insures an adequate supply of trustworthy insight and background to meet the leadership requirements of our times.

Make use of the best available examining techniques in admitting students and facilitating their progress while in school.

As illustrated on page 31 of this report, the School is making use of examinations as a means of encouraging the student to progress through a standard course of study as rapidly as he can show himself qualified to do so. We are also making some use of examinations for entrance purposes. This latter use should be extended in two directions—toward measuring the student's aptitude for library work, so far as such aptitude can be determined by examination; and for the purpose of determining whether additional educational experiences are needed before being admitted to the main professional program.

Faculty development.

During the war positions which became vacant were allowed to go unfilled and the School got along with a reduced staff. The prewar strength in manpower should be restored, and the proportion of the faculty in the upper ranks should be materially increased. The goal: all responsibilities for instruction and research handled with a distinction which is in keeping with the traditions of the University.

Inaugurate a faculty study and field service program.

With a single extra salary, faculty talent can be ploughed back into the field regularly by temporary replacement of faculty members, one at

a time. Projects would be given preference on the basis of their service value and their contribution to the growth of the members of the faculty whose services are requested. The range of activity would be as wide as the profession, embracing research, administration, surveys, consultation, or library duty abroad. The program would supply at needed points in the field leadership of an order not otherwise accessible to the chosen community or institution; and it would, at the other end, help keep those who devote full-time to library instruction from going stale.

Research and publication.

In comparison with other fields, the library profession is confronted with a twofold disadvantage: (1) a proportion of qualified research scholars which is low in comparison with related fields such as, for example, education or history; and (2) a corresponding lack of funds to assist worthy research and publication. The national library schools will have to shoulder most of the responsibility for removing these disadvantages and it is proposed that Columbia assume its share of the burden.

Visual materials for use in instruction.

Certain phases of library work lend themselves readily to graphic presentation. Time of students and teachers will be saved, comprehension of ideas not easily transmitted verbally will be facilitated, crowding of the curriculum will be reduced, and the student can be spared assignments which he sometimes labels, with disappointment, as "busy-work," if a way can be found to create suitable visual apparatus for use in teaching.

A greatly strengthened scholarship and fellowship program.

In the years which lie ahead the youth of the nation will find many inviting vocational opportunities, some new and many less exacting as to initial preparation than librarianship. Only by having available a larger number of attractive scholarships and fellowships can the library schools expect to meet with any degree of distinction the personnel re-

quirements of the library profession. These requirements call for: (1) recruiting a larger number of first-rate minds than we have recruited in recent years; and (2) enabling a larger percentage of these recruits to continue their studies over a longer period of time.

Postgraduate education of the practicing librarian.

The growth of the graduate of the library school will be continued in after years in ways which need not be detailed; but in the total program for growth of a profession, ample provision needs to be made for those who cannot expect to get away from their posts for long at a time. The national library schools, following the pioneer example of the University of Chicago Graduate Library School, can without heavy additional costs render valuable service in this regard through a program of workshops, institutes, and conferences. The Columbia Libraries have for years served as host for an annual one-day conference of Eastern college librarians, but the School of Library Service has, largely for lack of funds, done very little in this field. It needs to get on a footing early in the post-war period which will enable it to carry its part of this acknowledged responsibility.

These proposals are set forth at some length in order that they may be studied by members of the library profession, officers of the University, the Faculty of Library Service, and by present and former students of the School. How soon they can be put into effect, indeed whether they can be put into effect at all, depends upon the support they receive from these sources.

THE REST OF THE RECORD FOR THE YEAR

University Ad Hoc Committee.

From time to time the University has made use of the device known locally as an *ad hoc* committee, to consider from the standpoint of the University as a whole the problems of a given department, school, or college. In January, 1946, the appointment of such a committee was requested by the Dean to advise on plans for the future of the School of Library Service. The members of the committee designated by the

President were drawn from those faculties in the University which are linked by natural interest most closely with the School, and are as follows:

George B. Pegram	<i>Dean of the Graduate Faculties</i>
Harry J. Carman	<i>Dean of Columbia College</i>
Harry M. Ayres	<i>Director of the Summer Session and Director of University Extension</i>
Edmund deS. Brunner	<i>Professor of Education on the Schiff Foundation</i>
Hollis L. Caswell	<i>Professor of Education and Associate Dean of Teachers College</i>
Austin P. Evans	<i>Professor of History</i>
Ernest J. Reece	<i>Associate Dean of the School of Library Service and Melvil Dewey Professor of Library Service</i>
Horatio Smith	<i>Professor of French</i>
The Dean of the School of Library Service, <i>Chairman</i>	

Most of the Committee's time so far has been taken up with new appointments. In 1946-47 its attention will turn more directly to the program of the School and to its relation to the rest of the University.

Alumni meeting at Buffalo.

In keeping with tradition in the library field, alumni of the School of Library Service do not hold reunions on the campus, and the first meeting since 1943 was held in Buffalo in June in connection with the first postwar meeting of the American Library Association. It was time to compare notes with librarians in the field on education for librarianship, and our own alumni proved to be a doubly fitting group for the purpose. Through the courtesy of the officers of the Association, part of the meeting was devoted to a report on the trend of opinion within the School as to what our future program should be. Time for discussion was limited, but the five members of the faculty who were present found the response warmly encouraging.

An alumni scholarship.

At its Buffalo meeting the Alumni Association unanimously approved

a proposal submitted on behalf of the Board of Directors by President Lucile Morsch to create a scholarship for the School of Library Service. The stipend of \$450 will cover tuition charges for an academic year for a student carrying a full program of thirty points. The scholarship comes out of the treasury of the Association and is to be financed as follows:

Annual scholarship to be drawn from the Treasury of the Association	\$450.00	
Sustaining membership of the Association in the American Library Association	100.00	
<i>Library Service News</i>	150.00	
TOTAL		\$700.00
Estimated annual income of the Association		425.00
Annual deficit		275.00
Balance in the Treasury in June, 1946	\$3,000.00	

Assuming that the income of the Association set aside for these purposes does not drop below \$425 any year, the Association will be able to finance the scholarship for a period of ten years. It will also be able to help sustain, as at present, the work of the American Library Association and *Library Service News*. If the average annual income of the Association for the next ten years exceeds \$425 this program can be continued for a longer period, depending on the amount of income. If the annual income for these purposes reaches \$700 the program just launched could be carried on indefinitely. That is only \$275 more than the present annual income.

We have approximately 4,500 alumni. The officers of the Association are optimistic about the possibility of closing the gap of \$275 by increased annual income from membership dues. The scholarship will help remove the financial barrier between promising young people and entrance into the library profession, and hence the opportunity to share in continuing the scholarship offers greater incentive to maintain active membership in the Association.

The Faculty.

Two beloved members of the Faculty with long records of service retired at the end of the year, John Simeon Cleavinger and Isabelle K. Rhodes. Their mantles fell upon the shoulders of Lowell A. Martin, recently of the University of Chicago, and Bertha M. Frick who relinquishes part-time responsibility as Curator of the Plimpton, Dale, and Smith collections in order to devote all of her energies to the School.

Henry B. VanHoesen, Librarian of Brown University and John Hay Professor of Bibliography, comes to Columbia as Visiting Professor of Library Service for 1946-47 while on leave from Brown. James Grote Van Derpool, Head of the Department of Art at the University of Illinois, succeeds Talbot Hamlin as Avery Librarian, and plans in due time to teach a course in the School on the history and the literature of the fine arts. Richard Angell resigned to accept an administrative post on the staff of the Library of Congress. His work in the School and in the Libraries is to be carried forward by Catharine Keyes Miller.

Hellmut Lehmann-Haupt returned to his post at Columbia in the fall of 1945, after a year and a half of wartime service with the Office of War Information. Two members of the Faculty, Dorothy W. Curtiss and Miriam D. Tompkins, were on sabbatical leave in 1945-46. Special acknowledgment is made of the cheerful coöperation of the Faculty in bringing these leaves about without delaying either of them.

In the course of the year the students and the regular faculty enjoyed the presence of the following librarians as Associates in Library Service for limited periods of resident instruction:

Nell Unger	Librarian: Portland, Oregon, Public Library
Charles F. Gosnell	Librarian: State Library, Albany, N. Y.
J. Periam Danton	Returned from service in the Pacific, as First Lieutenant in the Navy
Francis H. Henshaw	Librarian: Berkshire Athenaeum, Pitts- field, Mass.
Dorothy C. Robinson	Associate in Library Service
Ernestine Rose	Associate in Library Service

Much of the energies of the faculty outside the classroom were ab-

sorbed this year by discussions of the curriculum. Professor Reece carried the brunt of the burden for leading these discussions. Professor Tompkins was elected Secretary of the American Association for Adult Education in recognition of her work in this field. Professor Tauber served on a committee to advise the Librarian of Congress on the preparation of a code for the descriptive cataloguing of books, reviewed the technical services of the University of Vermont Library, and collaborated with Louis R. Wilson on a survey of the Libraries of the University of South Carolina. He is also joint author with Dr. Wilson of *The University Library*, a significant study published by the University of Chicago Press in August, 1945.

Exploring ways of broadening the School's usefulness.

A course entitled *Public Relations for Libraries* was offered in the summer of 1946 by Russell Munn, Librarian of the Akron, Ohio, Public Library, a man well qualified by interest and experience to inaugurate this new venture. *Library Work with Hospital Patients*, offered for the first time in the summer of 1945, was repeated in the summer of 1946, and is to be offered experimentally in the Spring Session next year. A small conference last November led to a one-day institute on hospital library work on April 6, 1946. It was attended by approximately 150 librarians, physicians, hospital officials, and others interested in defining the role of professional library service in the program of the modern hospital.

Placement service.

During the past year, Byron C. Hopkins, Assistant to the Dean, has carried forward a program of consultation and guidance pointed toward (1) present students of the School, (2) graduates in the field, (3) library administrators and trustees, and (4) prospective librarians.

More than fourteen hundred requests for recommendations came from administrators and trustees in 1945-46, representing an increase of 26 per cent over the previous year and 225 per cent over the last prewar year. Even though salaries offered for professional positions are rising steadily, no students or graduates were available to recommend for 30 per cent of the positions.

As in former years, a major interest was taken in the placement of graduates of the first- and second-year programs who were completing their professional study during the academic year. Salaries for B.S. graduates ranged from \$1,900 to \$3,000, with a median of slightly better than \$2,250. Salaries for M.S. graduates were somewhat higher. All of the group were placed in satisfactory positions before the beginning of the following academic year. Thirty-nine per cent chose college and university libraries, 34 per cent public libraries, 10 per cent school libraries, and 17 per cent special libraries in hospitals, industry, science, and the arts.

Approximately one in every ten of the more than 4,000 graduates of the School of Library Service and its affiliated schools sought assistance in finding new positions during the year. Although only a handful were available for positions at less than \$2,100, salaries have increased to the point that recommendations could be made for four out of five requests for experienced personnel. Approximately half of those actively seeking new positions made a change, either with the assistance of the School or on their own initiative.

Assistance was given library administrators in their efforts to bring salary schedules into line with current conditions. Individual classification and pay plans were studied and supporting information was furnished to administrators engaged in formulating new financial programs for presentation to boards of trustees and other governing bodies. Mimeographed statements on salary trends were sent in answer to numerous requests.

A controlled student work-study program, developed in consultation with the Faculty, was begun during the past year by Mr. Hopkins. Administration of the program involves consideration of the following factors: the part-time employment load of each student in relation to his abilities and previous experience, the contribution to his professional equipment of the particular duties involved, and the financial needs of the student for the period of his residence. Mr. Hopkins is also responsible for arranging an adequate period of approved observation in a public or university library for each degree candidate without previous experience.

A vigorous policy was pursued of counseling ex-servicemen and women with an expressed interest in librarianship. Mr. Hopkins served as counselor on librarianship for the University's Veterans Counseling Service and, on occasion, as counselor for the regional office of the Veterans Administration. In addition he represented the Dean on President Fackenthal's Advisory Committee on Veteran Affairs. The success of the program may be judged from preliminary registration figures for 1946-47, which indicate that approximately half of the full-time student body will have seen military service. The proportion and number of men will set a new record for the School.

Admissions and registrations.

Enrollment in regular sessions was lower than in the preceding year. The total enrollment for the year, including Summer Session, increased slightly more than 15 per cent. There was an increase of almost 100 per cent in full-time students. Thirteen men and three women were veterans of World War II. Thirty-three states, Hawaii and Puerto Rico, and three foreign countries were represented by special students. In all, seventeen students came from abroad. First-year students came from 94 colleges in the United States and from six institutions of higher learning elsewhere. Master's students came from 13 library schools of the United States and Canada. Three students matriculated for the Master's program by satisfying entirely through examination normal course requirements of the first-year program.

The usual statistical tables on enrollment are appended.

Respectfully submitted,

CARL M. WHITE
Dean

June 30, 1946

TABLE I

ENROLLMENT IN SUMMER, WINTER, AND SPRING SESSIONS, 1945-1946

	B.S.	M.S.	Cert.	Ext. & Univ. classes	Non-matriculated	Primary registration other depts.	Total
<i>Winter Session</i>							
Matriculated	125	39	4				168
Unclassified	13	5	1				19
Exten. & Univ. classes				35			35
Non-matriculated					39		39
Primary registration in other depts.		(2)	(2)	(3)		7	7
Total—Winter Session	138	44	5	35	39	7	268
<i>Spring Session</i>							
Matriculated	128	31	3				162
Unclassified	12	6	2				20
Exten. & Univ. classes				8			8
Non-matriculated					54		54
Primary registration in other depts.			(3)	(2)		5	5
Total—Spring Session	140	37	5	8	54	5	249
Total in regular sessions omitting duplications	167	53	6	37	86	11	360
<i>Summer Session</i>							
Matriculated	128	40	5				173
Unclassified	20	7	2				29
Non-matriculated					108		108
Primary registration in other depts.	(4)	(4)	(4)			12	12
Total—Summer Session	148	47	7		108	12	322
Total in regular and summer sessions omitting duplications	277	86	11	36	188	22	620
Degrees granted in June	108	18	2				128
Work completed in June	71	11	2				84
Work completed preceding February	3	5					8
Work completed preceding October	34	2					36

TABLE II

REGISTRATION, 1940-1946

	1940-41	1941-42	1942-43	1943-44	1944-45	1945-46
Summer Session	518	466	369	247	275	322
Winter Session	454	413	290	233	284	269
Spring Session	452	375	260	224	279	249
Total registration (ex- cluding duplications)	991	888	636	499	578	620
Degrees granted	238	198	163	91	103	128

TABLE III

FORMAL APPLICATIONS, 1940-1946

	1940-41	1941-42	1942-43	1943-44	1944-45	1945-46
New applications received	689	489	322	349	479	527
Found to be ineligible . .	36	10	10	20	17	23
Technically eligible but rejected	55	30	16	34	54	79
Application withdrawn .	173	129	103	58	68	83

THE NEW YORK SCHOOL OF SOCIAL WORK ANNUAL REPORT

1945-46

The past year the School has had the greatest number of applicants for admission to its full-time * curriculum in the history of the institution. There were more men than in any previous year and the average age of applicants has been greater. The School has experienced the same pressure from former service men and women for education as the rest of the University, and indeed schools everywhere, have met. In addition to ex-service personnel, however, there have been many whose occupations were in war related activities and others who could not have leave of absence for educational purposes during the war emergency.

Registration

The School opened in the fall quarter of 1945 with approximately 350 students in its full-time curriculum. The size of the student body had been limited to this number by action of the Faculty. Adequate field work places, the size of the Faculty, limited class room and office facilities and insistence upon keeping classes at a reasonable size have all been factors influencing this decision. In the fall registration there were few veterans and it was not until after the beginning of the quarter that returning veterans applied in large numbers.

Veterans

In view of the interest the Faculty had in providing educational opportunities for veterans action was taken increasing the full-time registration to 380 students and instructing the Admissions Committee to give special consideration to veterans applying for the winter quarter. In the spring and summer it was unnecessary to give preference to veterans as the large number applying and their very strong credentials resulted in as large a registration of veterans as the facilities of the School permitted. The number of veterans in the full-time curriculum each quarter was:

		<i>Full-Time</i>	<i>Part-Time</i>
Fall	1945	11	6
Winter	1946	42	36
Spring	1946	94	68
Summer	1946	128	9

* Full-time, 12 points or more in a quarter.

The registration of these mature veterans in the School during the past year has meant an increased interest in courses and field work in administration, group work, and community organization. Field work opportunities in these areas had been limited in the past and these have had to be expanded. Agencies in and near New York have cooperated in making more opportunities available. The School will have to utilize resources in other communities for additional placements. Under the four-quarter plan it has been possible to plan programs so that students can register for a block of field work at a distance from New York. Difficulties arise, however, for the student whose home is in the City and for whom living costs in another city for three or six months are too great an expense. In addition, supervision of students doing field work at a distance is expensive in terms of faculty time. However, in the interests of the special problem presented by the needs of the present student body, these difficulties are being considered and will be worked out.

New Field Work Unit

For a group of ten veterans from the Department of Welfare, a new field work unit has been organized in the Fall of 1946 by the Department in cooperation with the School. Students have been selected jointly by the Department and the School and will devote four days a week to field work and one day to classes for a period of six months. These students will then register for another period of at least three months in a second field work placement. They will be expected to return to the Department for eighteen months' service. This cooperative plan will make it possible for twenty students in this calendar year to meet at least in part the requirements of the professional degree. This field work unit is an addition to the two already established in the Department of Public Welfare, the costs of which are met in part by the School.

The School and various public and private agencies have experimented over a period of years with various forms of agency fellowships. The Department of Public Welfare is the only example of an agency setting up a field work unit under a full-time supervisor for its own staff. For one year at the beginning of the war a somewhat similar plan was worked out with the Department of Welfare and was considered successful. Of the first group of 8 students in that unit, all completed the requirements for the degree, as did the second group of 7 students. This plan was not continued because of the personnel shortage in the Department due to the war.

Effects of War on Registration

The size and composition of the student body the past few years during the period of the war is indicative of the effects on social work training of such a catastrophe. While all educational institutions in the United States were influenced by the demands for young people in industry and the Armed Forces, social work education was affected in ways not evidenced in certain other graduate professional schools.

Applications for admission to the School during the past ten years, given in the following table, showed an annual increase until our declaration of war in December, 1941. The following two years indicate a drop in applications, but an increase in 1944-45 and as has been said, all educational institutions had a great increase for 1945-46. During the last few years accelerated programs in other institutions may well have influenced the large number of applications received for the Summer Quarter.

APPLICATIONS FILED FULL-TIME ENROLLMENT FOR THE TEN YEAR PERIOD BEGINNING 1936 AND ENDING 1946

	FALL	WINTER	SPRING	SUMMER
<i>Academic</i>	<i>Filed</i>	<i>Filed</i>	<i>Filed</i>	<i>Filed</i>
1936	255	97	84	19
1937	252	101	98	53
1938	336	152	109	37
1939	352	158	112	101
1940	356	170	127	83
1941	322	133	124	107
1942	272	121	101	114
1943	284	139	127	108
1944	328	184	128	117
1945	411	300	299	221

Faculty Changes

In the death of Henry W. Thurston in September, 1946, the School lost a deeply loved colleague. Mr. Thurston joined the Faculty as instructor in child welfare in 1912 when the two year diploma program was initiated and served uninterruptedly until his retirement in 1932. These were years rich in professional achievement as a teacher and writer. Hosts of his students remember with affection his sturdy defense of children's rights. "Delinquency", "dependency" were no text book terms for Mr. Thurston's students. In the years since 1932 Mr. Thurston has held to the focus of his life and as a consultant has shared in policy making for local and national child care programs. A week before his death, at the age of 85, he read

page proof for a book which is to be published this fall. And so Henry Thurston's concern for child welfare carries on. His was in truest sense a good life.

It is with great regret that the Faculty announce the retirement of Professor John A. Fitch at the end of the academic year 1945-46. Mr. Fitch has been on the Faculty since 1917 and has given the School many years of devoted service. He will be greatly missed by the Faculty and by the many students who have taken his courses in the field of industrial relations. Dr. Herbert R. Northrup is joining the Faculty on October 1st, 1946, as an Assistant Professor, to teach courses in the field of labor relations. He has held positions with the War Labor Board, and the President's Committee on Fair Employment Practices and has taught at New York University and Columbia University.

Mr. Kenneth Storandt, who rejoined the Faculty after his release from the Army on January 1st, resigned at the end of April to take a position in St. Paul, with the Council of Social Agencies.

Dr. Eveline M. Burns, joined the staff on October 1st with the rank of Professor, and will give courses in the area of Social Security. Dr. Burns has been with the Social Security Board, the National Resources Planning Board, and the National Planning Association.

Miss Florence Hollis is joining the Faculty as an Associate Professor on January 1, 1947. She has her M.S.S. from Smith College and her present position is as Editor of Publications with the Family Service Association of America.

Mrs. Irene H. Kerrigan joined the Faculty on July 1st. Her chief responsibility is in the area of students' field work. Her most recent position was with the Youth Counselling Service.

During the Summer Quarter we have had Mrs. Celia Deschin, recently of the Montreal School of Social Work, and Mr. Philip Taietz of Cornell University, on our staff full-time.

Professor Clara A. Kaiser has been on leave of absence for nine months in Germany working with UNRRA and YWCA. She returned for the opening of the academic year 1946-47. While she was away Miss Helen Rowe, formerly with the Children's Bureau of the Department of Labor took over her courses. Dr. Sophia Robison has come to the Faculty during Dr. Gladys Meyer's leave.

The following changes have occurred among the supervisors of field work units operated by the School. Mr. Tom Coleman, who supervised the unit at the Children's Court from December 1st, resigned as of September 30th. Miss Lucy Loughrey joined the staff in March 1946, as supervisor of a new unit in the Department

of Welfare. Miss Tessie D. Berkman is replacing Miss Rowena Ryerson in the field work unit in the N. Y. State Psychiatric Institute beginning September 15, 1946.

Course on Disaster Relief

The American Red Cross and the New York School of Social Work sponsored jointly a course on disaster relief during the Fall Quarter. The purpose of the course was to develop a group of social workers for the metropolitan area who were familiar with the techniques and policies of disaster relief. There were 10 sessions of 1½ hours each. The instructor was Mr. Henry Baker, Assistant National Administrator, Disaster Relief and Civilian War Aid, American Red Cross. Admissions were limited to 25 students nominated by private and public agencies, to whom an invitation to attend the course was extended by the School. Requests for admission far exceeded the number of places provided.

Doctor of Social Work

For several years there has been an interest on the part of the Faculty and some of the alumni in offering an advanced professional curriculum leading to the doctorate. In social work there are teaching opportunities and some administrative and research positions where advanced studies would be an asset. Social work has progressed to a point where course content and the availability of research projects warrant advanced study.

Little opportunity has existed in the schools of social work for such advanced study leading to a professional doctorate. During recent years those schools offering such a curriculum have granted very few degrees.

A request was made to the University to consider the possibilities of offering a degree of Doctor of Social Welfare. After careful consideration by the University and the Faculty of the New York School of Social Work the following resolution was adopted by the University Council.

“RESOLVED, That the University Council approve the establishment of the degree of Doctor of Social Welfare, to be awarded on the recommendation of the Faculty of the New York School of Social Work, in accordance with the general standards submitted by the Director, and that the details of requirements for the degree be referred back to the Executive Committee with power.”

In accordance with the above the Faculty will present to the Executive Committee of the University Council at an early date an outline of the requirements for the degree hoping to offer an advanced curriculum in the Fall Quarter of 1947 for a few students. During the year of 1946-47 several courses have been planned which might be accredited toward the doctorate after matriculation on the part of the student.

Certain requirements have already been discussed by the Faculty and the Executive Committee of the University. The successful completion of a two year graduate course in social work, and at least two years' experience in a social work position will be considered minimum requirements. The completion of 45 points of graduate work either at the University or the School in addition to the two year professional course, a matriculation examination, the completion of a research project and an examination on this dissertation will be required.

Foreign Visitors

During the year the School has had many visitors from other countries, some of whom have been connected with United Nations' activities and others have been renewing their acquaintaince with the United States. Representatives from schools of social work in the Argentine, Belgium, Australia, Brazil, Canada, Chile, Cuba, Egypt, England, Finland, France, Holland, India, Mexico, Peru, Puerto Rico, South Africa, Sweden, and Venezuela have been among our visitors.

WALTER W. PETTIT, *Director*

October 31, 1946.

The School of Tropical Medicine

of the

University of Puerto Rico

under the auspices of

Columbia University

San Juan, Puerto Rico

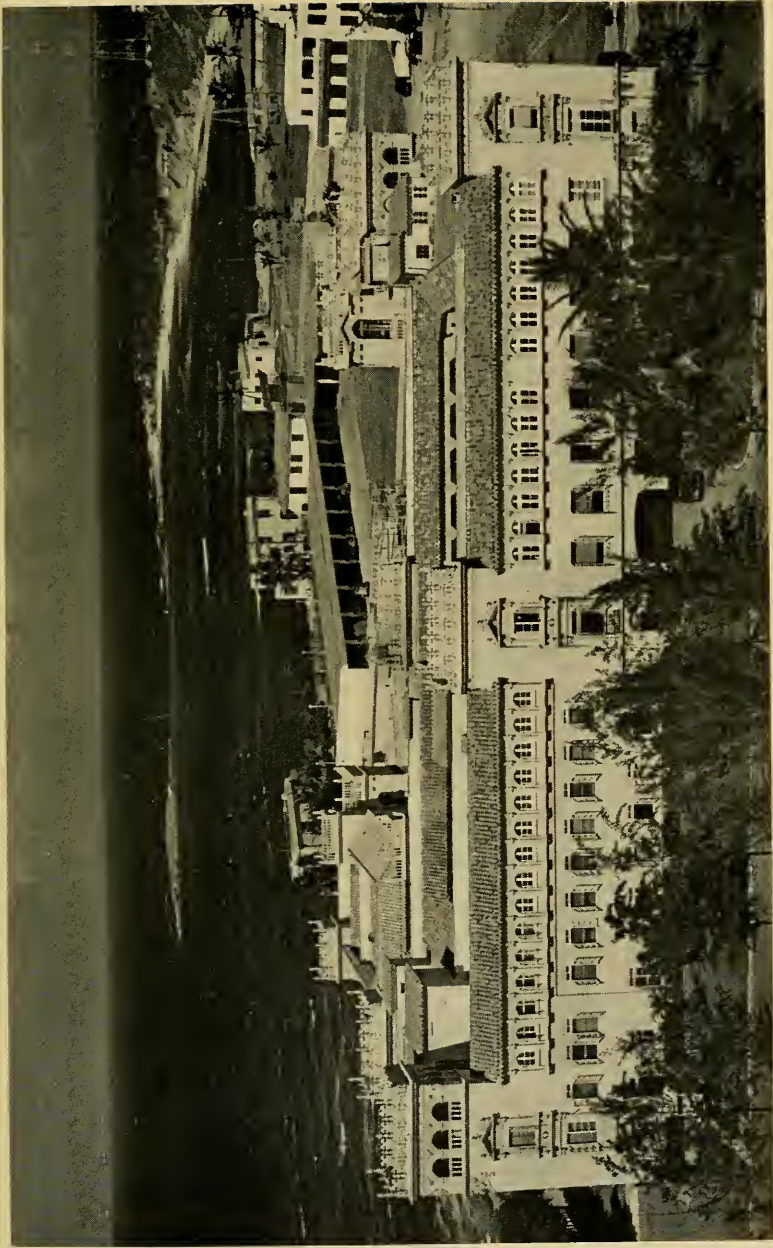
Report of the Director

For the Year Ending June 30, 1946



PRINTED FOR THE
UNIVERSITY OF PUERTO RICO
BY
COLUMBIA UNIVERSITY PRESS

Printed in the United States of America



THE SCHOOL OF TROPICAL MEDICINE AND UNIVERSITY HOSPITAL

Seen from the West

SCHOOL OF TROPICAL MEDICINE

SAN JUAN, PUERTO RICO

- FRANK DIEHL FACKENTHAL, LL.D., Litt.D. . . . *Acting President of Columbia University*
JAIME BENÍTEZ, LL.M., M.A. . . . *Chancellor of the University of Puerto Rico*
P. MORALES OTERO, M.D. . . . *Director of the School of Tropical Medicine*

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DIRECTORS

ROBERT A. LAMBERT, M.D.	1926-1928
E. B. MCKINLEY, M. D. ¹	1928-1931
GEORGE W. BACHMAN, PH.D.	1931-1942
P. MORALES OTERO, M.D.	1942-

¹ Deceased.

REPORT OF THE DIRECTOR OF THE SCHOOL OF TROPICAL MEDICINE

For the Year Ending June 30, 1946

TO THE MEMBERS OF THE SPECIAL BOARD OF TRUSTEES:

As Director of the School of Tropical Medicine, I take pleasure in submitting, for your study and consideration, a report of the work of this institution during the period of July 1, 1945 to June 30, 1946.

GENERAL STATEMENT

Now that normal times are gradually returning, the School is anxious to go back as quickly as possible to its peacetime program, laying special emphasis on problems of public health as related to the American tropics and, specifically, to the Caribbean area. Such a program envisages the training of more and more personnel for public health work in these regions as well as fundamental research in the fields of nutrition and tropical medicine.

During the past year, the Special Board of Trustees of the School created the Master of Science degree to be granted to those who complete two years of graduate work in one of the basic sciences, covering 130 credits with a thesis in a specific field. Requirement for admission is a baccalaureate degree from an accredited college and a grade index of not less than 1.5.

Activity on the new building, which is to house the Department of Hygiene, has progressed to the point where bids for its construction are to be let by the Department of the Interior, pending federal permit.

The cessation of hostilities has quickened the hope that efforts to maintain the standards of the University Hospital at their prewar level may not be wholly fruitless during the coming year. The war presented a number of serious problems, the most acute of which

was the nursing shortage which almost forced the closing of the Hospital. This aspect of the situation was dealt with extensively in last year's report. However, during the latter part of 1945 and the early months of 1946, the nursing staff began gradually to build up again; nurses were returning home and more of them were graduating from training schools. At the present writing, the University Hospital has its full complement of nurses necessary for efficient functioning.

Efforts now must be directed towards expanding its bed capacity in order to train interns and residents with the full sanction and recognition of the American Medical Association. This step is extremely important. Because of the Hospital's limited bed capacity, an affiliation was sought and brought about with the Bayamón District Hospital of the Department of Health, whereby interns may go there for practical work in obstetrics and gynecology. Rounds are also conducted once a week in other hospitals of San Juan.

Notwithstanding the termination of hostilities and the lifting of restrictions and priorities, the School and its University Hospital continue to suffer from the still severe scarcity of a considerable number of items absolutely necessary for the work of the institution. The lack of x-ray films and photographic material, as one example, has forcibly curtailed the services in this field.

The sessions of the Fifth Annual Meeting of the Puerto Rico Public Health Association were held on the 6th, 7th, 8th, and 9th days of February, 1946.

VISITORS

Among the guests from the United States, invited to participate in the deliberations of the Puerto Rico Public Health Association, were the late Dr. M. J. Rosenau, Dean of the School of Public Health of the University of North Carolina; Dr. Arístides Moll, Executive Secretary of the Pan American Sanitary Bureau; Major

James A. Caldwell and Major W. Myers Smith, Chiefs of Party, respectively, of the American Sanitary Missions in Santo Domingo and Haiti; and Mr. John Hepler, Chief of the Bureau of Engineering, Michigan State Department of Health, and Secretary of the Engineering Section of the American Public Health Association.

Guests at the Annual Meeting of the Puerto Rico Medical Association, who visited the School, were Dr. H. D. Storms, Director of Clinics of the Workmen's Compensation Bureau, Toronto, Canada; and Dr. Edward Henderson, of the Schering Corporation, Bloomfield, New Jersey.

Other visitors during the year were Professor A. H. Thaysen, Director of the Microbiological Institute, Trinidad, B.W.I.; Dr. Victor M. Johnson, of the American Medical Association, Chicago; Dr. Mariano Ruiz Funes, formerly of the University of Murcia, Spain; Surgeon Lieutenants P. M. Jameson and Kenneth Davidson, R.C.N.V.R., Ottawa, Canada; Dr. E. J. Teeter, of the Lilly Research Laboratory, Indianapolis, Indiana; Drs. J. B. Rice and T. G. Klumpp, of the Winthrop Chemical Company; Sir Rupert Briercliffe, Director of Development and Welfare for the British West Indies, and Dr. W. H. Kauntz, Chief Medical Adviser in the Colonial Office, London; Dr. Willis G. Hewatt, Texas Christian University, Fort Worth, Texas; Mr. C. L. Simering, of the State Department; Drs. William S. Boyd and David S. Ruhe, U.S. Public Health Service at Atlanta, Georgia; Professor Francisco J. Cambournac, of the Institute of Tropical Medicine at Lisbon; Major Albert J. Shelden, of the Army Medical School, Washington D.C.; Drs. John R. Heller, Jr. and John J. Bloomfield, of the U.S. Public Health Service, Washington, D.C.; Dr. C. Muraine, Guadalupe, Martinique, F.W.I.; Dr. E. R. Kellersberger, of the American Mission to Lepers; Mr. Frank H. Bowles, of Columbia University; Dr. Hazel M. Houck, Cornell University; Miss Edna R. Voss, Dr. Hugh I. Evans, Dr. E. A. Odell, Dr. Charles Remy, and Dr. H. N.

Norse, all of the Presbyterian Board of Missions, New York City; Dr. Thomas D. Slagle, of Chapel Hill, North Carolina.

PERSONNEL

A steady turnover continued in all departments of the School and Hospital. Many of the members of the school staff left for other posts or to continue studies elsewhere; others, however, returned from studies or from service in the Armed Forces.

In February of this year, and after release from the service, Dr. Dwight Santiago Stevenson took up his duties as Medical Director of the University Hospital. Also demobilized was Dr. A. Díaz Atilas, Pediatrician of the Hospital, who returned after three years in the U.S. Navy. Dr. Héctor M. Bladuell was appointed to succeed Dr. John M. Porterfield, of the U.S. Public Health Service, who organized the Venereal Disease Clinic of the Hospital. As of July 1, 1945, Mrs. Marina P. de Colón succeeded Miss Ruth A. Mercer in the position of Director of Nurses.

Dr. Federico Hernández Morales, of the Department of Clinical Medicine, left in January for Tulane University in New Orleans, where he had been invited to lecture on tropical medicine for a period of three months. Dr. Ramón M. Suárez, head of this same department, was likewise invited to speak at two medical gatherings taking place during the spring months—before the Academy of Medicine of Richmond, Virginia, and the American College of Physicians in Philadelphia, Pennsylvania. Another member of this department, Dr. Una Robinson, attended the meetings of the American Institute of Nutrition, held at Atlantic City in March, where she read a paper before the Institute.

Dr. Irving Fox became a member of the Department of Medical Zoölogy in October 1945 as Associate in Entomology.

Dr. Guillermo Arbona, head of the Department of Hygiene, returned from the States in December, where he went to transact the purchase of surplus supplies for his department. Mrs. Edna S.

McKinnon, Assistant Professor of Public Health Nursing, resigned during the middle of the academic term to take up another post with the Institute of Inter-American Affairs. Miss Celia Guzmán has been in charge of all public health nursing activities of the department since then. Mr. Orlando Bonilla had a year's leave of absence which he spent at the University of Michigan, studying towards an M.S. in Bacteriology. Mr. Rafael Pirazzi, Instructor in Sanitary Science, was sent to the United States to learn laboratory procedures at the U.S. Public Health Service Laboratories in Cincinnati. Two other members of this department, the Misses Sylvia E. López and Matilde I. García, observed record work in various institutions of the continent in preparation for their duties as statistical clerks.

During the period under review, the Department of Pathology received the resignations of Dr. Guillermo M. Carrera, who is now on the faculty of Tulane University, and of Dr. Sophie C. Trent, who has accepted a fellowship of the National Health Institute. To fill these vacancies, Dr. I. Rivera Lugo was appointed Assistant Professor of Pathology and Dr. Donald F. Babb, recently in the Medical Corps, AUS, Associate in Pathology.

Miss Carmen Pura Jiménez returned from the University of Syracuse after a year's study in Library Science.

The Director visited the United States late in November, 1945, at the invitation of the Food and Nutrition Board of the National Research Council, at which time he spoke on the nutritional problem of Puerto Rico. In March of this year, he attended the sessions of the Anglo-American Caribbean Commission, held in St. Thomas, V.I., as advisor of the Puerto Rican delegation on problems of medicine and public health. As Chairman of the Caribbean Research Council, he took part in the discussions relative to the organization of the Caribbean Association of Public Health and Tropical Medicine. It is hoped that a meeting can be held in Puerto Rico at an early date for this purpose.

Since last September, there is being offered every Tuesday at

noon a special program of educational films for the non-professional employees both of the School and Hospital. An average of seventy-five persons are taking advantage of this privilege during their luncheon recess, made possible through the coöperation of the Department of Education, the Agricultural Extension Service, and the Armed Forces. Plans have been drawn up for a program of health education for hospital employees, wherein the students enrolled in the Department of Hygiene—especially those taking the courses in Sanitary Science—will conduct the teaching as part of their field experience.

The Public Administration Service of Chicago has been requested to make a survey of the School and Hospital for the purpose of establishing a position classification- and pay-plan. The preliminary work is already completed. Such a system will operate automatically and create, at the same time, a feeling of equity and fair-play among the employees of the institution.

It is regrettable that legal difficulties have prevented full operation of the Pension Plan, put into operation in January, 1945. There has been considerable unrest because of this delay.

During the years of its existence, the School has trained physicians, sanitary engineers, nurses, technicians, and public health officers. Through untiring efforts it has built up a competent faculty, far above the compensation it receives. This aspect of the school problems has been the object of constant discussion throughout the years. During the past four years, the fictitious and transitory prosperity brought about by the war, combined with the scarcity of physicians in Puerto Rico, made it possible for any one of the professors on the staff to acquire, in private practice, many times the income he received from teaching and research in the institution. With but few exceptions, all of them remained at their posts.

Such a situation is bad, and it will worsen when the finances of the government begin to dwindle as normality approaches. Pro-

vision should be made for the future, so that the School may pursue its normal expansion and development without undue financial stress.

PROGRAM OF CONFERENCES AND LECTURES

1945-1946

NOVEMBER, 1945

- Thursday 1 Mesenteric adenitis in relation to regional ileitis. Dr. FERNANDO ASCENCIO.
- Thursday 8 Clinical aspects of pulmonary atelectasis. Dr. J. RODRÍGUEZ PASTOR.
- Thursday 29 Clinico-pathological conference with presentation of cases:
 (a) Sprue.
 (b) Weil's disease. Dr. ENRIQUE KOPPISCH.

DECEMBER, 1945

- Thursday 6 Studies on the antigenic structure of the Shigellas through the precipitin reaction. Dr. LUIS M. GONZÁLEZ.
- Wednesday 12 Regional enteritis. Dr. HARRY L. BOCKUS.
- Thursday 20 Peritendinitis calcarea. Diagnosis and treatment. Drs. P. RAMOS CASELLAS and J. LANDRÓN BECERRA.

JANUARY, 1946

- Thursday 10 Human coccidiosis, with a discussion of the first case discovered in Puerto Rico. Dr. JOSÉ F. MALDONADO.
- Thursday 17 Clinical study of schistosomiasis *Mansoni* in children. A preliminary report. Dr. R. FERNÁNDEZ MARCHANTE.
- Thursday 24 Anorexia nervosa. Dr. EDUARDO MONTILLA.
- Thursday 31 Clinico-pathological conference with presentation of cases:
 (a) Chronic glomerulo-nephritis with nephretic syndrome.
 (b) Subarachnoid hemorrhage; diffuse arteriolar sclerosis.
 (c) Adenocarcinoma of sigmoid colon with obstruction and rupture of colon. Dr. ENRIQUE KOPPISCH.

FEBRUARY, 1946

- Thursday 7 Modern methods against venereal disease. Dr. J. R. HELLER.

- Thursday 14 Malaria control in Puerto Rico (illustrated). Dr. HARRY M. PRATT.
- Thursday 21 Atomic energy. Dr. FACUNDO BUESO.
- MARCH, 1946
- Thursday 7 Gastrectomy *vs.* gastroenterostomy. Our experience. Dr. J. NOYA BENÍTEZ.
- Thursday 14 Clinico-pathological conference with presentation of cases:
 (a) Portal cirrhosis of liver with incidental schistosomiasis.
 (b) Spastic anemia. Dr. ENRIQUE KOPPISCH.
- Thursday 21 Protein requirements for maintenance and growth in the rat. Dr. MARIANNE GOETTSCH.
- Thursday 28 Clinico-pathological conference with presentation of cases:
 (a) Portal cirrhosis of liver with incidental schistosomiasis.
 (b) Rheumatic disease—inactive. Dr. ENRIQUE KOPPISCH.
- APRIL, 1946
- Thursday 4 Typhus infection among rats in the metropolitan area of San Juan. Dr. A. POMALES LEBRÓN.
- Thursday 11 Clinico-pathological conference. Dr. ENRIQUE KOPPISCH.
- Thursday 25 Especificidad de las hormonas sexuales. Dr. FRANCISCO GIRAL, formerly of the University of Santiago de Galicia, Spain.
- MAY, 1946
- Thursday 2 The treatment of schistosomiasis. Dr. F. HERNÁNDEZ MORALES.
- Thursday 9 Hurricanes and tropical climatology. Mr. MILES F. HARRIS, U.S. Weather Bureau.
- Thursday 16 Fecal fat in relation to disease. Dr. CONRADO F. ASENJO.
- Thursday 23 Clinico-pathological conference. Dr. ENRIQUE KOPPISCH.
- JUNE, 1946
- Thursday 6 The biological significance of pteroyl-glutamic acid (folic acid), with particular reference to pernicious anemia. Dr. A. D. WELCH, Western Reserve University.
- Thursday 13 Nutritive value of some yeast proteins. Mr. JOSÉ A. GOYCO.
- Thursday 20 Psychogenic and somatogenic dyskinesias (illustrated). Dr. LUIS M. MORALES.
- Thursday 27 Clinico-pathological conference. Dr. ENRIQUE KOPPISCH.

LIBRARY

Mrs. ANA R. C. VELÁZQUEZ, Librarian

During the year that is being reported, the library increased its holdings to 12,838 volumes. This total does not include unbound complete or incomplete volumes, nor does it represent other unbound material. The number of bound volumes of periodicals increased by 645, to make a total of 7,741.

This will be the last year in which the number of periodicals received will be given on the basis of journals received prior to the war, to wit: paid subscriptions, 166; free, 52; and exchanges, 178.

The pamphlet collection has now 5,460 indexed items, with no accessioned duplicates. The latter have been retained for distribution, according to subject matter, among the departments of the School.

Time has been spent in continuing the task of classifying, reported last year when the work was in its initial stage (500). The total of bound books classified, apart from journals, has reached 1,950.

As in past years, the reference service has been supplemented by interlibrary loans. The general library at Río Piedras, which is a depository for U. S. government publications, and that of the Agricultural Experiment Station, have both rendered the School a great service in this respect.

This year the library ordered 255 references in microfilm. The collaboration so often asked of the doctors on the staff of the School no doubt accounts for the need for material not on the shelves of the library. Thirteen references, included in the total given above, represent the beginning of a library for ordering material to complete the holdings on the subject of sprue.

The record of incomplete periodical items showed a total of 18,406. The list continues to help in checking lists received from the Medical Library Association Exchange. One hundred and one vol-

umes have been completed through loose parts received free of charge. In addition, through this same exchange service, a total of sixty complete volumes and 1,305 separate parts of periodicals were received from eighteen libraries. Special mention should be made of the generosity of the Army Medical Library, the New York Academy of Medicine Library, and the Lane Medical Library of Stanford University. In return, the library has offered 378 complete volumes and 4,531 items from the collection of duplicates.

Other noteworthy additions are the books donated by Mrs. Gregoria Auffant, among them, *El médico botánico criollo*, by Grosourdy, published in 1864; and the *Cyclopedia of Medicine, Surgery and Specialities*, made possible through the kindness of the F. A. Davis Company and the Helene Fuld Health Foundation. An unusual contribution was the receipt of 215 numbers of medical periodicals in fifteen reels of film, estimated at approximately 1,290 articles, from Captain Parker R. Beamer, of the U. S. Army Medical Laboratory, in San Juan.

As in previous years, the library wishes to acknowledge the books and items received through the coöperation of the Director and the following members of the staff: Dr. Guillermo Arbona, Dr. Conrado F. Asenjo, Dr. Arturo L. Carrión, Dr. Alexander T. Cooper, Dr. Marianne Goettsch, Mr. José A. Goyco, Dr. F. Hernández Morales, Dr. Enrique Koppisch, Dr. J. Oliver González, Dr. D. Santiago Stevenson, and Dr. Sophie C. Trent.

*RESEARCH*DEPARTMENT OF BACTERIOLOGY
AND IMMUNOLOGY

Dr. P. MORALES OTERO, Head

I. RESEARCH ACTIVITIES

A. STUDIES ON TYPHUS

1. The study of the complement-fixation and Weil-Felix reactions in wild rats of the metropolitan area of San Juan was completed with the following findings: 443 rats were trapped in the City of San Juan, where murine typhus is endemic. Thirty of their serums were found anticomplementary; of the remaining 413, 223 (54 percent) were positive to the complement-fixation reaction. Two hundred and fifty-one serums were tested for the Weil-Felix reaction, and sixty-one (24 percent) were found positive. One hundred and thirty-nine of these gave a positive complement-fixation, of which forty-two (30 percent) were positive to the Weil-Felix test. Among the 112 serums with a negative complement-fixation, there were nineteen (17 percent) positive for the Weil-Felix.

Significant differences were observed in the proportion of positive reactors to the complement-fixation test among the animals trapped in various sections of the city and during different months. However, when rats were captured in the same places but at various periods of time, these differences were not so apparent. Such a finding would suggest that the rate of infection, as determined by the complement-fixation test among rats, may depend on the locality in which they are trapped.

The lack of correlation between the seasons and the number of positive reactors to the complement-fixation test stood out in strong contrast to the definite seasonal variation known to exist in the incidence of human murine typhus in Puerto Rico. The effect that

environmental changes may have on the transmission of the disease by the flea vector may explain this lack of correlation.

As regards sex or species, no notable difference was observed in the proportion of rats with a positive complement-fixation. There was, though, a difference in the proportion of animals of various sizes (ages) with a positive complement-fixation. This is an important point, since there is a tendency in studies of this nature to select large animals, as they are easier to bleed. The results obtained, when such a procedure is employed, are not representative of the whole murine population. This fact must be taken into consideration because the selection of the larger (older) animals will tend to give a higher proportion of positive reactions.

There was a marked lack of correlation between the complement-fixation and the Weil-Felix reactions.

2. Studies on experimental typhus in wild *norvegicus* rats, kept in captivity, and in white rats are nearing completion. The following points are being studied, and the results, so far obtained, are outlined below.

(a) *Time of appearance and disappearance of complement-fixing rickettsial antibodies and Proteus OX19 agglutinins from the serum of the experimentally infected rat.*

After inoculation of the infective material (brain suspensions), the complement-fixing antibodies appeared in five to seven days. They reached a maximum level in about two weeks to one month, approximately, and then began to decline slowly, though still present in significant titers fourteen months after inoculation.

The *Proteus OX19* agglutinins also appeared in five to seven days after inoculation, reached a maximum level in about ten days, and then either maintained a low constant level or disappeared completely in two to four weeks. In some instances, these residual low-titer agglutinins (1:50) were still present three months after inoculation in rats that gave a completely negative Weil-Felix reaction before injecting the infective material. In others, the Weil-

Felix reaction remained negative even in the presence of a high titer of complement-fixing antibody, while still in others, only very weak agglutinins developed.

Permanence of the complement-fixing antibodies contrasted strongly with the fleeting nature of the OX19 agglutinins. This, and the fact that some animals do not develop agglutinins, explain the lack of correlation between the Weil-Felix and complement-fixation reactions referred to above in the case of wild rats.

(b) *Effect of dosage and route of infection upon the appearance of complement-fixing antibodies.*

Animals were inoculated intraperitoneally with varying doses of infective brain suspensions (0.1 cc. to 1 cc. in 0.1 cc. increasing doses). The time of appearance of the complement-fixing antibodies was not affected by the difference in the amounts of infective material injected. Furthermore, introduction of infective brain tissue into the animal body either subcutaneously, intraperitoneally, or intracutaneously did not affect the time of appearance of the complement-fixing antibodies.

Four rats were given the infective material (about 0.5 cc.) by mouth. One of them developed complement-fixing antibodies, and a brain suspension produced a typical infection in guinea pigs. The three other animals did not become infected, as was demonstrated by a negative complement-fixation reaction and by the failure to produce the infection in guinea pigs inoculated with macerated brain tissue from these rats.

Four additional rats were inoculated in the stomach with a blunt needle and a 5 cc. syringe holding 2 cc. of infective brain suspension. Two of these animals developed the infection, as was shown by the appearance of complement-fixing antibodies and by the production of infection when the brain tissue was later injected into guinea pigs.

In judging the results of these last experiments, the possibility of laceration of the mucosa of the rats, through biting the syringe needle, has to be considered. At the present time, the experiment

is being repeated, with special attention on this aspect of the study, in a larger number of animals.

(c) *Disappearance of infective rickettsias from the brain and from other organs and tissues of the experimentally infected wild norvegicus rat and from the white rat.*

Animals were killed at regular intervals after inoculation, and the brain tissue was inoculated into rats and guinea pigs. Although complement-fixing antibodies were still present, it was apparent that the brain tissue lost its infectivity in six to eight months. Similar studies are being carried out with other organs and tissues of the rat.

(d) *Appearance and disappearance of infective rickettsias in the (1) blood, (2) feces, and (3) urine of the rat.*

1. The rickettsias may appear in the blood in one to four days after intraperitoneal inoculation and may disappear in about twenty.

2. So far, fecal samples have not been found infected when examined from one to fourteen days after inoculation. This aspect of the study is still under investigation.

3. In rats inoculated intraperitoneally with massive doses of infective yolk sac material (Wilmington strain), the rickettsias were shown to pass into the blood and urine twenty hours after intraperitoneal inoculation, but could not be detected in the feces twenty-four, forty-eight, and seventy-two hours after inoculation. However, using the ordinary dosage of infective material, it has not been possible to demonstrate the presence of the infective agent, either in the feces or urine of experimentally infected rats as late as fourteen days after inoculation.

(e) *Demonstration of the presence of rickettsias in the urine and feces of typhus patients.*

Attempts to show, during convalescence, the presence of infective rickettsias in the urine and feces of six cases of typhus fever have given negative results.

B. STUDIES OF COW MASTITIS

During the last few years, the Department has examined a vast number of milk samples from cows with mastitis belonging to different herds. All animals from one herd, whether they presented symptoms or not, were studied to determine the presence of *Streptococcus agalactiae* and other organisms. To date, the incidence has been high among the 414 animals examined, *S. agalactiae* being responsible for about ninety-eight percent of the cases.

C. pyogenes was also found in some cases. *Staphylococcus albus* was isolated repeatedly, but in pure culture in only a very few instances. Coliform bacilli were encountered occasionally. Beta-hemolytic streptococci have never been found as causing cow mastitis in Puerto Rico. The most common contaminants in the order of prevalence are: (1) *S. albus*, (2) chromogenic gram positive cocci, (3) colon-like bacilli, and (4) *B. subtilis*.

C. STUDIES ON LEPROSY

Two strains of murine leprosy bacilli failed to grow after an incubation period of five months at 36–37° C. on the medium (slightly modified) recommended by Loving. This medium, however, supported growth of a freshly isolated human strain of *Mycobacterium tuberculosis*.

D. STUDIES OF THE SHIGELLA GROUP

1. The Department continued the studies dealing with the *Shigella* group of organisms, special emphasis being laid on the investigation of the antigenic structure of the bacilli and the immunological and epidemiological aspects of dysenteric infection.

With the probable exception of types X and Y, all types of *Shigellas* were found to possess a primary antigenic component. Besides this primary component, types I to V, inclusive, of Boyd's series have a secondary component also found in X and Y of Andrewes and Inman's classification. As a result of ageing, types III, IV, and

I-III exhibited a greater change in their antigenic structure than any other members of the Flexner group.

2. According to Dean and other investigators, the precipitation and complement-fixation reactions depend on a single antigen antibody reaction. It was therefore decided to compare the results of both reactions by performing complement-fixation tests in which the same antigens and antisera, used in the precipitation tests, were utilized. The findings agreed in both tests and thus confirmed the observations concerning the antigenic structure of the *Shigellas*, as portrayed by the Department's original precipitation reactions.

3. The chemical composition of the formamide extract, used as antigen in these tests, is now being studied with the coöperation of the Division of Biochemistry. By subjecting the extract to a method of purification through dialysis and subsequent drying in a vacuum, the antigenic substance has so far been obtained in solid form. This product is white and cotton-like, retaining the antigenic qualities of the original formamide aqueous extract. Chemical analysis showed that it contained about four percent of nitrogen, but the biuret, ninhydrin, and Million tests were negative.

4. In collaboration with the Department of Hygiene, the study of the immunological and epidemiological aspects of dysenteric infection among institutional inmates has been continued. The aim of this study is to determine what types of *Shigella* produce secondary infections, and, if possible, to discover whether immunity is acquired by harboring the organisms and which types of the dysenteric bacilli give protection against the various types. During the first nine weeks of the investigation, 1,323 stool samples have been examined and 5.4 percent of them found positive. The following types were included in the positives: I(W), 8 percent; I-III(VZ), 29 percent; III(Z), 7 percent; IV(103 Boyd), 16.6 percent; VI(88 Newcastle), 1.4 percent; *Sh. schmitzi*, 30 percent, *Sh. alkalescens*, 5.5 percent, and *Sh. dispar*, 1.4 percent.

5. Quite often there has been encountered in stool cultures a non-mannite fermenting bacillus, which is apparently similar to the one found in cases of diarrhea by Sachs in India and Egypt, and by Berger in England. This organism is non-motile and ferments only in glucose. A more extensive study is now under way.

E. STUDIES ON LYMPHANGITIS

In view of recent studies of cases of filariasis, returning from Pacific areas, the Department thought it pertinent to review the question of antifibrinolysin in cases of recurrent tropical lymphangitis, occurring in Puerto Rico. During the last months of 1944 and during 1945, serums were collected from 368 patients suffering from this condition. Antistreptolysin determinations were made from November, 1945, to January, 1946, and, with them, were included serums from 93 patients of the Insular Insane Asylum obtained in October, 1945—this for the purpose of comparison. Single antistreptolysin determinations gave the following results in these patients: median antistreptolysin values in units, 250 for cases of recurrent lymphangitis; ninety for the normal controls.

During 1945 serial antistreptolysin determinations were made in 124 cases of recurrent tropical lymphangitis. Fluctuation was observed in the antistreptolysin titers of seventy-nine cases; forty-five, however, showed no fluctuation. These findings corroborate previous studies to the effect that lymphangitis in Puerto Rico is associated with hemolytic streptococcal infection.

II. ROUTINE EXAMINATIONS

Bacteriological and serological examinations, carried out for patients of the University Hospital, totaled 833. Special requests from physicians, staff members, and so forth, in which are included 200 complement-fixation reactions with rickettsial antigen (guinea pigs) for the Department of Pathology, amounted to 307.

III. TEACHING ACTIVITIES

As in previous years, the Department offered regular courses in Medical Bacteriology to laboratory technicians and sanitary engineers. Coöperation was also given to the Department of Hygiene through a short bacteriology course for public health nurses.

DEPARTMENT OF CHEMISTRY

Dr. CONRADO F. ASENJO, Head

I. RESEARCH ACTIVITIES

A. NUTRITION STUDIES

1. *Factors influencing protein utilization in the albino rat on diets of rice and beans.* A detailed study is being conducted, first, on the protein requirements of the rat for maintenance, growth, and reproduction; and second, on the adaptation of the rat to inadequate protein in the diet. The protein mixture chosen was one supplied by polished rice (54.6 parts), red kidney beans (27.3 parts), casein (15.0 parts), salts (2.0), and cod liver oil (1.0 part).

Approximate analysis of this mixture gave the following results: protein, 21.0 percent; carbohydrate, 61.7 percent; fat, 1.9 percent; moisture, 8.6 percent; crude fiber, 1.4 percent; and ash, 3.5 percent. Nutritive values were calculated as to 348 Calories per 100 g. of diet, of which 24.1 percent was protein. The calcium-phosphorus ratio was 1.4 to 1.

The following determinations are being made:

(a) Adequacy of the protein mixture for rats during the life cycle of several generations by the McCollum method. Rate of growth and reproduction were optimum in the four generations observed; the fourth generation apparently does not differ from the first.

(b) Amount of protein mixture required for maintenance of

body-weight of males under cage conditions for twenty-eight days, or longer, by the Osborne and Mendel method.

The following results have been obtained to date:

	<i>Number of Determinations</i>	<i>Mean</i>	<i>Probable Error</i>	<i>Standard Deviation</i>	<i>Probable Error</i>	<i>Coefficient of Variation</i>	<i>Probable Error</i>
Mg. T.N. per 24 hrs. per kg.	31	523	± 4.4	±36.0	±3.1	6.9	±0.6
Cal. per 24 hrs. per kg.	31	148	± 1.9	±15.9	±1.4	10.7	±1.0
Cal. per 24 hrs. per sq. m.	31	1,038	±11.3	±93.3	±8.0	9.0	±0.8
Cal. per 24 hrs. per kg.	31	103	± 1.1	± 9.1	±0.8	8.8	±0.8

Similar measurements are being taken of adult females and immature rats.

(c) Utilization of protein mixture for growth by the Osborne and Mendel method.

(d) Amount of protein mixture required for optimum gestation.

(e) Biological value and digestibility of protein mixture by the Mitchell method.

Other protein mixtures are being analyzed in the same way as the rice-beans-casein mixture.

2. *Ability of rat to recover from the effects of a diet consisting of rice and beans only.* If young rats, weighing about 28 g. at 70 days of birth and manifesting severe symptoms of vitamin A deficiency, as a result of a rice and beans diet, were given an adequate diet, all of them showed immediate improvement. Their rate of growth appeared to be normal when compared with litter-mates that had not been stunted. However, in no case did the stunted rats attain the adult weight of the litter-mates not subjected to stunting. Reproduction, though, was similar in both groups.

3. *Experiments in progress.* (a) In order to study the effects of low calories, paired feeding experiments with rats on the control and the rice-and-beans diets, after the Mitchell method.

(b) Factors in the utilization of calcium.

(c) Effect of vitamin E deprivation in the monkey.

B. STUDIES ON EDIBLE YEASTS

1. *Effect of yeast feeding on the uric acid and phosphorus content of the blood and urine.* Experiments performed with rats definitely showed that the concentration of uric acid and phosphorus in the urine increased in proportion to the amount of yeast fed to the animals. Blood uric acid also increased from a value of 1.5 mg. per 100 ml. of blood, when the animals were maintained on a purine-low diet, to one of 4.6 mg. per 100 ml. of blood when 6.6 g. of yeast were added daily to the purine-low diet.

Increased amounts of dried yeast (15 g. – 45 g.) were also fed daily to two human subjects for periods of 4 to 10 days. There was noticed, however, only a very slight increase in the elimination of uric acid and phosphorus in the urine. Blood uric acid determinations also revealed but a slight increase. Complete blood chemistries, made at various intervals during this test, showed no definite changes in any of the blood constituents. In evaluating these findings, consideration should be given to the short duration of the trials and to the fact that the experimental subjects were not normal persons but subjects suffering from hepatic lesions.

2. *Liver damage in rats fed synthetic diets containing yeast as the sole source of protein.* Observations have shown that rats on diets containing about 8 percent of yeast protein developed necrosis of the liver in an average of fifty-six days (range, thirty-two to eighty days), but that animals on diets, in which the same amount of protein was supplied by casein, cooked dried soybeans, or cooked dried red kidney beans, never showed such lesions. Recent studies conducted in England and Germany claim that these lesions are due to

a methionine deficiency that can be prevented by supplementing the diets with this essential amino-acid. The German investigators further claim that an addition of 2 percent of cystine to the diets also protects the animals against this deficiency. To date, the Department has not been able to check the results reported by these workers, but experiments are under way to furnish more information on such a controversial point.

Reproduction studies are being conducted with adult female rats kept on the above 8 percent yeast-protein diet. These studies have shown that during the gestation and lactation periods the protein demand of the mother, as well as of the litter, is very high, which leads one to expect an even higher incidence of liver lesions in these animals. The results so far demonstrate that the demand of the young for protein during these periods is supplied principally by maternal tissue, as the mothers lose an average of 33 g. in weight during this time. The young have a normal weight at birth (average, 5 g.), yet on reaching the twenty-eighth day, their weight is only 14 g., a little less than one fourth as much as that of a normal rat of the same age (60 g.).

No liver damage has been observed so far in the mothers, but, in the young that attained the highest weights and appeared almost normal previous to death, macroscopic lesions of the liver were very frequent. The average survival of these young was sixty-seven days; they died chiefly from inanition, their weight at death averaging 21 g. only.

3. *Nutritive value of edible yeasts.* (a) Nitrogen balance experiments.

Using the nitrogen balance method described in last year's report, three new samples of yeasts (Type 2019, Standard Brands—Brewer's; *Torula utilis* Y-1084, received from Professor A. H. Thaysen; *Torula utilis* 3, produced by the Puerto Rico Development Company) were evaluated as to the nutritive value of their nitrogenous constituents. Five metabolism experiments were performed with

ten rats in each; the indexes obtained are given in the following table.

	Coefficient of Digestibility		Nitrogen Balance	Percent Nitrogen Stored	Biological Value	Net Protein Value
	Apparent	True				
Type 2019, Dried Brewer's Yeast	74.4	85.2	24.92	30.38	69.5	30.1
<i>Torula utilis</i> Y-1084, Food Yeast (English)	77.4	88.2	5.08	7.98	48.9	21.2
<i>Torula utilis</i> 3, Product of P.R. Development Company	76.6	87.4	1.47	3.94	45.8	20.0

The superiority of brewer's yeast over both *Torulas* is very apparent. The results are in complete agreement with those obtained and reported last year, thus eliminating the general belief that all yeast proteins have the same nutritive value.

(b) Supplementary action of yeast proteins to a modified Puerto Rican rural diet.

In view of the poor results obtained in previous experiments wherein yeast was fed as the sole source of protein, its use in supplementing the average Puerto Rican rural diet was again studied. The basic diet used was one devised from data collected by Descartes, Pacheco, and Noguera* during food consumption studies of 439 rural families of Puerto Rico. Its composition was the following: rice, 37.5 percent; white flour (bread), 5.0 percent; corn meal, 5.0 percent; yellow sweet potatoes, 10.0 percent; plantain, 6.3 percent; tanniers, 6.2 percent; red kidney beans, 10.0 percent; sugar, 12.5 percent; and codfish, 7.5 percent. As the Department was primarily interested in studying the supplementary action of yeast on rural diet proteins, a 2 percent salt mixture was added to this basic diet, so as to rule out any possible mineral deficiency that might render the experiment ineffective. The final diet was known as the "Modified Rural Diet"; it contained 11.72 percent protein.

Groups of six 28-day-old rats, weighing between 55 to 68 g. each,

* Bulletin No. 59, Agricultural Experiment Station, Río Piedras, Puerto Rico, 1941.

were used for each of the diets studied; the rate of their weight increase was compared when fed one of the following diets (each of these diets contained about 11 percent protein). The nitrogen in Diet 1 was derived entirely from the basic mixture; in Diets 2 and 3, three fourths of the nitrogen was supplied from the basic mixture and one fourth from dried *Torula* and brewer's yeasts, respectively; that in Diet 4, three fourths came from the basic mixture, with the remaining one fourth from dried skimmed milk. Diet 5 was made up of the basic mixture to which synthetic B vitamins (thiamin, riboflavin, nicotinic acid, pyridixine, and pantothenic acid) had been added in amounts equal to that supplied by the brewer's yeast in Diet 3.

The test lasted seven weeks. During the 4th and 5th weeks of each experiment, measurements were taken of the food intake, the weight of the feces passed, and of their nitrogen content. From these figures, the coefficient of apparent digestibility of the protein in each diet, as well as the ratio of the body-weight increase to the grams of protein consumed, were calculated. The following are the results obtained.

<i>Diets</i>	<i>Protein Content of Diet</i>	<i>Amount per Rat Average Weekly</i>		<i>Coefficient of Apparent Digestibility</i>	<i>Growth-promoting Value of Protein</i>
		<i>Weight Increase</i>	<i>Food Intake</i>		
1	11.72	17.3	73.9	84.5	2.00
2	11.47	27.0	100.1	82.6	2.35
3	11.60	28.1	99.7	80.8	2.43
4	11.41	25.5	87.2	83.5	2.57
5	11.38	26.3	101.0	81.3	2.29

Diets 1 and 4 obviously appear as the poorest of the five diets studied. Though the increase in weight of the animals on each of Diets 2, 3, and 5 was practically the same, it was nevertheless superior to that attained on Diets 1 and 4. The addition of yeast did not supplement the protein of the basic diet to any appreciable

extent; undoubtedly, it was the vitamins in the yeast that improved its nutritive value. The food intake on Diets 2, 3, and 5 was also almost identical though much higher than on Diets 1 and 4. As the coefficient of apparent digestibility of all the diets was almost the same, it can be assumed that all of them were absorbed equally well. However, the growth-promoting value of the protein was slightly higher in the case of the four supplemented diets.

After analyzing the above results, one has to conclude that the rural diet of the Island is limited in B vitamins, but that this deficiency can be corrected by the addition of a small quantity of yeast. The yeast, however, does not seem to supplement to any appreciable extent the proteins of the diet.

The higher intake observed in animals fed on the yeast and vitamin-supplemented diets has led to the belief that it was the thiamin factor present in these diets that stimulated the appetites of the rats. In order to prove whether this was true, three rats were placed on the basic diet with thiamin, added in the same amount as in Diet 5, as the only supplement. Although this experiment is not yet completed, results so far seem to indicate that thiamin alone does not produce the same supplementary action as the complete group of B vitamins.

C. STUDIES OF NATIVE PLANTS

1. *Chemical composition of "molinillo" (Leonitis nepetaefolia, L.) seed oil.** The findings in the above study, reported last year, have already been published. Due to the fact that "molinillo" seed oil is very similar in composition and behavior to olive oil, several commercial firms in the United States have shown quite a bit of interest in it. The Director of the Agricultural Experiment Station is planning to cultivate a one-acre plot for the purpose of determining the cost of cultivation as well as the yield of oil per acre.

Another substance of potential economic importance in the "moli-

* In coöperation with the Agricultural Experiment Station, Río Piedras, P. R.

nillo" plant is the volatile oil found in different parts of the plant, the seed alone containing about 0.5 percent of this substance.

2. *Vitamin C content of the "acerola"* (*Malpighia punicifolia*, L.). Recent studies showed that the West Indian cherry ("acerola") is a very rich source of ascorbic acid (vitamin C), supplying about thirty-four times as much of this vitamin as oranges. When ripe, they contain about 1,707 mg. of ascorbic acid per 100 g. of edible matter; the green fruit contains as much as 3,309 mg. per 100 g. Appreciable amounts of crystalline ascorbic acid were isolated from the juice of this fruit, thus confirming its presence.

3. *Nutritive value of tropical oils.* This investigation was undertaken to determine the digestive coefficient of several not well-known tropical oils: avocado oil (liquid fraction), papaya seed oil, grapefruit seed oil, and "guanábana" seed oil. With the exception of guanábana seed oil, all of them were as well utilized by the experimental animals (rats) as were butter-fat and lard. The aversion exhibited to guanábana seed oil might have been due to a disagreeable flavor either inherent in it or acquired through ageing.

D. OTHER STUDIES

1. *The thiamin content of tropical foods.** The thiamin content of the foods, assayed this year, was determined immediately after buying them at different local markets in the San Juan-Río Piedras area. In order to reach a fair average value, at least five different samples of each material were assayed by the thiochrome method.

2. *Influence of pH on the quality and quantity of pinguinain, obtained from maya juice.* Various quantities of fresh maya juice were adjusted to different pHs, from 1.0 to 9.9 at intervals of one unit. The natural pH of maya juice fluctuates from 3.7 to 4.3. With the addition of acetone, the best yield, as well as the most active enzyme preparation, was obtained within the range of the natural pH of the juice, that is, 3.7 to 4.3.

* In coöperation with the Agricultural Experiment Station, Río Piedras, P. R.

3. *Phytochemical studies of the "doradilla" fern* (*Asplenium pellucidum*, L.).* The proximate analysis of this plant was completed. Extraction of the drug with selective solvents—petroleum ether, ether, chloroform, acetone, alcohol, water-dilute HCl, and dilute NaOH—is now under way, and a study of each of these extracts is being made.

4. *Studies of fecal fat.* The fecal fat of normal persons and of sprue patients is being studied to determine the total fat, free fatty acids, soap fats, total digested fats, neutral fats, and unsaponifiable matter in the stools. The chemical and physical characteristics of the fat excreted by both groups are also being investigated.

II. TEACHING ACTIVITIES

As in previous years, the Department coöperated with the regular teaching schedule of the Department of Hygiene by offering a course in Volumetric Analysis and several lectures on metabolism.

DEPARTMENT OF CLINICAL MEDICINE

Dr. RAMÓN M. SUÁREZ, Head

I. RESEARCH ACTIVITIES

A. CLINICAL STUDIES IN SPRUE

In November, 1945 a coöperative study in sprue was begun with Dr. Tom D. Spies, of the University of Cincinnati and the Hillman Hospital, Birmingham, Alabama, who brought to Puerto Rico the first supply of synthetic folic acid (*lactobacillus casei* factor). On December 1, 1945, treatment was begun on the first case of sprue. The results obtained, both hematologically and clinically, were as excellent as those observed with parenteral liver therapy.

As the efficacy of folic acid in the macrocytic anemias has been definitely established, the Department is endeavoring to determine the following: (a) optimum dose of folic acid; (b) effect of folic.

* In coöperation with the Agricultural Experiment Station, Río Piedras, P. R.

acid in the presence of an inadequate diet; (c) effect of folic acid in the presence of an adequate diet; (d) effect of folic acid on the glucose tolerance curve and on the fat contents of the stools in sprue patients; (e) maintenance dose of folic acid; and (f) substitution of parenteral liver therapy with folic acid in old chronic cases of sprue.

Hematological investigations of sprue, as reported last year, were continued.

B. CLINICAL STUDIES IN FILARIASIS

Research on the chemotherapy of filariasis, begun by Professor James T. Culbertson and Dr. H. M. Rose, of the College of Physicians and Surgeons of Columbia University, was continued in the follow-up of all patients treated with the various drugs, the therapeutic potentialities of which had been previously shown to cure a naturally-occurring filariasis in cotton rats.

C. CLINICAL STUDIES IN SCHISTOSOMIASIS

During the latter part of 1945, under the auspices of the Office of Scientific Research and Development of the National Research Council, and with the advice of Professor Culbertson, who acted as responsible investigator, a group of cases of schistosomiasis *mansoni* were treated with various pentavalent antimony preparations: urea stibamine (Squibb), neostibosan (Winthrop), and stibanose (Winthrop). These drugs were selected because they had been found to be well tolerated by the patients in the study on the chemotherapy of filariasis.

1. *Urea stibamine*. Fourteen infected cases were treated with this drug during a period of 12 to 19 days. The drug was administered intravenously, the total amount given varying from 3.40 to 10.125 g. Toxic reactions occurred frequently among all patients and consisted of flushing of the face, facial edema, hoarseness, dyspnea, tachycardia, abdominal pain, nausea, vomiting, congestion of con-

junctival vessels, headache, weakness, loss of appetite, fever, decrease in the white cell count, and albuminuria. Thirty days after the first administration of the drug, twelve out of the fourteen cases showed negative stools and remained negative for an additional period of ninety days.

2. *Neostibosan*. Five of twelve patients, treated with neostibosan, had negative stools when the treatment ceased. Three months after treatment, four subjects were negative; four were passing dead eggs in the stool; and three were still passing live ova. All patients tolerated the drug well, though all had a low-grade fever; several, abdominal or bone pain; a few reported nausea, headache, or anorexia, but no serious reactions were noted.

3. *Stibanose*. Of twelve patients treated with this drug, ten were still passing eggs when discharged, and all twelve had positive stools two months later. All patients tolerated the drug well. The only reaction was a low-grade fever as with neostibosan, usually less than one degree, which ran through the entire course of the therapy.

4. *Anthiomaline*. Another group of patients with the same disease was treated with a trivalent antimony preparation, antimony lithium thiomalate, which was used on forty cases. Some of them were hospitalized to better evaluate the therapeutic effects of the drug. Thirty-three patients received 3 cc. of the solution (30 mg. of antimony) every other day. Treatment had to be discontinued in four cases because of toxic reactions. Bradychardia, joint pains, fever, general weakness, epigastric pain, loss of appetite and of weight were observed. A progressive eosinophilia, as high as 53 percent in two cases, was also noted. Notwithstanding, anthiomaline seems to exert a marked parasitotropic effect on *S. mansoni* ova, and cases are being followed up in order to study its permanent effects.

The diagnosing of schistosomiasis infections has been attempted by another means that holds great promise. In collaboration with the Department of Medical Zoölogy, a method of rectoscopic biopsy

as a means of diagnosis is being studied. This rectoscopic biopsy was originally used by Ottolina and Atencio, but their technique has now been modified with more advantageous results. Over 99 percent of untreated cases of schistosomiasis examined have proved positive on a single biopsy, while repeated fecal examinations of the same patients by the concentration technique have shown only a 40 percent of positives. This method will be of great help in following up cases after treatment, particularly in determining the effect of treatment on the viability of the ova.

D. DEFICIENCY STUDIES

The nutritional survey of a rural group (Buena Vista), commenced last year, was determined by three methods: (1) a dietary study, (2) biochemical studies of the blood and urine, and (3) physical condition by medical examination.

1. The diets of this group were inadequate in every nutritive essential. Calories were limited, the percentages averaging between 56 to 81. It being suggested that the standard in use was too high for Puerto Ricans because of their average small stature, a new standard was devised, using the calories per kilo of body-weight, obtained from National Research Council standards. Even by this reduced standard, the caloric value of the diets was 66 to 94 percent of the allowance. Starchy roots, rice, and sugar made up the calories.

Protein was insufficient and ranged from 44 to 94 percent of N.R.C. standards. Here again a lower standard was set up, but the majority of the groups failed to meet it, the range being 49 to 87 percent.

Calcium and phosphorus were very low in these diets. The 4-to-6-year-old group averaged only 11 percent of the N.R.C. allowance for the first named mineral, the range for all groups being 11 to 40 percent. Iron more nearly met the recommendations than did any other element, except niacin.

There was almost no consumption of leafy, green, or yellow vege-

tables. Although these records were taken at the height of the citrus fruit season, little citrus fruit showed up in the diets. Eggs were utilized by only two families and these, in small quantities. What little meat was consumed consisted chiefly of dried meat, usually one fourth of a pound for each recipe. Salt pork and lard were used also in small quantities. One ounce of lard to each pound of dry rice was common. Very little bread was eaten. Coffee was generally used, and onions, olives, and garlic provided the condiments.

2. One hundred and ten subjects contributed one-hour-fasting urine samples, which were analyzed for thiamin, riboflavin, and N-methylnicotinamide. Thirty-seven percent of these persons showed subclinical evidence of thiamin deficiency; 87 percent were deficient in riboflavin; and 78 percent were low in niacin.

Blood samples were also obtained from 103 subjects for the determination of vitamin A, carotene, and vitamin C as well as hemoglobin and red cell counts. Of these, 83 percent were deficient in vitamin A, 84 percent in carotene, and 63 percent in vitamin C.

Only 17 percent had less than 11.5 percent of hemoglobin. Thirty-eight percent of the men and boys had less than 4 million red blood cells, while 10 percent of the women and girls had less than 3½ million. Forty-five percent of the total number were harboring hookworm.

3. Weights were checked against Baldwin-Wood and life insurance tables. Thirty-two percent were between 10 and 40 percent under weight, while 5 percent were 10 to 45 percent over weight. If these people increased weight to the degree necessary for good body contour, the norms would probably be the same as those for the continent.

The following are some of the conditions encountered on examination of the eyes: circumcorneal involvement (51 percent), vascularity (98 percent), prexerosis (74 percent), Bitot's spots (50 percent), engorged limbic vessels (83 percent), varying pigmenta-

tion (50 percent), engorgement of the plica semilunaris (60 percent), and so forth. Skin, lips, tongue, gums (77 percent had spongy or bleeding gums), and teeth all showed manifest signs of deficiency.

A mimeographed sheet was prepared, and each family in the Buena Vista study received a brief report with the findings for that family and some general advice about ways and means to improve their diets.

E. ELECTROCARDIOGRAPHIC STUDIES

The T-wave of the unipolar precordial electrocardiogram was studied in 161 healthy Puerto Ricans at different age levels. This study suggested that, independent of age or sex, a negative T-wave in V₁ may be considered normal, but a negative T-wave in V₆ should be considered abnormal. Deviations of the ST segment in the precordial electrocardiogram should be considered normal, when it is positive and does not go over 1.5 mm. in the adult and 1 mm. in children. Although important clinically, age and sex are apparently not the only physiologic factors that account for a negative T-wave of the precordial electrocardiogram.

II. ROUTINE ACTIVITIES

The routine work of the Department summed up to a total of 3,814 tests for the year under review. These tests included complete blood counts, platelet and reticulocyte counts, complete blood counts and hematocrit determinations, blood volume determinations, bone-marrow aspirations, urobilogens, and so forth.

III. TEACHING ACTIVITIES

The members of the Department were especially active this year in collaborating with the teaching, conducted in the School, as well as with that of outside organizations.

THE BLOOD BANK

Dr. EDUARDO MONTILLA, Head

The routine work of this division of the School continued with a total attendance of 6,383 donors during the period comprised in this report and with an average monthly attendance of 521.83 donors, thus bringing up the total figure to 20,604 donors for the four years in which the Bank has been functioning. The daily average has increased to 26.26 donors, which is 23.86 percent higher than that for last year (21.2). Rejections (722) increased as compared with 459 for last year, but this increase was to be expected with a larger number of donors. The donors rejected failed to meet the minimum physical standards of the Bank. Nearly all persons bled were giving blood for some relative or friend.

Syncope occurred in 1.9 percent of the cases, this figure being slightly higher than the 1.5 percent obtained last year. The small increase may be due to the fact that donors now rest for a shorter period of time so as to make room for those waiting. There are only ten bleeding cots in the Bank, which allows for a maximum of fifteen donors per hour, and there were days (March 25, 1946) when as many as sixty donors were taken during the Bank's morning session of four hours. This figure (1.9 percent) is still considerably lower than that recently reported by Maloney *et al.** in a somewhat smaller series of 16,133 donors with an incidence of syncope in 4.2 percent. Not included in the above average are the donors who faint after leaving the Bank.

As in the past year, 5.95 percent (412) of all bloods drawn had to be discarded because of a positive serology.

Plasma production totaled 923 units, bringing up the total to 3,584 units. This figure is a bit higher than the 746 units obtained in the same period for last year. The Bank has distributed 2,544 units of plasma among municipal, district, and charity hospitals.

* New England J. Med., 234: 118, 1946.

Two hundred and sixty-two units were given to the Armed Forces, of which 120 were returned unused. The remaining 806 units are stored to be used in an emergency.

A plasma yield of 45.44 percent was obtained, slightly higher than the 42.7 percent of last year's. Twenty-one units (2.27 percent) were discarded due to contamination; 29 other units (2.00 percent) were discarded because of breakage, improper handling at hospitals, and so forth.

Eight hundred and ninety-eight plasma transfusions were reported; these showed a total of 9.76 percent reactions divided as follows: (a) 0.66 percent allergic or anaphylactic; (b) 8.1 percent pyrogenic; (c) 1.0 percent serious (requiring the stoppage of the transfusion). Whole blood transfusions totaled 3,003 plus 132 red blood-cell transfusions, a 41 percent increase over last year. These figures bring up the total of transfusions to 7,901 for the past four years, a monthly average of 250.9.

Blood transfusion reactions rose to 15.79 percent and were accounted thus: (a) 2.58 percent allergic or anaphylactic; (b) 9.06 percent minor pyrogenic; (c) 3.75 percent major pyrogenic; (d) 0.33 percent hemolytic; (e) 0.07 percent circulatory embarrassment.

A total of 1,420 Rh determinations were performed. Of these, 10.91 percent were found to be Rh negative, 89.09 percent Rh positive. These series included donors regardless of race or color.

The Blood Bank is an institution born of a wartime necessity four years ago. Today, after the cessation of hostilities, it remains as a valuable legacy to the public health of the Island.

THE UNIVERSITY HOSPITAL

Dr. D. DWIGHT SANTIGO, Medical Director

During the period covered by this report, 916 patients were admitted to the University Hospital, distributed as follows: 276 private and 150 semi-private patients; 231 to the male ward and 195 to the female; 74 to the pediatric ward. The daily average of pa-

tients per day was 40.5 percent, with 16.39 percent as the average number of hospital days per patient. Percentage of occupancy was 67.5 (with sixty beds).

A total of thirteen autopsies were performed.

Two hundred and five operations were carried out, 183 of which were major.

A grand total of 1,724 x-ray examinations were made. Difficulty in obtaining radiographic material necessitated the discontinuance of several special studies, but a new activity was inaugurated in the Saturday morning x-ray conferences, at which all films taken during the week are shown and their interpretation discussed.

The clinical laboratories carried out a total of 23,118 routine tests.

As in previous years, the pharmacist has been in charge of all basal metabolism tests, dedicating much of her time to this activity. Three hundred and forty-nine such tests have been completed since July 1, 1945. In addition, the pharmacist has also been performing Hanger and bromsulfalein tests in connection with certain research work in schistosomiasis.

The Outpatient Clinics reported a total of 11,876 visits from patients. There were 2,071 requests for admission, of which 602 were rejected. Of the 1,201 new cases admitted (268 admissions did not keep their appointments), 333 were suffering from schistosomiasis and 231 from recurrent tropical lymphangitis or filaria. One hundred and sixty cases were referred to the Dermatology Clinic; 300 were miscellaneous.

In connection with the work of the Outpatient Department, the nurses in charge administered 1,824 intravenous injections, 13,283 intramuscular, and 500 subcutaneous injections. Three hundred and fifty-eight rectosigmoidoscopies were performed.

The Venereal Diseases Clinic was reorganized under a new director and reported a total of 1,295 examinations performed during the period under review. Three hundred and seventy patients were treated at the clinic; 68 were referred to public health units for

antiluetic treatment; 46 referred for in-patient penicillin treatment, and 9 were referred to other agencies.

The educational aspect of the work was also continued; 2,171 interviews were held in the clinic; 316 in the field; 315 visits were made, and 117 lectures given.

DEPARTMENT OF DERMATOLOGY AND MYCOLOGY

Dr. A. L. CARRIÓN, Head

I. RESEARCH ACTIVITIES

A. STUDIES ON THE TREATMENT OF LEPROSY

In view of the fact that diasone is a toxic and potentially dangerous drug, the use of which is still in the experimental stage, it was decided to first administer it, in a preliminary trial, to a small group of five lepers who had been attending the Outpatient Department of the University Hospital for some time. Although no conclusions are to be drawn from this preliminary work, the observations made so far would indicate: (1) a slight to moderate degree of clinical improvement in all but one of the patients; (2) considerably lower diasone values (usually less than 0.5 mg. per 100 cc. of blood) than those reported for patients treated elsewhere with equal doses of this drug; (3) no important clinical reactions from the treatment, except in the one case in which there was no declared improvement and in whom the drug had to be discontinued because of diarrhea; (4) no apparent alteration of the renal functions; (5) no apparent alteration of the white cell count in the blood; and (6) a marked and persistent reduction in the red cell count and hemoglobin values of the blood, often requiring anti-anemic treatment and temporary discontinuation of the therapy. However, in order to obtain more definite knowledge of the true merits of this drug, a larger group of patients from the Insular Leprosarium will be submitted to the same treatment.

B. STUDIES OF DARIER'S DISEASE (Keratosi follicularis)

Studies of Darier's disease, and its relation to vitamin A deficiency, have been continued. The first case of the series reported last year has now been under intensive treatment with vitamin A (200,000 units daily) for nearly two years. The following results have been achieved: (1) slow but definite, and recently remarkable, clinical improvement with complete disappearance of the lesions on many parts of the skin; (2) elevation and maintenance of vitamin A values in the blood at better than normal levels; and (3) remarkable improvement in the biophotometric curve.

A second case has also been subjected to intensive vitamin A therapy (150,000 units daily). This case has been under observation for seven months, and the results appear to be different from those of the first case: clinical improvement has been very slight, and the blood values for vitamin A and the biophotometric curves have persisted well below normal, notwithstanding the high vitamin intake.

The data so far collected from these two cases not only offer additional evidence of an existing relationship between Darier's disease and vitamin A deficiency, but they would seem to confirm the theory that this deficiency may depend on two different types of physiological defects, namely, (1) defective utilization of the vitamin by the skin, notwithstanding its absorption through the alimentary canal, and (2) defective absorption of the vitamin through the alimentary canal.

C. STUDIES OF THE TREATMENT OF GRANULOMA VENEREUM

Of the three patients who received podophyllin treatment in previous years and were discharged from the University Hospital with their lesions healed, two have reported follow-up observation. In one of these cases, there have been no signs of recurrence for nearly three years, so the patient may be considered as definitely cured. In the other, the treated areas have remained well, but a few

granulomatous nodules developed at a distance from the original focus several months after discharge from the hospital. Although there are sound reasons to suspect a reinfection, the new lesions have been classed as a recurrence. The patient was readmitted to the Hospital; the infective foci were treated with podophyllin, and at the time of discharge, the scars over the treated areas were healthy-looking and showed no infiltration.

Two new patients were admitted to the Hospital and placed under treatment—one of them with podophyllin, locally, and the other with fuadin intramuscularly (85 cc. of fuadin solution within a period of nine days). The latter treatment was carried on to determine whether fuadin, which is known to be helpful in many cases of granuloma venereum, would promote a radical cure when used more intensively. The two patients have been discharged from the Hospital with their lesions healed and are being followed up for final results. A third new patient has been subjected to the preliminary investigations in the Outpatient Clinic and is now ready to be admitted to the Hospital for treatment.

D. STUDIES ON CHROMOBLASTOMYCOSIS

Two of the cases of chromoblastomycosis, discovered last year, have been treated with sulfamerazine on the basis of a report* regarding the marked inhibitory action of sodium sulfamerazine, *in vitro*, against *Fonsecaea Pedrosoi*, the most common etiologic agent of this condition. The first of these patients was hospitalized from April 4 to June 8, 1945, receiving a total of 75 g. of the drug over a period of twenty-six days. There were no important reactions and, at the time of discharge, the patient showed definite improvement of the lesions. It has been impossible to follow him up, however.

The second patient was admitted on December 4, 1945 and is still in the Hospital. He was under sulfamerazine treatment from

* E. L. Keeney, L. Ajello and E. Lankford, Bull. Johns Hopkins Hosp., 75: 393-409, 1944.

February 19 to April 5, showing perfect tolerance for the drug. His lesions are undergoing improvement. However, it is too early yet to judge on the true merits of the treatment, and the investigation will be continued. A third case has not yet been subjected to treatment.

Mycologic studies of the fungi isolated from the above three patients have led to the classification of the organisms as *Fonsecaea Pedrosoi*, var. *communis*. In addition, three organisms from chromoblastomycosis cases, occurring in the Canal Zone, were referred to the Department for study and classification by Dr. Carlos Calero and Captain E. S. Wedding. Of the organisms sent by Dr. Calero, one has been classified already as *Fonsecaea Pedrosoi*, var. *communis*, and the other as a *Hormodendrum* species. The one sent by Captain Wedding was also a *Fonsecaea Pedrosoi*, var. *communis*.

E. STUDIES ON THE TREATMENT OF LUPUS ERYTHEMATOSUS

Lupus erythematosus is comparatively common in Puerto Rico in all its chronic forms. There are a few cases in which no form of treatment would seem to be effective. It was in a patient of the latter type, showing extensive involvement of the face, scalp, ears, chest, and arms, who had failed to respond to the usual methods of treatment, that fuadin therapy was tried on a purely empirical basis.

After an ordinary course of intramuscular injections early this year, the improvement was so notable that the patient was brought to the University Hospital for more intensive treatment. Accordingly, he was admitted and treated on three different occasions receiving, respectively, 73 cc. of fuadin over a ten-day period in May, 1945; 39 cc. over a four-and-one-half-day period in October, 1945; and 70 cc. over a two-week period in February, 1946. Clinical reactions from the treatment consisted of mental depression, anorexia, abdominal pain, nausea, vomiting, fatigue, and on one occasion, granular casts in the urine. These phenomena varied in intensity from slight to moderate, but all disappeared with the withdrawal of the drug. Response to treatment has been remark-

able. At the time of the last examination in March, 1946, the majority of the lesions had healed entirely; the others showed extraordinary reduction in the degree of infiltration, but there had been no new efflorescence for several months. No conclusions will be drawn from the study of this single case; yet the abrupt, progressive, and comparatively rapid improvement under fuadin therapy of a patient who had not responded to the usual anti-lupus drugs during four consecutive years of careful treatment, is a significant fact that should not be overlooked and which is worthy of further investigation.

F. STUDIES ON DERMATOMYCOSIS

Observations on ringworm of the scalp have been extended with the addition of twelve new cases during the year. The infection was caused by *Trichophyton tonsurans* in ten instances, and by *Microsporum canis* in two.

A total of eighty-four patients, suffering from presumptive *tinea corporis*, were studied. Scales from the skin lesions revealed the presence of fungus structures in thirty-three of these cases; pathogenic fungi were isolated in culture in twenty-seven. Among the organisms obtained, there were seventeen classed as *Trichophyton rubrum*; five fell in the species *Microsporum gypseum*; one was *Microsporum canis*; one was a specimen of *Trichophyton tonsurans*; two were *Trichophyton mentagrophytes*; and one was *Candida (Monilia) albicans*.

Among the 226 presumptive cases of dermatophytosis of the feet, eighty-six showed the presence of fungus structures in scales from the lesions, and sixty-five were positive in culture. Among the fungus isolations in this group of patients, twenty were classed as *Trichophyton rubrum*, forty-two as *Trichophyton mentagrophytes*, and three as *Epidermophyton floccosum*.

Presumptive cases of onychomycoses were observed in 159 instances. In seventy-three of these, the scales showed fungus ele-

ments, and forty-one revealed the presence of dermatophytes in culture. These included thirty-two isolates of *Trichophyton mentagrophytes*, all of them from toe nails; nine isolates of *Trichophyton rubrum*, eight from toe nails and one from finger nails.

Moniliasis of the skin was searched for in twenty-one instances with positive scales in five, and positive cultures in four. The specific fungus was *Candida (Monilia) albicans*.

A case of *tinea barbae*, a dermatomycosis only once before registered in Puerto Rico, was discovered this year. A complete study of the case was made, the causative fungus being classified as *Trichophyton rubrum*.

Thirty-seven presumptive cases of chromophytoses were investigated during the year, twenty-six of which were positive on microscopic examination.

II. ROUTINE ACTIVITIES

A total of 507 routine specimens were examined up to June 30, 1946. Among these specimens there were 245 positive on direct microscopic examination and 151, in culture.

III. TEACHING ACTIVITIES

The Department contributed with two lectures and two laboratory sessions to the course, *Bacteriology II*, offered to students of the Department of Hygiene. In addition, it has undertaken postgraduate instruction of one student working for an M.S.

DEPARTMENT OF HYGIENE

Dr. GUILLERMO ARBONA, Head

The regular academic year began on August 20, 1945. Enrollment for the three regular courses, offered by the Department, was fifty-five. The following figures show the nationality of the students enrolled in the School: Brazil, 4; Colombia, 1; Dominican Republic,

3; Haiti, 5; Perú, 1; Puerto Rico, 73, which number includes the students taking special courses; and Venezuela, 2.

Course leading to the Degree of Master in Sanitary Science

Of the twelve students admitted to this course, all fellows of the Insular Department of Health, three dropped out early in the academic year; the remaining nine were admitted to the degree.

A practical course in Malaria Control was offered. The students spent most of their time in the field, first on a malaria survey of Loiza Aldea, and afterwards observing control work in different projects being operated by the Insular Department of Health and the U.S. Public Health Service. Five special students, U.S. Army officers in charge of malaria control activities at their respective posts, registered for this course.

In addition, a course in Public Health Engineering Laboratory Methods, which includes the most common laboratory procedures in the chemical and bacteriological examination of water, sewage, milk, and the examination of eating utensils, was made a part of *Sanitary Science III*.

Course leading to the Certificate in Public Health Nursing

A total of twenty students was registered for this course. Three withdrew for personal reasons, four others because of poor scholastic records. Thirteen were finally awarded the Certificate in Public Health Nursing.

All students admitted to the course met the entrance requirements of the School, yet their academic work was far from desirable. In the future, in addition to a High School diploma with a minimum grade index of 1 and graduation from an accredited School of Nursing as requirements, it is recommended that applicants be required to pass an entrance examination. The League of Nursing Education of Puerto Rico has been asked to prepare such an examination with the hope of giving it a trial in the next academic year.

All courses have been subject to revision during the year. Special mention should be made of the courses in Health Education and Social Case Work, which have been strengthened by the addition of laboratory periods during which the student is assigned work on special problems.

As has been mentioned in previous reports, several of the courses offered to public health nurses cover in part, or in whole, subject matter that is supposed to have been studied by them during their hospital training. All nurses have been found quite deficient in these subjects; however, it is hoped that with the improvement that is taking place in local schools of nursing, the present courses can be supplanted in the future by full public health courses.

Courses leading to the Certificate in Medical Technology

Nineteen students were admitted to this course, of which seven withdrew. Among the students registered there were two from the Dominican Republic.

So that students might have as much time as possible for practical work, their schedule was reorganized at the beginning of this academic year. They are now required to take only five subjects: *Clinical Pathology I and II, Bacteriology, Parasitology, and Biostatistics*. During their free time they are assigned to the University Hospital laboratories or to the laboratories of the Insular Department of Health for practical experience.

Course for Sanitary Inspectors

A three-month course for sanitary inspectors was commenced in January, 1946, with an enrollment of twenty-one students. Included in this group were two students from Venezuela, sent under the auspices of the Office of Inter-American Affairs. A similar course was started on May 6th, which extended to August 3, 1946. Twenty students were registered.

Special courses

During the first three months of the fiscal year under report, twelve students—eight physicians and four engineers—were sent by the Office of Inter-American Affairs for field training and observation on public health methods and sanitation. A Chinese student also spent several weeks at the School for this purpose.

RESEARCH ACTIVITIES

The Head of this Department coöperated with the Department of Bacteriology in a study on the distribution of typhus fever cases in San Juan. In addition, the studies on diarrhea and enteritis were continued. A summary of the findings was presented at a conference given at the School on November 15, 1945. At the present time, these studies are being continued in two wards of the Insular Insane Asylum, together with another project in which a new drug is being tried out on patients infected with the *Shigella* organisms.

Members of the staff of the Department have started a study of the state of pollution of the waters in San Juan Bay, the Martín Peña Channel, and the San José Lagoon. This study is being carried out for the Puerto Rico Water and Sewage Service.

DEPARTMENT OF MEDICAL ZOÖLOGY

Dr. J. OLIVER GONZÁLEZ, Head

I. RESEARCH ACTIVITIES

A. STUDIES ON SCHISTOSOMIASIS

In preparing for the investigation on the chemotherapeutic treatment of schistosomiasis, conducted under contract with the Office of Scientific Research and Development of the National Research Council (a project which involved the testing of certain drugs in humans and in experimental animals), to this Department befell the task of carrying out a survey of a known endemic area, so as

to determine the incidence of the parasitic infection and thus have a sufficient number of patients from which to choose for hospitalization and treatment. Fecal specimens from a total of 256 individuals, living in Barrio Los Peña, of Río Piedras, were examined. One hundred and eight, or 42 percent, were positive for *S. mansoni* ova after a single examination. Thirty-six were selected from this group and subsequently hospitalized and treated with the various antimonial drugs selected.

The effect of treatment on the parasitic infection was studied by periodic examinations of the feces during and after treatment. A method for the quantitative determination of *S. mansoni* ova in feces, which enables the laboratory worker to determine the number of live and dead eggs passed in the stools, was devised during this study. Various interesting observations were made relative to the numbers of living and dead eggs passed by patients before and after treatment with these antimonial compounds.

The testing of drugs in experimental animals, infected with schistosomiasis, was carried out in conjunction with the testing of the antimonials in humans. On July 7, 1945, ten compounds were sent by the National Research Council to be tested on infected mice. These compounds had been supplied by various pharmaceutical houses with recommendations for restricted use; only four, however, could be tested due to a scarcity of mice. Later, urea-stibamine, stibanose, and neostibosan were also tested.

As observed in the infected animals, the effects of these drugs were not too gratifying. The number of living and dead adult worms found in the treated animals was about the same as in the untreated. Better results were obtained with urea-stibamine, stibanose, and neostibosan, however, as more dead worms appeared in the treated than in the untreated mice. It would seem, though, that these antimonials act so very slowly that long intervals must elapse before any effects can be observed.

Other problems concerning the intradermal test for the immunological diagnosis of schistosomiasis have been undertaken, special emphasis being placed on the results of skin testing on patients, treated with antimonials, who had been negative for *S. mansoni* ova for long periods of time. The main purpose of the study was to determine whether the skin test becomes negative after the infection has been cured.

A comparison of the reactions to antigens from *F. hepatica* and *P. medioplexus* with those from *S. mansoni* was also undertaken. Some antigen was supplied the Department of Clinical Medicine to determine whether long storage in an icebox had any effect on its potency. Antigen was also sent for use on soldiers infected with *S. japonicum* and hospitalized in the Moore General Hospital.

The results of skin testing with various dilutions and injections of varying amounts of antigen, conducted with a large group of soldiers (5 to 10,000) by the Army Medical Service in Panamá, will undoubtedly establish the true validity of this test.

Another member of the Army Medical Service worked in the Department for eight months on a slide flocculation test for the diagnosis of *S. mansoni*, using lecithin to sensitize the schistosome antigen. Of 147 patients with positive stools, 136, or 92 percent, gave positive tests. Only a very low percentage (2 percent) of false positives was encountered.

While sacrificing rabbits to secure adult worms for the preparation of the antigen in the above study, a method was devised for the removal of these worms from the liver and the mesenteric veins of the animals, which simplifies this process considerably. Before killing the rabbit, a large amount of heparin is injected intravenously; half an hour later, the animal is killed, and the worms can then be aspirated from the portal vein with a large bore needle and syringe.

The detailed study of the intramolluscan phase of the life cycle

of *S. mansoni* is almost completed. A review of the literature shows that this is the first real, comprehensive study of *Schistosoma* in their extra-mammalian life.

B. STUDIES ON FILARIASIS

The investigations, commenced last year on the immunological diagnosis of infections with *W. bancrofti*, were continued. The skin tests so far devised have not proved to be specific. There is a group-reacting substance among nematodes responsible for positive reactions to filarial antigens in individuals, negative for filarial nematodes but infected with intestinal nematodes. Further work seems to indicate that, in persons infected with *W. bancrofti*, filarial antigen is in excess of antibody. The diagnostic test should therefore be utilized for detecting the former rather than the latter.

Rabbits have been immunized with filarial antigen (adult *D. immitis*, adult *L. carinii*, and microfilariae of *W. bancrofti*). The filarial antiserums were then tested with serums from individuals with microfilariae of *W. bancrofti* as test antigens. The results, though encouraging, still need further study.

C. STUDIES ON OTHER PARASITES

Work on the experimental infection of rabbits with animal parasites and the development of blood agglutinins during infection has been completed. The work on the polysaccharides, isolated from animal parasites, and their relationships to human isoagglutinogens has been enlarged upon and submitted for publication.

It was found that specific polysaccharides from Types I and III pneumococci behave similarly to those isolated from animal parasites; that is, they inhibit the agglutinins when added to human serums. Type XIV pneumococcus, however, does not possess this immunological property. It is believed that the isoagglutino-gen-like substance in infective organisms may be associated with auto-agglutination of the erythrocytes of the host infected with the or-

ganism. It may therefore be of importance to determine whether, during infection with these pneumococci, there appear in the blood auto-agglutinins, which may agglutinate red cells that, in turn, lead to congestion of the lungs, as in pneumonia. The finding that Types I and III have the isoagglutinin-like substance, while Type XIV does not, seems to correlate with the fact that Types I and III are more pathogenic than XIV. This may be a coincidental finding, but the problem deserves additional study.

The work on the pathology of *Platynosomum* infection in cats has been completed and the material turned over to the Department of Pathology.

The Department reported the first case of *Isospora hominis*, the agent of human coccidiosis, in Puerto Rico. The clinical and parasitological findings have been already described.

A collaborative study of the intramolluscan phase of the life cycle of *S. mansoni* is under way.

D. STUDIES ON THE ARTHROPODS

Work continued on the specimens of the *Culicoides* comprised in the Hoffman Collection. A study has also been commenced of the ectoparasites of rats in Puerto Rico. Although only forty-three rodents have been captured since January 17, 1946, a tick of the genus *Ornithodoros*, not heretofore known to occur in the Island, has been found. According to Dr. R. A. Cooley of the Rocky Mountain Laboratory, who was consulted, this species may be a new one. It apparently occurs in great numbers in rats; as many as fifty have been taken off a single animal.

II. ROUTINE ACTIVITIES

From July 1, 1945 to June 30, 1946, a total of 2,513 routine examinations of fecal specimens were completed; 2,243 were for the University Hospital and 270 on special request. A complete examination for protozoa and helminths was done in each case.

III. TEACHING ACTIVITIES

Three courses in *Parasitology I* were offered this year, one to a group of sanitary inspectors and two to two groups of public health nurses. *Parasitology II* was given to medical technicians and sanitary engineers.

A course in malaria control was also organized in collaboration with the Department of Hygiene. At least nine graduate students received special instruction in the Department.

DEPARTMENT OF PATHOLOGY

Dr. ENRIQUE KOPPISCH, Head

I. RESEARCH ACTIVITIES

With the Department of Medical Zoölogy, investigations are under way on experimental infections with *Platynosomum fastosum*; with the Department of Chemistry, on the injurious effect of certain yeasts on the liver of the white rat.

II. ROUTINE ACTIVITIES

A. AUTOPSY SERVICES

From July 1, 1945 to June 30, 1946, the number of autopsies performed was thirty-three, distributed as follows: University Hospital, 13; Presbyterian Hospital, 10; Municipal Hospital, 6; U.S. Marine Hospital, 1; District Hospital, Arecibo, 1; Díaz García Hospital, 1; Workmen's Compensation Bureau, 1.

B. MISCELLANEOUS PATHOLOGY

The miscellaneous pathology was composed of the following material:

Surgical specimens (human)	3,771
Partial autopsies (human)	88
Guinea pig organs	80
Experimental pathology (animal)	67

TOTAL	4,006
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Statements showing financial operations during the period July 1, 1945 to June 30, 1946, are attached hereto. The first statement shows all appropriations and funds under the jurisdiction of the Auditor of Puerto Rico. The second covers funds, privately owned by the School, which are deposited in an account known as "The Trustees of the School of Tropical Medicine."

In closing his report for another year in the life of the School, the Director would like to record his appreciation to staff members of the School and Hospital for their loyal, and often devoted, coöperation, especially to those physicians who have given so much of their time, without material remuneration, to making the Outpatient Clinics a success. It is also his desire to express warmest gratitude to the members of the Special Board of Trustees, whose ever-present help in time of need is never lacking.

Respectfully submitted,

P. MORALES OTERO, M.D.
Director

June 30, 1946

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SCHOOL OF TROPICAL MEDICINE, SAN JUAN, PUERTO RICO
FINANCIAL REPORT OF INSULAR GOVERNMENT FUNDS
FOR FISCAL YEAR 1945-46

	Balance July 1, 1945	Appropriations	Income to June 30, 1946	Transfers	Totals Available	Disbursements	Balance June 30, 1946
UNIVERSITY FUND—TRUST FUND . . . . .	...	\$213,682.04	...	...	\$213,682.04	\$211,536.19	\$ 2,145.85
SCHOOL OF TROPICAL MEDICINE							
UNIVERSITY HOSPITAL F.Y. 1945-46 . . . . .	...	142,000.00	...	...	142,000.00	141,492.73	507.27
PAY PATIENTS' FEES							
UNIVERSITY HOSPITAL—TRUST FUND	\$ 4,772.11	...	\$17,668.55	\$33,085.85	55,526.51	53,486.15	2,040.36
SPECIAL DEPOSIT—PAY PATIENTS' FEES							
UNIVERSITY HOSPITAL—TRUST FUND	59,804.95	...	42,361.17	33,085.85	69,080.27	7,211.58	61,868.69
BLOOD BANK—FISCAL YEAR 1945-46 . . . . .	...	28,000.00	...	...	28,000.00	27,739.02	266.98
P.H.S. TITLE VI—DEPT. OF PUBLIC HEALTH							
SCHOOL OF TROPICAL MEDICINE TRUST FUND	2,592.98	25,097.45	...	...	27,690.43	25,093.87	2,596.56
SCHOOL OF TROPICAL MEDICINE—FOR COÖPERATIVE PROJECT—VETERINARY BACTERIOLOGY—TRUST FUND	3,611.18	...	...	...	3,611.18	...	3,611.18
SPECIAL FUND TO COÖPERATE IN THE STUDY OF OILS ON NATIVE PLANTS—SCHOOL OF TROPICAL MEDICINE— TRUST FUND	142.09	...	...	...	142.09	...	142.09
GRANT TO SCHOOL OF TROPICAL MEDICINE VENEREAL DISEASES CLINIC . . . . .	...	6,500.00	...	...	6,500.00	5,506.19	993.81
SPECIAL FUND—SCHOOL OF TROPICAL MEDICINE— TRUST FUND	20,214.91	...	8,576.43	...	28,791.34	1,016.45	27,774.89
	<u>\$91,138.22</u>	<u>\$415,279.49</u>	<u>\$68,606.15</u>	<u>...</u>	<u>\$575,023.86</u>	<u>\$473,082.18</u>	<u>\$101,941.68</u>

Certified Correct: J. D. PRATS
Accountant

Approved: A. A. PLARD
Administrative Officer

SCHOOL OF TROPICAL MEDICINE, SAN JUAN, PUERTO RICO
ANNUAL FINANCIAL REPORT OF SPECIAL FUNDS FOR FISCAL YEAR 1945-46

FROM JULY 1, 1945 TO JUNE 30, 1946

Appropriations and Funds	Balance July 1, 1945	Income to June 30, 1946	Transfers		Total	Paid	Balance
			Dr.	Cr.			
COLUMBIA UNIVERSITY FUNDS							
Contingent Fund	\$.09	\$ 6,500.00	...	...	\$ 6,500.09	\$ 6,499.61	\$.48
Extension of Animal House	104.32	...	...	...	104.32	47.20	57.12
CARNEGIE GRANTS							
Bacteriology Department	987.53	...	...	...	987.53	...	987.53
B. K. ASHFORD							
Fellowship Fund—Principal Account . . . . .	...	7,034.50	...	...	7,034.50	...	7,034.50
Cash in Bank Account	111.34	...	...	\$ 1.26	112.60	...	112.60
Grant for Department of Mycology	1.26	...	\$ 1.26	...	...	...	...
Fellowship Fund—Income Account	1,426.54	187.45	...	...	1,613.99	12.50	1,601.49
JOHNSON RESEARCH FOUNDATION GRANT							
Studies in Human Ovulation	700.00	...	...	...	700.00	...	700.00
Stability of Glycerine . . . . .	...	...	...	...	...	...	...
Suppositories	300.00	...	...	...	300.00	...	300.00
ROTARY CLUB GRANT FOR CHILDREN'S WARD	213.08	...	...	...	213.08	...	213.08
RESERVE FUND—SALES, PRIMATE COLONY	4,974.03	...	...	...	4,974.03	...	4,974.03
RESERVE BANK—RESERVE FUND	826.22	...	...	...	826.22	...	826.22
ELLA SACHS PLOTZ FOUNDATION GRANT	320.00	...	...	...	320.00	...	320.00
REVOLVING FUND FOR STOCK SUPPLIES	161.92	18,192.39	...	...	18,354.31	16,924.52	1,429.79
U. S. SAVINGS BONDS—INTERESTS EARNED ACCOUNT	1,875.00	625.00	...	...	2,500.00	...	2,500.00
MISCELLANEOUS FUNDS	1,003.25	6,512.18	...	...	7,515.43	6,185.88	1,329.55
SPECIAL DEPOSIT—BLOOD DONORS . . . . .	...	545.00	...	...	545.00	465.50	79.50
	<u>\$13,004.58</u>	<u>\$39,596.52</u>	<u>\$1.26</u>	<u>\$1.26</u>	<u>\$52,601.10</u>	<u>\$30,135.21</u>	<u>\$22,465.89</u>

Certified Correct: J. D. PRATS
Accountant

Approved: A. A. PLARD
Administrative Officer

Columbia University

IN THE CITY OF NEW YORK

Report of the Director of University Admissions

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1946



MORNINGSIDE HEIGHTS

NEW YORK 27, N. Y.

PRINTED FOR THE UNIVERSITY BY
COLUMBIA UNIVERSITY PRESS

UNIVERSITY ADMISSIONS
REPORT OF THE DIRECTOR

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1946

To the Acting President of the University

SIR:

I have the honor to submit herewith my report for the academic year 1945-1946.

During the twelve months under review, Columbia University attracted ten times as many applicants and admitted twice as many new students as were attracted or admitted during any other twelve-month period in the history of the University. The actual figures showed something better than 100,000 applications, of which an estimated 40,000 were carried to the point of submitting credentials. Roughly 10,000 letters of admission were issued.

To deal with this number of applicants the admissions staff was expanded from seven, including one counselor to veterans in July, 1945, to sixteen, including six counselors to veterans in June, 1946. Clerical and stenographic staffs were expanded proportionately. At peak load in January, 1946, the admissions staff, which at that time included the staff of veterans counselors augmented by six additional part-time staff members, was handling seven hundred interviews, two hundred telephone calls, and one thousand pieces of mail a day. At no time after mid-September, 1945, did the daily load fall below four hundred interviews, four hundred pieces of mail, and one hundred telephone calls.

The handling of this load naturally constituted a major problem concerning ultimately not only the admissions office, but the other administrative offices of the University. It placed heavy strains on the Buildings and Grounds organization, particularly the telephone staff, on the Columbia University Press which supplied our Announcements, on the Department of Public Information, and, indeed, on every phase of University activity where there was opportunity for contact between the University staff and the public. The services rendered to the University and

particularly to the admissions office by these agencies are hereby gratefully acknowledged.

The result of this activity was of course eventually a large increase in enrollments, but this increase did not become marked until September, 1946, a date falling outside of the purview of this report.

The outline of the events of the past year is not given as a framework for a report. It is submitted as a point of departure for a discussion of admission problems that must be dealt with, rather than admissions history that has already been made.

Parenthetically let me say that a history of the manner in which the University has handled its administrative problems during the past year is a necessary record and should be written. It will unquestionably have great value, not only as part of the history of the University, but, immediately, as information regarding the origin and development of concepts of administration and instruction which may influence the future of the University.

In planning this annual report as a discussion of admission problems, the writer has found a generous assortment of such problems offered for his choice. Among them can be named one now plaguing all metropolitan admissions officers—the fact that there are not enough higher education facilities in the metropolitan area to take care of the metropolitan area students, a fact which has given rise to the attack of “localitis” now affecting those prominent residents of the metropolitan area who demand that New York City colleges should be solely for New York City students. Another problem is that of the accommodation of foreign students; another, the effective utilization of the information gathered at the time of admission; another, the development of a genuinely comprehensive testing program; another, an exploration of the possibilities in adult education opened by the expansion and development of University Extension. The listing could go on to include other problems of varying magnitude and importance, but would only serve to labor the point that a large university in a metropolitan center is subjected to particularly heavy pressures during times of stress.

The selection of three problems for discussion has been made primarily on the ground of their immediacy. These problems are:

1. The numbers of applicants to be expected in the near future.
2. The admission of foreign students.
3. The effective utilization of admissions information.

The most immediate and most obvious problem is the fundamental one of the number of applicants to be expected for 1946-1947, for 1947-1948, for 1948-1949, and for 1949-1950. Since, by the time this report is printed, the returns will be in on 1946-1947 (in which the enrollment is certain to exceed 30,000 individuals for the two semesters of the academic year), discussion will be centered on the three following years. The exact answer to the problem of enrollments is no more to be found in any possible equation than was the answer to the same question a year ago. However, the variables, such as number of potential college students, number of employment opportunities, financial support available for college study, and demand for trained men (deferred employment opportunities), have changed but little during the past year, except perhaps that higher institutions are nearer to their saturation points and offer fewer vacancies for prospective applicants. Therefore, there is not at present any conceivable basis for expecting fewer applicants for the coming year, and, even if there were, the undoubted fact that there are fewer places to be filled will result in a steady pressure for admissions that will become difficult to deny.

This fact presents special problems for Columbia and other institutions in metropolitan New York. The region is sadly undersupplied with higher institutions and densely populated, and has always sent a sizable portion of its students of college age to outside institutions. Today, and for several years to come, these outside institutions will find difficulty enough in caring for their own applicants and cannot be expected to care for any large number of New York's applicants. As a result, these New York students will be an added burden on the already crowded metropolitan institutions.

The extent to which New York City institutions, and particularly Columbia, can continue to expand is an open question. Expansion to date has been more than 60 percent of 1939-1940 enrollment. This expansion has been accomplished with what can be termed moderate strain. Further expansion will unquestionably result in major strains upon teaching staff, libraries, plant, and equipment. At some point, these strains will begin to bring about lowered standards.

The problem, then, for Columbia University is the decision as to the capacity of the several units of the University. Once the decision, which must be made unit by unit, is reached, admission standards and policy can be set. In some divisions of the University such as Columbia College, Barnard College, and certain professional schools, decisions have been reached and standards established. Others have not determined their ultimate limits. It is to be hoped that early attention can be given to this important problem, particularly by certain of the Graduate departments and University Extension.

The problem of foreign students, unlike the problem of enrollments, which is national, is peculiarly a problem for Columbia University. The writer, in a report to President Butler written in February, 1945, called attention to the imminence of an influx of students from the war-devastated regions. This influx has in fact reached large proportions, and, particularly in the scientific and technical areas, has proved to be so large that it has been necessary to reject many applicants from foreign countries. Now the University is faced with a new problem brought to it by the projected establishment of the United Nations capital in New York City. With this establishment there can be no question that Columbia must prepare itself for a student body which will include a substantial proportion, possibly as high as 20 percent, of students who have received part or all of their previous education outside of the United States.

These students will present two distinct sets of problems. The first is that of evaluation of credentials. This is at present a serious problem because of the lack of information concerning the present operation of any of the foreign education systems. In those countries affected by the war it is assumed that education suffered severely, and, indeed, the newspaper stories underline this assumption nearly every day. In countries not di-

rectly affected by combat there have been marked changes which have brought evaluation problems that are even more difficult. For example, two countries—Egypt and India—which before the war sent only a handful of students to the Americas, have now oriented themselves in our direction and present us, in consequence, with problems of credential evaluation almost completely out of our experience. Unfortunately, there seems, at this time, to be no remedy for our lack of information regarding foreign credentials and their American equivalents. The obvious answer would be for either a major foundation or the United States Government to finance a thoroughgoing study of education in Europe, the Near East, and the Far East, but so far no such action has been taken. Until such a study is financed and carried forward there can be no effective evaluation of foreign credentials except by trial and error methods, based on rough equivalences established primarily on the basis of the duration of previous education.

The second problem brought by foreign students is that of their adjustment to our educational system. This problem arises from the fact that most of our present enrollment of foreign students comes to us for technical or professional work. Such students are naturally interested primarily in subject matter and in techniques and often overlook the necessary relationship between a knowledge of the language, customs, and history of the United States on the one hand, and a study of our methods, skills, and techniques on the other. One great lack in the University is the absence of a program of study which deals with that relationship. It is to be hoped that such a course can be instituted soon. The 1,000-odd foreign students registered in the University certainly constitute a large enough group to warrant its establishment.

The third problem to which I referred is that of the effective utilization of admissions information. This is in no sense a new matter, but is rather one which has come to the fore by reason of the abnormally large number of new students in the University with whom we have had too little opportunity to get acquainted.

The information collected by the Office of Admissions concerning each applicant to the University, while not complete from the standpoint of an adviser or counselor, is, nevertheless, extensive and certainly supplies

an admirable beginning for a personnel file. If this information were, as a matter of routine, collected by each school of the University as a basis for such a personnel file, there can be no question that our student advisory services would benefit greatly. At present our experiences with Columbia College, and the Schools of Business, Journalism, Library Service, and Law can be said to have proved that admissions information should be transmitted to and used by each division of the University.

A year ago the annual report of the Director of Admissions was largely concerned with veterans. The Office of Admissions staff, beginning July 1, 1945, had one part-time counselor to veterans, Mr. Louis E. Bloetjes; and after his resignation on October 1, 1945, acquired a full-time counselor in Mr. Julius L. Impellizzeri on November 1, 1945. By January 1, 1946, the veterans counseling staff had been built up to five full-time and six part-time staff members. After the establishment of the Office of Veterans Affairs under the direction of Professor Albert C. Jacobs, this veterans counseling service was transferred from the Office of Admissions to that office, where it remains.

Today, it is interesting to note that this counseling service is no longer concerned primarily with admissions problems but is increasingly working with on-campus advisement matters. This is surely a sign that the veteran is no longer a problem (if indeed he ever was except by reason of his numbers), and has become instead a student, a fact which it is a genuine pleasure to record.

I record with pleasure the addition to the staff, during the year under review, of Mr. E. B. Nyquist, recently appointed as Assistant Director of University Admissions, of Mr. Charles Hurd, of Mr. Jack Garnant, and of Mr. Matthew Norton. Miss Elizabeth Potterton, after six years of capable service, resigned in May, 1946.

Respectfully submitted,

FRANK H. BOWLES
Director of University Admissions

June 30, 1946

Columbia University

IN THE CITY OF NEW YORK

Report of the Chaplain of the University

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1946



MORNINGSIDE HEIGHTS

NEW YORK 27, N. Y.

PRINTED FOR THE UNIVERSITY BY
COLUMBIA UNIVERSITY PRESS

REPORT OF THE CHAPLAIN OF THE UNIVERSITY

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1946

To the Acting President of the University

SIR:

I have the honor to report as follows with regard to the Chaplaincy of the University for the year July 1, 1945 to June 30, 1946, inclusive:

The Reverend Otis R. Rice, Acting Chaplain since February 15, 1944, served until February 12, 1946, when I was released from the Naval service and returned to duty here. This report, therefore, covers a year during most of which Chaplain Rice was the responsible officer. Nothing but the highest praise can be given him for the utterly generous and whole-hearted way in which he served the University during those two years. He gave his time and thought far behind our right to ask, and extended the boundaries of the Chaplain's work in every direction. Our most hearty thanks are due him and to the Managers of St. Luke's Hospital for releasing him to us for this service. It established a happy and neighborly relationship which, it may be hoped, will be continued under less exacting circumstances.

There should also be mentioned with appreciation four other clergymen who served as Assistants to the Chaplain at various times during the year—the Reverend C. Clark Kennedy and the Reverend James W. Hyde, who served on the staff during the summer of 1945; the Reverend Holt H. Graham, who was an Assistant to the Chaplain during his student days at Union Theological Seminary, and was with us again during part of the winter while pursuing graduate studies at Union; and the Reverend René Vaillant, on the faculty of City College, who has assisted frequently with services in the Chapel during the year.

Nor could the work of the Chapel have gone on without the unfailing, generous devotion of three women in particular—Miss Emma Lou Benignus, who assisted at Chapel during the summer; Mrs. Richard Day, who took particular charge of a group of Barnard students who assisted in the Chapel; and Mrs. Caroline Elledge who for this year, as for three past years, conducted a class for children at eleven o'clock on Sunday mornings. We are greatly the poorer for the fact that we shall not have these three good friends in the coming year.

During the year, St. Paul's Chapel continued to serve the University both through the regular office of worship and through particular services. One hundred and eighty-five services at noon on weekdays were held, with an average attendance, excluding the choir, varying from twenty-eight during Lent to ten during midyear examinations. Forty-eight services of Morning Prayer were held on Sundays, with attendance averages, again excluding the choir, ranging from 191 during Lent to 108 during January. One hundred and thirty Celebrations of the Holy Communion were held during the year, and fifty-nine other services—baptisms, marriages, funerals, etc.—completed our Chapel calendar. Thirty-five couples were married, twelve persons were baptized, and several funeral services were conducted.

Among the distinguished guests who spoke in Chapel during the year may be mentioned The Rev. Everett R. Clinchy, The Rev. William G. Cole, Dr. Grace Loucks Elliott, Dr. R. H. Edwin Espy, The Rev. Frederic S. Fleming, Judge Anna M. Kross, Mr. Gayle J. Lathrop, The Rev. William Howard Melish, The Rev. Samuel H. Prince, The Rev. James Robinson, The Rev. Cuthbert A. Simpson, The Rev. Theodore Speers, Dr. Barbara B. Stimson, Miss Helen B. Taft, Miss Helen Turnbull, Miss Jane White, and The Rev. Carroll A. Wise.

This list does not include the many members of the University who, from time to time, were willing to speak in Chapel. To them, as to our other guests, we are greatly indebted.

The work of the Chapel Choir, under the leadership of Lowell P. Beveridge, Director of Chapel Music, continued to be a notable part of University life. Despite the wartime difficulties and restrictions which were still in effect, the choir was able to maintain an average membership of twenty-seven women and seventeen men, and to furnish music of the highest order both at Chapel services and at other University functions. Further use and furnishing of the choir room in the Chapel crypt extended the already valuable service of that accommodation to the members of the choir and others in the University family. Occasional letters sent out from the Chapel to former members of the choir, especially to those in service, seemed to develop a strong sense of friendship and interest among the 450-odd past and present members on the choir mailing

list. The Chapel choir every year seems to illuminate more clearly a three-fold service to the University which it is uniquely fitted to render, through its proper function as a distinguished musical organization, the equally-proper function as the permanent and continuing congregation of the Chapel—a representative community, so to speak, of the University family—and then, third, as a group of men and women students who find, in their association in the choir, a comradely group whose college life reaches a peak of cordiality and friendship.

The offerings at Chapel services amounted to \$2,105.26 during the academic year. Following our usual policy, a large number were designated offerings, \$1,045 being given for a variety of purposes, of which typical examples were \$150 to the Council for Clinical Training, \$125 for famine relief in Europe, \$110 to St. Luke's Hospital for financial aid to needy patients, \$100 to the Commission on Religion and Health, \$85 to the World Student Service Fund, etc. A larger-than-usual amount is being retained in the Chapel Collection and Gift Fund for needed work in furnishing a sacristy and a suitable reception room for bridal couples, guest preachers, and so on. It is hoped that in another year the University budget will permit the necessary alterations in the crypt which will make these new accommodations possible.

It is also hoped that before long a solution may be found to the distressing acoustical problem in St. Paul's Chapel. That noble building, familiar and endeared as it is to generations of Columbia students, is sadly crippled in its effectiveness by elementary faults in construction which make it almost impossible to understand any but the most careful and skillful speakers. The sparseness of Chapel congregations is due more to this simple difficulty than to any other factor. It is, on this score, actually an unpleasant experience to attend a Chapel service. Hardly a day goes by without the Chaplain's attention being called to this problem. In mentioning it in his report, he is desirous of recording these comments with the hope that the University may engage itself soon in a search for a suitable remedy.

* * *

To turn to other aspects of the Chaplaincy, the year saw the adoption of two important new provisions for religious work at the University. A

new chapter in the University statutes, replacing the former Chapter IX, was adopted by the Trustees March 4, 1946. No further comment is needed than to say that the new statutes, clarifying and modernizing the constitutional structure of the Chaplaincy, have already greatly aided the prosecution of the Chaplain's work. They reflect, better than the old ones, the position of the Chaplain in the University, and they outline more clearly a reasonable field of work for him.

The second step was the adoption, as of January 1, 1946, of an agreement between the Young Men's Christian Association and the University covering the administration of Earl Hall. When Earl Hall was given to the University, soon after the establishment of the Morningside campus and before any specialized religious work had been organized within the University, the administration of that building was wisely entrusted, at the suggestion of the donor, to the YMCA. Then as now, the interest of the YMCA in the welfare of young men was keen; there was no comparable organization; and the pioneering work of the YMCA on the Columbia campus has, for nearly half a century, been an invaluable mentor and inspiration to the wider religious and social program which has developed on that foundation.

A number of experiments in the administration of Earl Hall have characterized the years since its donation, as the use of the building has been expanded and as, increasingly, it has become, with the Chapel, the center of inter-faith life and work at Columbia. With the growth of the "Counselor system" and the establishment of a fully-developed inter-faith religious staff, it has proved wise for the University to assume full responsibility for the building, through appropriate channels. A joint committee of University and YMCA representatives has been established to ensure the participation of interested non-academic groups, and an Executive Secretary charged with the day-by-day responsibility for the building. The University has been fortunate in securing, for an Executive Secretary, the Reverend J. Edward Dirks, who has, with great tact and unmeasured patience, met the insistent problems of a small and overcrowded building, and has made possible, in six short months, a degree of harmonious activity unmatched in previous years.

A glimpse of this activity is revealed in these statistics from the report

of the Executive Secretary. Twenty-four thousand nine hundred and twenty-five persons were present at various meetings in Earl Hall during the ten months September 15—May 15 inclusive, to say nothing of the thousands who came and went individually into one or another of the offices in the building. Over 15,000 were served food, ranging from a cup of tea at an afternoon "Open House" to a full dinner. Most of these people were attendant at specifically religious functions, sponsored by the Chaplain or one of the Religious Counselors. Perhaps 5,000 took part in activities held in Earl Hall by non-religious groups, representing a widening of the use of the building made necessary by the crowded campus and the lack of suitable facilities elsewhere. Altogether it is an impressive witness both to the need and the reality of the spiritual work done on the campus by the Religious Counselors and Advisers.

Under the new statute, the Religious Counselors are for the first time established by Trustee appointment, on nomination of their respective sponsors, as recognized officers of the University, appointed to work under the supervision of the Chaplain in maintaining general ministries to the three major religious groups. There is no comparable structure, I think, in any other university. There are few other universities which have as cosmopolitan a population as ours—there is none which has been as fortunate in finding a pattern of religious ministry which reflects that cosmopolitan nature and copes with it as adequately. Stemming from the free association of Earl Hall, and from the constant interchange typified in the weekly staff meetings of Chaplain and Counselors, there develops not only a well-integrated program for Roman Catholic, Jewish, and Protestant students, but also a promising degree of inter-faith activity.

The Reverend Robert G. Andrus, Counselor to Protestant Students from 1935, terminated his work at Columbia June 30, to accept the ministry of the First Presbyterian Church in Lake Forest, Illinois. Thus ended an association which has been as rich in friendship and in a steadfast witness to manly and humane religion as any the University has ever had. During most of his ministry, Mr. Andrus had the additional responsibility of the administration of Earl Hall; during all of it he had the hearty coöperation of the Chaplain and of the other Counselors in his leadership of the University Christian Association and the Protestant

Graduate Fellowship. Our warmest appreciation is due him, and the Westminster Foundation which made his work possible.

Succeeding Mr. Andrus, the Reverend William G. Cole will begin his work as Counselor to Protestant Students September 15, 1946. Mr. Cole, whose association with Earl Hall and the Chapel began in undergraduate days, was an associate Counselor during his years as a student at Union Theological Seminary. He comes to us now from the associate pastorate of the Church of the Covenant, Cleveland, Ohio.

Rabbi Isidor B. Hoffman continued his work as Counselor to Jewish Students. Rabbi Hoffman is the senior Counselor, having served the University in that capacity since 1934, and, as ever, his cordial coöperation and particularly his keen interest in inter-faith activities have made him an invaluable member of the staff. The Seixas and Menorah societies, for undergraduate students, meet weekly. The Jewish Graduate Group, meeting generally bi-monthly, carries on a program for graduate students.

The Reverend John K. Daly finishes his first full year as the Counselor to Roman Catholic Students. Both through the Newman Club, with weekly open-house meetings for undergraduates, and the Graduate Newman Club, a well-planned program of addresses and discussion groups has been carried on. Father Daly has already established himself as a strong component of the religious staff of the University, and with increasing familiarity and the cordial friendliness already evident starts a new year under the most happy signs.

The normal pattern of activity at Earl Hall is thus based on the "Open House" meetings for undergraduates sponsored by the Religious Counselors, and on the evening meetings of the clubs for graduate students. From sixty-five or seventy to over one hundred students are present at these meetings except in unusual cases, as at the annual Religious Conference, when the attendance may well reach the maximum possible in Earl Hall.

The three Religious Counselors carry on these general programs which include the great majority of religious interests represented at Columbia. There are, however, certain special groups, both within and without the three major divisions, which require a particular ministry. To meet these

needs, the Chaplain is empowered, in a new and experimental provision of the statutes, to appoint "Advisers" who work closely with him in their special fields of interest. The only adviser currently so appointed is the Reverend Donald Russel Heiges, to whom is committed a ministry to Lutheran students. Mr. Heiges is the Pastor for Lutheran Students in Greater New York, so appointed by all the major Lutheran synods with one exception; he is the first such appointee, and as such carries on a unique and promising work among the some 1,600 Lutheran students in the metropolitan area. About 600 of these are enrolled in Columbia University, and are ministered to, in addition to the general work of Chapel and Earl Hall, through Lutheran clubs which operate under Mr. Heiges' direction. In addition he hopes to maintain regular open house in Earl Hall; for that purpose office space is being made available to him. Mr. Heiges has evidenced the most sincere coöperation with the Chaplaincy, and enters fully into the pattern of our religious work.

Other such advisers will, no doubt, be appointed from time to time. The orthodox students—Greek, Russian, etc.—have as yet no religious adviser, although the Reverend Basil Efthimiou, adviser to the PNYX Hellenic Society, functions as such in an informal way. Representatives of the Episcopal and Methodist churches have also evidenced an interest in such provisions for their constituents. The broad program both of the Chapel and the Counselors affords a general ministry from which students can gain much irrespective of their denominational background. The addition of advisers to specific groups, where the size and nature of the group make such appointment advisable, offers two great advantages—it adds another badly needed person to our staff, and it sharpens our relationship with particular groups. Mr. Heiges' work among the Lutheran students has illuminated those advantages most helpfully. As the years go on, there is every reason to hope that such a pattern may be expanded. As long as the Chaplain is an Episcopalian, Episcopalian students as such are likely to lose out in some at least of the peculiar opportunities and problems of their religious life. As long as the Counselor to Protestant Students is a Presbyterian, the same will be true of Presbyterian students. It is human nature to "lean over backwards" in any interdenominational ministry. And where we

can add to our staff and extend our ministry, without jeopardizing the essential unity of our work as it is now established, all parties gain. That has been the impression we have all gained from Mr. Heiges' appointment.

Such advisers are appointed with the counsel of the Advisory Board on Religious Activities. This committee, which replaces the "Administrative Board on Religious and Social Affairs," meets from time to time with the Chaplain to carry out its statutory duties. The members of the committee, appointed by the Trustees on the nomination of the President, represent all three major religious groups, thus affording, at the heart of the Chaplaincy, the same coöperative inter-faith relationship as is found in Earl Hall and the Chapel.

Another group, newly-established, should be brought to our appreciative attention. Under the leadership of the Religious Counselors, and particularly at the initiation of Mrs. Arthur Hays Sulzberger, an "Alumni Interfaith Committee" has been established among the Alumni and friends of the University, devoted to the support of the religious work of the University, especially the work of the Religious Counselors in Earl Hall. The committee is in part an outgrowth of an earlier group which, in 1940, took the lead in refurnishing Earl Hall and in preparing for its wider use by the Chaplain and Religious Counselors. But its interests and aims extend to more than such an occasional participation. An appeal during the year resulted in gifts of nearly \$4,800 to the "Religious Counselors Interfaith Fund," from which came the support not only of a measure of the individual work of the Counselors but also much of the inter-faith activity in Earl Hall, as well as the purchase of occasional pieces of equipment and other necessities for the building.

It is gratifying to record the interest and goodwill of this group. I am jealous of every minute of time which the Religious Counselors have to give to our religious work, and I mourn any minute which they must devote to money-raising. The University should, and now plans to, give our Counselors a building and equipment to work with, and every advantage, administratively, that we can. Perhaps as the years go on we will be able to extend the degree to which we facilitate their work. But there still remains a basic problem of adequate financial support for

them. If this new committee continues the splendid work begun this year, a great load will be lifted from the working staff; certainly our deep thanks are due the committee and its sponsors for what has been done this year.

In this connection it would be ingenuous not to say that there is always, and will always be, a tension between the two great levels on which religion operates—the level of what is particular and divisive and exclusive, and the level of what is general and unitive and inclusive. It is idle to speculate about a world in which there would not be such a tension. Such speculation may do actual harm, in encouraging us either to seek to emasculate religion until it is capable of giving offense to nobody (and thereby gain a fictitious unity), or to give way to a purely arbitrary establishment of one form over others, as advantage serves. The tension is real, and it is life-giving.

The significance of that, in a cosmopolitan university like ours, is very great. What is the relationship of Chapel to Earl Hall? What is the function of the separate and particular ministries to Jewish, Protestant, or Roman Catholic students, or the generalized ministry of the University Chapel? Those are real questions, which are faced, and in part solved, day by day in the relationships of the members of the religious staff, and of all those interested in religious work at Columbia. It is not quite true, in the wretched little phrase of a newspaper report last February, that the "Religious Counselors carry on their ministry in opposition to the special functions of the Chaplain." Indeed it is rather the other way. But the tension is real, nevertheless. It is the University's concern to see to it that a student grows in his religion *pari passu* with his growth in all other aspects of his life. It is the University's concern that he learn how to be a good citizen in every deepest sense of that phrase—that he learn how to live with his fellowmen, and learn what they are like, and what he or they have come from, and what their deepest treasures are. It is the University's concern that all truth be opened to the student who will seek it.

So is it the concern of the particular religious groups represented here, but at a different level and in different ways. There is not one "Chapel religion" and another "Earl Hall religion"—there is the religious life of

this community, which reaches its expression at its most inclusive and general level in Chapel and Earl Hall, and in its particular and separate ways through the Religious Counselors and advisers—also in Chapel and Earl Hall. At least that is the intent and invitation of the University, as I understand it. The University Chapel belongs to no group; it seeks to minister to all groups. Nothing less than that would be congruous with the establishment and character of the University.

Because of the historical accident of form, the pattern of worship in St. Paul's Chapel follows, in general, a particular tradition. This need represent no more than the elementary principle that "everything has got to be something"; certainly there has been no intent to establish a particular sect or tradition as the official beneficiary of the University's favors. Equally certainly there has been worked out, over the years, a degree of real community, and of diversity in unity, which fits well our diverse life, and bears the seeds of full and rich religious life for all our students.

Every thing we do must be measured against that community. Earl Hall, Chapel, inter-faith activities, a particular religious group, a class in religion, the interest of alumni and friends, the participation of the public—they all bear a relation to this central task of the University. It is distressing ever to encounter evidence of divisiveness or of less-than-full participation in the community of Columbia. It is immensely heartening to find, as so often there is found, evidence of a growth in understanding and in the will for all groups to work together in the great unitive concerns of all religions.

It is to be hoped, then, in recording the appreciation of what has been done for the University by the Religious Counselors and their supporting groups, that there will never be lost, in the pursuit of our particular interests, the sight of the overwhelming common task which we all share.

This year is the last of the "war years"—and to a certain degree we are able to plan more fully for, and assess more radically, the work that lies ahead. If there is one thing above all others that we need, it is more men to extend and deepen the religious work of the University. Five full-time and two half-time men are all we can count on to minister to nearly

30,000 souls. Great areas of the University remain substantially untouched, largely because a handful of men have to stay in Chapel and Earl Hall to carry on the minimum ministry we now are able to give. There are promising evidences—as in the activity of the Alumni Inter-faith Committee—that increased resources may enable the Religious Counselors to add to their staffs. The appointment of additional advisers, should such appointments be made, will also serve to augment our staff. There may be other ways, not now evident, of adding additional personalities, and, indeed, ways must be found if we are to redeem the splendid promise of the last score or so of years.

I stress the matter of men because there is one sure truth about the ministry of religion in this age—it is not to be done effectively through highly organized group activities or lectures or addresses or occasional conferences—it is done at its best only in the free intercourse of persons. There is no common ground of faith in our age. There are no accepted truths. The little cluster of ideas on which civilization as we have known it was built is no longer an unchallenged and fundamental heritage. There is no common tongue any more.

Therefore a university chaplaincy faces a far different and far more radical problem now than in the days of King's College. It can take nothing for granted. It can only meet the insistent questions of youth and the dilemmas of middle-age with the living examples of persons—men and women—who face the same questions and dilemmas and solve them in the deep and manly ways of God. And those men and women can't afford to spend their time running organizations and raising money and dealing only with those who seek them out. They have got to seek instead of being sought—and there must be enough of them to do effective seeking, and to spend the hours and hours of patient friendly exploration on which a realistic ministry to students depends.

The substance of my report, then, is that we have finished our war years more than satisfactorily, thanks to Otis Rice—that we have made certain minimum administrative changes necessary to our best functioning—that we start our first peacetime year with a good, if largely new, staff—that we have promising signs of interest and support from outside

the University—and that we are prepared, and in good heart, to keep moving in our accustomed direction, deeply conscious that we have only made a start on our problems, sensitive to their tensions and dangers, and determined to extend, as opportunity offers, the bounds of the University's ministry to the men and women committed to our care.

STEPHEN F. BAYNE, JR.

Chaplain

June 30, 1946

Columbia University

IN THE CITY OF NEW YORK

Report of the University Medical Officer

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1946



MORNINGSIDE HEIGHTS

NEW YORK 27, N. Y.

PRINTED FOR THE UNIVERSITY BY
COLUMBIA UNIVERSITY PRESS

REPORT OF THE UNIVERSITY MEDICAL OFFICER

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1946

To the Acting President of the University

SIR:

As University Medical Officer, I have the honor to submit the following report of the activities and progress of the department under my direction, for the academic year 1945-46.

This, the first postwar year, has been one of constant change and readjustment to meet the demands of increasing registration. Problems of the returning veterans, with the responsibility of the Veterans Administration for medical care of its students still indefinite, made some difficulties during the early months of the year. In spite of their desire to cooperate to the utmost of their ability, the officers of the Veterans Administration were under a decided handicap until their own responsibilities in cases of illness were clearly defined. In due time, however, the ruling that the student might select his own physician, and the decision that the Veterans Administration would be responsible for all bills for medical or surgical treatments of conditions directly traceable to illnesses or injuries sustained while in active service in the armed forces of the United States, cleared the major difficulty in the administration of the medical program of the student veterans. The Veterans Hospital at 130 West Kingsbridge Road has admitted cases for treatment upon our recommendation, without delay. Most of the medical problems of the veterans not requiring hospitalization have been cared for through the campus medical service. We have noted with interest the fact that the military training and experiences of our student veterans have resulted in intelligent respect for preventive medicine. They realize the importance of reporting promptly to the Medical Office any symptoms of illness. This laudable interest in keeping physically fit is already taxing to the breaking point the present capacity of the Medical Office both in personnel and in space. In fact, the comfortable limit of our capacity was reached several years ago, since when every conceivable readjustment has been made to solve in some way a situation which the war conditions and growth of our student body have created.

The maximum number of patients that can be cared for efficiently in the Earl Hall office each day is from 170 to 180. During the year there not infrequently have been days when 200 or more patients have had conferences, examinations, or treatments. With the certainty of an unusually heavy registration in the fall, every possibility is being scrutinized for adjustments in the organization of the staff and in the more economical utilization of space, to meet additional responsibilities. The lack of space for expansion, the necessity for strengthening the psychiatric and nursing staffs, and the need for new equipment are all so pressing that the Medical Officer plans to present the problem in detail to the Acting President of the University during the coming year. The time has come when the campus medical service must look for new quarters. Our Earl Hall location has served us well over the past thirty-four years, developing from a suite of three rooms to a beehive of activity, now divided up ingeniously into a suite of sixteen rooms equipped with every conceivable space-saving device. Now, however, it can no longer be expanded to meet the growing demands upon it. The division of employee medical examinations and the college medical examinations, because of lack of space in the Earl Hall office suite, have been removed to quarters in the Casa Infirmarium. The Earl Hall office from now on will be reserved for the treatment of illness only, and other branches of our health program will be transferred to the infirmaries.

In order to meet the demand for living quarters for the anticipated record fall registration, the Director of Residence Halls plans to use double deckers in the dormitories. This will add to the number of our peacetime resident population and, in proportion, to the number of patients among the resident group that must be cared for in the infirmaries and at the Medical Office. It is planned to maintain also, as part of our dormitory system, certain centers not on the campus. The residents in the off-campus dormitories will have infirmarium privileges. During the coming year, therefore, plans must be worked out to cover the medical care of a resident population in excess of the proportionate bed capacity of our infirmaries. In the past our bed capacity has been adequate for our needs. We hope that during the coming year the morbidity rate among our resi-

dent group may not increase and that we shall be able promptly and efficiently to give bedside care to all who need it. This infirmary problem would be simplified were the hospitals of the city not so overburdened. In my last report I noted the difficulty of securing semi-private and private rooms in the hospitals for our patients. This problem has not been less urgent this year, and the prospects for the immediate future are far from hopeful. The city's increased population has outgrown the capacity of its hospitals, and the rapidly increasing number of members of the various hospitalization groups, such as the Blue Cross, adds thousands to the list of persons using private, and especially semi-private, rooms. During the prewar days it was possible to hospitalize a patient for a few days in order to make tests and observations necessary for accurate diagnosis, especially in obscure conditions. Now it is practically impossible for hospitals to give bed space for this important work, because of the demand of those acutely ill. In the future, therefore, this important phase of our work must be done through our own office and infirmary setup. We must plan, at least until hospital facilities are increased, to so equip and organize our service that we may do this additional diagnostic work.

Limited office space has prevented us from developing as widely as we would like to our program of preventive medicine, such as prescribing more generally various vaccines for preventing colds, influenza, hay fever, asthma, and for controlling allergies. The space and time factors, during the past year, limited our services in this field to the most urgent cases. The number of patients who require treatment hypodermically for endocrine disturbances, anemia, and infections, and the vaccines for clearance in foreign travel, field trips in infected regions, etc., have absorbed fully the periods when we could safely do this type of medication, requiring a careful technique in preparation. Having no pharmacy in our office organization, prescriptions are given to our patients to have filled at the drugstore of their choice. This writing of prescriptions has given the medical staff more freedom in the field of drug therapy than is possible in the average hospital clinic, though more expensive for the patient. But since the patient pays no fee for office consultation, the cost of the prescription has not been a financial burden. A few combinations of

standard drugs in tablet or liquid form have been kept on the shelves of the Medical Office to meet emergencies, or to give to a patient whose condition required frequent observation and medication for short periods.

Our procedure in the treatment of the common cold has again this year given satisfactory results. A majority of those who reported promptly at the onset of symptoms have been able, without loss of time from their academic work, to clear the symptoms without a prolonged illness and without the development of post-infection sequellae. In neglected cases of acute coryza in the winter and spring of 1946, it was found that the patients developed, more frequently than in former years, sinus pain without infection; sinus congestion with infection; otitis media simplex; congestion of the ear drum. Mild upper respiratory infections were somewhat increased during the winter and spring of 1946, over the corresponding months of 1945. Our records show that the number of individuals reporting for treatment in 1945 was 4,995 with 9,462 office treatments; and in 1946, 8,521 with 14,156 treatments. Although we treated more patients this year, the infections were less virulent, responding more readily to treatment. The ear conditions followed the same trend. In 1945, 301 patients were treated for middle ear involvement and received on the average three treatments; in 1946, 586 patients received a total of 1,029 treatments for similar middle ear disturbances.

During the year we had no serious epidemic of any kind, our resident group having an excellent health record.

The surgical division of the office service, under the direction of Dr. Kenneth M. Lewis, was very active. The major part of the x-ray work for fractures, dislocations, and other surgical conditions has been done at St. Luke's Hospital, and most of our surgical patients requiring hospitalization have been cared for there. The director of the x-ray department has been especially understanding and helpful in taking care of our emergency cases. The fact that St. Luke's Hospital is on the edge of our campus makes it a logical and valuable part of our campus medical setup. The generous coöperation of its staff over the past thirty-five years has had much to do with the success of our health program.

The following tables give a summary of the work done in the campus offices and in the infirmaries.

TABLE 1

OFFICE CONSULTATIONS

University office	47,376
Barnard College office	7,475
Women's infirmary	2,346
Men's infirmary	1,121
Total	58,318

TABLE 2

CLASSIFICATION OF CASES

<i>Conditions</i>	<i>Number of Cases</i>	<i>Conferences Examinations Treatments</i>
Diseases of the psychobiological unit	167	398
Diseases of the body as a whole	622	928
Regional diseases	1,569	2,893
Diseases of the skin, subcutaneous areolar tissue and superficial mucous membrane	3,341	6,061
Diseases of the breast	21	38
Diseases of the musculo-skeletal system	1,338	2,647
Diseases of the respiratory system	8,521	14,156
Diseases of the cardiovascular system	301	487
Diseases of the hemic and lymphatic systems	78	150
Diseases of the digestive system	7,500	12,522
Diseases of the abdomen, generally, and peritoneum	55	101
Diseases of the urinary system	74	128
Diseases of the genital system	1,442	1,504
Diseases of the endocrine system	132	143
Diseases of the nervous system	341	600
Diseases of the eye	1,220	2,130
Diseases of the ear	586	1,029
Non-diagnostic terms	19	31
Medical problems . . . . .	...	1,911
Referred Cases . . . . .	...	1,147
Non-medical problems . . . . .	...	80
Miscellaneous Examinations Diagnostic . . . . .	...	738

TABLE 2—Continued

<i>Conditions</i>	<i>Number of Cases</i>	<i>Conferences Examinations Treatments</i>
Columbia College		
Freshmen and students of advanced standing examined		753
Barnard College		
Freshmen and students of advanced standing examined		2,538
Occupational Therapy students examined		33
Physical Therapy students examined		31
Students examined on readmission to college		545
Employees		376
Foodhandlers		581
X rays		500
Baking		30
Infra red		1,130
Ultra violet ray		1,164
Vaccines		815
		<hr/>
Total	27,327	58,318
Laboratory tests		
Blood counts		349
Wassermann tests		310
Urinalyses		1,602
Miscellaneous tests		373
		<hr/>
Total		2,634

TABLE 3

INFIRMARIES

	<i>Bed Patients</i>	<i>Infirmary Days</i>	<i>Average Days of Treatment</i>
Men's infirmary	298	1,216	4.08
Women's infirmary	377	1,667	4.42
	<hr/>	<hr/>	<hr/>
Total	675	2,883	4.25

The college health supervision program has been in full swing. It has drawn its numbers from all four college classes; an encouraging fact, since it indicates that our follow-up work is meeting with success and carrying over from year to year. The following table shows the distribution of follow-up cases through the classes.

		<i>1944-45</i>	<i>1945-46</i>
Senior	8th term	31	277
	7th term	43	36
Junior	6th term	40	32
	5th term	34	50
Sophomore	4th term	49	76
	3rd term	177	122
Freshman	2nd term	122	121
	1st term	113	296
Total		609	1,010*

In earlier reports details have been given of the organization of this health program. Primarily students are placed in this group so that they may be under periodic supervision for defects or deviations from normal that were noted on the medical examination record made by the members of our examining staff. A few of the college students have been put on this list because of conditions that have developed following illnesses or accidents sustained after the medical examination had been made. The University Medical Officer considers this department of the medical service one of its most valuable divisions. The cases, promptly and carefully supervised, give the physicians an opportunity to follow trends in the health of their patients, which in many cases saves the student from unnecessary loss of time through preventable illness.

Closely associated with this health supervision program of the college group is the part that the medical department assumes in placing the student in the section of physical activities that best meets his particular needs. During the year, 753 complete health examinations of new students entering Columbia College were made. Of this group, 568 were judged

* This increased number is due to returning veterans.

able to participate in the required courses of Physical Education for credit, and of these, 189 qualified to enter competitive sports. Forty-eight students showed temporary or permanent conditions which made it advisable for them to join a group in which their activities would be modified to fit their particular problems. Many of the students entering Columbia College this year were men who had received injuries while in military service. Forty-eight ex-service men were found, because of illness or injury sustained while in service, unable to participate in any form of physical activity under the direction of the Department of Physical Education, and were, therefore, not permitted to register for the required courses. The commonest types of injury came under the following classifications:

1. Amputation, extremities
2. Convulsions, brain injuries
3. Deafness, explosions
4. Fractures, healed but still causing disability
5. Shrapnel wounds, causing prolonged or permanent disability
6. Skull injuries, tantalum plates still worn in some instances
7. Total blindness
8. Trench foot, disabling

During the year, the University Medical Officer sent 788 reports to department executives regarding the health problems of students in their several departments. Of this number, the Associate Dean of Columbia College received 257; the Director of Physical Education, 367; the remaining 164 were scattered among other departments of the University.

The responsibilities of the medical service in connection with the activities program of the Department of Physical Education were carried forward with the same care as in former years. Dr. William H. Bender, the medical staff member responsible for this program, reports an interesting and effective year's work. Group C, whose members work under a program adjusted to their individual needs and are kept under the supervision of instructors experienced in this field, numbered 168. Seventy-eight new men were assigned to this group as a result of data gathered at the medical examinations of entering students.

The neuro-psychiatric division of the medical service, under the direct supervision of Dr. Earl H. Adams, took care of 147 students from various

schools of the University. The largest group of 66 were undergraduates. This special field of medicine is advancing in importance and usefulness each year, and, as has been stated in previous reports, there is urgent need of strengthening our organization in this field. With limited periods through the week available for conferences, Dr. Adams has been unable to do more than meet the needs of the most urgent cases. To Dr. Robert B. McGraw, Dr. Nolan Lewis, and Dr. Clarence O. Cheney, we owe a debt of gratitude for coöperation and help in caring for some of our most difficult problems. The importance and pressure of the neuropsychiatric work requires a program that would permit of conferences throughout the entire period of our daily office hours.

A physician was present at every game and athletic contest held during the year and we are happy to report that no serious injury was sustained in any of these competitive sports.

Early in October, the Women's Infirmary was re-established in its former quarters on the twelfth floor of Johnson Hall, in an ideal suite of eighteen rooms. During the war, while the Naval unit occupied Johnson Hall, the Women's Infirmary used a temporary suite in Whittier Hall. In the summer of 1945, while waiting for Johnson Hall to be renovated, a central infirmary for men and women was maintained at 1161 Amsterdam Avenue, the Casa Italiana. Although every room in the University dormitories for women has been occupied throughout the year, the infirmary has been able to take care of every patient reporting to it for bedside care. The total number of women treated during the year was 377; the average number of days in the infirmary was 4.42. The resident population in the dormitories during the year was:

Johnson Hall	337
Teachers College	400
Barnard College	350
	<hr/>
Total	1,087

The Men's Infirmary is still located at 1161 Amsterdam Avenue. Although the Navy vacated John Jay Hall early in the spring of 1945, it was decided to continue the Men's Infirmary in the Casa Italiana so that the

rooms on the fourteenth floor of John Jay Hall might be available to students.

In closing this report we wish to express our grateful appreciation to the Faculty and Officers of Administration for their understanding and constant coöperation. As for so many years, we are again in great debt to St. Luke's Hospital, Knickerbocker Hospital, and Medical Center for their generous assistance, so willingly given in meeting our problems of hospitalization.

Respectfully submitted,

WILLIAM H. McCASTLINE
University Medical Officer

June 30, 1946

Columbia University

IN THE CITY OF NEW YORK

Report of the Director of Libraries

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1946



MORNINGSIDE HEIGHTS

NEW YORK 27, N. Y.

PRINTED FOR THE UNIVERSITY BY
COLUMBIA UNIVERSITY PRESS

REPORT OF THE DIRECTOR OF LIBRARIES

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1946

To the Acting President of the University

SIR:

As Director of Libraries, I have the honor to present the annual report of the libraries for the academic year ending June 30, 1946.

On April 17, 1946, the name of the central library building was changed from South Hall to the Nicholas Murray Butler Library. It is an honor which the Trustees have long held in store for the man who was President when the building was erected and who for so many years took an aggressive interest in the development of the University Libraries.

During the year since V-J Day the Libraries have been reshaping their acquisitions program. Acquisition of materials from foreign countries during the war years, especially from 1941 through 1945, was extremely difficult for the Libraries. The work of the Joint Committee on Importations of which Mr. Thomas P. Fleming of our own staff was Chairman, was helpful in maintaining the continuity of some periodicals and serials on special subjects. Books trickled in from England, Portugal, Russia, Spain, Switzerland, and China. Factors which hindered receipt of materials were slowness of shipping, restrictions on export, and legal regulations governing the registration of foreign agents in this country.

In the year under review foreign markets began to open. A few of the dealers with whom Columbia had business relations prior to the war began to ship library materials which they had collected and stored for us. Still, there were many obstacles—small editions, customs, shipping, and the black market—which stood in the way of purchasing current as well as non-current foreign publications. In order to surmount these difficulties, the Libraries relied upon the following measures for procurement: (1) participation in coöperative plans, such as the China Purchase Plan, the Library of Congress Cooperative Acquisitions Program, and the Russian Acquisitions Program; (2) enlistment of the services of faculty members and others who visited foreign countries to discover what materials are becoming available; (3) blanket orders with selected foreign dealers; (4) preparation by librarians in special fields of desiderata lists

of foreign publications; and (5) the use of American book dealers who were beginning to reestablish contacts abroad. Although it has not been possible to acquire many specific titles needed by the faculties and their students, these complementary methods enable the University to meet, with some degree of success, conditions in the world book market which are decidedly abnormal.

During the year we have made some progress, but unhappily not enough under the circumstances, towards getting salaries and wages on firm footing. In spite of the generous addition to the Budget for staff salaries made by the Trustees at the beginning of the fiscal year the staff has not been stabilized. With living costs spiraling upward the retention of stenographers, typists, desk assistants, and pages has been particularly difficult.

In facing this situation we have to bear in mind the necessity of holding together a staff capable of supplying the library services of the University. We have to bear in mind also that a mounting succession of employees siphons away into unproductive channels an undue share of the energies of those who train them. And we must of course bear in mind the policy of Columbia to provide those who carry forward its work opportunities for a dignified career as favorable as our numerous other commitments and the nature of the work warrant. I shall offer specific recommendations with these ends in view when the time comes for presenting the new budget.

A personnel committee consisting of Miles O. Price, John H. Berthel, Walter Hausdorfer, Pauline C. Ramsey, and Maurice F. Tauber, Chairman, completed its work on a classification and pay plan for the Library staff late in 1945. Mr. Donald E. Dickason, Director of the Office of Non-Academic Personnel of the University of Illinois, and Professor John McDiarmid of Northwestern University, a student of personnel administration with practical experience in the field, reviewed the results and offered suggestions on some of the more technical problems. As it stands, the program calls for budgetary commitments which the Trustees have not yet been asked to make but, within limits set by the budget, the plan has already been put into effect.

The results have already been beneficial to the staff. For one thing the

classification of positions has made it possible to develop a more uniform set of titles throughout the system. But more important is the fact that members of the staff are afforded a welcome means of knowing better what the future holds for them. They have no way of knowing with infallible certainty what their future in a given position, or in the system as a whole, is to be: they understand that that depends both upon available funds and upon how convincing a record of accomplishment is made by the individual. But the plan has the great merit of laying out for five levels of the clerical-fiscal group and six levels of the professional group the precise range in salary to be paid for each position.

One of the objectives of the personnel program is to fit jobs and people to each other. We have materially reduced the proportion of professional assistants to clerical assistants. Of 280 full-time positions 109 $\frac{2}{3}$ are classified as professional, 170 $\frac{1}{2}$ as clerical, a ratio of 39% to 61%. The term "clerical" is used for lack of a better name. Larger libraries afford opportunities for dignified employment to capable young college graduates without professional library training. They may be filing clerks or stenographers, but they may serve in other capacities also.

The housing situation seriously affects the library staff. The problem of our married couples is the same as that of other couples throughout the University, but many of our staff members are unmarried. They constitute part of what may be called the middle group in the University population—the group half-way between University families and resident students. So far as I know, no survey has been made of the housing needs of this middle group. Its plight can be illustrated by one member of our staff. She was permitted to live in a residence hall for women for a while but even though she was a "permanent" member of the community she had to give up her room there because she was not a student. On the other hand she was too far down the academic scale to compete successfully for the few University apartments which became available. In time, she gave up and left us. The abnormalities of the present housing situation should not lead to misguided action, but it appears that this crisis has focused attention upon the residential needs of a group hitherto neglected. We have taken some thought about resident students and also about faculty families. My recommendation is that we find out more

about the residential needs of this middle group and weigh its importance in planning the future housing program of the University.

The Libraries have experienced many difficulties in carrying forward the manifold operations in spite of an increasing turn-over in staff. During the year there were 293 resignations and 326 appointments. The larger number of appointments is due to the fact that with an inability to get enough full-time staff members two or more part-time workers have had to be placed in some full-time positions.

Readers' Services. The close of the war brought increased use to all of the libraries. There were 1,635,026 volumes supplied for home use and use in the libraries, which was 468,687 more than in the preceding year. Registration at the Butler Library Circulation Department was doubled, with 10,989 registered as against 5,575 in 1944-45. Interlibrary loans exhibited the same trend. There were 1,014 requests for such material from Columbia readers as compared with 765 last year. Requests for Columbia material rose from 1,268 last year to 1,616 this year.

The great increase in the enrollments of the professional schools is reflected in the use of the libraries of those schools. In the Medical Library a total of 106,781 readers were in attendance, an increase of 37.2 per cent. Total circulation represented a gain of 35.9 per cent. In addition to circulation increases, the Reference Department of the Medical Library reorganized and expanded its Bibliographical Service. Citation slips distributed to faculty members totaled over 11,000, representing searching into 132 different subjects. This was 29.5 per cent more than during the peak year before the war. In other ways, such as displays and exhibits, talks to faculty members and students, and distribution of selected acquisition lists, the Medical Library staff has brought the users close to the facilities of the Library. This growth in the normal functions of the Medical Library reflects and lends emphasis to the urgency for more adequate facilities for users and staff.

The growth in the student body of the Law School had direct effects upon the Library. The Law Librarian reports that the veteran students "are by far the hardest working students we have had within the memory of any present faculty or staff members." As a result, the reference and circulation facilities of the Law Library have been taxed to the limit. The

total over-all use for the last five months of the year being reported was approximately twice that of the first seven months.

More demands were made upon the Avery Library than in any year before the war. In the Business Library, the number of books issued to readers doubled that of last year. In the Library of the School of Library Service the increase in use of materials was 31.5 per cent. In the Journalism Library, the number of books consulted grew 15 per cent. In the Engineering Library circulation increased from 68,855 in 1944-45 to 138,957 during the last year.

The departmental libraries and reading rooms of the system reported similar increases. In the Periodical Reading Room, there was a doubling of the use of magazines, approximating more than 9,000 over last year. In the Music Library the use of materials was the highest since 1941-42, representing an 18.7 per cent increase over last year. The Browsing Room, opened during the year, had a reported attendance of 18,148. The Plimpton, Smith, and Dale libraries had more calls for services by students and classes than in previous years. In the Natural Sciences Libraries, there was an increase of 20,166 over the previous years, with a total use of 131,483. Added demands were made upon the East Asiatic Collections which, despite the close of the war, were called upon by many government offices, staffs of various newspapers and periodicals, and such organizations as the United Nations, the Institute of Pacific Relations, United China Relief, the East and West Association, and the Natural Resources Commission of China. An 18,000-volume growth in circulation reflects the demand made upon the facilities of the Columbia College Library. Similarly, the Chemistry and Mathematics libraries report increases in student and faculty requests for service.

With the growth in student body, the greater amount of leisure time for reading, and the expanding activity in publishing, the Lending Service has shown a marked increase in circulation and income during the past year, when 28,333 books were circulated (5,904 more than in 1944-45). During this first post-war year in which the Lending Service has operated at a profit, the total income was \$8,026.02, a 26 per cent increase. An active membership of 2,870 is now given service. Lending Service has now recovered all of the ground lost during the war years and has

surpassed the peak year of 1941-42. It continues to be an excellent agency for current reading and a source for building up the general collections of the Main Library.

Some of the libraries are becoming cramped for space for both books and readers. In such libraries as Avery, Chemistry, Columbiana, Mathematics, Paterno, Psychology and Anthropology space for books is exhausted. Special Collections, housed in Low Memorial Library, has for many years needed the attention that should be given to the rarities of a great institution. More and more it becomes apparent that Columbia must provide suitable quarters for its rare books.

Preliminary plans have been submitted by the architect for a ten-story building to be located at 168th Street and Fort Washington Avenue to house a new Medical Library. The street level and second floors are to provide for an auditorium to seat 750 people. The remaining floors, which are to constitute the Library, will provide modern facilities for meeting student and faculty needs, including advanced research.

In Butler Library, pressure for space has appeared in the College, Business, and Burgess libraries. Both Business and Burgess have had difficulty in seating the many students who come to them.

Exhibits built around educational and cultural subjects represent one of the functions of the Libraries in developing interest in book use. During the past year, several units of the library system have displayed unusual efforts to provide varied subjects to attract the interest of students and faculty members.

Among the exhibitions held in Butler Library were "Fifty Books of the Year," selected by a Committee of the American Institute of Graphic Arts; "Treasures from the Medical Library," which was designed to call attention to the Medical Library and to the fact that its books are listed by author in the general catalog; "Walter Crane," which included first editions and original drawings lent for exhibit by Mrs. George W. Patterson; "James Fenimore Cooper," which was concerned with the thirty first editions presented by Mr. Leonard Kebler; and "Specimens of Decorated Papers," which illustrated the various uses of such papers in book making and the steps involved in producing marbled papers and blocks for printing.

In the Avery Library exhibitions were held of "Illustrated Costume Books"; "Greek Revival Architecture in America," which included photographs from the collection of Mr. Talbot F. Hamlin; "The Christmas Story in European Painting," a display of reproductions of pictures from the fourteenth century to the eighteenth century; "Art Books Published in the Orient," which included books from the East Asiatic, Fine Arts, and Avery libraries; "Charles Coolidge Haight Architectural Drawings"; and "Early Kentucky Architecture," which was built around photographs by Alfred Andrews.

The Medical Library maintained a monthly series of exhibits on such subjects as captured Japanese drugs, herbals, G. B. Morgagni, war-time advances in medicine, and the history of X rays. Developments in dentistry were also exhibited through the book displays.

Among the exhibits held in the East Asiatic Collections were "The Printed Book in China," "Sun Yat-sen and the Founding of the Chinese Republic," "Early Chinese Culture Illustrated by Oracle Bones and Bronzes," "The Development of Printing in China," "A Glimpse of the Japanese Language and Its Problems," "The Arrival of the West in Japan in the Sixteenth Century and its Historical Implications," and "The No Play, the Dramatic Literature of Medieval Japan."

Mr. Thomas P. Fleming, Assistant Director of Libraries, Readers' Services, left in May, 1946, to go to Germany as a member of the Library of Congress Mission to help American libraries obtain books and other materials published there. The selection of Mr. Fleming for this responsible assignment was a natural outgrowth of his successful work as Chairman of the Joint Committee of Importations during the war years. Mr. Fleming also served as a member of the Executive Board of the American Library Association.

During the year the Libraries lost the services of two especially valued members of the staff. Mr. Talbot F. Hamlin, Librarian of the Avery Library for eleven years, resigned in February, 1946. During Mr. Hamlin's incumbency, the Avery Library expanded in both resources and services, thus establishing its position as one of the greatest libraries of its kind in the world.

Mr. Charles M. Adams, after seven years of devoted service as Assistant

to the Director of Libraries, resigned to accept the librarianship of the Women's College of the University of North Carolina.

Technical Services. During the period between January 1 and June 30, 1946, when the new correlated order forms were in effect, the Acquisitions Department placed 14,768 book orders. These new order forms, which provide information for several of the Libraries' operations at one typing, have greatly facilitated the flow of work.

The amount of ordering has increased with the close of the war. The past year has brought increasing receipt of materials and has improved the opportunity of placing foreign orders. Through Stechert, Droz, and other French agents we have been able to obtain books, periodicals, and continuations. Some of these were new items, but others represented materials which were being held for Columbia during the war. From Liberma we have received six large cases of Italian works which help to fill in gaps in our sets. Nijhoff of Holland has sent many parcels and cases of books. Shipments have also come from Egypt, Switzerland, and the Scandinavian countries. It is more than likely that during the coming year we shall acquire more materials through all of our foreign representatives, and, with the materials that we are obtaining through the Library of Congress Cooperative Acquisitions Program and the Russian Acquisitions Program, the outlook for increased pressure upon the Acquisition Department seems very clear.

Further attempts to acquire materials more quickly and fully may be noted in (1) the extension of the policy of blanket orders with university presses and certain foreign dealers, and (2) the enlistment of services of faculty members and others who visited foreign countries.

Throughout the year, attention was directed toward establishing clearer exchange relationships with other educational institutions and agencies, both at home and abroad.

Especially large quantities of materials were received from the Université d'Alger, Universität Bern, Université de Bordeaux, Københavns Universitet, Bibliothèque Publique et Universitaire de Genève, Rijksuniversiteit te Gronigen, Université de Lausanne, Université de Liège, Université de Lille, Lund Universitet, Université de Lyon, Université de Montpellier, Lenin State Library, Society of Cultural Relations with

Foreign Countries (Moscow), Bibliothèque Universitaire de Nancy, Oslo Universit t, Universit  de Paris, R. Scuola d'Ingegneria (Pisa), Kungliga Biblioteket (Stockholm), Universit  de Strasbourg, Universit  de Toulouse, Rijksuniversiteit de Utrecht, Biblioteca Nacional (Caracas, Venezuela), and the Universit t Z rich.

In the Catalog Department, there was an increase in the number of volumes catalogued: 45,460 as compared to last year's figure of 41,859. In titles catalogued, there was an increase of 1,244 over 1944-45. During the year 255,916 cards were produced for the catalogs, an increase of 19,370 over the preceding year. Of the total cards produced, 143,044 were typed or mimeographed, and 112,972 were purchased from the Library of Congress. In practically all divisions of the Department, just as in the Acquisitions Department, there were difficulties resulting from changes in personnel, especially on the clerical level.

Despite these handicaps, the Department progressed in a number of ways. Among these, in addition to increased production, were (1) the completion of the project of placing author entries in the general catalog for Medical Library books (involving 19,635 cards); (2) completion of "Rules for Filing Cards in the Catalogs of the Columbia University Libraries," prepared by a committee of the Department under the guidance of Miss Altha E. Terry; (3) cataloguing of the Bassett Jones Libris Polaris Collection; (4) cataloguing of books acquired by the Browsing Room, which was reopened during the year; (5) almost completely cataloguing the works of John Drinkwater and John Masefield, which form portions of the Coykendall Collection; (6) continuing the cataloguing of items from the Seligman Collection; (7) taking over of the subject cataloguing and classification of materials going to the Business Library and the Avery Architectural Library; (8) some cataloguing of the Ibero-American serials, and analyzing of 201 volumes of *Chteni a* of the Moscow Historical Society; (9) completion and stencilling of the "Binding Code" by Miss Margaret Roys; (10) materially reducing the uncatalogued arrearage of the documents of Argentina and Brazil; (11) cataloguing of 1,799 titles in the Webster Library of the Medical Library; and (12) formulating a classification system for the United Nations materials acquired by the International Law Library.

In various units of the library system, not parts of the Cataloguing Department, cataloguing activities have been performed. These may be briefly recorded.

The Curator of the Near East Collections reports that author entry has been established, transliteration of title made, subject headings assigned, and classification suggested for about 700 books in European, Near East, and Middle East languages. This is the basis for final cataloguing produced by the General Cataloguing Division. The preparation of the second volume of the *Descriptive Catalogue of Oriental Manuscripts* progresses, and thirty-eight manuscripts have been catalogued.

In the Plimpton Library, most of the English and continental writing master's copy-books were catalogued. Some 600 American books, which constitute half of the calligraphy collection, remain to be catalogued. Some work was also done on the geography and western manuscript collections, but changes in personnel have delayed this work.

In the Japanese Collection, approximately 250 volumes were processed. This figure includes many of the "rare" items which present difficult problems of cataloguing. A periodical checking file arranged by romanized titles was almost completed. The classification of the Chinese Collection has been finished, but considerable work remains in the cataloguing of the materials.

One hundred and twenty-two autographed letters were catalogued by the staff of the Special Collections Department. The Music Library reports the preparation of 1,797 cards for music, 586 for records, and 34 for films. An additional 258 cards were made for Barnard material.

As for uncompleted work, the Libraries have on hand large collections of materials which have not been searched or catalogued. In addition, there are other formidable tasks which need completion: (1) placing of Law entries in the general catalog; (2) transferring 5,000 Journalism volumes and many other volumes to the general or departmental collections; (3) removal of small cards from the general catalog; (4) removal of the Library of Congress Depository catalog to provide expansion of the general catalog; and (5) organizing of the pamphlet collections.

The increase in acquisitions (especially unbound items from foreign sources) and in cataloguing normally adds to the problems of the Binding

Department. The general rise in cost of materials and labor has also affected binding. As Dr. Mary A. Bennett points out in her report, Columbia bound 29,404 volumes in 1938-39 with the \$34,400 of the general fund and the professional school funds. In 1945-46, only 18,267 items could be bound with the same amount of money. It is clear that there has been about a 60 per cent increase in the cost of binding. If a serious arrearage of unbound publications is to be avoided, larger binding appropriations will have to be requested.

Fortunately, the clerical staff of the Binding Department remained constant during the year. As a result, 40,488 books were handled for plating, marking, etc. This is approximately the same figure as last year. Commercial binders bound 23,270 items, as compared to 21,804 in 1944-45, the increased number being due to a special \$7,000 grant for binding foreign war-time materials. There were increases in repairs, board portfolios made, gilding, board tie-ins made, and books cut.

Large numbers of books in the professional school libraries and departmental libraries await repairs or protection with Japanese tissue. Attention to rare books is overdue.

The growth in the work of the Photograph Division can best be expressed in the statistics of the work performed: in 1938-39, the income of the Division was \$3,836.40; in 1945-46, it increased to \$12,911.25. Growth has been made not only in terms of money. The Division, formerly concerned only with photostatic reproduction, now provides service in microfilms, film negatives, contact prints, enlargement prints, enlargements from 35mm films, black and white and colored lantern slides, reproduction of catalog cards, and other miscellaneous photographic jobs.

Interest in librarianship and in library problems beyond those of the Columbia Libraries is evidenced by the activities of members of the technical services staff.

Miss Altha E. Terry taught the evening course in cataloguing in both the Winter and Spring Sessions in the School of Library Service. She also served as Vice-president of the New York Regional Catalog Group. For the meeting of the Division of Cataloguing and Classification of the A.L.A. at the Buffalo Conference, she collaborated on a paper entitled "A Job Survey in a University Library."

Mrs. Violet A. Cabeen taught the course in Government Publications during the Summer and Spring Sessions in the School of Library Service. She continued as a member of the A.L.A. Public Documents Committee, and at the A.L.A. Buffalo Conference presented the findings of a survey she had made of practices in administering documents in a selected group of libraries in New York State.

Dr. Mary A. Bennett visited the Louisiana State University Library as a consultant on binding problems. She also served on the A.L.A. Committee on Photographic Reproduction, the S.L.A. Committee on Documentation and Microfilming, and the Micro-card Committee to represent the Special Libraries Association. She also gave a course, *Microphotography for Libraries*, in the Spring Session in the School of Library Service.

Dr. Maurice F. Tauber, the Assistant Director, Technical Services, was a member of the Board of Directors of the Division of Cataloguing and Classification of the American Library Association. As a member of a Special Advisory Committee called by the Librarian of Congress, he had the opportunity to discuss the new code of principles for descriptive cataloguing for the Library of Congress, at sessions held in Washington. In June, 1945, he surveyed the technical processes of the University of Vermont Library, at the request of the Director of Libraries and the President of the University. With Louis R. Wilson, professor at the University of North Carolina Library School, he surveyed the University of South Carolina Libraries. Collaborating with Dr. Wilson, he was the author of *The University Library* (published by the University of Chicago Press, August, 1945). Since September, 1945, he has been Managing Editor of *College and Research Libraries*. As assistant professor in the School of Library Service he taught advanced courses in cataloguing in the Winter and Spring Sessions, and assisted ten students with their essays in the area of the technical services. He was chairman of the Committee on Position Classification and Pay Plan of the Libraries which completed its work at the close of the year.

Some of the Major Acquisitions. It is, of course, not possible to list all of the important purchased acquisitions of the Libraries during the year. Attention, however, may be called to some of the materials acquired, such as a 1499 edition of Avicenna's *Canon*, with notes and explanations

by Dinus de Garbo; Sixt Birck (Xystus Betulius), *Susanna, Comoedia Tragica* (1st ed., Augsburg, 1537); Joannes, bp. of Gerona, *Domini Ioannis episcopi Gerundensis Paralipomenon Hispaniae . . .* (1545); *Carmina Illustrium Poetarum Italorum* (11 volumes, 1719-1726); Robert Whittington, *Syntaxis* (1524); Roberto Titi, *Pro Suis Locis Controversis Assertio Adversus Yuonem* (3 volumes, 1589); Hubert Goltzius, *Icones Imperatorum Romanorum* (Antwerp, Plantin, 1645); a valuable collection of Arabic books purchased for the University by Professor Edwin E. Calverley in Cairo; three additions to *Rara Arithmetica* (arithmetics printed before 1601); a large collection of Russian economic material, and also a run of the Russian illustrated periodical, *Niva* (520 numbers since 1901). Seventeenth-century English literature was enriched by the acquisition of the second edition (1624) of Robert Burton's *Anatomy of Melancholy*. Seventeen editions of this important work are now owned, including the first five. Of this period of literature Abraham Cowley's *Poems* (1656), George Herbert's *The Temple* (1633), and John Donne's *Poems* (1669) were also acquired. Among the more modern authors, additions including autograph letters and manuscripts have been made to the collections of George Moore, William Butler Yeats, James Joyce, and D. H. Lawrence. Outstanding among the items is a typescript of *The Strike at Arlingford* by George Moore, which has copious additions and corrections in Moore's handwriting.

During the past year the Libraries received a total of 92,575 items as gifts. This figure does not include the major gift of the year, the Frederic Bancroft Collection. In addition to a large number of books on American history (especially the Civil War, slavery, and the Old South), the collection includes a small group of early and first editions of Byron, Keats, and Shelley; Dr. Bancroft's valuable manuscript on "Walks and Talks with Carl Schurz" and his partly finished book on the Old South; valuable autograph items, many photographs, and personal letters; and Edgar A. Bancroft's collection of Japanese books and books on diplomacy.

Mr. Leonard Kebler ('04E), of Bronxville, New York, presented thirty of the first editions of works by James Fenimore Cooper. These items comprised about half of Cooper's published works, and included all the well-known titles except *The Spy* and *The Pilot*. Mr. Kebler also

presented to the Libraries single autographed poems in the handwriting of Ralph Waldo Emerson and Matthew Arnold.

Mr. Frederick Coykendall ('95) gave from his library of English and American literature the first editions of the works of fifty-three authors, chiefly English poets dating from the end of the nineteenth century. The largest single groups are the works of Laurence Housman (90 items), Arthur Symons (75 items), and John Addington Symonds (66 items). Included also are books by Max Beerbohm, Hilaire Belloc, D. H. Lawrence, Katherine Mansfield, Oscar Wilde, and others.

Mr. Clarence Epstean continued to add to the collection on the "History and Science of Photography" presented to the Libraries by him and his father, Mr. Edward Epstean, in 1932. Fifty-two books and seventy-eight periodicals have been received from this gift. Through the generosity of Mr. Edward Epstean in turning over to the Columbia University Libraries all profits resulting from the sale of his translation of Joseph Eder's *History of Photography*, 27 additional titles, chiefly early technical treatises and missing issues from periodicals files, were obtained.

Sixty-six letters from George Henry Calvert, his mother (Rosalie Stier Calvert), his uncle (Charles Stier), and other members of their family were presented by Bernard Shirley Carter and Caroline Mildred, Countess of Gosford.

Edwin P. Kilroe ('04) presented several items, including *Songs of Tammany* (1794) by Ann Hatton, *Plan for a Tammanial Tontine Association* (1792), and a file of the *Tammany Times*, adding to the Collection of Tammaniana which he gave in 1942.

Among other gifts to Special Collections were the papers and correspondence relating to international cultural coöperation and to the writing of *The Economic and Social History of the World War*, presented by Professor Emeritus James T. Shotwell.

Important gifts secured by the Law Library included a beautiful copy of an extremely rare German law book, *Statuta Provincialia Moguntinensis*, probably published about 1479-82, presented by Mr. Christian Zabriskie of New York City. Mr. Zabriskie also gave a copy of the rare 1710 *Laws of New York*, from the Bradford Press, bearing the autograph of Governor Lovelace; and \$1,000.00, to be spent at the discretion of the

Libraries during the 1946 calendar year. Professor Roswell Magill presented the Libraries with several hundred volumes of material on taxation, and an almost complete collection of casebooks in the University Casebooks Series, dating from its beginning.

The International Law Library was greatly enriched during the year by the gift of Judge John Bassett Moore. This gift consisted of non-duplicating material from his private library. Another important acquisition in international law was the set of original documents of the San Francisco Conference on International Organization. Professor Philip C. Jessup gave a nearly complete set in English, and Wellington Koo, Jr., and Dean Virginia Gildersleeve sent other copies.

The most important acquisition and probably the largest collection Columbiana has received at one time came this year from President Emeritus Nicholas Murray Butler. Dr. Butler presented the remaining bound volumes of his newspaper clippings, bringing the total up to one hundred and forty-two; fifteen volumes of his published addresses, three portfolios of his diplomas and certificates, a large quantity of photographs, all the hoods accompanying his honorary degrees, and other material. It is especially worthy of note that he has entrusted to the Libraries twenty-two filing cabinets of correspondence. It is stipulated that this material is not to be used until after his death.

A gift of special value to historians writing on the recent war in the Pacific is a file of the *Japan Times*, published in Tokyo between 1940 and 1945. This was presented by Lieut. John A. Harrison through the interest of Professor L. Carrington Goodrich.

Funds left by Professor David Eugene Smith for the enlargement of his library became available for use this year. With this money, and allocations from the University Libraries for purchasing items for the Plimpton Collection, some eighty books were purchased. About thirty more volumes were acquired by gift.

Mrs. Julia Pfeiffer presented to the Mathematics Library approximately 200 volumes in memory of her son, the late Professor George A. Pfeiffer, of the Department of Mathematics.

Among the gifts received by the School of Library Service Library were 774 items, largely historical material in the field of library science,

from the American Geographical Society; 1,395 items from the University of Vermont Library; 812 issues of overseas editions of periodicals, given by the Special Services Division of the United States Army, through Major Paul E. Postell; 1,051 items from the Rockefeller Foundation; and large gifts of books, pamphlets, and other items from J. S. Cleavinger, Anne T. Eaton, Thomas P. Fleming, C. F. Gosnell, J. H. Moriarty, Harriet Peck, Isabella K. Rhodes, Miriam D. Tompkins, and Walter Wright.

The Montgomery Library of Accountancy continued to receive funds from Colonel Robert Montgomery; it also received a group of account books and papers from the vicinity of Lancaster, N. H., from Professor Margaret Hutchins.

The Natural Sciences Libraries received a collection of 3,250 maps from the Army Map Service, and collections of publications from Professors J. S. Shand, L. C. Dunn, and Theodosius Dobzhansky.

From the library of the late Professor John Dyneley Prince, presented to the University in 1944, the Music Library received during the current year fifty-five volumes of folk and national music which enrich our collections in this field considerably. Mrs. Eugene A. Noble presented a positive photostat of her important Beethoven manuscript: the *Rondo a capriccio, opus 129*, with connected sketches. Professor George Herzog presented twenty-five pamphlets on folk and primitive music, by himself and others (including the late Dr. E. M. Hornbostel). From the Pulitzer Prize Committee the library received phonograph records of the composition receiving the award in 1946: Leo Sowerby's *The Canticle of the Sun*.

The New York Public Library gave approximately 2,300 bound volumes of the New York *Evening World* covering the period from 1887 to 1927.

The Libraries received a large number of non-codex materials from various friends. Mr. Judah A. Joffe ('93) presented forty-five phonograph records to be added to the Joffe Collection. Professor Lindsay Rogers gave 300 unbound pieces, many of them still unprinted, comprising the official documents issued by the United Nations during their meeting held in London in 1946.

Grateful acknowledgment is made to all of the donors, whose gifts have added so much to the resources of the Libraries.

Reflected in this annual report of the Libraries is the accomplishment of each of the members of the staff. It but remains for me to record my gratitude and my pride in their achievements and to thank you, Sir, for the cordial support given them and me.

Respectfully submitted,

CARL M. WHITE
Director of Libraries

June 30, 1946

COLUMBIA UNIVERSITY
STATISTICS OF THE UNIVERSITY LIBRARIES

DEVELOPMENT OF THE LIBRARIES

Volumes Added

	1942-43	1943-44	1944-45	1945-46	Increase or decrease
COLUMBIA UNIVERSITY LIBRARIES					
General Library and departments	26,995	20,846	27,830	30,744	2,914
Avery	1,110	977	1,049	824	-225
Law	5,578	6,314	5,422	5,955	533
Medicine	5,437	5,048	7,232	6,444	-788
Lending Service	-80	139	1,200 ^a	1,532	332
BARNARD	1,833	1,167	326	1,493	1,167
COLLEGE OF PHARMACY	88	40	90	110	20
NEW YORK POST-GRADUATE					
MEDICAL SCHOOL	181	677	540	862	322
NEW YORK SCHOOL OF					
SOCIAL WORK	90	340	346	279	-67
BARD COLLEGE	1,104	1,390	....^b	....	....
TEACHERS COLLEGE	1,310	....^c	....	....	....
<i>Total</i>	43,646	36,938	44,035	48,243	4,208

USE OF THE LIBRARIES

Books Loaned for Home Use

Recorded Use of Books in Libraries

	1942-43	1943-44	1944-45	1945-46	Increase or decrease
COLUMBIA UNIVERSITY LIBRARIES ^d	1,166,339	1,635,026	468,687
BARNARD	123,984	146,975	135,138	-11,837
COLLEGE OF PHARMACY	2,000	1,300	1,711	411
NEW YORK POST-GRADUATE					
MEDICAL SCHOOL	4,121	6,661	8,817	2,156
NEW YORK SCHOOL OF					
SOCIAL WORK	44,730	72,500	135,864	63,364
<i>Total</i> ^d	1,395,480	1,916,556	522,781

Interlibrary Loans

COLUMBIA UNIVERSITY LIBRARIES . . . . .	....	....^d	1,705	3,212	1,507
<i>Total Recorded Use of Books</i> . . . . .	....	....^d	1,397,185	1,919,768	524,288

^a An error was made in compiling the 1944-45 Lending Service statistics. This explains the difference in the number of volumes added.

^b Bard College statistics not included since 1944-45.

^c Teachers College statistics not included since 1943-44.

^d Because of change in method of compilation, these statistics are not available.

ACQUISITION DEPARTMENT STATISTICS

	1942-43	1943-44	1944-45	1945-46	Increase or decrease
ORDERS PLACED	11,105	11,232	21,015	25,200	4,185
GIFTS					
Pamphlets and volumes	17,679	17,820	73,228	92,575	19,347
EXCHANGES					
Pieces received	2,984	1,655	1,482	5,909	4,427
Pieces sent out	15,591	5,038	4,041	2,485	-1,556

CATALOG DEPARTMENT STATISTICS

CARDS PREPARED AND FILED					
General Library	108,724	72,701	95,451	110,829	15,378
Departments	128,707	102,929	116,084	118,410	2,326
Replaced	10,386	9,548	6,082	7,012	930
Depository cards filed	84,890	83,576	87,615	68,869	-18,746
<i>Total</i>	<u>332,707</u>	<u>268,754</u>	<u>305,232</u>	<u>305,120</u>	<u>-112</u>
VOLUMES CATALOGED	45,610	38,378	45,630	48,490	2,860
VOLUMES RECATALOGED	21,066	44,635	12,562	6,825	-5,737
VOLUMES LOST OR					
WITHDRAWN	2,797	2,661	2,211	1,765	-446

BINDING DEPARTMENT STATISTICS

IN LIBRARY BINDERY					
Volumes repaired	979	1,477	778	973	195
Pamphlets bound	8,324	8,353	7,119	7,571	452
OUTSIDE OF LIBRARY					
Volumes bound or rebound	22,496	20,514	22,075	23,270	1,195
<i>Total</i>	<u>31,799</u>	<u>30,344</u>	<u>29,972</u>	<u>31,814</u>	<u>1,842</u>

Columbia University

IN THE CITY OF NEW YORK

Report of the Secretary of Appointments

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1946



MORNINGSIDE HEIGHTS
NEW YORK 27, N. Y.

PRINTED FOR THE UNIVERSITY BY
COLUMBIA UNIVERSITY PRESS

REPORT OF THE SECRETARY OF APPOINTMENTS

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1946

To the Acting President of the University

SIR:

I have the honor to report the activities and development of the Appointments Office for the year 1945-1946.

During this year World War II came to a conclusion and reconversion became the order of the day. The Appointments Office, in this transition, played a major role in behalf of Columbia Alumni and students returning from military and civilian war assignments.

For those who, years hence, may read this as an historical document, it may be well to note some of the problems one meets when returning from war. For example, a major problem of the returning veteran was that he *was* considered a problem. Many hours of planning were devoted to the "veteran problem," how to help him readjust, how to reappraise him, how to reconvert him from a "battle neurotic." Much of this planning was good, sound and intelligent, particularly when it assumed, quite correctly, that the veteran was a normal human being. But many back home who had expected the veteran to return, a difficult problem to be handled with psychiatric treatment, were truly surprised when he turned out to be no different than the young man who went to war. He wanted only to get out of uniform, back to his job, back to school, back to the old swing of things. This was where help really counted.

The law required employers to take back their former employees who had gone to war. The veteran looking for his first civilian job, however, had some difficulty because he ran into an uncertain business climate. Reconversion plans were stalled by strikes, indecision in Washington, and watchful waiting by industry and business. Employers were slow in adding new personnel until they knew who were returning to their old jobs. Engineers, chemists, physicists, and accountants were exceptions, being in great demand.

On their part, the veterans had to undergo a shakedown process. Should they return to the old job? Should they go to school? Many shopped around for better jobs and better salaries. Many who came back with high rank and high pay had difficulty in adjusting their thinking and living to lower civilian pay.

Many veterans were disappointed when they found employers would not readily accept war experience or special war training as qualifications for employment, promotion, or transfer. It seemed to us that every other veteran wished to become a personnel executive.

In view of problems such as the above, and many more, the major emphasis of the Appointments Office work during this year has been upon counseling. The expansion of the Appointments Office staff and the organization of a National Columbia Alumni Placement Council provided effective means to meet the rush that ensued. This Council received inspiration and leadership from Lester A. Egbert, then president of the Alumni Federation, and William Towson Taylor, who became its first chairman. Alumni throughout the city and country were named as counselors and gave generously of their time and advice when Columbia men and women were referred to them. (Names of counselors are listed in the appendix.)

To keep employers advised of available candidates, a "Placement Bulletin" was published from time to time, listing names and qualifications of those available for jobs.

As a step toward a custom established before the war, the Occupational Conferences were re-established with two meetings, as follows:

1. "The Accounting Profession," a discussion led by Mr. Marvin Frederick, of Peat, Marwick and Mitchell; held at the School of Business in the spring of 1945.
2. "Planning Your Career," a panel discussion on April 24, 1946, led by Mr. Ernest de la Ossa, '38 College, Personnel Director of the National Broadcasting Company. On the Panel were Mrs. Irene Kriete, B.S. '43, Miss Marea Carroll, B.S. '40, J. Collins Coffee, A.B. '40, H. Lloyd Taylor, B.S. '39. On the Student Committee were Walter Truslow, C '46, George Bliss, B '46, and Gil Orcutt, B '46.

The record of placements presented in Table I gives a statistical picture of the year's activity, but as usual it falls short of being a full description, since much of our work cannot be tabulated or measured. Counseling

activities, informational services, certain activities of a public relations nature, are examples.

Trends in placement followed an expected pattern. Our Teaching Division turned in an all time record, placing twice as many candidates as

TABLE I
RECORD OF PLACEMENTS, 1944-46

	<i>Registration for Employment</i>		<i>Positions Offered</i>		<i>Referrals</i>		<i>Positions Filled</i>		
	1945- 46	1944- 45	1945- 46	1944- 45	1945- 46	1944- 45	1945- 46	1944- 45	1943- 44
Graduate Placement									
Men	893	888	3,389	1,388	3,153	1,140	171	61	78
Women	2,401	2,324	2,098	2,080	1,572	2,170	303	301	371
Teaching	2,065	1,465	2,954	1,133	1,957	1,035	405	201	138
Total	5,359	4,677	8,441	4,601	6,682	4,345	879	563	587
Student Placement									
Men									
Summer	357	429	729	842	642	680	438	539	545
School Year	1,220	697	2,052	1,416	2,163	1,265	1,563	977	1,367
Total	1,577	1,126	2,781	2,258	2,805	1,945	2,001	1,516	1,912
Women									
Summer	764	1,086	930	1,269	1,166	1,717	345	673	891
School Year	991	1,267	1,275	2,232	2,155	2,774	1,050	1,530	1,999
Total	1,755	2,353	2,205	3,501	3,321	4,491	1,395	2,203	2,890
Grand Total	8,691	8,156	13,427	10,360	12,808	10,781	4,275	4,282	5,389

in the previous year. This was the result of the heaviest demand for teachers ever experienced by the Office. The Men's Division increased its placements as a result of the end of the war, but could not begin to fill the great number of requests for technical personnel. The shortage of engineers and scientifically trained graduates is expected to continue through 1950 and later. In the Women's Division, there were fewer opportunities of the variety offered during the war years, but there continued to be a heavy demand for skilled office workers, particularly secretaries. Student employment for both men and women continued below normal. There

were more positions offered than there were students registered for employment. Many part time jobs went begging, for the reason that students generally were financially better off, either because of government assistance or more money from home.

A significant comparison that should be recorded is that of beginning salaries as of 1939 and today. They show an average increase of \$100 per month over the 1939 figure. Technical graduates fare best with salaries ranging from \$200 to \$260 for bachelor degrees and \$300 to \$350 for doctor degrees. Arts and Business graduates were offered from \$175 to \$225.

This period of transition following the war appears a propitious time to recommend that the name of the *Appointments Office* be changed to that of the *University Placement Bureau*. The term *appointments*, passed down from the English universities, has confused both students, alumni, and employers as to the function of this office. It is respectfully proposed that from now on the office be called the *University Placement Bureau*, and the Secretary of Appointments be titled *Director of the University Placement Bureau*.

To bolster the work of the Appointments Office this year, the staff was joined by Mr. Samuel H. Beach, of the Class of 1939, Columbia College, an Air Corps Major who spent three years in England. He has proven invaluable in our work with veterans. Mrs. Leonora Page, we regret to state, was lost to our staff when her husband accepted an appointment at Smith College. Her nine years of service were distinguished by a high efficiency and application that insured steady progress for the Student Employment Division, which she eventually headed. As her replacement, Mr. Thornley B. Wood, Class of 1941, Columbia College, recently returned Naval Lieutenant, is a welcome addition to our staff. There continue in highly useful service Miss Mary A. Wegener, Associate Secretary of Appointments; Miss Ruth Callan; Miss Margaret Morgan; and Miss Dorothy MacGillivray. To them and the office staff belong full praise for a satisfying year of accomplishment.

Respectfully submitted,

ROBERT FOSTER MOORE
Secretary of Appointments

December 1, 1946

APPENDIX

NATIONAL COLUMBIA ALUMNI PLACEMENT COUNCIL

Executive Committee

Lester D. Egbert, '14C	Nicholas M. McKnight, '21C
Robert F. Moore, '24C, <i>Executive Director</i>	Ernest de la Ossa, '38C
Stoddard M. Stevens, Jr., '17L	Charles E. Shaw, '20C
	William T. Taylor, '21C, '23L, <i>Chairman</i>

National Counselors in New York City

Charles A. Anderson, '25C	Arthur Arsham, '29C, '31L
Frederick G. Atkinson, '26C	Mason H. Bigelow, '12L
Douglas M. Black, '16C, '18L	Donald D. Blanchard, '15E
John W. Bradley, '31C	Robert S. Curtiss, '27C
Berton J. Delmhorst, '30C, '30J	William O. Dillingham, '24C
Charles E. Donovan, '29C	Chester O. Falkenhainer, '22Bus
John K. Fitch, '02C	William H. Friedman, '07E, '09AM
Robert E. Garst, '24J	W. French Githens, '28C, '30Bus
Gilbert Goold, '26Bus	H. R. Graham, '08E
Dixon B. Griswold, '24C	John R. Haas, '27C
Charles A. Hammarstrom, '17C	George T. Hammond, '28C
Richard F. Hess, '38C	A. Dexter Hinckley, '26C, '27E
J. Jay Hodupp, Jr., '32C	Frank S. Hogan, '24C, '28L
Hugh J. Kelly, '26C	Willard I. Kimm, '15C
John J. Keville, '33C	Kingsley Kunhardt, '18C
Loyd H. Langston, '20Bus	Robert E. Lewis, '29C
John MacCrate, Jr., '38C	Daniel C. McCarthy, '30J
Edward C. Meagher, '18C, '21E	Ward Melville, '09C
Cliff Montgomery, '35C	Norman B. Norman, '34C
Kenneth W. Plumb, '22C, '22Bus	Joseph R. Redman, '21E
Harold A. Rousselot, '29C	Perce C. Rowe, '28C
William J. Sager, '22C, '25L	Bernard L. Shientag, '08L, '08AM
Clark I. Scott, '24Bus	Clay Rice Smith, '28Bus
David U. Snyder, '35Bus	James A. Stewart, '14E
Alan H. Temple, '17J	Jerome M. Ullman, Jr., '21C
Franklin E. Vilas, '25C	Felix E. Wormser, '16E

National Counselors in Other Cities

- Hamlet J. Barry, '38C, Denver, Colorado
- John W. Biddle, '35C, '37E, Charleston, West Virginia
- The Very Reverend Duncan H. Browne, '05C, '23STD, Chicago, Illinois
- William E. Collin, '25C, Los Angeles, California
- William H. D. Cox, '20C, '22L, Newark, New Jersey
- John D. Craven, '16C, '18L, Jersey City, New Jersey
- William H. Diekmann, '16E, Minneapolis, Minnesota
- Edwin E. Dunaway, '36C, '39L, Little Rock, Arkansas
- Arthur Farlow, '26C, San Francisco, California
- James P. Forsyth, Jr., '28C, '30L, Portland, Oregon
- Thomas F. Githens, '13E, '13AM, Cleveland, Ohio
- Harry W. Gregg, '99E, Seattle, Washington
- Granger Hansell, '24L, Atlanta, Georgia
- Philip S. Harper, '16E, Chicago, Illinois
- Robert L. Hausser, '39L, Marietta, Ohio
- Albert Howell, '28Arch, Atlanta, Georgia
- George A. Jacoby, '27Bus, Detroit, Michigan
- Melville Ketcham, '19C, Philadelphia, Pennsylvania
- F. T. Lacy, '11E, Denver, Colorado
- Garret L. Bergen, '26C, '28AM, Chicago, Illinois
- John Boyce-Smith, '01C, '02AM, '04L, '05LLM, Los Angeles, California
- Thomas H. Chilton, '22E, Wilmington, Delaware
- Frederick S. Cook, '05E, San Francisco, California
- Alfred W. Crapsey, '26Bus, San Francisco, California
- Allen B. Crow, '13C, Detroit, Michigan
- Arthur K. Doolittle, '19C, '23E, South Charleston, West Virginia
- Willet L. Eccles, '23C, '25AM, '28PhD, Middletown, Rhode Island
- Thayer B. Farrington, '10E, Cleveland, Ohio
- Stanley H. Gill, '23C, Houston, Texas
- Sterling E. Graham, '15C, Cleveland, Ohio
- Harry M. Gross, '33C, Binghamton, New York
- Donald L. Harbaugh, '23C, '25L, Cleveland, Ohio
- Philip B. Holmes, '26C, Manchester, New Hampshire
- Maurice C. Hull, '14C, '20Bus, Cleveland, Ohio
- Arthur D. Hyde, '25C, '26E, Minneapolis, Minnesota
- T. Embury Jones, '27C, '29BS, '30ME, Cincinnati, Ohio
- William P. Kirk, '07E, West Hartford, Connecticut
- Ernest B. Lawton, '13C, Waterbury, Connecticut

- Robert D. Lilley, '34C, '35E, Kearny,
New Jersey
- John T. Lorch, '27C, '30L, Chicago,
Illinois
- Hugh D. MacBain, '24C, Pittsburgh,
Pennsylvania
- Walter W. R. May, '22-'25, Oregon
City, Oregon
- Duncan Merriweather, '28Bus, '38MS,
Philadelphia, Pennsylvania
- Harvey S. Mudd, '12E, Los Angeles,
California
- James J. Reynolds, Jr., '28C, Wash-
ington, D. C.
- Walter H. Sammis, '17E, Akron,
Ohio
- Frederic E. Schluter, '22Bus, '22C,
Trenton, New Jersey
- Herald L. Stendel, '24C, Los Angeles,
California
- Forest Lombaer, '35C, Washington,
D. C.
- William F. Lozier, '35C, '37L, At-
lanta, Georgia
- William J. MacGreevy, '08C, San
Francisco, California
- Alfred McCormack, '25L, Washing-
ton, D. C.
- Alan H. Moore, '31Bus, Minneapolis,
Minnesota
- Joseph O'Mahoney, '08C, '38LLD,
Washington, D. C.
- Morrie Ryskind, '17J, Beverly Hills,
California
- Irving Schweppe, '24C, Houston,
Texas
- William Van P. Sitterley, '36Bus,
'36C, Bethlehem, Pennsylvania
- Norman B. Ward, '14E, Pittsburgh,
Pennsylvania

Columbia University

IN THE CITY OF NEW YORK

Report of the Registrar

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1946

AND FOR THE SUMMER SESSION OF 1946



MORNINGSIDE HEIGHTS
NEW YORK 27, N. Y.

PRINTED FOR THE UNIVERSITY BY
COLUMBIA UNIVERSITY PRESS

REPORT OF THE REGISTRAR

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1946
AND FOR THE SUMMER SESSION OF 1946

To the Acting President of the University

SIR:

As Registrar of the University, I have the honor to submit the following report for the year ending June 30, 1946, and for the Summer Session of 1946.

During the year beginning July 1, 1945, there were enrolled at Columbia University 37,319 resident students as compared with 27,104 in the year preceding. The enrollment under each of the main divisions is shown as follows:

<i>Division</i>	<i>Men</i>	<i>Women</i>	<i>Total</i>
Undergraduate, graduate, and professional schools.....	9,669	11,185	20,854
University Extension.....	4,674	4,612	9,286
Summer Session, 1945.....	2,550	7,803	10,353
<i>Total</i>	16,893	23,600	40,493

There were among these divisions 3,174 duplications of which 3,044 represented students of the Summer Session who returned to the University in the Winter or Spring Sessions following.

With 10,353 in the Summer Session, 427 in the Summer Term, 20,027 in the Winter Session, and 23,400 in the Spring Session, the aggregate session-registrations numbered 54,207.

One thousand six hundred and forty-eight not included above received instruction through special courses in University Extension, of whom 888 were in Postgraduate courses in Medicine and 147 in Postgraduate courses in Dentistry.

In the division consisting of undergraduate, graduate, and professional schools 10,002, or 47.75 percent, were residents of Greater New York; and 575, or 2.75 percent, were from foreign countries. Throughout the University students came from every state of the Union and the District of Columbia, from five territories, and from sixty-eight foreign countries.

During the academic year, 4,435 individuals received University degrees and diplomas in course.

Within the Corporation, exclusive of the Medical Center, 3,505 resident courses were conducted with aggregate attendance of 96,212, as follows:

<i>Division</i>	<i>Number of Courses</i>	<i>Aggregate Attendance</i>
Undergraduate, graduate, and professional schools.....	1,763	44,398
University Extension.....	822	25,302
Summer Session, 1945 ^a	920	26,512
<i>Total</i>	3,505	96,212

^a Includes courses offered at Teachers College and at Union Theological Seminary.

A department for Service on Veterans was set up in the Office of the Registrar where the paper work was handled on ex-service men and women in training under the G. I. Bill of Rights (Public Law 346 and 16). During the academic year 7,782 of these veterans were enrolled at the University: 1,802 in the Winter Session and 7,432 in the Spring Session. About 600 others were either paying their own way or receiving state aid.

Office Staff 1945-46

Nancy D. Baines (Mrs.) (Retired)	Donald M. McGann, Evening clerk
Anna Mae Baynes (Mrs.)	Mary Marsh
Bernice Bertelsmann (Mrs.)	Ruth M. Mosher
(Resigned)	John M. Mullins
Lillian A. Denby (Mrs.)	Beatrice Nenno
Madeline E. Dignus	Frederick Orr
Jeanne N. Dodd (Mrs.)	Barbara Phelps, Assistant to the
Gertrude H. Finan (Mrs.)	Registrar, School of Medicine
Grace Grant	Beatrice Y. Richards (Mrs.)
Felice Greenberg	Rita M. Riley
Dorothy Griffin (Mrs.)	Madeline Rosana
Jessie Grof (Retired)	Madeline Scully
Iva Kempton	Mary B. Timm
Dorothy Kiefer	Florence Van Veen
Gladys M. Lindsay	Donald P. Whitaker (On leave with
Marjorie MacBain, Assistant to the	the armed forces)
Registrar, School of Dental and	Martha M. Wylie
Oral Surgery	

The usual statistical material is presented in the following tables showing enrollment, class attendance, degrees conferred, geographical distribution, etc.

Respectfully submitted,

EDWARD J. GRANT,

Registrar

September 30, 1946

TABLE 1

REGISTRATION IN COLUMBIA UNIVERSITY IN ALL FACULTIES DURING THE
ACADEMIC YEAR 1945-46

Resident Students

<i>Faculties</i>	<i>First Year</i>	<i>Second Year</i>	<i>Third Year</i>	<i>Fourth Year</i>	<i>Noncandidate</i>	<i>Graduate</i>	<i>Total</i>	<i>New students</i>	<i>Percentage of New Students</i>
Undergraduate Students									
Columbia College	360	472	240	142	10		1,724	790	45.82
(Professional Option Seniors) ^a				(21)			(21)		
Barnard College	311	360	360	208	69		1,308	483	38.07
University Undergraduates							571	349	61.12
<i>Total Undergraduates</i>							<i>3,603</i>	<i>1,622</i>	<i>45.85</i>
(Professional Option Seniors) ^a							(21)		
Graduate and Professional Students									
Graduate Faculties ^b						3,481	3,481	1,782	51.19
Law	375	138	83		19	16	631	356	56.41
Medical Center									
Medicine	114	113	115	116	62	4	524	137	26.14
Dentistry	21	47	45	43	39		195	47	24.10
Dental Hygiene					49		49	49	100.00
Nursing	126	105	124	14			369	126	34.14
Occupational Therapy	26	23					49	15	30.61
Physical Therapy	33				3		36	20	58.52
Public Health					30	63	93	73	78.49
Engineering	193	163	5		240	127	723	244	33.51
Architecture					4	2	88	43	48.86
Journalism					17	49	66	64	96.96
Business	124	47			61	193	430	292	67.90
Library Service					116	43	302	146	48.34
Optometry	30	17					47	29	61.27
Teachers College ^c				1,148	499	6,769	8,416	3,838	45.60
Pharmacy ^d	104	69	32	12	213	2	432	298	68.98
New York School of Social Work					809	599	1,408	592	42.04
<i>Total Graduate and Professional Students</i>							<i>17,344</i>	<i>8,151</i>	<i>47.00</i>
Deduct duplicates ^e							93		
<i>Total Undergraduate, Graduate and Professional Students</i>							<i>20,854</i>		
University Extension at the University							9,286	6,742	72.60
<i>Total</i>							<i>30,140</i>		
Deduct duplicates							130		
<i>Net Total, Winter and Spring Sessions (or Terms I, II, and III)</i>							<i>30,010</i>		
Summer Session 1945							10,353	4,654	44.95
<i>Total</i>							<i>40,363</i>		
Deduct duplicates (see Table 4)							3,044		
<i>Grand Net Total, Winter, Spring, and Summer Sessions</i>							<i>37,319</i>		
Students in Special University Extension courses given without academic credit							1,648		

^aColumbia College seniors exercising a professional option at the University are included only in the totals of the respective professional schools, as follows: in Architecture, 1; in Business, 4; in Dentistry, 1; in Engineering, 2; in Law, 4; in Medicine, 8; in Union Theological Seminary, 1; total, 21.

There are, besides, 25 Columbia College seniors exercising such option at professional schools elsewhere, as follows: New York University College of Dentistry, 1; Cornell University Medical College, 1; Georgetown University School of Medicine, 1; Indiana University School of Medicine, 1; Long Island College of Medicine, 4; New York Medical College, 7; New York University College of Medicine, 6; University of Louisville School of Medicine, 2; University of Michigan School of Medicine, 1; University of Tennessee College of Medicine, 1.

^bThe total, 3,481 does not include 304 candidates for a higher degree enrolled in the Summer Session only.

^cDoes not include 2,515 candidates for a higher degree enrolled in the Summer Session only.

^dIncludes Extension students, 202.

^eStudents who transferred at midyear or between terms from one school of the University to another.

Note—Enrollment under accelerated programs in the Summer Term, included in the figures for the several schools:

<i>Summer Term (Under accelerated program)</i>	
Engineering	244
Law	105
Pharmacy	78
<i>Total</i>	<i>427</i>

TABLE 2

REGISTRATION OF RESIDENT STUDENTS BY SESSIONS, 1945-46

<i>Faculties</i>	<i>1945 Summer Session Accel- erated Courses (Term I)</i>	<i>1945 Summer Session (Regular)</i>	<i>Winter Session (Term II)</i>	<i>Spring Session (Term III)</i>	<i>Gross Totals</i>
Undergraduate Students					
• Columbia College.....	....	571	1,099	1,485	3,155
Barnard College.....	....	175	1,232	1,184	2,591
University Undergraduates .....	....	130	414	479	1,023
Graduate and Professional Students					
Graduate Faculties.....	....	655	2,371	2,894	5,920
Law.....	105	....	274	564	943
Medical Center					
Medicine.....	....	....	480	516	996
Nursing.....	....	....	369	320	689
Dentistry.....	....	....	179	195	374
Dental Hygiene.....	....	....	49	42	91
Occupational Therapy .....	....	....	48	46	94
Physical Therapy .....	....	....	33	33	66
Public Health.....	....	....	70	70	140
Engineering.....	244	8	406	473	1,131
Architecture.....	....	3	70	79	152
Journalism.....	....	....	66	61	127
Business.....	....	52	215	385	652
Library Service.....	....	192	234	229	655
Optometry.....	....	1	42	39	82
Teachers College.....	....	5,742	5,448	6,766	17,956
Pharmacy.....	78	4	225	332	639
New York School of Social Work.....	....	1	1,699	848	2,548
University Extension .....	....	....	5,004	6,360	11,364
Summer Session (Nonmatriculated) ^a .....	....	2,819	....	....	2,819
<i>Gross Totals</i>	427	10,353	20,027	23,400	54,207
Duplicate Registrations					16,888
<i>Net Total for the Year</i>					37,319

^aIncluding 16 Visiting Scholars.

TABLE 3

PROPORTION OF MEN AND WOMEN FOR THE PAST TEN YEARS, EXCLUSIVE OF THE SUMMER SESSION AND UNIVERSITY EXTENSION

<i>Year</i>	<i>Men</i>	<i>Percent</i>	<i>Women</i>	<i>Percent</i>	<i>Total</i>
1936-37.....	8,215	47.65	9,029	52.35	17,244
1937-38.....	8,274	47.54	9,132	52.46	17,406
1938-39.....	8,401	48.05	9,084	51.95	17,485
1939-40.....	8,082	48.65	8,479	51.35	16,511
1940-41.....	8,093	47.93	8,791	52.07	16,884
1941-42.....	7,183	47.12	8,061	52.88	15,244
1942-43.....	5,720	43.58	7,404	56.42	13,124
1943-44.....	5,685	38.54	9,068	61.46	14,753
1944-45.....	5,277	33.34	10,550	66.66	15,827
1945-46.....	9,669	46.36	11,185	53.64	20,854

TABLE 3A

PROPORTION OF MEN AND WOMEN IN UNIVERSITY EXTENSION, 1945-46 EXCLUSIVE OF STUDENTS IN SPECIAL COURSES

	<i>Men</i>	<i>Percent</i>	<i>Women</i>	<i>Percent</i>	<i>Total</i>
Resident.....	4,674	50.33	4,612	49.67	9,286

TABLE 4

DUPLICATE REGISTRATIONS BETWEEN SUMMER SESSION 1945 AND THE ACADEMIC YEAR 1945-46

I. Students of Summer Session Who Returned in Winter or Spring Session of 1945-46

<i>School or Faculty to Which They Returned</i>	<i>Men</i>	<i>Women</i>	<i>Total</i>
Architecture.....	2	2	4
Barnard College.....	36	147	147
Business.....	474	17	53
Columbia College.....	3	2	474
Dental and Oral Surgery.....	33	2	5
Engineering.....	200	252	33
Graduate Faculties.....	1	1	452
Journalism.....	2	1	1
Law.....	9	54	3
Library Science.....	3	6	9
Medicine.....	10	10	10
New York School of Social Work.....	1	1	1
Nursing.....	3	3	3
Occupational Therapy.....	2	2	2
Optometry.....	5	3	8
Pharmacy.....	1	1	2
Physical Therapy.....	301	1,057	1,358
Teachers College.....	132	177	309
University Extension.....	26	81	107
University Undergraduate.....			
<i>Total</i>	<i>1,228</i>	<i>1,816</i>	<i>3,044</i>

II. Matriculated Graduate Students of Summer Session 1945 Who Did or Did Not Return in the Winter or Spring Session of 1945-46

<i>Faculties</i>	<i>Returned</i>	<i>Did Not Return</i>	<i>Total</i>
Political Science, Philosophy, and Pure Science.....	352	304	656
Teachers College.....	759	2,515	3,274
<i>Total</i>	<i>1,111</i>	<i>2,819</i>	<i>3,930</i>

TABLE 5

CLASSIFICATION OF STUDENTS IN THE SCHOOL OF ENGINEERING

<i>Department</i>	<i>First Year</i>	<i>Second Year</i>	<i>Third Year</i>	<i>Non-Candidate</i>	<i>Graduate</i>	<i>Total</i>
Chemical Engineering.....	39	31	4	41	33	148
Civil Engineering.....	20	14	..	32	12	78
Electrical Engineering.....	79	69	..	87	19	254
Industrial Engineering.....	13	7	..	24	22	66
Mechanical Engineering.....	40	42	..	49	28	159
Metallurgy.....	1	..	..	5	2	8
Mineral Dressing.....	..	..	..	..	1	1
Mining.....	1	..	1	1	..	3
Undesignated.....	..	..	..	1	10	11
<i>Total</i>	<i>193</i>	<i>163</i>	<i>5</i>	<i>240</i>	<i>127</i>	<i>728</i>

Total includes 2 Columbia College seniors exercising a professional option.

TABLE 6
DEGREES AND DIPLOMAS CONFERRED 1945-46

<i>Degree</i>	<i>Men</i>	<i>Women</i>	<i>Total</i>
Degrees Conferred in Course			
Bachelor of Architecture	4	4	8
Bachelor of Arts (Columbia College)	265	...	265
Bachelor of Arts (Barnard College) . . . . .	...	276	276
Bachelor of Laws	50	18	68
Bachelor of Science (Business)	13	25	38
Bachelor of Science (Engineering)	155	2	157
Bachelor of Science (Library Service)	21	87	108
Bachelor of Science (Nursing) . . . . .	...	68	68
Bachelor of Science (Occupational Therapy) . . . . .	...	4	4
Bachelor of Science (Optometry)	12	2	14
Bachelor of Science (Pharmacy)	3	3	6
Bachelor of Science (Physical Therapy)	1	2	3
Bachelor of Science (Teachers College)	39	311	350
Bachelor of Science (University Course)	8	25	33
Chemical Engineer	2	...	2
Civil Engineer	1	...	1
Doctor of Dental Surgery	42	1	43
Doctor of Education	27	18	45
Doctor of Medical Science	2	...	2
Doctor of Medicine	109	4	113
Doctor of Philosophy	95	44	139
Doctor of the Science of Law	1	...	1
Master of Arts (Political Science, Philosophy, and Pure Science)	171	194	365
Master of Arts (Teachers College)	386	1,325	1,711
Master of Arts (Theology)	8	10	18
Master of Public Health	21	7	28
Master of Laws	4	...	4
Master of Science (Architecture)	3	1	4
Master of Science (Business)	27	10	37
Master of Science (Engineering)	47	...	47
Master of Science (Journalism)	24	37	61
Master of Science (Library Service)	3	15	18
Master of Science (Pharmacy)	1	...	1
Master of Science (Public Health) . . . . .	...	1	1
Master of Science (Social Work)	24	183	207
Master of Science (Teachers College) . . . . .	...	21	21
<i>Total</i>	<i>1,569</i>	<i>2,698</i>	<i>4,267</i>
Deduct duplicates ^a	7	4	11
<i>Total Individuals Receiving Degrees in Course</i>	<i>1,562</i>	<i>2,694</i>	<i>4,256</i>
Certificates and Diplomas Granted in Course			
Certificate in Dental Hygiene . . . . .	...	42	42
Certificate in International Administration . . . . .	...	1	1
Certificate in Library Service . . . . .	...	2	2
Certificate in Occupational Therapy (Medicine) . . . . .	...	16	16
Certificate in Physical Therapy (Medicine) . . . . .	...	2	2
Certificate of Proficiency in Clinical Dentistry	2	...	2
Certificate of Proficiency in Orthodontics	13	1	14
Certificate of Proficiency in Occupational Therapy (University Extension) . . . . .	...	53	53
Certificate of Proficiency in Physical Therapy (University Extension) . . . . .	...	16	16
Certificate of Proficiency in Secretarial Studies (For college graduates) . . . . .	...	11	11
Certificate in Secretarial Studies (University Extension) . . . . .	...	3	3
Professional Diplomas (Teachers College)	12	9	21
<i>Total</i>	<i>27</i>	<i>156</i>	<i>183</i>
<i>Total Degrees and Diplomas Granted in Course</i>	<i>1,596</i>	<i>2,854</i>	<i>4,450</i>
Deduct duplicates ^a and ^b	9	6	15
<i>Total Individuals Receiving Degrees and Diplomas in Course</i>	<i>1,587</i>	<i>2,848</i>	<i>4,435</i>

TABLE 6—(Continued)

<i>Degree</i>	<i>Men</i>	<i>Women</i>	<i>Total</i>
Honorary Degrees			
Doctor of Laws	4	....	4
Doctor of Letters	3	1	4
Doctor of Music	1	....	1
Doctor of Sacred Theology	1	....	1
Doctor of Science	4	....	4
<i>Total</i>	13	1	14

^aDistributed as follows: A.B. (Columbia College) and A.M. (Political Science, Philosophy, and Pure Science), 4 men; A.B. (Columbia College) and M.S. (Mechanical Engineering), 1 man; B.S. (Teachers College) and A.M. (Teachers College), 2 men and 4 women.

^bIn addition to those noted in footnote^a (7 men and 4 women, total 11), the following duplications occur: A.M. (Teachers College) and Teachers College Diploma, 2 men and 1 woman; B.S. (Teachers College) and Teachers College Diploma, 1 woman (2 men and 2 women, total 4).

ADDENDA

Degrees Awarded in 1945-46 as of Dates Prior Thereto

<i>Degree</i>	<i>Men</i>	<i>Women</i>	<i>Total</i>
Bachelor of Science (Nursing) . . . . .	....	1	1
Bachelor of Science (Teachers College) . . . . .	....	1	1
Bachelor of Science (University Course)	2	....	2
Master of Arts (Teachers College)	2	1	3
<i>Total</i>	4	3	7

TABLE 7
RESIDENCE OF STUDENTS (EXCLUDING STUDENTS IN SPECIAL COURSES IN UNIVERSITY EXTENSION) 1945-46

Residence	Columbia College	Law	Medicine	Engineering	Architecture	Journalism	Business	Dentistry	Dental Hygiene	Graduate Faculties	University Undergraduates	Library Service	Optomtry	Barnard College	Occupational Therapy	Physical Therapy	Public Health	Teachers College	Pharmacy	Nursing	N.Y.Sch. of Social Work	Total	University Extension	Summer Session 1946 (Regular)
UNITED STATES	1,528	529	418	596	74	29,322	176	41	84,2	498	281	47	1,115	37	28	29	78,9	400	322	1,255	17,419	8,213	10,402	
<i>North Atlantic Division</i>																								
(83.16 percent) ^a																								
Connecticut.....	37	13	21	17	1	13	6	16	65	11	4	52	4	2	2	310	5	35	39	39	653	220	469	
Maine.....	2	1	3	1	1	3	1	1	10	2	2	10	1	10	1	38	1	8	2	8	85	10	46	
Massachusetts.....	36	9	26	12	1	3	6	1	61	8	4	30	1	30	1	143	1	27	17	17	395	90	313	
New Hampshire.....	1	1	1	1	1	1	1	1	7	3	3	5	1	5	1	26	1	10	10	10	59	10	32	
New Jersey.....	232	61	95	84	9	5	47	12	292	78	36	145	5	842	26	5	1,429	55	56	145	2,496	999	1,892	
New York.....	1,176	425	250	446	64	16,241	143	22	2,305	379	170	43	842	26	22	48	4,929	333	137	1,029	13,046	6,210	7,394	
Pennsylvania.....	38	16	30	36	4	8	2	22	86	12	10	25	1	4	1	4	260	5	44	21	593	154	657	
Rhode Island.....	3	2	2	2	1	3	4	1	9	2	2	3	1	3	1	1	23	3	2	2	57	8	63	
Vermont.....	8	1	2	2	1	1	1	1	7	1	1	3	1	3	1	16	1	2	2	2	35	12	36	
<i>New York City</i>	896	336	176	367	53	11,184	102	13	1,964	299	131	34	588	16	8	35	3,574	283	104	889	10,002	5,694	5,336	
(47.76 percent) ^a																								
<i>South Atlantic Division</i>																								
(3.99 percent) ^b																								
Delaware.....	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
District of Columbia.....	6	4	6	3	1	2	2	1	29	4	4	7	1	7	1	1	1	20	2	5	5	99	21	133
Florida.....	9	4	4	1	1	2	1	2	8	1	4	4	1	5	1	1	39	2	2	2	2	89	27	257
Georgia.....	4	2	1	2	1	2	1	1	11	1	4	4	1	4	1	1	43	3	3	2	2	80	29	147
Maryland.....	5	3	2	2	1	1	1	1	16	1	1	2	1	9	2	1	61	3	2	2	4	111	26	274
North Carolina.....	4	2	1	1	1	2	1	1	17	1	1	2	2	2	1	2	79	4	4	1	106	28	671	
South Carolina.....	2	2	1	1	1	1	1	1	9	1	1	1	1	1	1	2	41	5	4	6	71	11	189	
Virginia.....	5	2	4	7	2	5	2	2	23	5	8	14	1	14	1	1	56	3	6	8	146	35	423	
West Virginia.....	4	2	3	5	1	2	2	2	11	8	1	4	1	4	1	21	2	2	2	4	61	15	136	
<i>South Central Division</i>	26	16	16	10	1	8	15	4	65	15	18	83	1	83	1	1	210	2	4	25	466	118	853	
(2.22 percent) ^b																								
Alabama.....	1	2	7	1	1	2	1	1	2	2	1	1	1	1	1	1	35	1	1	3	57	17	101	

TABLE 7—(Continued)

Residence	Columbia College	Law	Medicine	Engineering	Architecture	Journalism	Business	Dentistry	Dental Hygiene	Graduate Faculties	University Undergraduates	Library Service	Optometry	Barnard College	Occupational Therapy	Physical Therapy	Public Health	Teachers College	Pharmacy	Nursing	N. Y. Sch. of Social Work	Total	University Extension	Summer Session 1946 (Regular)
Arkansas.....	7		1			1	1	1		5	1	1		3				9				29	11	49
Kentucky.....			1			1	1			11	1			5			1	23		2		49	9	69
Louisiana.....	2		1			1	1			6	3	5		3				18				40	10	107
Mississippi.....			1			1	1			3	3							9				23	8	49
Oklahoma.....	4		2			2	2			10	2	3		7				28				55	7	93
Tennessee.....	2		1			1	2			4	2	3		8				23				53	11	128
Texas.....	10		4		2	3	8	1		24	4	2		11	1			65	2	1	3	159	45	258
North Central Division (5.08 percent) ^a	81	42	41	51	1	8	20	9	9	200	37	17		62	7	2	9	441	3	6	34	1,064	272	1,638
Illinois.....	13	6	9	11		2	2			26	7	2		4			2	71				153	54	192
Indiana.....	3	4	2	4		2	4			16	4	5		8		1		30				93	21	135
Iowa.....	2	1	1	3		1	1			24	3	1		3	1		1	33		2		79	16	76
Kansas.....	2	4	3	2		2	2	2		5	1			3				21				45	7	84
Michigan.....	18	5	2	7		1	1			25	6	4		7	1	1	1	55	1	2	4	140	37	180
Minnesota.....	4	3	4	2		1	1			10	4	1		8	1			36	2		6	78	16	74
Missouri.....	6	4	4	3		2	2			26	1	1		8	1		1	49		1	5	110	29	374
Nebraska.....	1	3	1	1		2	1			5	1	1		2				12			1	30	9	34
North Dakota.....		1	1			2	1			5	1			2				12				15	1	11
Ohio.....	23	9	16	17		2	6			51	6	2		18	3		1	22			3	179	65	378
South Dakota.....	1		2	2		1	1			12	4			2	1		2	69				75	2	16
Wisconsin.....		2	2			1	1			12	4			2	1		2	31			5	62	17	84
Western Division (2.21 per cent) ^a	29	14	18	11	1	7	14	3		110	6	5		18	2		5	171	4	4	40	462	126	465
Arizona.....			1	1						2				2				3		1		11	2	19
California.....	11	3	6	8	1	5	2	3		64	3	1		7	1			71	3		27	216	63	206
Colorado.....	5	1	3	2		3	3			5	1			4				10		1	1	35	9	48
Idaho.....			1			1	1			1	1			1				8			2	15	5	15
Montana.....						1	1			2	1							3			1	8	3	17
Nevada.....	1	1																				2	1	5
New Mexico.....	3		1							3								6			1	14	1	17
Oregon.....	2	2	1			1	1			11	1	2		2		2	2	15			2	40	12	32
Utah.....	2		2	4		4	4			8				1	1			10			2	30	6	27
Washington.....	3	8	3			3	3			14		1		2			2	39		1	3	79	19	77

TABLE 8

AGGREGATE ATTENDANCE IN ALL COURSES, 1945-46 (EXCLUSIVE OF COURSES IN THE SCHOOL OF MEDICINE, SCHOOL OF DENTAL AND ORAL SURGERY, SUMMER SESSION, UNIVERSITY EXTENSION, TEACHERS COLLEGE, BARNARD COLLEGE, COLLEGE OF PHARMACY, AND THE NEW YORK SCHOOL OF SOCIAL WORK)

<i>Department</i>	<i>Number of Half-Year Courses</i>	<i>Number of Registrations</i>
Anthropology.....	28	420
Architecture.....		
Architecture.....	50	489
Sculpture.....	2	13
Astronomy.....	4	59
Botany.....	23	77
Business.....		
Accounting.....	28	522
Advertising.....	9	74
Banking.....	11	200
Business Law.....	4	106
Economics.....	21	429
Finance.....	9	176
Geography.....	8	64
Insurance.....	5	24
Labor Relations.....	6	95
Management.....	2	92
Marketing.....	14	416
Real Estate.....	2	9
Statistics.....	8	227
Transportation.....	6	33
Chemical Engineering.....	42	415
Chemistry.....	66	1,838
Chinese and Japanese.....		
Chinese.....	15	143
Japanese.....	9	28
Civil Engineering.....	55	528
Colloquium.....	6	60
Contemporary Civilization.....	8	1,813
Drafting.....	8	525
East European Languages.....		
Altaic.....	1	2
Polish.....	6	21
Russian.....	18	139
Slavonic.....	3	18
South Slavonic.....	2	7
Economics.....	53	1,541
Electrical Engineering.....	64	871
English and Comparative Literature.....		
Celtic.....	2	2
Comparative Literature.....	15	488
English.....	83	4,263
Fine Arts and Archaeology.....		
Archaeology.....	3	14
Fine Arts.....	22	184
Geography.....	3	182
Geology.....	49	498
Germanic Languages.....		
Dutch.....	3	15
German.....	37	460
Gothic.....	1	4
Swedish.....	2	11
Greek and Latin.....		
Classical Civilization.....	3	18
Classical Literature.....	1	3
Classical Philology.....	2	4
Greek.....	17	48
Latin.....	16	101
History.....	89	2,391
Economic History.....	4	99
Humanities.....	16	1,534
Indo-Iranian and Comparative Linguistics.....		
Comparative Linguistics.....	5	22
Indo-Iranian.....	5	17
Industrial Engineering.....	29	459
Journalism.....	11	689
Law.....	78	3,991

TABLE 8—(Continued)

<i>Department</i>	<i>Number of Half-Year Courses</i>	<i>Number of Registrations</i>
Library Service		
Book Arts.....	6	96
Library Service.....	49	1,041
Mathematics.....	28	1,618
Mechanical Engineering.....	60	886
Mining and Metallurgy		
Metallurgy.....	6	39
Mineral Dressing.....	1	2
Mining.....	9	15
Music.....	42	438
Naval Organization.....	1	151
Naval Science.....	10	424
Philosophy.....	48	819
Physical Education		
Hygiene.....	2	623
Physical Education.....	7	1,543
Physical Training.....	2	450
Physics		
Mechanics.....	8	178
Optometry.....	22	378
Physics.....	45	1,385
Psychology.....	23	629
Public Law and Government		
Government.....	31	995
Public Administration.....	7	182
Public Law.....	10	181
Religion.....	6	66
Romance Languages		
French.....	59	1,038
Italian.....	8	128
Portuguese.....	6	38
Romance Philology.....	10	130
Spanish.....	27	780
Semitic Languages		
Arabic.....	6	19
Hebrew.....	2	2
Semitic.....	9	31
Syriac.....	2	4
Social Science		
Sociology.....	29	940
Statistics.....	19	308
Theoretical Engineering Chemistry.....	2	32
Zoology.....	30	372
Miscellaneous Courses		
Engineering.....	7	97
International Studies.....	3	27
Staff Officers European Studies Courses.....	24	1,330
University Seminars.....	5	12
<i>Total</i>	<i>1,763</i>	<i>44,398</i>

TABLE 9

STUDENTS IN UNIVERSITY EXTENSION CLASSIFIED ACCORDING
TO PRIMARY REGISTRATION

<i>Primary Registration</i>	<i>University Extension</i>	<i>Special</i>	<i>Total</i>
Architecture	38	...	38
Barnard College	66	...	66
Business	157	...	157
Columbia College	338	...	338
Dental and Oral Surgery	2	...	2
Dental Hygiene	1	...	1
Engineering	279	...	279
Graduate Faculties	944	...	944
Journalism	23	...	23
Library Service	36	...	36
Medicine	1	...	1
Occupational Therapy	48	...	48
Optometry	29	...	29
Pharmacy	21	...	21
Physical Therapy	27	...	27
Public Health	3	...	3
Teachers College	757	...	757
University Undergraduates	521	...	521
University Extension	9,286	1,648	10,934
<i>Total</i>	<i>12,577</i>	<i>1,648</i>	<i>14,225</i>

TABLE 10

AGGREGATE ATTENDANCE IN COURSES IN UNIVERSITY EXTENSION, 1945-46

	<i>Number of Half-Year Courses</i>	<i>Number of Registrations</i>
Acting	9	304
Albanian	2	2
Anatomy	2	65
Anthropology	6	170
Architecture	27	368
Astronomy	4	66
Botany	2	109
Business		
Accounting	23	775
Advertising	8	653
Banking	2	25
English (business)	4	196
Finance	4	138
Industrial Relations	1	58
Labor Relations	2	237
Law	4	129
Marketing	6	270
Office Procedure	7	86
Real Estate	4	168
Secretarial Skills	2	4
Selling	2	143
Stenography	18	193
Stenography and Typewriting	2	10
Stenotypy	3	36
Transportation	4	218
Typewriting	10	180
Chemical Engineering	3	54
Chemistry	18	770
Chinese	2	16
Clothing	1	2
Commercial Design	3	49
Comparative Literature	5	255
Czechoslovak	4	27
Drafting	14	181
Dramatic Arts	15	358
Drawing	15	236
Life Drawing	4	93
Drawing and Painting	5	35
East European	2	8
Economics	6	560
Editing and Publishing	6	233
Electrical Engineering	4	118
Engineering	4	125
English	53	2,792
Fine Arts	7	151
T. C. Fine Arts	12	42
Finnish	1	1
French	12	517
General Philology	2	20
Gallery Research	4	26
Geography	8	118
Geology	7	202
German	12	301
Government	2	142
Graphic Art	11	195
O. T. Graphic Arts	1	36
Greek	4	29
Hebrew	4	10
History	16	830
Hospital Management	2	61
Hungarian	3	7
T. C. Hygiene	2	2
Industrial Engineering	7	81
Italian	10	144
Laboratory Technology	2	3
Latin	14	87
Law	2	89

TABLE 10—(Continued)

	Number of Half-Year Courses	Number of Registrations
Library Service.....	6	89
Mathematics.....	24	1,037
Mechanical Engineering.....	1	23
Mechanics.....	3	76
Metallurgy.....	2	12
Modern Greek.....	6	40
Motion Pictures.....	2	46
Music.....	49	929
T. C. Music.....	6	32
Nursing.....	1	1
Nutrition.....	2	4
Painting.....	14	269
Pharmacy.....	4	7
Philosophy.....	14	728
T. C. Physical Education.....	2	21
Physics.....	9	347
Physiology.....	3	159
Polish.....	4	45
Portuguese.....	6	39
Professional Writing.....	31	1,757
Psychology.....	32	1,967
Radio.....	27	704
Religion.....	7	74
Rumanian.....	2	3
Russian.....	9	208
Sculpture.....	16	122
Sociology.....	12	390
Spanish.....	29	1,186
Speech.....	13	986
Statistics.....	5	171
Swedish.....	4	53
Zoology.....	5	158
<i>Total</i>	822	25,302

TABLE 11

STUDENTS IN SPECIAL COURSES IN UNIVERSITY EXTENSION
NOT INCLUDED IN OTHER TABLES

Courses	Winter Session Only	Spring Session Only	Both Sessions	Total
Chemical Engineering.....	7	12	....	19
Dentistry.....	33	112	2	147
French.....	32	28	12	72
Medicine.....	438	362	88	888
Optometry.....	...	54	...	54
Spanish.....	28	14	5	47
Textiles.....	140	236	45	421
<i>Total</i>	678	818	152	1,648

TABLE 12
SUMMER SESSION 1946

Classification	Men	Women	Total	Percentage	
				Men	Women
A. TOTAL ENROLLMENT.....	8,028	8,480	16,508	48.63	51.37
B. STUDENTS CLASSIFIED AS OLD AND NEW					
Previously registered (59.38 percent).....	4,845	4,958	9,803	49.42	50.58
New (40.62 percent).....	3,183	3,522	6,705	47.47	52.53
Total.....	8,028	8,480	16,508		
C. STUDENTS CLASSIFIED ACCORDING TO FACULTIES					
I. Nonmatriculated (28.88 percent).....	2,752	2,016	4,768		
II. Visiting Scholars (0.06 percent).....	6	4	10		
III. Matriculated (71.06 percent).....	5,270	6,460	11,730		
Architecture B. Arch.....	10	1	11		
Columbia College A.B.....	775	..	775		
University Undergraduates B.S.....	116	97	213		
Barnard College A.B.....	..	155	155		
Business B.S.....	147	20	167		
Business M.S.....	69	13	82		
Business M.B.A.....	81	3	84		
Dentistry D.D.S.....	3	..	3		
Engineering B.S.....	138	3	141		
Engineering M.S.....	34	..	34		
Journalism B.S.....	1	..	1		
Law LL.M.....	2	..	2		
Library Service B.S.....	23	94	117		
Library Service M.S.....	4	41	45		
Library Service certificate.....	..	2	2		
Library Service unclassified.....	1	3	4		
Mines B.S.....	2	..	2		
Pharmacy B.S.....	14	3	17		
Pharmacy M.S.....	2	..	2		
Optometry B.S.....	1	..	1		
Graduate Faculties					
A.M.					
Political Science.....	226	81	307		
Philosophy.....	208	180	388		
Pure Science.....	95	43	138		
Ph.D.					
Political Science.....	137	21	158		
Philosophy.....	121	85	206		
Pure Science.....	119	28	147		
Education.....	98	48	146		
Business.....	7	..	7		
Teachers College					
B.S.....	121	410	531		
A.M.....	1,539	2,570	4,109		
M.S.....	..	10	10		
Ed.D.....	286	103	389		
Unclassified.....	890	2,446	3,336		
Total I, II, and III.....	8,028	8,480	16,508		

TABLE 12—(Continued)

<i>Classification</i>	<i>Men</i>	<i>Women</i>	<i>Total</i>
D. STUDENTS CLASSIFIED ACCORDING TO TEACHING POSITION			
I. Not engaged in teaching (55.88 percent)	6,025	3,199	9,224
II. Engaged in teaching (44.12 percent)	2,003	5,281	7,284
Elementary schools	210	2,002	2,212
Secondary schools	894	1,750	2,644
Higher educational institutions	362	448	810
Normal schools	5	9	14
Principals, elementary	84	104	188
Principals, high school	98	11	109
Assistant principals	12	18	30
Supervisors	50	104	154
State supervisors	2	2	4
Superintendents	33	2	35
Assistant superintendents	6	..	6
Board of education members . . . . .	..	2	2
Special teachers	67	202	269
Private school teachers	47	38	85
Kindergarten teachers . . . . .	..	102	102
Librarians	38	227	265
Vocational schools	4	5	9
Business schools	1	4	5
Hospitals and nurses' training schools	1	54	55
Institutes	2	11	13
College deans	6	31	37
College presidents	2	1	3
Registrars	1	3	4
Directors of religious education	2	14	16
Nursery schools . . . . .	..	57	57
Y.W.C.A. instructors . . . . .	..	7	7
Y.M.C.A. instructors	11	3	14
School nurses . . . . .	..	5	5
Vocational guidance directors	6	13	19
Home demonstration agents . . . . .	..	5	5
Industrial schools	3	..	3
Technical schools	5	1	6
Private teachers	18	23	41
Directors of admissions . . . . .	..	1	1
Directors of administration	19	5	24
Assistant directors of administration	1	2	3
Church schools	8	13	21
Settlement houses	1	2	3
Ministry of Education, China	4	..	4
<i>Totals I and II</i>	<i>8,028</i>	<i>8,480</i>	<i>16,508</i>
E. STUDENTS CLASSIFIED ACCORDING TO RESIDENCE (See Table 7)			

TABLE 12—(Continued)

<i>Subjects</i>	<i>Number of Courses</i>	<i>Number of Registrations</i>
F. AGGREGATE ATTENDANCE IN COURSES		
Accounting	14	416
Acting	3	113
Advertising	2	89
Anatomy	1	18
Anthropology	5	147
Astronomy	2	46
Banking	3	95
Biology	5	170
Book Arts	3	44
Botany	3	93
Business English	1	19
Business Law	2	88
Chemical Engineering	6	64
Chemistry	24	782
Teachers College Chemistry	4	110
Christian Ethics	3	248
Church History	4	65
Civil Engineering	1	10
Classical Civilization	1	14
Clothing	4	147
Comparative Literature	1	102
Contemporary Civilization	3	369
Cookery	6	156
Demonstration School	1	18
Doctoral Candidate	1	45
Drafting	6	206
Dramatic Arts	1	10
Drawing and Painting	3	84
Economics	22	905
Editing and Publishing	1	25
Education	356	18,519
Electrical Engineering	2	45
English	36	1,833
Teachers College English	3	283
Family Economics	1	27
Finance	3	120
Fine Arts	5	118
Teachers College Fine Arts	20	794
French	22	618
General Philology	1	21
Geography	5	135
Teachers College Geography	3	125
Geology	4	61
German	15	463
Government	6	552
Greek	3	49
Health Education	3	3
History	23	1,102
Teachers College History	7	242
Home Economics	1	6
Home Management	1	39
Household Equipment	1	34
Housing	2	59
Humanities	3	410

TABLE 12—(Continued)

<i>Subjects</i>	<i>Number of Courses</i>	<i>Number of Registrations</i>
Hygiene.....	1	23
Teachers College Hygiene.....	3	136
Institution Management.....	9	56
Italian.....	5	75
Japanese.....	2	31
Labor Relations.....	3	147
Latin.....	6	84
Library Service.....	37	607
Life Drawing.....	3	61
Management.....	1	38
Marketing.....	3	125
Mathematics.....	16	1,096
Mechanical Engineering.....	3	117
Mechanics.....	3	94
Music.....	13	321
Teachers College Music.....	46	1,266
New Testament.....	3	117
Nursing.....	8	74
Nutrition.....	4	149
Old Testament.....	2	81
Philosophy.....	5	354
Philosophy of Religion.....	3	141
Physical Education.....	4	87
Teachers College Physical Education.....	33	650
Physical Science.....	1	45
Physics.....	14	891
Physiology.....	4	92
Polish.....	2	22
Portuguese.....	2	24
Practical Theology.....	1	54
Professional Writing.....	7	363
Psychology.....	15	802
Radio.....	1	15
Recreation.....	5	24
Religion.....	1	33
Religious Education.....	11	510
Russian.....	6	165
Science.....	2	58
Sculpture.....	2	71
Physical Education Service.....	1	1
Service.....	4	58
Social Science.....	1	58
Social Work.....	10	12
Sociology.....	6	317
Spanish.....	15	563
Speech.....	2	252
Teachers College Speech.....	6	339
U.T.S. Speech.....	1	43
Statistics.....	6	193
Stenography.....	5	89
Systematic Theology.....	1	88
Typewriting.....	3	144
Zoology.....	1	90
<i>Total.....</i>	<i>1,014</i>	<i>41,702</i>

REPRESENTATIVES OF THE UNIVERSITY

1945-46

AT THE INSTALLATIONS

- Of Dr. Laurence McKinley Gould as President of Carleton College, Northfield, Minnesota (October 16, 1945): JOSEPH A. A. BURNQUIST, A.M.
- Of William Thomas Ross Flemington as President of Mount Allison University, Sackville, New Brunswick, Canada (October 18, 1945): GEORGE J. TRUEMAN, Ph.D.
- Of Edison Ellsworth Oberholtzer as first President of the University of Houston, Houston, Texas (October 18-19, 1945): PAUL WEAVER, A.B.
- Of John William Headley as President of The Mayville State Teachers College, Mayville, North Dakota (October 19, 1945): ROBERT CARPENTER LEWIS, LL.B., A.M.
- Of William Allison Shimer as President of Marietta College, Marietta, Ohio (October 20, 1945): HOWARD MAURICE QUICK; Mrs. A. S. HECK (CARRIE R. KEEVER).
- Of Harold Taylor as President of Sarah Lawrence College, Bronxville, New York (October 21, 1945): Dean MARGARET B. PICKEL.
- Of Paul Russell Anderson as President of Pennsylvania College for Women, Pittsburgh, Pennsylvania (October 24, 1945): Professor ESTHER Mc.D. LLOYD-JONES, Ph.D.
- Of Ralph Cooper Hutchison as President of Lafayette College, Easton, Pennsylvania (October 26, 1945): Acting President FRANK D. FACKENTHAL.
- Of Mearl Peter Culver as President of Southwestern College, Winfield, Kansas (October 27, 1945): HARRY WILBUR STANLEY, A.B.
- Of John Gordon Howard as President of Otterbein College, Westerville, Ohio (November 3, 1945): RICHARD GRANT WILLIAMS, A.M.
- Of George Henry Armacost as President of the University of Redlands, Redlands, California (November 4, 1945): JOHN BOYCE-SMITH, A.M., LL.M.
- Of Sidney Earle Smith as President of the University of Toronto, Toronto, Ontario, Canada (November 9-10, 1945): Professor J. BARTLET BREBNER.
- Of Alexander Enoch Kerr as President of Dalhousie University, Halifax, Nova Scotia, Canada (November 13, 1945): SAMUEL HENRY PRINCE, Ph.D.
- Of Howard S. McDonald as President of Brigham Young University, Provo, Utah (November 14, 1945): ROGER LOUIS STROBEL, E.M.
- Of Josiah Grudup as President of Brenau College, Gainesville, Georgia (November 14, 1945): CAM DAWSON DORSEY, LL.B.
- Of Henry Pitney Van Dusen as President of Union Theological Seminary, New York, New York (November 15, 1945): Acting President FRANK D. FACKENTHAL; Dean GEORGE B. PEGRAM.

COLUMBIA UNIVERSITY

- Of Franklin Stewart Harris as President of Utah State Agricultural College, Logan, Utah (November 16, 1945): ERNEST BAMBERGER, E.M.
- Of James Greese as President of Drexel Institute of Technology, Philadelphia, Pennsylvania (December 10, 1945): Dean JOSEPH WARREN BARKER.
- Of Wilson Martindale Compton as President of the State College of Washington, Pullman, Washington (December 11, 1945): CHARLES E. McALLISTER.
- Of Walter Consuelo Langsam as President of Wagner College, Staten Island, New York (December 12, 1945): Dean HARRY J. CARMAN.
- Of Byron Sharpe Hollinshead as President of Coe College, Cedar Rapids, Iowa (December 14, 1945): ARTHUR C. DEAMER, A.M.
- Of Joe J. Mickle as President of Centenary College, Shreveport, Louisiana (January 21, 1946): MARVIN SUMMERS PITTMAN, Ph.D.
- Of The Reverend Russell Henry Stafford as President of The Hartford Seminary Foundation, Hartford Connecticut (January 25, 1946): WILLIAM P. KIRK.
- Of George Keith Funston as President of Trinity College, Hartford, Connecticut (February 22, 1946): WILLIAM P. KIRK.
- Of Arthur Holly Compton as Chancellor of Washington University, St. Louis, Missouri (February 22, 1946): Dean GEORGE B. PEGRAM.
- Of Boylston Green as President of Emerson College, Boston, Massachusetts (March 15, 1946): ARTHUR K. PADDOCK.
- Of Adam Daniel Beittel as President of Talladega College, Talladega, Alabama (March 29, 1946): JOSEPH F. DRAKE, A.M.
- Of James Lewis Morrill as President of the University of Minnesota, Minneapolis, Minnesota (April 25, 1946): Dean CARL MILTON WHITE.
- Of William Whitcomb Whitehouse as President of Albion College, Albion, Michigan (April 26, 1946): CHARLES R. STARRING, A.M.
- Of John Philip Wernette as President of the University of New Mexico, Albuquerque, New Mexico (May 10, 1946): EDWARD M. CAMPBELL, A.B., LL.B.
- Of Carter Davidson as President of Union College and Chancellor of Union University, Schenectady, New York (May 11, 1946): Professor JACQUES BARZUN.

AT THE ANNIVERSARY CELEBRATIONS

- Of the Diamond Jubilee of St. John's University, Brooklyn, New York (September 27, 1945): Dean HARRY J. CARMAN.
- Of the Centennial of Beloit College, Beloit, Wisconsin (February 2, 1946): H. W. BUEMMING, B.Arch.
- Of the Sesquicentennial Celebration of the University of North Carolina, Chapel Hill, North Carolina (April 12-13, 1946): Dean GEORGE B. PEGRAM.

REPRESENTATIVES OF THE UNIVERSITY

- Of the Seventy-fifth Anniversary of the State Teachers College, West Chester, Pennsylvania (May 24, 1946): GEORGE FRANCIS BLEWETT, LL.B.
- Of the Centennial Celebration of Bucknell University, Lewisburg, Pennsylvania (June 29, 1946): PROFESSOR ARTHUR WARREN HIXSON.

MISCELLANEOUS

- At the Meetings of Association of American Universities, Durham, North Carolina (October 11, 1945), Chapel Hill, North Carolina (October 12-13, 1945): Dean GEORGE B. PEGRAM; Director FRANK H. BOWLES.
- At the Annual Meeting of the Association of Colleges and Universities of the State of New York, Albany, New York (October 22, 1945): Associate Dean NICHOLAS McD. McKNIGHT.





Columbia University
in the City of New York

Report of the Treasurer

June 30, 1946

NEW YORK

1946

REPORT

To the Trustees of Columbia University in the City of New York

The Treasurer makes the following report of the financial affairs of the Corporation for the year ended June 30, 1946.

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INCOME AND EXPENSE STATEMENT (GENERAL FUNDS)
FOR THE YEAR ENDED JUNE 30, 1946

INCOME

From Students:		
Fees (see page 9) (see note 1)	\$3,673,379.36	
Residence Halls (see page 55) (see note 1)	19,448.54	
Dining Halls (see page 55)	19,015.19	
Other Income	19,437.30	
	<hr/>	\$3,731,280.39
From Endowments:		
Rents (Net) (see page 8)	3,842,348.75	
Income of Special Endowments (see page 8)	1,790,913.51	
	<hr/>	5,633,262.26
From Other Properties—Rents—(Net)		33,837.70
From Investments, etc. (see page 8)		19,158.62
From Gifts and Receipts for Designated Purposes		849,974.78
From Allied Corporations (see page 9)		1,679,749.48
From Institute of Arts and Sciences		44,777.07
From School of Dental and Oral Surgery Clinics		116,316.28
From Civil Engineering Testing Laboratory and Fire Test- ing Station		4,444.45
From Department of Buildings and Grounds (see page 9)		25,263.21
From Intercollegiate Athletics (See Pages 20 and 55)		87,585.02
From Miscellaneous Sources		66,913.51
	<hr/>	12,292,562.77
Total Income		12,292,562.77

EXPENSES

Educational Administration and Instruction	8,436,217.32	
Buildings and Grounds—Maintenance (see page 28)	1,406,824.46	
Library (see page 31)	633,856.34	
Business Administration of the Corporation:		
Salaries, Office Expenses, etc. (see page 32)	\$283,931.51	
Insurance on Academic Buildings (Fire and Liability) (see page 32)	20,802.65	
	<hr/>	304,734.16
Retiring and Widows' Allowances (see page 33)	510,096.07	
Student Aid (see page 38)	386,298.96	
Annuities (see page 39)	47,981.15	
Special Appropriations—Schedule J (see page 39)	153,212.16	
Interest on Corporate Debt (Net) (see page 40)	45,603.43	
	<hr/>	11,924,824.05
Total Expenses		11,924,824.05
Balance, being excess of Income over Ex- penses before providing for Amortization of Loan of 1941		\$367,738.72
Deduct:		
Amount Provided for Amortization of Loan of 1941 (see note 2)		423,008.86
	<hr/>	
Deficit, being excess of Expenses for Main- tenance over Income after providing for Amortization of Loan of 1941		55,270.14
	<hr/> <hr/>	

The note references are to the Notes to Financial Statements on Page 52 of this report, which notes are an integral part of this statement.

INCOME OF THE CORPORATION—YEAR ENDED JUNE 30, 1946

	From Students		From Other Sources	Total
	Fees	Other Income		
From Students:				
Morningside Heights:				
University Fees.....	\$102,770.97			
Graduation Fees.....	41,323.00			
Entrance, Late and Deficiency Examination Fees.....	9,096.00			
Tuition Fees.....	1,532,046.64			
	\$1,685,236.61			\$1,685,236.61
Summer Session:				
University Fees.....	72,107.00			
Tuition Fees.....		\$878,257.08		
Less Teachers College, Union Theological Seminary and New York School of Social Work Portions.....		520,479.49		
	357,777.59			
Privileges of Late Registration.....	2,379.00			
		432,263.59		432,263.59
University Extension:				
University Fees.....	56,848.00			
Tuition Fees.....	1,015,644.15			
Institute of Arts and Sciences.....			\$44,777.07	
Degree, Examination and Late Fees.....	820.00			
		1,073,312.15		1,118,089.22

Medical School:					
University Fees.....	12,016.24				
Tuition Fees.....	267,042.75				
Tuition Fees—Army and Navy Training Courses.....	9,494.44				
Graduation Fees.....	2,940.00				
Deficiency and Late Examination Fees.....	118.03				
Medical Service Fees.....	2,068.23				
		293,679.69			293,679.69
Physical and Occupational Therapy:					
University Fees.....	2,199.00				
Tuition Fees.....	29,245.00				
Deficiency and Late Examination Fees.....	27.00				
Graduation Fees.....	320.00				
Medical Examination Fees.....	325.00				
		32,116.00			32,116.00
School of Nursing:					
University Fees.....	7,950.00				
Tuition Fees.....	26,900.00				
Deficiency and Late Examination Fees.....	159.00				
Graduation Fees.....	1,620.00				
		36,629.00			36,629.00
School of Dental and Oral Surgery:					
University Fees.....	3,452.52				
Tuition Fees.....	85,803.06				
Deficiency and Late Examination Fees.....	134.27				
Graduation Fees.....	890.00				
Medical Service Fees.....	76.50				
Oral Hygiene:					
University Fees.....	910.00				
Tuition Fees.....	17,252.00				
Graduation Fees.....	420.00				
Deficiency and Late Examination Fees.....	102.00				

COLUMBIA UNIVERSITY

	From Students		Other Income	From Other Sources	Total
	Fees				
Graduate Courses:					
University Fees.....	\$550.00				
Tuition Fees.....	10,350.97				
Graduation Fees.....	201.00				
		\$120,142.32			\$120,142.32
Miscellaneous.....			\$19,030.11		19,030.11
Material Furnished Students.....			407.19		407.19
Alumni Fund Receipts.....				\$52,301.66	52,301.66
Residence Halls.....			19,448.54		19,448.54
Dining Halls.....			19,015.19		19,015.19
From Endowment:					
Rents:					
Upper Estate (Net).....				\$3,752,810.56	
Lower Estate (Net).....				89,538.19	
				3,842,348.75	3,842,348.75
Income of Special Endowments:					
For Specific Purposes.....			1,078,695.39		
For General Purposes.....			712,218.12		
				1,790,913.51	1,790,913.51
From Other Properties—Rent, etc.—(Net).....				33,837.70	33,837.70
From Investments, etc.:					
General Investments.....			2,802.29		
Gifts and Receipts for Designated Purposes.....			14,786.38		
Interest on Notes Receivable.....			1,270.05		
Safekeeping of Student Funds.....			299.90		
				19,158.62	19,158.62

EXPENSES—EDUCATIONAL ADMINISTRATION AND INSTRUCTION

	Expenditures	Departmental Totals	From General Income	From Income of Special Endowments	From Gifts and Receipts for Designated Purposes
GENERAL UNIVERSITY ADMINISTRATION					
Salaries.....	\$429,165.83		\$944,775.83	\$20,840.00	\$63,550.00
Departmental Appropriation.....	19,386.59		19,386.59		
Dean's Appropriations.....	3,485.34		3,485.34		
Clerk's Office Sundries.....	854.57		854.57		
President's Emergency Fund.....	8,519.60		8,419.49	100.11	
President's Fund.....	25,000.00		25,000.00		
Printing.....	51,965.99		51,965.99		
Public Ceremonies.....	12,832.02		12,832.02		
Social Club Kindergarten Class for Faculty Children.....	1,500.00		1,500.00		
Student Activities, King's Crown.....	11,964.45		11,950.00	14.45	
University Representation.....	4,845.41		4,825.41		20.00
Off Campus Accommodation.....	2,461.92		2,461.92		
Expenditures from Class of 1901 Fund.....	82.60			82.60	
Expenditures from Anonymous Gifts.....	481.16				481.16
Expenditures from Class of 1930 Fund.....	70.82			70.82	
Brander Matthews Theatre.....	2,500.00		2,500.00		
Expenditures from Prentis Gift for Columbiana.....	111.17				111.17
Expenditures from Prentis Gift for Columbiana Society.....	36.24				36.24
Expenditures from Class of 1927 Fund.....	54.96			54.96	
Expenditures from Grosse Gift.....	1,000.00				1,000.00
President Emeritus—Assistance and Supplies.....	7,608.31		7,608.31		
Expenditures from President's Gift Account.....	3,918.09				3,918.09
Expenditures from Randolph Gift.....	1,349.49				1,349.49
Expenditures from Studies in History, Economics and Public Law Fund.....	166.39			166.39	
Public Information.....	13,790.50		13,790.50		

REPORT OF THE TREASURER

OFFICE OF THE REGISTRAR			
Salaries.....	90,473.69	83,873.69	6,600.00
Conduct of Examinations.....	4,860.80	4,860.80	
Departmental Appropriation.....	10,656.04	10,656.04	
Diplomas.....	4,566.84	4,566.84	
ADVISER TO GRADUATE WOMEN STUDENTS			
Salaries.....	7,006.85	7,006.85	
Departmental Appropriation.....	452.47	452.47	
SOCIAL ACTIVITIES			
Salaries.....	3,512.50	3,512.50	
Entertainment Expenses.....	539.86	539.86	
OFFICE OF UNIVERSITY ADMISSIONS			
Salaries.....	62,575.11	62,575.11	
Departmental Appropriation.....	11,938.41	11,938.41	
Traveling Expenses.....	240.29	240.29	
OFFICE OF STUDENT APPOINTMENTS			
Salaries.....	26,271.08	26,219.98	51.10
Departmental Appropriation.....	3,499.20	3,285.00	194.20
Emergency Assistance to Students.....	2,595.50	2,595.50	20.00
Post War Employment for Alumni.....	7,881.51	7,881.51	
OFFICE OF ALUMNI FEDERATION.			
Departmental Appropriation.....	194.36	194.36	
Expenses.....	32,512.78	32,500.00	12.78
OFFICE OF THE GENERAL SECRETARY			
Salaries.....	10,166.00	10,166.00	
Departmental Appropriation.....	3,916.82	3,916.82	

MAISON FRANCAISE

Salaries.....	1,400.00	1,217.50	182.50	.....
Departmental Appropriation.....	1,619.73	1,619.73	.....	.....
Library.....	986.78	986.78	.....	.....
		4,006.51	.....	.....

CASA ITALIANA

Salaries.....	4,199.25	3,889.81	309.44	.....
Departmental Appropriation.....	647.58	647.58	.....	.....
		4,846.83	.....	.....

DEUTSCHES HAUS

Salaries.....	1,710.00	922.82	787.18	.....
Maintenance.....	687.72	35.36	652.36	.....
		2,397.72	.....	.....

EARL HALL

Salaries.....	2,092.50	2,092.50	.....	.....
Departmental Appropriation.....	49.19	49.19
		2,141.69

HISPANIC INSTITUTE

Maintenance.....	5,387.16	1,887.16
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INSTITUTE OF INTERNATIONAL AFFAIRS

Salaries.....	7,611.69	7,611.69
Departmental Appropriation.....	739.45	739.45
Research.....	1,500.00	.....	1,500.00	.....
		9,851.14	.....	.....

EMERGENCY PROGRAMS IN COLUMBIA COLLEGE AND ENGINEERING

Columbia College:				
Instruction.....	38,789.38	38,789.38	.....	.....
Supplies.....	13,248.82	13,248.82	.....	.....
Engineering:				
Instruction.....	56,406.22	56,406.22	.....	.....
Supplies.....	2,580.36	2,580.36	.....	.....
Chapel.....	2,868.82	2,868.82	.....	.....
		113,893.60	.....	.....

	Expenditures	Departmental Totals	From General Income	From Income of Special Endowments	From Gifts and Receipts for Designated Purposes
ANTHROPOLOGY					
Salaries	\$38,000.00		\$28,000.00	\$4,000.00	\$6,000.00
Departmental Appropriation	500.00		500.00		
Research	5,725.00		4,575.00		1,150.00
Traveling Expenses	3,165.63				3,165.63
		\$47,390.63			
ARCHITECTURE					
Salaries	36,228.90		35,228.90	1,000.00	
Departmental Appropriation	1,906.13		1,906.13		
Dean's Fund	513.93		513.93		
Planning and Housing	78.85				78.85
Physical Rearrangements in Avery Hall	360.56		360.56		
		39,088.37			
ASTRONOMY					
Salaries	15,263.89		15,263.89		
Departmental Appropriation	581.68		581.68		
Research	348.27				348.27
Computing Bureau	210.42				210.42
		16,404.26			
BOTANY					
Salaries	45,640.00		33,715.00		11,925.00
Departmental Appropriation	3,970.71		3,970.71		
Gardener	2,800.00		2,800.00		
Research	11,880.80		950.00		10,930.80
Experimental Planting at Nevis	599.77		599.77		
Greenhouse Work	628.32		628.32		
		65,519.60			

REPORT OF THE TREASURER

BUSINESS (SCHOOL OF)						
Salaries.....	159,925.37			127,623.55	31,881.82	420.00
Departmental Appropriation.....	3,393.28			704.22	2,625.00	64.06
Research.....	45.63					45.63
		163,364.28				
CHEMISTRY						
Salaries.....	140,912.87			113,559.48	7,878.40	19,474.99
Assistance.....	22,921.99			22,921.99		
Equipment and Supplies.....	13,674.77			11,092.27	2,582.50	
Laboratory Costs.....	39,394.86			39,394.86		
Research.....	42,239.13					42,239.13
Departmental Appropriation.....	4,824.04			4,824.04		
		263,967.66				
CHINESE AND JAPANESE						
Salaries.....	28,100.00			18,508.00	7,092.00	2,500.00
Research.....	141.05					141.05
Departmental Appropriation.....	125.00			125.00		
Traveling Expenses.....	1,850.00					1,850.00
		30,216.05				
EAST EUROPEAN LANGUAGES						
Salaries.....	14,700.00			14,700.00		
Departmental Appropriation.....	75.00			75.00		
Russian Circle Work.....	200.00			200.00		
		14,975.00				
ECONOMICS						
Salaries.....	140,524.25			121,859.03	615.22	18,050.00
Departmental Appropriation.....	1,000.00			1,000.00		
		141,524.25				
ENGINEERING (SCHOOL OF)						
ADMINISTRATION						
Supplies and Apparatus.....	1,713.64			780.64	933.00	
Laboratory Expenditures.....	21,840.41					21,840.41
Camp Columbia.....	7,850.00			7,850.00		
		31,404.05				

	Expenditures	Departmental Totals	From General Income	From Income of Special Endowments	From Gifts and Receipts for Designated Purposes
ENGINEERING (CHEMICAL)					
Salaries	\$55,112.50		\$50,612.50	\$4,500.00	
Laboratory Servants	7,263.00		7,263.00		
Departmental Appropriation	5,351.73		4,768.82	582.91	
Research	3,483.37				\$3,483.37
		\$71,210.60			
ENGINEERING (CIVIL)					
Salaries	46,677.83		45,098.33		1,579.50
Departmental Appropriation	964.08		964.08		
Research	2,533.28			540.05	1,993.23
Research Laboratories	4,444.45		4,444.45		
Laboratory Appropriation	3,600.00		3,600.00		
		58,219.64			
ENGINEERING (ELECTRICAL)					
Salaries	40,208.42		39,158.42		1,050.00
Departmental Appropriation	4,532.97		4,500.00		32.97
Equipment	26,212.00			26,212.00	
		70,953.39			
ENGINEERING DRAFTING					
Salaries	14,100.00		14,100.00		
Departmental Appropriation	1,080.00		1,080.00		
		15,180.00			
ENGINEERING (INDUSTRIAL)					
Salaries	14,850.00		14,850.00		
Departmental Appropriation	1,305.67		1,305.67		
		16,155.67			

REPORT OF THE TREASURER

ENGINEERING (MECHANICAL)			
Salaries.....	53,715.00	53,715.00	.....
Departmental Appropriation.....	5,046.82	5,046.82	.....
Research.....	1,379.45	.....	1,379.45
		60,141.27	.....
ENGINEERING (MINING AND METALLURGY)			
Salaries.....	41,618.48	41,618.48	.....
Departmental Appropriation.....	4,019.81	4,019.81	.....
		45,638.29	.....
ENGLISH AND COMPARATIVE LITERATURE			
Salaries.....	217,150.73	147,466.67	6,034.06
Departmental Appropriation.....	848.89	848.89	.....
Dramatic Museum.....	2,513.11	.....	2,513.11
		220,512.73	.....
FINE ARTS AND ARCHAEOLOGY			
Salaries.....	49,061.66	33,291.66	2,650.00
Departmental Appropriation.....	829.94	829.94	.....
Equipment.....	4,526.00	4,526.00	.....
		54,417.60	.....
GEOLOGY			
Salaries.....	82,592.42	66,942.42	3,650.00
Departmental Appropriation.....	4,700.00	4,700.00	.....
Summer Field Work.....	898.22	898.22	.....
Equipment.....	136.45	.....	111.45
Research.....	1,011.99	.....	750.00
		89,339.08	.....
GERMANIC LANGUAGES			
Salaries.....	63,404.60	33,249.60	3,730.00
Departmental Appropriation.....	239.83	220.82	19.01
Germanic Review.....	100.00	.....	100.00
		63,744.43	.....

	Expenditures	Departmental Totals	From General Income	From Income of Special Endowments	From Gifts and Receipts for Designated Purposes
GREEK AND LATIN					
Salaries	\$27,600.00		\$21,200.00		\$6,400.00
Greek: American School at Athens	250.00		250.00		
Latin: American School at Rome	25.00		25.00		
Departmental Appropriation	70.39			\$70.39	
Equipment	280.75			280.75	
		\$28,226.14			
HISTORY					
Salaries	153,331.64		116,115.00	16,300.00	20,916.64
Departmental Appropriation	1,231.79		1,231.79		
Research	7,643.35			2,145.30	5,498.05
History of Columbia University	5,300.00		5,300.00		
		167,506.78			
INDO-IRANIAN LANGUAGES					
Salaries	6,500.00		5,952.50	547.50	
Departmental Appropriation	3.00		3.00		
Traveling Expenses	540.00		540.00		
		7,043.00			
JOURNALISM					
Salaries	44,199.98		30,956.64	13,107.34	136.00
Departmental Appropriation	5,352.75		2,352.75	3,000.00	
Classroom Printing and Independent Journal	2,216.18		1,303.68	912.50	
Equipment	170.00		170.00		
American Press Institute—Miscellaneous Expenses	12,582.39				12,582.39
Chinese Graduate School in Chungking, China	11,932.91				11,932.91
		76,454.21			

LAW SCHOOL

Salaries.....	143,180.65	125,355.66	17,824.99
Departmental Appropriation.....	1,057.12	1,057.12	
Legislative Drafting Research Fund.....	1,957.70	1,957.70	
Plus and Minus Examinations.....	249.21	249.21	
Subvention to Columbia Law Review.....	477.18	477.18	
Moot Courts.....	513.51	513.51	
Mimeograph Office.....	6,998.21	6,998.21	
Research.....	1,067.26	154.76	912.50
Dean's Fund.....	878.19	878.19	
	156,379.03		

LIBRARY SERVICE (SCHOOL OF)

Salaries.....	75,074.31	66,861.81	8,212.50
Departmental Appropriation.....	2,380.75	2,380.75	
Institute for Hospital Library Service.....	542.19	542.19	
	77,997.25		

MATHEMATICS

Salaries.....	74,746.75	54,396.75	20,350.00
Departmental Appropriation.....	260.81	129.91	130.90
	75,007.56		

MUSIC

Salaries.....	53,263.90	34,718.90	10,220.00
Departmental Appropriation.....	2,924.99	2,924.99	
Undergraduate Music.....	4,055.00	4,055.00	
Promotion of American Music.....	28,214.49		28,214.49
Equipment.....	1,625.75	1,625.75	
	90,084.13		

PHILOSOPHY

Salaries.....	85,504.09	59,418.65	5,460.44
Departmental Appropriation.....	242.15	242.15	
Work in Religion.....	2,600.00		2,600.00
Research.....	400.00		400.00
	88,746.24		

	Expenditures	Departmental Totals	From General Income	From Income of Special Endowments	From Gifts and Receipts for Designated Purposes
PHYSICAL EDUCATION					
Salaries	\$79,987.19		\$46,412.19	\$3,000.00	\$30,575.00
Departmental Appropriation.....	2,429.09		2,429.09		
Care of Swimming Pool.....	1,694.24		1,694.24		
Use of Tennis Courts.....	625.00		625.00		
		\$84,735.52			
ATHLETICS					
Cost of Conducting Intercollegiate Athletics (See Page 56)		76,232.32	75,300.48	931.84	
PHYSICS					
Salaries	135,533.37		118,990.76	7,942.61	8,600.00
Departmental Appropriation.....	19,992.47		19,947.47		45.00
Equipment	941.00			941.00	
		156,466.84			
PSYCHOLOGY					
Salaries	61,066.16		36,191.16	3,650.00	21,225.00
Assistance.....	3,175.26		3,175.26		
Departmental Appropriation.....	2,952.15		2,952.15		
Equipment	4,000.00			4,000.00	
		71,193.57			
PUBLIC LAW AND GOVERNMENT					
Salaries	84,875.00		51,065.19	9,884.81	23,925.00
Departmental Appropriation.....	298.32		298.32		
		85,173.32			

RELIGION					
Salaries.....	19,313.60	3,787.10	13,926.50	1,600.00	
Chapel Services.....	2,792.59		2,792.69		
Religious Work.....	1,036.50		1,036.50		
Chapel Choir.....	6,413.63	1,238.63	5,175.00		
Departmental Appropriation.....	1,774.66		1,774.66		
Chaplain's House Fund.....	1,000.00	1,000.00			
	32,331.08				
ROMANCE LANGUAGES					
Salaries.....	161,475.00	107,400.00	5,000.00	49,075.00	
Departmental Appropriation.....	482.50	482.50			
Bibliographical Assistance and Materials.....	4,000.00	4,000.00			
Traveling Expenses.....	500.00	500.00			
	166,457.50				
SEMITIC LANGUAGES					
Salaries.....	10,000.00	9,327.49	672.51		
Departmental Appropriation.....	25.00	25.00			
American School of Oriental Research in Jerusalem.....	100.00	100.00			
	10,125.00				
SOCIOLOGY					
Salaries.....	64,850.00	38,930.44	14,419.56	11,500.00	
Departmental Appropriation.....	687.53	687.53			
Equipment.....	6,400.00	6,200.00		200.00	
Research.....	3,150.00			3,150.00	
Bulletin.....	67.02		67.02		
	75,154.55				
ZOOLOGY					
Salaries.....	89,366.55	72,605.75	3,160.90	13,600.00	
Departmental Appropriation.....	7,448.85	7,448.85			
Marine Table, Wood's Hole.....	500.00	303.42	196.58		
Research.....	23,951.75		636.50	23,315.25	
	121,267.25				
JOINT COMMITTEE ON GRADUATE INSTRUCTION—					
UNIVERSITY SEMINARS.....					
	1,404.58	1,404.58			

	Expenditures	Depart- mental Totals	From General Income	From Income of Special Endowments	From Gifts and Receipts for Designated Purposes
SUMMER SESSION					
Administration and Instruction.....		\$160,613.66	\$160,613.66		
SCHOOL OF INTERNATIONAL AND REGIONAL STUDIES					
Salaries and Organization Expenses.....	\$1,599.61		1,599.61		
Army Staff Officers Course.....	23,490.70		23,490.70		
Russian Language Course.....	1,700.00		1,700.00		
		26,790.31			
UNIVERSITY EXTENSION					
Administration and Instruction.....	497,715.11		496,715.11		\$1,000.00
Institute of Arts and Sciences.....	46,271.37		46,271.37		
Printing and Postage.....	33,101.53		33,101.53		
Departmental.....	51,882.25		51,882.25		
		628,970.26			
Medical School					
ADMINISTRATION					
Salaries.....	26,799.54		26,485.64	\$313.90	
Dean's Appropriation.....	486.85		486.85		
Care of Animals.....	18,259.43		10,657.01	3,700.00	3,902.42
Departmental Appropriation.....	6,336.93		6,336.93		
Student Health.....	6,451.75		6,451.75		
Post Graduate Studies.....	6,300.00				6,300.00
Hospital Instruction.....	300.00			300.00	
Research.....	34,629.42				34,629.42
Diagnostic Laboratory.....	225.00		225.00		
Army and Navy Training Courses.....	9,453.19		9,453.19		
		109,242.11			

ANATOMY					
Salaries.....	97,835.58		94,610.58	2,225.00	1,000.00
Departmental Appropriation.....	9,358.23		9,108.23		250.00
Research.....	8,341.82				8,341.82
		115,535.63			
BACTERIOLOGY					
Salaries.....	78,845.44		52,525.44	17,500.00	8,820.00
Departmental Appropriation.....	13,413.49		11,563.49	1,050.00	800.00
Research.....	14,181.17				14,181.17
		106,440.10			
BIOCHEMISTRY					
Salaries.....	57,513.63		54,684.65	2,828.98	
Departmental Appropriation.....	8,683.69		7,870.19	813.50	
Research.....	41,501.47				41,501.47
		107,698.79			
CANCER RESEARCH					
Salaries.....	29,456.66			29,456.66	
Departmental Appropriation.....	3,631.84			3,631.84	
Research.....	2,177.02				2,177.02
		35,315.52			
DENTAL AND ORAL SURGERY (SCHOOL OF)					
Salaries.....	282,719.34		279,814.50	2,773.84	131.00
Dean's Appropriation.....	812.17		812.17		
Equipment and Supplies.....	35,383.38		35,383.38		
Research.....	3,729.51				3,729.51
Student Health.....	296.76		296.76		
Accelerated Program.....	14,648.00		14,648.00		
		337,589.16			
DERMATOLOGY					
Salaries.....	20,210.61		20,210.61		
Departmental Appropriation.....	3,005.25		3,005.25		
Research.....	10,791.29				10,791.29
		34,007.15			

	Expenditures	Departmental Totals	From General Income	From Income of Special Endowments	From Gifts and Receipts for Designated Purposes
ELECTROPHORESIS LABORATORY					
Salaries.....	\$7,480.00		\$7,480.00		
Supplies.....	2,297.24		2,297.24		
New Equipment and Alterations.....	4,000.00	\$13,777.24	2,629.50		\$1,370.50
	183,127.11		78,061.37	\$71,816.66	33,249.08
MEDICINE					
Salaries.....	1,221.27			1,221.27	
Departmental Appropriation (Bellevue Hospital).....	13,792.57		9,702.57		4,090.00
Departmental Appropriation.....	124,786.63				124,786.63
Research.....	773.53			773.53	
Supplies (Goldwater Memorial Hospital).....					
	9,181.24		9,181.24		
PHYSICAL THERAPY					
Salaries.....	660.58		660.58		
Departmental Appropriation.....					
	16,505.72		16,505.72		
OCCUPATIONAL THERAPY					
Salaries.....	1,715.58		1,715.58		
Departmental Appropriation.....		351,764.23			
	80,310.54		22,283.79	54.75	57,972.00
NEUROLOGY					
Salaries.....	15,857.21		5,354.98		10,502.23
Departmental Appropriation.....	69,474.31			1,432.67	68,041.64
Research.....		165,642.06			

REPORT OF THE TREASURER

NURSING						
Salaries.....	102,231.32	19,849.24	.....	82,382.08		
Physical Examinations.....	770.00	770.00	.....	.....
Clerical and Laboratory Supplies.....	5,136.30	.....	.....	5,136.30		
Student Recreation.....	1,352.15	1,352.15	.....	.....
Public Health Nursing.....	986.50	986.50	.....	.....
		110,476.27	.....	.....
OBSTETRICS AND GYNECOLOGY						
Salaries.....	51,566.49	47,371.49	.....	4,195.00		
Departmental Appropriation.....	4,486.53	4,486.53	.....	.....
Bacteriologist and Bacteriological Equipment.....	1,657.39	1,657.39	.....	.....
Equipment and Supplies.....	664.15	664.15	.....	.....
		58,374.56	.....	.....
OPHTHALMOLOGY						
Salaries.....	68,021.29	6,127.56	.....	11,850.00		50,543.73
Departmental Appropriation.....	1,799.80	1,799.80	.....	.....
Research.....	6,497.28	.....	.....	.....		6,497.28
Supplies.....	8,679.09	.....	.....	1,839.72		6,839.37
		84,997.46	.....	.....		.....
OTO-LARYNGOLOGY						
Salaries.....	7,790.55	4,832.22	.....	2,958.33		
Departmental Appropriation.....	660.78	660.78	.....	.....
Research.....	1,440.00	.....	.....	.....		1,440.00
		9,891.33	.....	.....		.....
PATHOLOGY						
Salaries.....	80,181.28	38,306.28	.....	35,575.00		6,300.00
Departmental Appropriation.....	13,440.77	10,910.81	.....	1,000.00		1,529.96
Research.....	11,763.60	.....	.....	.....		11,763.60
NEUROPATHOLOGY						
Salaries.....	16,699.47	3,565.50	.....	.....		13,133.97
Departmental Appropriation.....	1,373.85	.....	.....	.....		1,373.85

	Expenditures	Depart- mental Totals	From General Income	From Income of Special Endowments	From Gifts and Receipts for Designated Purposes
RESEARCH IN AGING					
Salaries.....	\$11,928.74				\$11,928.74
Departmental Appropriation.....	894.84				894.84
Supplies and Animals.....	8,673.70				8,673.70
Building Alterations, Animals and Equipment.....	9,777.94				9,777.94
		\$154,734.19			
PEDIATRICS					
Salaries.....	79,830.93		\$27,722.83	\$3,785.42	48,322.68
Departmental Appropriation.....	7,243.85		1,251.85		5,992.00
Research.....	15,044.38				15,044.38
		102,119.16			
PHARMACOLOGY					
Salaries.....	36,584.93		36,584.93		
Departmental Appropriation.....	10,495.44		10,212.44	283.00	
Research.....	2,171.70				2,171.70
		49,252.07			
PHYSIOLOGY					
Salaries.....	72,041.11				
Departmental Appropriation.....	13,055.28		10,858.77	52,682.34	8,500.00
Research.....	3,682.81			12,055.28	1,000.00
Supplies and Equipment.....	4,870.04			864.50	2,818.31
		93,649.24	175.72	3,950.00	744.32
PSYCHIATRY					
Salaries.....	23,682.94		23,682.94		
Departmental Appropriation.....	651.47		651.47		
Research.....	39,091.13				39,091.13
		63,425.54			

RADIOLOGY					
Salaries.....	5,212.50			2,150.00	3,062.50
Departmental Appropriation.....	.62			.62	
Traveling Expenses.....	249.40				249.40
		5,462.52			
RADIOLOGICAL RESEARCH LABORATORY					
Salaries.....	10,514.26				9,464.22
Departmental Appropriation.....	2,783.58				321.60
		13,297.84			
SURGERY					
Salaries.....	163,958.89		44,040.97		86,956.21
Departmental Appropriation.....	19,453.02		14,428.75		1,142.17
Research.....	21,798.01				781.64
		205,209.92			
UROLOGY					
Salaries.....	9,578.94		7,912.30		
Departmental Appropriation.....	557.04		557.04		
Research.....	1,520.42				1,379.35
		11,656.40			
DE LAMAR INSTITUTE OF PUBLIC HEALTH					
Salaries.....	80,552.61		50.00		62,793.15
Departmental Appropriation.....	8,147.80		1,770.18		5,100.00
Research.....	8,545.36				8,545.36
Training Program in Hospital Administration.....	20,195.21				20,195.21
		117,440.98			
TROPICAL MEDICINE (SCHOOL OF)					
Salaries.....	18,850.00				18,850.00
Contingent Fund.....	6,500.00				6,500.00
		25,350.00			
PHOTOGRAPHIC LABORATORY					
Salaries.....	3,318.80		2,118.80		
Supplies.....	1,521.07		1,521.07		
		4,839.87			

	Expenditures	Departmental Totals	From General Income	From Income of Special Endowments	From Gifts and Receipts for Designated Purposes
SLOANE HOSPITAL AND VANDERBILT CLINIC OPERATION AND MAINTENANCE					
Payments toward Operation and Maintenance.....		\$70,000.00	\$70,000.00		
TEACHERS COLLEGE Salaries.....		585,759.62			\$585,759.62
		<u>\$8,436,217.32</u>	<u>\$5,445,572.56</u>	<u>\$821,120.81</u>	<u>\$2,169,523.95</u>

EXPENSES—BUILDINGS AND GROUNDS

	Expenditures	Departmental Totals	From General Income	From Income of Special Endowments	From Gifts and Receipts for Designated Purposes
MORNINGSIDE HEIGHTS					
Administration.....	\$51,435.01	.....	\$51,435.01	.....	.....
Maintenance of Buildings and Grounds.....	611,053.32	.....	586,813.11	\$24,240.21	.....
Special Equipment.....	493.80	.....	493.80	.....	.....
Gas.....	1,100.99	.....	1,100.99	.....	.....
Water.....	30,328.69	.....	30,328.69	.....	.....
Electricity.....	3,425.60	.....	3,425.60	.....	.....
Maintenance and Operation of Power Plant.....	225,768.83	.....	225,768.83	.....	.....
Telephone and Telegraph.....	28,462.94	.....	28,462.94	.....	.....
Expenses of Special Committee for Architects and Engineers Fees.....	27,000.00	.....	27,000.00	.....	.....
Alterations in Registrar's Office.....	2,200.00	.....	2,200.00	.....	.....
Replacement of Window Anchors.....	15,688.00	.....	15,688.00	.....	.....
President's House Furnishing.....	519.00	.....	.....	519.00	.....
Survey of Interiors of Building.....	15,000.00	.....	15,000.00	.....	.....
File of Working Drawings of Buildings.....	385.67	.....	385.67	.....	.....
Insurance.....	25,000.00	.....	25,000.00	.....	.....
Retrospective Wage Payments.....	107,099.30	.....	107,099.30	.....	.....
Restoration of Tennis Courts.....	4,900.00	.....	4,900.00	.....	.....
		\$1,149,861.15			
MEDICAL AND DENTAL SCHOOLS					
Administration.....	6,405.85	.....	6,405.85	.....	.....
Maintenance of Buildings and Grounds.....	105,363.92	.....	102,963.92	2,400.00	.....
Maintenance of Ophthalmology Laboratories.....	2,200.00	.....	.....	.....	\$2,200.00
Steam and Refrigeration.....	42,672.29	.....	42,672.29	.....	.....
Gas.....	1,147.55	.....	1,147.55	.....	.....

	Expenditures	Depart- mental Totals	From General Income	From Income of Special Endowments	From Gifts and Receipts for Designated Purposes
Electricity.....	\$15,309.29	.....	\$15,309.29	.....	.....
Telephone and Telegraph.....	9,059.88	.....	9,059.88	.....	.....
	\$182,158.78	.....	.....	.....	.....
ACTIVITIES AT WEST 59TH STREET.....	26,232.39	.....	26,232.39	.....	.....
MAINTENANCE OF UNION THEOLOGICAL SEMINARY GYMNASIUM.....	.....	1,390.78	1,390.78	.....	.....
MAINTENANCE OF NEVIS, IRVINGTON-ON-HUDSON, N. Y.....	.....	13,342.17	13,250.92	\$91.25	.....
DEFERRED MAINTENANCE REPAIRS TO 117TH STREET BUILDINGS.....	.....	5,887.00	5,887.00	.....	.....
BAKER FIELD AND BOAT HOUSES					
Maintenance.....	25,368.55	.....	25,237.15	131.40	.....
Boat Houses.....	2,583.64	.....	2,583.64	.....	.....
	27,952.19	.....	.....	.....	.....
	\$1,406,824.46	\$1,377,242.60	\$27,381.86	\$2,200.00	

EXPENSES—LIBRARY

	Expenditures	Departmental Totals	From General Income	From Income of Special Endowments	From Gifts and Receipts for Designated Purposes
ADMINISTRATION SALARIES.....	\$31,683.33	.....	\$31,683.33	.....	.....
READERS' SERVICES SALARIES.....	45,500.00	.....	38,900.00	.....	\$6,600.00
PROFESSIONAL SCHOOLS SALARIES					
Avery.....	11,824.67	.....	11,824.67	.....	.....
Business.....	18,510.47	.....	18,510.47	.....	.....
Engineering.....	10,145.78	.....	10,145.78	.....	.....
Journalism.....	8,716.03	.....	1,182.00	\$7,534.03	.....
Law.....	31,974.67	.....	31,974.67	.....	.....
Lending Service.....	5,436.04	.....	5,436.04	.....	.....
Library Service.....	11,536.27	.....	11,536.27	.....	.....
Medical School.....	21,425.84	.....	21,425.84	.....	.....
		\$196,753.10	.....	.....	.....
TECHNICAL SERVICES					
Acquisitions, Binding and Cataloging.....	19,769.17	.....	19,769.17	.....	.....
Photograph Division					
Salaries.....	6,730.97	.....	6,730.97	.....	.....
Supplies and Equipment.....	5,435.06	.....	5,435.06	.....	.....
		31,935.20	.....	.....	.....
		234,996.91	.....	.....	.....
LIBRARY STAFF SALARIES.....			232,238.32	2,758.59	.....
BOOKS, SERIALS AND BINDING.....		101,049.82	91,304.37	9,433.81	311.64
SUNDAY OPENING.....		823.30	823.30	.....	.....

	Expenditures	Departmental Totals	From General Income	From Income of Special Endowments	From Gifts and Receipts for Designated Purposes
PROFESSIONAL SCHOOLS, BOOKS AND BINDING					
Avery.....	\$3,127.64		\$2,042.13	\$1,085.51	
Business.....	7,429.35		7,308.76		\$120.59
Engineering.....	3,130.95		3,130.95		
Journalism.....	2,258.40			2,258.40	
Law.....	22,694.76		11,741.11	10,953.65	
Lending Service.....	2,320.34		2,320.34		
Library Service.....	2,450.52		2,450.52		
Medical School.....	9,326.45		8,561.73	625.38	239.34
		\$52,738.41			
		15,559.60	15,274.60	150.00	135.00
SUPPLIES EQUIPMENT AND EMERGENCIES.....					
		\$633,856.34	\$591,750.40	\$34,699.37	\$7,406.57

EXPENSES—BUSINESS ADMINISTRATION

	Expenditures	Departmental Totals	From General Income	From Income of Special Endowments	From Gifts and Receipts for Designated Purposes
Salaries.....	\$91,293.46		\$74,793.46		\$16,500.00
Extraordinary Legal Expenses.....	12,479.88		12,479.88		
Treasurer's Office Sundries.....	2,000.00		2,000.00		
Auditing Accounts.....	6,500.00		6,500.00		
Special Corporation Expenses.....	12,837.20		3,474.27	\$9,362.93	
Office Rent.....	6,999.96		6,999.96		
116th Street Tunnels—Franchises.....	844.29		844.29		
Amsterdam Avenue Tunnel Franchise.....	504.42		504.42		
Legal Expenses.....	35,942.62		35,942.62		
		\$169,401.83			
Camp Columbia Taxes.....		626.68			
Office of the Bursar:					
Clerical Assistance.....	85,567.26		85,567.26		
Departmental Appropriation.....	19,752.72		19,752.72		
		105,319.98			
Office of the Purchasing Agent:					
Assistance and Supplies.....	8,553.02		8,553.02		
Testing Fund.....	30.00		30.00		
		8,583.02			
Insurance.....		20,802.65	20,538.65		264.00
		\$304,734.16	\$278,607.23	\$9,362.93	\$16,764.00

EXPENSES—RETIHING AND WIDOWS' ALLOWANCES

	Expenditures	Departmental Totals	From General Income	From Income of Special Endowments	From Gifts and Receipts for Designated Purposes
Retiring Allowances.....		\$243,722.71	\$104,647.33	\$2,679.24	\$136,396.14
Widows' Allowances.....		51,732.20	13,604.50	1,380.29	36,747.41
Payment to Teachers Insurance and Annuity Association.....		214,641.16	158,872.73		55,768.43
		\$510,096.07	\$277,124.56	\$4,059.53	\$228,911.98

EXPENSES—STUDENT AID

	Expenditures	From General Income	From Income of Special Endowments	From Gifts and Receipts for Designated Purposes
FELLOWSHIPS				
Adams Publication.....	\$306.65		\$306.65	
Baier (Victor) Music.....	766.50		766.50	
Benjamin and Cartwright.....	2,868.75			\$2,868.75
Chinese Embassy.....	8,250.00			8,250.00
Drisler (Classical Philology)	1,500.00	\$1,500.00		
Du Pont.....	2,718.00			2,718.00
Ellis.....	1,600.00		1,600.00	
Evans.....	1,095.00		1,095.00	
Cutting.....	5,000.00		5,000.00	
Gilder.....	800.00		800.00	
Kemp.....	600.00		600.00	
Goldschmidt.....	1,095.00		1,095.00	
Kellett.....	2,000.00		2,000.00	

Morris	2,000.00			2,000.00
Proudfit	1,095.00			1,095.00
Schiff	1,200.00			1,200.00
Schurz	1,200.00			1,200.00
Seidl	876.00			876.00
Resident	8,333.33		3,333.33	
Alcoa	1,500.00			1,500.00
Miles	1,000.00			1,000.00
Radio Receptor Co.	320.00			320.00
Lydig	1,700.00			1,700.00
Mitchell	365.00			365.00
Roberts (Lydia C.)	14,732.28			14,732.28
University	30,000.00		30,000.00	
			\$87,921.51	
SCHOLARSHIPS				
Alumni (College)	100.00			100.00
Aldrich (James Herman) (College)	175.00			175.00
Aldridge	250.00			250.00
Barker (Music)	1,058.50			1,058.50
Barstow (Frederic D.)	1,592.05			1,592.05
Barstow (W. S.)	2,467.00			2,467.00
Beck (College)	73.00			73.00
Beck Prize (Law)	292.00			292.00
Bronner (Business)	250.00			250.00
Brooklyn (Barnard College)	1,800.00		1,800.00	
Brooklyn (College)	1,800.00		1,800.00	
Burgess (Annie P.) (College)	182.50			182.50
Burgess (Daniel M.) (College)	182.50			182.50
Butler (Richard)	209.00			209.00
Campbell (College)	219.00			219.00
Class of 1848 (College)	365.00			365.00
Aid to Foreign Students	1,489.50			1,489.50
Britton	438.52			438.52
Class of 1896 (College, Applied Science or Architecture)	220.00			220.00

	Expenditures	Departmental Totals	From General Income	From Income of Special Endowments	From Gifts and Receipts for Designated Purposes
Class of 1904 (College).....	\$334.00			\$334.00	
Collins (Perry McDonough) (College).....	20,347.67			20,347.67	
Columbia College.....	1,635.75				\$1,635.75
Columbia University Club.....	2,643.00				2,643.00
Curtis (University).....	750.00		\$750.00		
Dean's Emergency Fund.....	793.40				793.40
De Witt (Law).....	300.00			300.00	
Dibblee (Ezra Reed) (Law).....	165.62			165.62	
Dibblee (Frances M.).....	165.63			165.63	
Faculty.....	7,417.50		7,417.50		
Fund in Aid of Deserving Students.....	52,429.70		45,738.18	3,592.52	3,099.00
Garibaldi.....	365.00			365.00	
Gibson (College).....	365.00			365.00	
Gladney.....	210.00			210.00	
Hand (Ellen King) Memorial.....	185.00			185.00	
Hitchcock (Journalism).....	1,000.00				1,000.00
Jones.....	42.50				42.50
Killough (College).....	1,478.85			1,478.85	
MacMahon (Journalism).....	219.00			219.00	
Duka (University Extension).....	50.00				50.00
Friedlander.....	800.00				800.00
Hervey.....	263.54			263.54	
Mitchel (John P.).....	2,345.32			2,345.32	
Muir.....	1,155.00			1,155.00	
Murtha.....	182.50			182.50	
New York Library Association.....	1,080.00				1,080.00
New York State Scholarships.....	60,582.89				60,582.89

Phillips (Journalism).....	730.00		730.00	
Perkins.....	273.75		273.75	
President's Scholarship.....	744.50	744.50		
President's University.....	1,120.00	1,120.00		
Professors (Sons of).....	7,026.25	7,026.25		
Pulitzer Scholars.....	10,442.03	10,442.03		
Pulitzer Scholarship.....	8,566.00		8,566.00	
Residence Halls Graduate.....	26,877.33	26,877.33		
Ritchie.....	161.92		161.92	
Rogers.....	200.00		200.00	
Sackett (Henry W.) (Journalism).....	438.00		438.00	
Sandham (Anna M.) (Barnard College).....	365.00		365.00	
Saunders (Leslie M.) (College).....	219.00		219.00	
Schermerhorn (College).....	182.50		182.50	
Sanderson (E. M.).....	300.00		300.00	
Scholarship in Zoology.....	250.00		250.00	
Society for Promotion of Religion and Learning (College).....	190.00	190.00		
State Aid for Blind Pupils.....	809.45		809.45	
Stuart (College).....	219.00		219.00	
Summer Session.....	916.30	916.30		
Radio Corporation of America.....	600.00		600.00	
National Society of Colonial Dames.....	500.00		500.00	
Stross (Ludwig) (College).....	1,095.00		1,095.00	
Sigma Chi Foundation.....	100.00		100.00	
Woodworth (Florence).....	112.50		112.50	
Watumull Foundation.....	350.00		350.00	
Saunders (Alexander) College or Engineering.....	438.00		438.00	
Vanderpoel.....	125.00		125.00	
Van Sinderen (Howard) (Law).....	365.00		365.00	
Wheeler (J. V.).....	219.00		219.00	
Wyer.....	150.00		150.00	
				\$234,555.97

	Expenditures	Departmental Totals	From General Income	From Income of Special Endowments	From Gifts and Receipts for Designated Purposes
PRIZES AND MEDALS					
Anonymous (Auditing Laboratory)	\$50.00				\$50.00
Barlow Medal	42.00			\$42.00	
Bearns Prize	1,200.00			1,200.00	
Bennett	36.50			36.50	
Bouvier (Rowing)	21.75			21.75	
Cabot (Maria Moors) Prize	7,649.94			7,649.94	
Class of 1912	54.75			54.75	
Darling (Mechanical Engineering)	53.50			53.50	
Elsberg (Albert Marion) Prize (Modern History)	95.00			95.00	
Green (Albert Asher) Prize (College)	36.50			36.50	
Haughton	137.50			137.50	
Illig	83.95			83.95	
Jackson	36.50			36.50	
Kemp	741.43			741.43	
Lowenfish (Lucille Smyser)	49.50			49.50	
Philolexian Prize	111.33			111.33	
Pulitzer Prizes	11,270.00			11,270.00	
Pulitzer Prizes (For Administration)	5,524.19			5,524.19	
Promotion Competition	1,136.84			1,136.84	
Toppan Prize	153.30			153.30	
Rosoff	25.00				25.00
Van Buren (John Dash Jr.) Prize (Mathematics: College)	200.75				200.75
Van Renssalaer (English Verse)	36.50				36.50
Vernon (Susan Huntington)	25.00				25.00

Van Amringe Mathematical Prize (College).....	186.15	186.15		186.15
Stokes.....	45.00	45.00		45.00
		\$29,002.88		
FELLOWSHIPS, SCHOLARSHIPS AND PRIZES				
AT THE MEDICAL SCHOOL				
Beckman.....	750.00	750.00		750.00
Du Bois (Dr. Abram) Fellowship.....	657.00	657.00		657.00
Gies Fellowship.....	854.49	854.49		854.49
Huber (Viola B.) Scholarship.....	182.50	182.50		182.50
James (Walter Belknap) Fellowship.....	1,825.00	1,825.00		1,825.00
Janeway Prize.....	36.50	36.50		36.50
Anonymous Scholarship.....	1,094.96	1,094.96		1,094.96
Research Fellowship.....	2,250.00	\$2,250.00		2,250.00
Residence Hall Scholarships.....	9,500.00	9,500.00		9,500.00
Holt Fellowship.....	375.00	375.00		375.00
Student Aid-Nursing.....	400.00	400.00		400.00
Watson (Dr. William Perry) Prize.....	189.80	189.80		189.80
Wechsler.....	500.00	500.00		500.00
Blumenthal Scholarship.....	750.00	750.00		750.00
Dennett Scholarships.....	6,519.97	6,519.97		6,519.97
Proudfit (Maria McLean) Fellowship.....	637.00	637.00		637.00
Kellogg Foundation Scholarships.....	1,500.00	1,500.00		1,500.00
Iason Scholarship.....	500.00	500.00		500.00
Rockefeller Foundation Fellowships.....	1,333.28	1,333.28		1,333.28
		29,855.50		
SCHOLARSHIPS AND PRIZES AT THE DENTAL SCHOOL				
Class of 1929.....	25.00	25.00		25.00
Dental and Oral Surgery Scholarship.....	4,765.28	4,765.28		4,765.28
Van Woert Scholarship.....	172.82	172.82		172.82
		4,963.10		
	\$386,298.96	\$151,405.42		\$100,153.80

EXPENSES—ANNUITIES

	Expenditures	Departmental Totals	From General Income	From Income of Special Endowments	From Gifts and Receipts for Designated Purposes
Anonymous Fund for Department of Metallurgy	\$5,000.00			\$5,000.00	
Anonymous Fund for Department of Physics	9,000.00			9,000.00	
Anonymous Fund for Student Aid	5,677.00			5,677.00	
John W. Burgess Fund	650.00		\$650.00		
Joseph C. Pfister Fund	5,700.00			5,700.00	
Leta Stetter Hollingworth Fund	2,229.20			2,229.20	
Carlton C. Curtis Fund	2,090.05			2,090.05	
Henry Krumb Fund	1,500.00			1,500.00	
Hall J. How Fund	310.01			310.01	
Stanwood Cockey Lodge Foundation	3,822.97			3,822.97	
Harriet S. Phillips Fund	6,300.25			6,300.25	
Schuyler Fiske Seager Fund	1,310.72			1,310.72	
Shepherd Foundation	750.00			750.00	
Alice and Douglas Johnson Fund	1,140.95			1,140.95	
Beatrice La Montagne Fund	2,500.00			2,500.00	
	\$47,981.15		\$650.00	\$47,331.15	

EXPENSES—SPECIAL APPROPRIATIONS

	Expenditures	Departmental Totals	From General Income	From Income of Special Endowments	From Gifts and Receipts for Designated Purposes
President's Reserve Fund.....	\$18,636.91	.....	\$18,636.91	.....	.....
Retiring Allowance Reserve Fund.....	118,502.18	.....	114,077.22	.....	\$4,424.96
Buildings and Grounds Reserve Fund.....	14,572.31	.....	14,572.31	.....	.....
Library Reserve Fund.....	1,500.76	.....	1,500.76	.....	.....
	\$153,212.16		\$148,787.20		\$4,424.96

INTEREST ACCOUNT

INTEREST PAID:

On Current Loans.....	\$11,831.86	
On Loan of 1941, Less \$20,000.00 charged to Sloane Hospital and Vanderbilt Clinic Maintenance Ac- count.....	33,771.57	
	<hr/>	\$45,603.43
		<hr/> <hr/>

EXPENSES—SUMMARY

	Total	From General Income	From Income of Special Endowments	From Gifts and Receipts for Designated Purposes	From Allied Corporations
Educational Administration and Instruction.....	\$8,436,217.32	\$5,445,572.56	\$821,120.81	\$2,169,523.95	.....
Buildings and Grounds.....	1,406,824.46	1,377,242.60	27,381.86	2,200.00	.....
Library.....	633,856.34	591,750.40	34,699.37	7,406.57	.....
Business Administration.....	304,734.16	278,607.23	9,362.93	16,764.00	.....
Retiring and Widows' Allowances.....	510,096.07	277,124.56	4,059.53	228,911.98	.....
Student Aid.....	386,298.96	151,405.42	134,739.74	100,153.80	.....
Annuities.....	47,981.15	650.00	47,331.15	.....	.....
Special Appropriations.....	153,212.16	148,787.20	.....	4,424.96	.....
Interest.....	45,603.43	45,603.43	.....	.....	.....
Transferred from Gifts and Receipts for Designated Purposes.....	11,924,824.05	\$8,316,743.40	\$1,078,695.39	\$2,529,385.26	.....
				1,679,749.48	\$1,679,749.48
Transferred from Income of Special Endowments and Gifts.....		712,557.12	.....	\$849,635.78	.....
Altschul (Benjamin).....	.....	.....	105.39	.....	.....
Alumni Federation of Columbia University.....	.....	.....	6,165.81	.....	.....
Alumni War Bonus.....	.....	.....	1,386.23	.....	.....
Burgess (John W.).....	.....	.....	3,650.00	.....	.....
Carpentier (H. W.).....	.....	.....	126,323.93	.....	.....
Class of 1892.....	.....	.....	558.45	.....	.....
Class of 1893.....	.....	.....	37.97	.....	.....
Class of 1897.....	.....	.....	362.99	.....	.....
Class of 1902.....	.....	.....	620.50	.....	.....
Class of 1912.....	.....	.....	135.01	.....	.....
Class of 1914.....	.....	.....	325.58	.....	.....

	Total	From General Income	From Income of Special Endowments	From Gifts and Receipts for Designated Purposes	From Allied Corporations
Class of 1917.....			\$246.90		
Class of 1929.....			13.65		
Eno (Amos F.).....			410,220.31		
Fire Insurance.....			1,825.00		
Gregory (Henry Elsworth).....			2,670.78		
Hemingway (William H.).....			1,003.33		
Kennedy (John Stewart).....			97,196.81		
Killough for Economics.....			1,000.00		
Killough for English.....			1,000.00		
Pell (Mary B.).....			25,538.77		
Reussner (Ella).....			1,912.84		
Van Cortlandt (Robert B.).....			29,881.51		
Year End Club.....			86.36		
Anonymous Gift.....				\$220.00	
Farwell (H. W.) Gift.....				100.00	
Kovbat Gift.....				4.00	
Schiller (Louise S.).....				15.00	
	11,924,824.05	\$7,604,186.28	\$1,790,913.51	\$849,974.78	\$1,679,749.48

STUDENT LOAN FUNDS

REPORT OF THE TREASURER

45

	Principal at June 30, 1945	Additions	Principal at June 30, 1946	Loans	Balance
SPECIAL LOAN FUNDS					
Alumni of The School of Architecture	\$1,245.50	.....	\$1,245.50	\$400.00	\$845.50
Alumni of The College of Physicians and Surgeons	5,277.26	\$83.27	5,360.53	272.77	5,087.76
Benedict	45.00	.....	45.00	45.00	.....
Bertuch (Frederick)	33,175.75	638.72	33,814.47	11,136.56	22,677.91
Bishop (Cordandt F.)	679.20	10.00	689.20	62.00	627.20
Blumenthal (George, Jr.)	65,436.34	1,028.41	66,464.75	11,283.27	55,181.48
Class of 1879, School of Mines	6,732.78	121.45	6,854.23	598.00	6,256.23
Class of 1886	652.18	.....	652.18	.....	652.18
Class of 1887, School of Mines	20,463.76	362.62	20,826.38	3,716.95	17,109.43
Class of 1901	15,411.48	2,228.74	17,640.22	5,360.79	12,279.43
Class of 1903	500.00	850.00	1,350.00	700.00	650.00
Class of 1904	354.43	.....	354.43	.....	354.43
Class of 1906, Physicians and Surgeons	4,513.69	16.18	4,529.87	325.00	4,204.87
Class of 1908	1,160.64	.....	1,160.64	106.30	1,054.34
Class of 1910	1,004.40	.....	1,004.40	187.00	817.40
Class of 1914, War Memorial	1,406.97	.....	1,406.97	352.50	1,054.47
Class of 1916	1,223.96	.....	1,223.96	.....	1,223.96
Class of 1919, Physicians and Surgeons	1,600.00	10.00	1,610.00	.....	1,610.00
Clyde (Mrs. Ethel and Miss Edith)	4,379.57	.....	4,379.57	1,739.54	2,640.03
Collins (Perry McDonough)	6,624.24	269.17	6,893.41	2,371.94	4,521.47
Dolphin	462.17	.....	462.17	.....	462.17
Engineering School	2,775.64	6.25	2,781.89	125.00	2,656.89
Gies (William J.)	8,048.08	.....	8,048.08	.....	8,048.08
Graham (Newton)	20,725.01	141.59	20,866.60	5,717.46	15,149.14
Holliday (Ellen) Memorial Loan Fund . . . . .	.....	333.75	333.75	.....	333.75
Homes (Henry F.)	6,563.14	83.40	6,646.54	2,109.80	4,536.74
Huber (Frederick W.)	117.17	.....	117.17	.....	117.17

	Principal at June 30, 1945	Additions	Principal at June 30, 1946	Loans	Balance
Kearney (Phil).....	\$2,855.66	\$7.58	\$2,863.24	\$427.00	\$2,436.24
Kellogg (W. K.) Foundation (Public Health).....	5,200.00		5,200.00		5,200.00
Kellogg (W. K.) Foundation (Dental School).....	8,174.60	125.85	8,300.45	1,427.50	6,872.95
Kellogg (W. K.) Foundation (Occupational Therapy).....	2,000.00	14.84	2,014.84	1,086.50	928.34
Knapp.....	2,689.74	20.58	2,710.32	496.42	2,213.90
Koenig.....	10.00		10.00		10.00
Law School.....	81.36		81.36		81.36
Megruer (Roi Cooper) Emergency.....	8,145.00	519.99	8,664.99	2,166.35	6,498.64
Moore.....	200.00		200.00		200.00
Payne (C. Q.).....	4,388.87		4,388.87		3,914.87
Porter (David B. and Wife).....	9,963.18	1,164.29	11,127.47	474.00	11,127.47
Seth Low Junior College.....	1,123.15		1,123.15	335.00	788.15
School of Engineering (Harrington Scholarship).....	560.50	105.00	665.50		665.50
Shoemaker (William Broek).....	12,933.55	406.88	13,340.43	4,554.80	8,785.63
Stabler (Edward L.).....	1,520.18		1,520.18	267.00	1,253.18
Students.....	52,241.57	720.36	52,961.93	20,401.16	32,560.77
University Extension.....	5,401.74	172.79	5,574.53	2,174.73	3,399.80
Wright (Palmer).....	873.22		873.22	332.50	540.72
Total Special.....	\$328,940.68	\$9,441.71	\$338,382.39	\$80,752.84	\$257,629.55
GENERAL LOAN FUNDS.....	\$699,753.42	\$7,265.40	\$707,018.82	\$165,057.95	\$541,960.87
Total of Special and General Loan Funds.....	\$1,028,694.10	\$16,707.11	\$1,045,401.21	\$245,810.79	\$799,590.42
Less Reserves.....				\$102,217.30	
LOANS TO STUDENTS (Net).....				\$143,593.49	

NEW YORK, N. Y.
BOSTON, MASS.
SPRINGFIELD, MASS.
CLEVELAND, OHIO.
CHICAGO, ILL.
PHILADELPHIA, PA.
NEW HAVEN, CONN.
SYRACUSE, N. Y.
BUFFALO, N. Y.
KANSAS CITY, MO.
SAN FRANCISCO, CAL.

Scovell, Wellington & Company
Accountants and Auditors

New York, October 18, 1946

To the Board of Trustees,
Columbia University in the City of New York.

We have examined the balance sheets of Columbia University in the City of New York as at June 30, 1946, and the statements of income and expense and capital account for the fiscal year then ended, have reviewed the system of internal control and the accounting procedures of the University and, without making a detailed audit of the transactions, have examined or tested accounting records of the University and other supporting evidence by methods and to the extent we deemed appropriate.

All of the charges to government contracts, both the reimbursement of indirect costs and the direct costs, are subject to change as a result of audit by the government and through renegotiation. There will undoubtedly be substantial costs and expenses incident to termination of government contracts, but we are unable to express an opinion as to what the total may be; neither can we determine what adjustments, if any, may result from government audit or renegotiation.

Subject to the qualification as to government contracts stated in the preceding paragraph, in our opinion, the accompanying balance sheets and related statements of income and expense and capital account, and the notes thereto, present fairly the position of the University at June 30, 1946 and the results of its operations for the fiscal year then ended, in conformity with generally accepted accounting principles for educational institutions applied on a basis consistent with that of the preceding year.

Scovell Wellington & Company

COLUMBIA UNIVERSITY
BALANCE SHEET AS AT JUNE 30, 1946

ASSETS	General Funds	Special Endowments and Funds	Total
Cash (See Note 3).....			
Notes Receivable.....	\$4,387.17		
Mortgage Receivable—Bard College.....	347,217.17		
	\$351,604.34		
Accounts Receivable—			
United States Government Agencies.....	\$1,468,837.66		
Sundry.....	376,781.02		
Students (Gross).....	124,288.85		
Arrears of Rent (See Page 54).....	30,119.06		
	\$2,000,026.59		
Total Notes, Mortgage and Accounts.....	\$2,351,630.93		
Less Reserves.....	122,013.32		
	\$2,229,617.61		
	2,048,020.39	181,597.22	2,229,617.61
Inventories of Materials and Supplies.....			
Loans to Students (Less Reserves: General Funds, \$66,879.87; Special Endowments and Funds, \$35,337.43) (See Page 46).....	364,707.71	7,969.81	372,677.52
Deferred Charges—Unexpired Insurance, etc.. Advances—			
Against Future Appropriations and Bequests On Account of Income of Special Endow- ments and Gifts (See Pages 71 and 101)..	98,178.08	45,415.41	143,593.49
Investments of Deposits—Book Value (See Contra).....	81,515.84	49,449.62	130,965.46
Securities Owned (See Page 115) (See Note 4)			
Bonds.....	447,470.59	10.00	447,480.59
Stocks.....			
Bonds and Mortgages.....			
Guaranteed and Participation Certificates and Miscellaneous.....	3,500.00	34,935.25	38,435.25
	\$11,267,693.42		
	13,804,878.39		
	11,943,013.43		
	192,515.37		
	\$37,208,100.61	3,203,616.14	34,004,484.47
	3,203,616.14	34,004,484.47	37,208,100.61
Securities and Cash in Custody—Advanced by United States Government (See Contra)...	1,022,902.70		1,022,902.70
Rental Property (See Note 5)			
*Upper Estate Land at 1935 Assessed Val- uation.....	\$28,230,310.76		
*Lower Estate Land at 1935 Assessed Val- uation, \$2,394,000.00, plus Subsequent Additions at Cost.....	2,435,367.63		
Other Property, Including Buildings on Lower Estate Land, at Net Book Value, General Funds (Less Reserve for Depreci- ation \$263,458.04) (See Page 125).....	2,260,911.52		
Special Funds (Less Reserve for Depreciation \$1,564,203.67) (See Page 130).....	14,358,855.09		
	\$47,285,445.00	32,926,589.91	14,358,855.09
	32,926,589.91	14,358,855.09	47,285,445.00
University Land, Buildings and Equipment (See Page 122) (See Note 6).....	\$39,793,263.82		
Less Reserves.....	516,647.59		
	39,276,616.23		
	39,276,616.23		39,276,616.23
Loans—Due from Other Funds.....	\$80,420,240.79	\$49,266,815.82	\$129,687,056.61
	273,780.53	550,647.15	824,427.68
	\$80,694,021.32	\$49,817,462.97	\$130,511,484.29

*Upper Estate Land at 1945-1946 Assessed Valuation \$29,931,855.37.

*Lower Estate Land at 1945-1946 Assessed Valuation \$2,446,500.00.

The note references are to the Notes to Financial Statements on Page 52 of this report, which notes are an integral part of this statement.

BALANCE SHEET AS AT JUNE 30, 1946

LIABILITIES, RESERVES, FUNDS AND CAPITAL	General Funds	Special Endowments and Funds	Total
Notes Payable.....	\$940,000.00		\$940,000.00
Accounts Payable and Sundry Accruals.....	763,180.79	\$29,208.83	792,389.62
Advances on Government Contracts, Less Charges Applied.....	206,908.88		206,908.88
Custody Account—Due to United States Government (See Contra).....	1,022,902.70		1,022,902.70
Deposits—			
Students.....	\$65,663.64		
Others (See Contra).....	163,877.31		
	<u>\$229,540.95</u>	74,118.48	155,422.47
Payments Received in Advance—			229,540.95
Students' Fees.....	\$285,717.23		
Prepaid Rents—Rental Properties.....	1,232.33		
	<u>\$286,949.56</u>	286,002.73	946.83
Interest Payable Accrued.....	19,269.61		19,269.61
Deferred Credits.....	40,436.50	84,375.00	124,811.50
Loan of 1941 (Secured by Mortgage on Upper Estate).....	2,531,774.30		2,531,774.30
Sundry Reserves			
Estimated Costs and Expenses Relating to Government Contracts (See Note 1)....	\$3,415,204.81		
Amortization of Debt.....	59,410.87		
Requisitions Outstanding: Estimates.....	986,945.94		
Contingencies.....	221,840.54		
	<u>\$4,683,402.16</u>	4,622,699.93	60,702.23
Unexpended Income of Special Endowments (See page 71).....		2,359,498.11	2,359,498.11
Unexpended Gift, and Receipts for Designated Purposes (See Page 101).....		1,752,287.73	1,752,287.73
Endowments—			
Special Endowments (See Page 199).....	\$44,885,834.78		
Less Undistributed Losses.....	673,623.08	44,212,211.70	44,212,211.70
Student Loan Endowments (See Page 46)...		333,382.39	333,382.39
General Funds—			
Student Loan Funds (See Page 46).....	\$707,018.82		
Permanent Funds (See Page 202).....	30,956,916.27		
Amortization—Loan of 1941 (See Note 2)..	3,323,225.70		
Capital Account (See Notes 1 and 2).....	35,194,566.61	70,186,727.40	70,186,727.40
		<u>\$80,694,021.32</u>	<u>\$48,993,035.29</u>
Loans—Due to Other Funds (See Contra)....		824,427.68	824,427.68
		<u>\$80,694,021.32</u>	<u>\$49,817,462.97</u>
			<u>\$130,511,484.29</u>

The note references are to the Notes to Financial Statements on Page 52 of this report, which notes are an integral part of this statement.

DETAILED FUND BALANCE SHEET AS AT JUNE 30, 1946

ASSETS		General Funds	Special Endowment Funds Principal	Gift Funds	Student Loan Funds	Invested in Plant	Total
Cash (See Note 3)		\$947,123.20	\$323,203.01	\$173,929.09	\$29,573.83		\$1,504,064.40
Notes Receivable	\$4,387.17						
Mortgage Receivable—Bard College	347,217.17						
	\$351,604.34						
Accounts Receivable							
United States Government Agencies	\$1,468,837.66						
Sundry	376,781.02						
Students	124,288.85						
Arrears of Rent	30,119.06						
	\$2,000,026.59						
Total Notes, Mortgage and Accounts	\$2,351,630.93						
Less Reserves	122,013.32						
	\$2,229,617.61	2,048,020.39	26,631.05	147,747.02	7,219.15		2,229,617.61
Inventory of Materials and Supplies		364,707.71		7,969.81			372,677.52
Loans to Students (Less Reserves: General Funds, \$66,879.87; Student Loan Funds, \$3,337.43)		98,178.08		49,149.11	45,415.41		143,593.49
Deferred Charges—Unexpired Insurance, etc.		81,515.84					130,965.46
Advances Against Future Appropriations and Bequests		447,470.59	10.00				447,480.59
Advances to be Refunded				8,003.19			27,157.75
Investment of Deposits (See Contra)		3,500.00		34,935.25			38,435.25
Securities Owned (See Note 4)							
Bonds	\$11,267,693.42						
Stocks	13,804,878.39						
Bonds and Mortgages	11,943,013.43						
Guaranteed and Participation Certificates and Miscellaneous	192,515.37						
	\$37,208,100.61	3,203,616.14	29,929,206.22	1,613,076.69	255,412.50		37,208,100.61
Securities and Cash in Custody—Advanced by United States Government (See Contra)							
Rental Property (See Note 5)		1,022,902.70					1,022,902.70
*Upper Estate Land at 1935 Assessed Valuation..	\$28,230,310.76						
*Lower Estate Land at 1935 Assessed Valuation,							
\$2,394,000.00, Plus Subsequent Additions at Cost	2,435,367.63						
Other Property Including Buildings on Lower Estate Land (Less Reserves for Depreciation—General Funds \$263,458.04; Special Endowments \$1,564,203.67)		2,260,911.52	14,338,497.69	94.08			16,619,766.61
University Land, Buildings and Equipment, Less Reserve for Depreciation (See Note 6)						\$39,276,616.23	\$39,276,616.23
		\$41,143,624.56	\$44,617,547.97	\$2,034,904.24	\$330,401.74		\$129,687,056.61
		273,780.53		542,666.50	7,980.65		824,427.68
Loans—Due from Other Funds		\$41,417,405.09	\$44,617,547.97	\$2,577,570.74	\$385,382.39		\$130,511,484.29

LIABILITIES, RESERVES AND FUNDS

	General Funds	Special Endowment Funds Principal	Special Endowment Funds Income	Gift Funds	Student Loan Funds	Invested in Plant	Total
Notes Payable.....	\$940,000.00						\$940,000.00
Accounts Payable and Sundry Accruals.....	763,180.79			\$13.00			792,389.62
Advances on Government Contracts, Less Charges Applied.....	206,908.88	\$24,097.50	\$5,098.33				206,908.88
Custody Account—Due to United States Government (See Contra). Deposits.....	1,022,902.70						1,022,902.70
Students.....	65,663.64						65,663.64
Others (See Contra).....	8,454.84	27,712.50	127,652.47	57.50			163,877.31
Payments Received in Advance— Students' Fees.....	285,717.23						285,717.23
Prepaid Rents—Rental Properties.....	285.50		946.83				1,232.33
Interest Payable Accrued.....	19,269.61						19,269.61
Deferred Credits.....	40,436.50		84,375.00				124,811.50
Loan of 1941 (Secured by Mortgage on Upper Estate).....	2,531,774.30						2,531,774.30
Sundry Reserves.....							
Estimated Costs and Expenses Relating to Government Contracts (See Note 1).....	3,415,204.81						3,415,204.81
Amortization of Debt.....	59,410.87						59,410.87
Requisitions Outstanding; Estimates.....	986,945.94						986,945.94
Contingencies.....	161,138.31			60,702.23			221,840.54
Unexpended Income of Special Endowments.....			2,359,498.11	1,752,287.73			2,359,498.11
Principal of Gifts.....	\$44,885,884.78						44,885,884.78
Principal of Special Endowments.....		44,212,211.70					44,212,211.70
Less Undistributed Losses.....	673,623.08						673,623.08
Student Loan Funds.....	707,018.82				\$338,382.39		1,045,401.21
Plant Funds (Permanent).....						\$30,956,916.27	30,956,916.27
Amortization—Loan of 1941 (See Note 2).....	3,328,225.70						3,328,225.70
*Capital (See Notes 1 and 2).....	26,874,866.65						35,194,566.61
Loans—Due to Other Funds.....	\$41,417,405.09	\$44,264,021.70	\$2,577,570.74	\$1,813,060.46	\$338,382.39	\$39,276,616.23	\$129,687,056.61
		353,526.27		470,901.41			824,427.68
	\$41,417,405.09	\$44,617,547.97	\$2,577,570.74	\$2,283,961.87	\$338,382.39	\$39,276,616.23	\$130,511,484.29

The note references are to the Notes to Financial Statements on page 52 of this report, which notes are an integral part of this statement.
*In preparing this Detailed Fund Balance Sheet, there has been subtracted from the Capital Account in General Funds a sufficient amount to balance the total invested in plant in excess of Permanent Plant Funds.

CAPITAL ACCOUNT

FOR THE YEAR ENDED JUNE 30, 1946

Balance, June 30, 1945.....		\$35,273,116.67
Add:		
Cancellation of Accrued Water Rents of Prior Years..	\$61,170.00	
Unexpended Balances of Requisitions Outstanding at June 30, 1945.....	5,881.87	
Adjustment of Fees and Expenses of Prior Years (net)	10,256.45	
		<u>77,308.32</u>
		\$35,350,424.99
Deduct:		
Alterations and Replacements in Academic Properties	\$100,588.24	
Excess of Expenses over Income for the Year Ended June 30, 1946 After Providing for Amortization of Loan of 1941 (See Notes 1 and 2).....	55,270.14	
		<u>155,858.38</u>
		<u>\$35,194,566.61</u>

NOTES TO FINANCIAL STATEMENTS

1. In the year ended June 30, 1946 the University transferred to the following accounts the reimbursement for the year of indirect costs of government contracts, less certain costs and expenses chargeable directly thereto:

Reserve for Depreciation.....	\$30,675.48
Reserve for Estimated Costs and Expenses Relating to Government Contracts.....	210,278.22
	<u>\$240,953.70</u>

In the year ended June 30, 1945 a comparable total of \$1,205,130.01 was transferred to reserves.

2. For comparison with the budget there is included on the income and expense statement \$423,008.86 for amortization of Loan of 1941, which, together with amounts provided in previous years, or a total of \$3,328,225.70, will be restored to capital account when the Loan of 1941 is fully paid.

3. Cash includes \$210,535.80 restricted to the payment of charges to certain government contracts.

4. Securities received through gift are valued as of the dates of acquisition on one of the following bases; cost less amortization of bond premiums, market, or nominal values

5. The land holdings known as the Upper and Lower Estates are carried at the 1935 City of New York assessed valuations, plus subsequent additions at cost. In accordance with practices adopted in prior years, other rental properties of the University, including buildings on the Lower Estate, are carried at various bases, such as cost, cost plus carrying charges, assessed valuations or, in a few instances, appraised or nominal values. In providing for depreciation, the practice has not been consistent in respect to the various properties, and in general the provisions have not been adequate to amortize the costs of the properties over reasonable estimates of their useful lives.

6. The University land, buildings and equipment are carried at cost, or assessed value at the dates of acquisition through gift. Prior to 1943 depreciation had been provided only on dining hall equipment. In subsequent years depreciation has also been provided on the proportionate space and equipment used by government contracts as follows:

Year Ended June 30	Amount
1943.....	\$119,353.24
1944.....	126,414.30
1945.....	99,450.73
1946.....	<u>30,675.48</u>

PAYMENTS BY ALLIED CORPORATIONS

(1) Salaries and Annuities Account Barnard College. Credited to the following Departments:	
General University Administration.....	\$44,550.00
Office of the Registrar.....	6,600.00
Anthropology.....	6,000.00
Botany.....	11,925.00
Chemistry.....	19,474.99
Economics.....	18,050.00
English and Comparative Literature.....	62,150.00
Fine Arts.....	13,120.00
Geology.....	12,000.00
Germanic Languages.....	14,125.00
Greek and Latin.....	6,400.00
History.....	15,575.00
Mathematics.....	20,350.00
Music.....	8,325.00
Philosophy.....	20,625.00
Physical Education.....	30,575.00
Physics.....	8,600.00
Psychology.....	21,225.00
Public Law.....	17,425.00
Religion.....	1,600.00
Romance Languages.....	49,075.00
Sociology.....	11,500.00
Zoology.....	13,600.00
Library.....	6,600.00
Business Administration.....	16,500.00
Annuity Contributions.....	15,508.85
Retiring Allowances.....	22,604.00
	\$494,082.84
(2) Salaries and Annuities Account Teachers College. Credited to the following Departments:	
General University Administration.....	\$19,000.00
Education and Practical Arts.....	585,759.62
Annuity Contributions.....	34,075.82
Retiring Allowances.....	7,532.60
	646,368.04
(3) Carnegie Foundation. Credited to the following:	
Retiring Allowances.....	\$110,684.50
Widows' Allowances.....	36,747.41
	147,431.91
(4) Presbyterian Hospital. Credited to the following:	
Laboratories.....	\$26,499.96
Ophthalmology.....	59,178.92
School of Nursing.....	90,000.00
Scientific Research.....	67,530.78
Radiology.....	300.00
	243,509.66
(5) The New York Post-Graduate Medical School and Hospital.....	7,500.00
(6) Babies Hospital.....	54,995.02
(7) Neurological Institute.....	85,862.01
	\$1,679,749.48

C O L U M B I A U N I V E R S I T Y
ARREARS OF RENT, JUNE 30, 1946

RENTAL PROPERTIES

LOWER ESTATE

53 Barclay Street.....	\$18.35
55-7 Barclay Street.....	35.85
69-73 Barclay Street.....	291.22
75-9 Barclay Street.....	120.00
83 Barclay Street.....	69.00
231-5 Greenwich Street.....	108.00
239-43 Greenwich Street.....	16.87
245-7 Greenwich Street.....	21.50
252-4 Greenwich Street.....	.90
253-9 Greenwich Street.....	247.00
42 Murray Street.....	12.45
46 Murray Street.....	3.30
68 Murray Street.....	146.95
70 Murray Street.....	121.15
32 West Broadway.....	30.90
40 West Broadway.....	5.00
42 West Broadway.....	3.00

\$1,251.44

OTHER PROPERTIES

115th Street and Amsterdam Avenue.....	\$310.74
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310.74

DELAFIELD PROPERTY

171 East 107th Street.....	\$75.00
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75.00

ENO ESTATE

1556-60 Broadway.....	\$17,721.46
1680 Broadway.....	2,454.38
136 MacDougal Street.....	130.00
138 MacDougal Street.....	220.50
140 MacDougal Street.....	200.00
40 Washington Square South.....	365.15
50 Washington Square South.....	3,706.46
44 West 64th Street.....	42.00
46 West 64th Street.....	77.00
423-31 West 120th Street.....	92.20

25,009.15

POOL ACCOUNT

21 Claremont Avenue.....	\$122.50
29-35 Claremont Avenue.....	291.16
70 Morningside Drive and 400 West 118th Street.....	816.38
403 West 115th Street.....	142.50
404 West 116th Street.....	409.96
430 West 118th Street.....	143.02
424-30 West 116th Street.....	130.00

2,055.52

RANDOLPH ESTATE

558 East 158th Street.....	\$97.00
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97.00

SPECIAL FUNDS—UNALLOCATED

636 Eighth Avenue.....	\$790.12
450 Riverside Drive.....	425.01
Eleventh Avenue 18th and 19th Streets.....	49.28
521-31 West 43rd Street.....	55.80

1,320.21

\$30,119.06

UNDERGRADUATE AND SERVICE ACTIVITIES

RESIDENCE HALLS			
Income.....		\$479,192.04	
Expense.....		459,743.50	
Net Income (See Page 5).....			\$19,448.54
DINING HALLS			
Income.....		\$462,548.70	
Expense.....		443,533.51	
Net Income (See Page 5).....			19,015.19
ATHLETICS			
INCOME			
General Athletics—			
Receipts.....		\$19,055.58	
From University Appropriation (See Page 20).....		75,300.48	
Football—Receipts.....			
		\$94,356.06	
		321,387.26	
		\$415,743.32	
EXPENSE			
General Athletics.....		\$94,356.06	
Football.....		233,802.24	
Balance Credited to Income (See Page 5).....			87,585.02
SUMMARY			
Total Credit to Income (See page 5).....		\$87,585.02	
Total Charge to Expense (See Page 20).....		75,300.48	
Net Credit from Athletics.....			\$12,284.54

RECEIPTS AND DISBURSEMENTS OF INCOME OF SPECIAL ENDOWMENTS
FOR THE YEAR ENDING JUNE 30, 1946

	Debit Balances June 30, 1945	Credit Balances June 30, 1945	Received 1945-1946	Total Credits	Expended 1945-1946	Debit Balances June 30, 1946	Credit Balances June 30, 1946
FOR GENERAL PURPOSES							
Altschul (Benjamin).....			\$105.39	\$105.39	\$105.39		
Alumni War Bonus.....			1,336.23	1,336.23	1,336.23		
Burgess (John W.).....			3,650.00	3,650.00	3,650.00		
Carpentier (H. W.).....			126,323.93	126,323.93	126,323.93		
Civil Engineering Research Laboratories Fund.....		\$14,710.87	3,818.98	18,529.85	(9) 18,529.85		
Class of 1897.....			362.99	362.99	362.99		
Class of 1902.....			620.50	620.50	620.50		
Class of 1912, College, Engineering and Architecture.....			135.01	135.01	135.01		
Class of 1917, College, Engineering and Journalism.....			246.90	246.90	246.90		
Columbia University Permanent Alumni.....			6,165.81	6,165.81	6,165.81		
Eno (Amos F.).....			410,220.31	410,220.31	410,220.31		
Fire Insurance.....			1,825.00	1,825.00	1,825.00		
Gregory (Henry Elsworth).....			2,670.78	2,670.78	2,670.78		
Kennedy (John Stewart).....			97,196.81	97,196.81	97,196.81		
Killough (Walter H. D.) for Economics.....			1,000.00	1,000.00	1,000.00		
Killough (Walter H. D.) for English Literature.....			1,000.00	1,000.00	1,000.00		
Krumb (Henry).....		5,148.62	2,626.00	7,774.62	1,500.00		\$6,274.62
Pell (Mary B.).....			25,538.77	25,538.77	25,538.77		
Reussner (Ella).....			1,912.84	1,912.84	1,912.84		
Van Cortlandt (Robert B.).....			29,881.51	29,881.51	29,881.51		
Year End Club.....			86.36	86.36	86.36		
FOR DESIGNATED PURPOSES							
Adams (Ernest Kempton).....		9,795.40	2,372.50	12,167.90	306.65		11,861.25
Aldrich (James Herman).....		182.50	182.50	365.00	175.00		190.00

Aldridge (Walter H.)	661.25	288.00	949.25	1.93	949.25
Alumni News Endowment	1.93	1.93	1.93 (1)	1.93	1.93
Alumni Scholarship	130.58	118.66	249.24	100.00	149.24
Anonymous for Church and Choral Music		3,686.50		3,686.50	
Anonymous for the Department of Metallurgy		3,650.00	Dr-2,947.22	5,000.00	\$7,947.22
Anonymous for School of Business		279.97	1,111.85		1,111.85
Anonymous for Student Aid		5,627.00	5,627.00	5,677.00	50.00
Art Professorship		3,650.00	3,650.00	3,650.00	
Avery Architectural		1,825.00	2,234.65	1,077.47	1,157.18
Bancroft (Edgar and Frederic)		802.53	802.53		802.53
Baer (Victor)		766.50	766.50	766.50	
Bangs (Francis Sedgwick)		219.00	974.50		974.50
Barker (Clarence) Musical		1,058.50	1,058.50		
Barker (Mary Perin)		129.82	129.82 (2)	129.82	
Barlow Medals		80.30	793.34	42.00	751.34
Barnard Fellowship		365.00	5,301.31		5,301.31
Barnard Library		2,768.52	7,071.42 (3)	1,591.01	5,480.41
Barstow (Frederic D.)		1,592.05	2,031.57	1,592.05	489.52
Barstow (W. S.)		5,173.67	9,129.24	2,467.00	6,662.24
Bearns (Joseph H.)		655.35	1,195.03	1,200.00	
Beaumont (Louis D.)		1,769.23	1,769.23 (4)	1,769.23	4.97
Beck Prize	.03	292.00	292.00	292.00	.03
Beck Scholarship		73.00	73.00	73.00	
Beckman (Gerard)		365.00	365.00	365.00	
Beer (Julius)		391.33	4,722.87		4,722.87
Bennett Prize		36.50	506.38	36.50	469.88
Bergh (Henry)		4,853.65	8,503.65	3,167.02	5,336.63
Bertuch (Frederick)		3,273.28	3,846.53	3,400.00	446.53
Bjorkwall (Charles H.) Prize		57.30	114.60		114.60
Blumenthal Endowment		5,345.27	9,261.63	6,234.81	3,026.82
Boring Fellowship		226.30	1,643.11		1,643.11
Bouvier (W. Sergeant) Cup		36.50	21.75	21.75	
Brainard (Edward Sutliff) Memorial		43.80	87.60		87.60
Breevort-Eickemeyer Fellowship		206.83	298.08		298.08

	Debit Balances June 30, 1945	Credit Balances June 30, 1945	Received 1945-1946	Total Credits	Expended 1945-1946	Debit Balances June 30, 1946	Credit Balances June 30, 1946
Bridgham (Samuel Willard).....		\$3,723.50	\$930.75	\$4,654.25			\$4,654.25
Britton (Nathaniel and Elizabeth Gertrude) for Botany.....		2,721.22	438.52	3,159.74			3,159.74
Britton (Nathaniel and Elizabeth Gertrude) for Geology.....		1,382.40	438.52	1,820.92	\$438.52		1,382.40
Bronner (Harry) Scholarship.....		439.01	255.90	694.91	250.00		444.91
Bunner.....		1,104.89	73.00	1,177.89			1,177.89
Burgess (Annie P.) Scholarship.....			182.50	182.50	182.50		
Burgess (Daniel M.) Scholarship.....			182.50	182.50	182.50		
Burglary and Theft Insurance.....			23.12	23.12	(5)		
Business Alumni Scholarship.....		163.01	95.59	258.60	(6)		
Butler (Nicholas Murray) Medal.....		1,426.08	109.50	1,535.58			1,535.58
Butler (Richard).....		219.00	219.00	438.00	209.00		229.00
Butler (Susanna Edwards Schuyler).....			100.11	100.11	100.11		
Cabot (Maria Moors).....		4,105.27	8,387.59	12,492.86	7,649.94		4,842.92
Caldwell (Eugene Wilson).....		355.85		355.85			355.85
Campbell Scholarship.....			219.00	219.00	219.00		
Campbell (William).....		10,791.89	8,325.10	19,116.99			19,116.99
Cardozo (Benjamin N.).....		50,345.33	10,715.34	61,060.67	(7)		715.35
Carnegie (Andrew).....			2,737.50	2,737.50	2,737.50		
Carnegie Corporation Professorship.....			5,475.00	5,475.00	5,475.00		
Carnegie Corporation.....		4,626.67	547.50	5,174.17			5,174.17
Carpentier (Edward R.).....		1,032.40	9,125.00	10,157.40	9,000.00		1,157.40
Carpentier (James S.).....		135.80	11,002.70	11,138.50	10,953.65		184.85
Casa Italiana Endowment.....		1.55	309.44	310.99	309.44		1.55
Casiner (Hamilton Young).....		8,890.00	10,402.50	19,292.50	10,402.50		8,890.00
Center Fund.....			6,570.00	6,570.00	6,570.00		
Chamberlain (Joseph P.).....		2,886.34	5,540.43	7,926.77	6,000.00		1,926.77
Chamberlain (Lydia C.).....		15,443.40	18,050.00	33,493.40	(8)	15,775.68	17,717.72

Chandler (Charles Fredericte).....	1,551.31	273.75	1,825.06	1,825.06	.....	1,825.06
Chanler Prize.....	217.75	40.15	257.90	257.90	.....	257.90
Chapel Furnishing.....	259.78	13.91	273.69	273.69	.....	273.69
Chapel Music.....	38.32	38.32	76.64	76.64	.....	76.64
Class of 1848 Scholarship.....	.....	365.00	365.00	365.00	.....	365.00
Class of 1869.....	96.55	3.65	100.20	100.20	.....	100.20
Class of 1881 Arts and Mines.....	510.22	73.00	583.22	583.22	.....	583.22
Class of 1884.....	74.86	146.00	220.86	220.86	.....	220.86
Class of 1885 Mines.....	1,032.69	515.56	1,548.25	1,548.25	.....	1,548.25
Class of 1886.....	252.96	84.32	337.28	337.28	.....	337.28
Class of 1887 Mines.....	584.00	292.00	876.00	876.00	.....	876.00
Class of 1888 Arts and Mines.....	117.00	14.60	131.60	131.60	.....	131.60
Class of 1889 Medal.....	20.95	18.25	39.20	39.20	.....	39.20
Class of 1892 Arts and Mines.....	.....	558.45	558.45	558.45	.....	558.45
Class of 1893 Memorial.....	.....	37.97	37.97	37.97	.....	37.97
Class of 1896 Arts and Mines.....	421.80	765.43	1,187.23	1,187.23	(10)	1,187.23
Class of 1898.....	483.23	232.01	715.24	715.24	.....	715.24
Class of 1899 College and Engineering.....	52.55	9.12	61.67	61.67	.....	61.67
Class of 1900 College and Engineering.....	84.05	18.25	102.30	102.30	.....	102.30
Class of 1901 College and Mines.....	.....	82.60	82.60	82.60	.....	82.60
Class of 1901 Decennial.....	102.20	51.10	153.30	153.30	.....	153.30
Class of 1904.....	378.40	771.24	1,149.64	1,149.64	.....	1,149.64
Class of 1905.....	.....	131.40	131.40	131.40	.....	131.40
Class of 1907 College and Engineering.....	307.92	339.34	647.26	647.26	.....	647.26
Class of 1909 Flagpole.....	663.28	36.50	699.78	699.78	.....	699.78
Class of 1909 Memorial.....	280.40	609.89	890.29	890.29	.....	890.29
Class of 1911.....	328.50	166.07	494.57	494.57	.....	494.57
Class of 1912 Law.....	77.17	54.75	131.92	131.92	.....	131.92
Class of 1913 Scholarship.....	716.05	268.53	984.58	984.58	.....	984.58
Class of 1914 College and Engineering.....	.....	325.58	325.58	325.58	.....	325.58
Class of 1916 College and Engineering.....	403.00	200.75	603.75	603.75	.....	603.75
Class of 1916 Law Scholarship.....	262.53	50.71	313.24	313.24	.....	313.24
Class of 1917 College and Journalism.....	332.51	166.15	498.66	498.66	.....	498.66
Class of 1917 Engineering.....	.78	.....	.78	.78	(11)	.78
Class of 1918.....	25.54	103.29	128.83	128.83	.....	128.83

	Debit Balances June 30, 1945	Credit Balances June 30, 1945	Received 1945-1946	Total Credits	Expended 1945-1946	Debit Balances June 30, 1946	Credit Balances June 30, 1946
Class of 1920 Decennial	\$89.36	\$164.25	\$253.61	.....	.....	\$253.61
Class of 1920	399.88	399.88	(12) \$399.88	.....	.....
Class of 1921 Scholarship	113.85	76.65	190.50	.....	.....	190.50
Class of 1922	225.35	38.48	263.83	.....	.....	263.83
Class of 1926	115.66	15.95	131.61	.....	.....	131.61
Class of 1927	54.96	54.96	.....	.....	.....
Class of 1927 Library Endowment	46.54	6.17	52.71	.....	.....	52.71
Class of 1929	13.65	13.65	.....	.....	.....
Class of 1930	77.19	25.73	102.92	.....	.....	.....
Class of 1931	220.00	55.00	275.00	.....	.....	275.00
Class of 1932	43.78	.....	43.78	(13) 43.78	.....	.....
Class of 1935	10.05	10.13	20.18	.....	.....	20.18
Cole	87.85	890.99	978.84	.....	.....	978.84
Collins (Perry McDonough)	7,787.36	20,659.00	28,446.36	20,347.67	.....	8,098.69
Columbia Alumni in Memoriam	24.18	48.36	72.54	48.36	.....	24.18
Columbia Alumni in Perpetuity	73.00	146.00	219.00	146.00	.....	73.00
Columbia Hudson Fulton Prize	497.23	36.50	533.73	.....	.....	533.73
Columbia Scholastic Press Association	826.94	330.13	1,157.07	.....	.....	1,157.07
Columbiana Endowment	547.53	1,258.59	1,806.12	1,258.59	.....	547.53
Columbia University Football Association	366.38	366.38	366.38	.....	.....
Convers (E. B.)	134.38	3.65	138.03	.....	.....	138.03
Cothral (Alexander I.)	732.59	621.41	1,354.00	446.17	.....	907.83
Cowles (Justus A. B.)	91.25	91.25	91.25	.....	.....
Crosby (William O.)	7.54	62.05	69.59	49.95	.....	19.64
Currier (Nathaniel)	3,457.47	1,825.00	5,282.47	2,538.35	.....	2,744.12
Curtis (Carlton C.)	23,943.45	2,090.05	26,033.50	2,090.05	.....	23,943.45
Curtis Fellowship	6,742.72	365.00	7,107.72	.....	.....	7,107.72
Curtis (George William)	316.34	47.45	363.79	.....	.....	363.79
Cuthell (Chester W.) 1905 Scholarship	54.69	698.50	748.19	.....	.....	748.19

REPORT OF THE TREASURER

Cutting (W. Bayard).....	18,627.71	5,840.00	24,467.71	5,000.00	19,467.71
Cutting (W. Bayard, Jr.).....		756.37	756.37 (14)	756.37	
Da Costa Professorship.....	10.90	3,160.90	3,171.80	3,160.90	10.90
Darling (Edward A.).....	196.37	39.05	235.42	53.50	181.92
Davis (A. M.).....		13.28		13.28 (15)	
Davis (Edwin F.).....	1,579.66	2,486.31	4,065.97		4,065.97
Dean Lung Professorship.....	4,183.33	9,125.00	13,308.33	10,092.00	3,216.33
Deutscher Verein Prize.....	425.44	36.50	461.94		461.94
Deutsches Haus.....		652.36	652.36	652.36	
DeWitt (George G.).....	162.10	562.10	724.20	300.00	424.20
Dibblee (Ezra Reed and Francis M.).....	292.82	470.12	762.94	331.25	431.69
Ditson (Alice M.).....	22,719.07	17,716.84	40,435.91	28,214.49	12,221.42
Ditson (Charles H.).....		3,650.00	3,650.00	3,650.00	
Donaldson (Mrs. John Willcox).....		91.25	91.25		
Downes (Stanchiff Bazen).....	2.02	365.00	367.02		367.02
Drisler Classical.....	3,247.77	419.75	3,667.52	351.14	3,316.38
Dunning (William A.).....	4,267.56	1,587.75	5,855.31	2,145.30	3,710.01
Dwight.....	517.34	53.29	570.63		570.63
Dyckman.....	1,700.29	419.75	2,120.04	450.00	1,670.04
Dyckman Institute.....	2,821.66	1,753.95	4,575.61		4,575.61
Earle Prize.....	266.52	48.36	314.88		314.88
Eaton Professorship.....	10,950.00	3,650.00	14,600.00	3,650.00	10,950.00
Edson (Herman Aldrich).....	1.83	182.50	184.33		184.33
Eimer (August O.) Medal.....	444.90	36.50	481.40		481.40
Einstein.....	4,033.70	182.50	4,216.20		4,216.20
Ellis (George Adams) Scholarship.....	1,041.36	292.00	1,333.36		1,333.36
Ellis (George W.).....	463.19	2,737.50	3,200.69	1,600.00	1,600.69
Elsberg (Albert Marton).....	80.84	93.65	174.49	95.00	79.49
Emmons (Samuel Franklin).....	2,539.04	611.38	3,150.42		3,150.42
Evans Fellowship.....	2,870.00	1,095.00	3,965.00	1,095.00	2,870.00
Evans (Henry) Scholarship.....	1,095.00	730.00	1,825.00		1,825.00
Erb Scholarship.....		135.35	135.35		135.35
Faculty House Maintenance.....		547.60	547.60	547.60	
Ferguson (David W. and Ellen A.).....	1,283.59	365.00	1,648.59		1,648.59
Field (Otis W.).....	219.00	109.50	328.50		328.50

	Debit Balances June 30, 1945	Credit Balances June 30, 1945	Received 1945-1946	Total Credits	Expended 1945-1946	Debit Balances June 30, 1946	Credit Balances June 30, 1946
Fine Arts Endowment.....			\$24,397.88	\$24,397.88	(16) 24,397.88		
Fisher (Lizette Andrews).....		\$302.76	1,988.29	2,291.05			\$2,291.05
Fox (Richard H.) Prize.....			20.48	20.48			20.48
Friends of the Library.....		244.29	27.75	272.04			272.04
Garibaldi (Guisepe).....		200.50	365.00	565.50	365.00		200.50
Garth Memorial.....		3,199.82	602.25	3,802.07			3,802.07
Gebhard Professorship.....			730.00	730.00	730.00		
Geological Society of America.....		196.99	667.95	864.94	550.00		314.94
German Lecture.....		422.02	45.63	467.65	19.01		448.64
Gibson (William Henry).....			365.00	365.00	365.00		
Gifford (Ralph Waldo).....		33.78	5.66	39.44			39.44
Gilbert (Franklin Carl).....			806.75	806.75	(17) 806.75		
Gilder (Richard Watson).....		4,934.14	1,843.25	6,777.39	800.00		5,977.39
Gladney (Frank Y.).....		305.42	215.35	520.77	210.00		310.77
Goldschmidt (Samuel Anthony).....		5,475.00	1,095.00	6,570.00	1,095.00		5,475.00
Gotheil (Gustav).....			672.51	672.51	672.51		
Gottsberger (Cornelius Heeney).....		3,920.41	346.75	4,267.16			4,267.16
Gould (Edwin J.).....			255.21	255.21	255.21		
Green Prize.....			36.50	36.50	36.50		
Heat and Mass Flow Analyzer Laboratory.....			418.18	418.18	(18) 418.18		
Hayden (Charles) Scholarship.....			1,315.91	1,315.91			1,315.91
Hall (George Henry).....		1,058.50	529.25	1,587.75			1,587.75
Hamilton (John Church).....		64.83	36.50	101.33	2.34		98.99
Hand (Ellen King).....		351.73	182.50	534.23	185.00		349.23
Harriman (Reverend Orlando).....			4,343.50	4,343.50	4,343.50		
Harris (Ellen C.).....		2,058.51	6,028.16	8,086.67	5,616.20		2,470.47
Harrison (James Renwick) Scholarship.....		1,563.49	365.00	1,928.49			1,928.49
Haughton (Percy D.).....		243.72	241.43	485.15	137.50		347.65
Hawkes (Dean Herbert E.) Memorial.....		880.98	1,151.80	2,032.78	10.02		2,022.76

Hepburn (A. Barton) Endowment.....	8,162.23	33,215.00	41,377.23	34,506.82	6,870.41
Hepburn (A. Barton) Professorship.....	.....	5,475.00	5,475.00	5,475.00	.....
Hervey (William Addison).....	1,083.54	131.77	1,165.31	268.54	901.77
Hirsh (Mortimer) Memorial.....	.....	12.50	12.50	.....	12.50
Hollingworth (Leta Stietter).....	5.19	2,223.01	2,228.20	2,229.20	\$1.00
Horn (James T.) Scholarship, College.....	912.50	456.25	1,368.75	.....	1,368.75
Horn (James T.) Scholarship, Engineering.....	451.68	273.75	725.43	.....	725.43
How (Hall J.).....	453.26	479.26	932.52	925.23	7.29
Howard (Bronson) Library.....	862.45	267.17	1,129.62	.....	1,129.62
Huber (Frederick Jr.) Scholarship.....	455.75	182.50	638.25	.....	638.25
Illig Medal.....	.....	83.95	83.95	.....	83.95
Indo-Iranian.....	47.50	547.50	595.00	547.50	47.50
Instituto Hispanica Endowment.....	614.61	204.87	819.48	.....	819.48
Instituto Hispanica Permanent.....	63.59	3.84	67.43	.....	67.43
Intercollegiate Chess League.....	.....	14.45	14.45	14.45	.....
Italian Societies Endowment.....	.....	183.67	183.67 (19)	183.67	.....
Johnston (Edward W. S.) Scholarship.....	.....	191.09	191.09	.....	191.09
Jackson (Richard G.) Frize.....	24.84	36.50	61.34	36.50	24.84
Jackson (A. V. Williams) Fellowship.....	2,572.79	364.98	2,937.77	.....	2,937.77
James (D. Willis).....	.....	3,650.00	3,650.00	3,650.00	.....
Jefferson Statue Maintenance.....	1,676.40	65.70	1,742.10	.....	1,742.10
Johnson (Alice and Douglas).....	213.22	1,125.70	1,338.92	1,140.95	197.97
Johnson (Edward W. S.).....	141.16	73.00	214.16	52.11	162.05
Jones (Adam Leroy) Memorial Prize.....	200.75	40.15	240.90	.....	240.90
Jouet (Cavalier Hargrave) Scholarship.....	156.00	182.50	338.50	.....	338.50
Kellett (Euretta J.).....	51,690.33	8,740.74	60,431.07	2,000.00	58,431.07
Kemp (James F.).....	2,190.00	730.00	2,920.00	1,341.43	1,578.57
Kemp (James Furman) Memorial.....	6,125.40	1,644.14	7,769.54	750.00	7,019.54
Kendall (Edward Hale).....	5,717.57	1,261.43	6,979.00	.....	6,979.00
Keppl.....	.81	36.50	37.31	.....	37.31
Killough (James H.) Scholarship.....	1,917.51	1,483.32	3,400.83	1,478.85	1,921.98
Killough (Walter H. D.) for International Peace.....	2,929.05	909.48	3,838.53	1,489.50	2,349.03
Killough (Walter H. D.) for Scientific Research.....	11,934.17	454.74	12,388.91	4,000.00	8,388.91
Kunz (George F.).....	134.96	54.75	189.71	61.50	128.21
Krumb (Henry) Scholarship.....	.....	371.00	371.00	.....	371.00

	Debit Balances June 30, 1945	Credit Balances June 30, 1945	Received 1945-1946	Total Credits	Expended 1945-1946	Debit Balances June 30, 1946	Credit Balances June 30, 1946
Medalie (George Z.) Memorial.....			\$25.32	\$25.32			\$25.32
Lowenfish (Lucille Smyser) Prize.....			80.06	80.06	\$49.50		30.56
Lahay Scholarship.....		\$290.00	182.50	472.50			472.50
Lasher (John K.).....			36.50	36.50	36.50		
Law Library.....		2,806.02	301.13	3,107.15			3,107.15
Law Scholarship.....		20.42		20.42	(20)		
Legislative Drafting Research.....		23,479.09	6,523.64	30,002.73	1,957.70		28,045.03
Libbey (Jonas M.).....		1,237.50	7,911.89	9,149.39	7,911.89		1,237.50
Lodge (Stanwood Cockey).....			3,822.97	3,822.97	3,822.97		
Loeb (James).....		774.11	188.90	963.01	195.10		767.91
Loubat.....		3,074.48	438.00	3,512.48			3,512.48
Loubat Professorship.....		5,866.68	3,650.00	9,516.68	4,000.00		5,516.68
Lydig Fellowship.....		3,266.66	1,460.00	4,726.66	1,700.00		3,026.66
MacMahon (Katherine).....			219.00	219.00	219.00		
Maison Francaise.....			182.50	182.50	182.50		
Manners (Edwin).....		227.50	109.50	337.00			337.00
Marling (Alfred E.) Scholarship.....			182.50	182.50	182.50		
Mason (William).....			365.00	365.00			365.00
Mathews Lectureship.....		5,609.72	1,825.00	7,434.72	1,000.00		6,434.72
Matthews (James Brander).....		1,864.80	2,741.69	4,606.49	4,203.67		402.82
Mayer (Ralph Edward).....		100.00	502.57	602.57	(21)		500.00
McClymonds Scholarship.....		1,921.21	1,001.98	2,923.14			2,923.14
McCormick (John Kernan).....			36.50	36.50			36.50
McKim Fellowship.....		9,167.18	912.50	10,079.68			10,079.68
Mead (William Rutherford).....		173.37	2,997.12	3,110.49	3,000.00		110.49
Megrué (Roi Cooper).....			365.00	365.00	(22)		
Megrué (Roi Cooper Scholarship).....		766.50	255.50	1,022.00			1,022.00
Megrué (Stella Cooper) Scholarship.....		766.75	255.50	1,022.25			1,022.25
Megrué (Stella Cooper) for Basketball.....			36.50	36.50	36.50		

Member of Class 1885.....	38.33	38.33	38.33	38.33
Mergentime (James Henry).....	58.40	58.40	58.40	58.40
Michaels (Dr. Alfred Moritz) Prize.....	36.50	36.50	36.50	36.50
Miller (Nathan J.).....	1,931.64	11,713.64	9,434.60	2,279.04
Mitchel (John Purroy) Memorial.....	777.86	2,242.68	2,345.32	675.22
Mitchell (William).....	547.50	365.00	365.00	547.50
Moffat Scholarship.....	146.00	73.00	219.00	219.00
Montgomery (Robert H.) Prize.....	146.74	73.37	220.11	220.11
Morris (Augustus Newbold).....	3,745.75	456.25	4,202.00	2,202.00
Morrow (Dwight W.).....	1,231.14	1,825.00	1,825.00	1,504.89
Mosenthal Fellowship.....	422.50	273.75	1,504.89	891.75
Muir (Downie D.).....	5,587.44	1,624.25	2,046.75	5,587.44
Murray (George W.).....	182.50	182.50	182.50	182.50
Murtha (Thomas F.) Scholarship.....	7,041.67	182.50	365.00	365.00
Newberry (John S.) Scholarship.....	111.33	14,341.67	8,000.00	6,341.67
Niven (Robert Johnston).....	2,190.00	912.50	912.50	912.50
Ochs (Adolph S.).....	111.33	111.33	111.33	111.33
Ordroneaux (John).....	3,082.58	2,190.00	2,190.00	2,190.00
Parker.....	1,295.63	1,095.00	4,177.58	3,456.61
Paterno Library Endowment.....	1,126.13	119.71	119.71	119.71
Peele (Robert).....	5,362.74	1,843.13	273.75	1,569.38
Perkins (Edward H. Jr.) Scholarship.....	7.60	208.05	1,334.18	1,334.18
Perkins Fellowship.....	463.53	2,622.99	7,985.73	2,082.94
Peters (William Richmond, Jr.).....	572.12	6,816.18	5,902.79	1,123.78
Pfister (Joseph C.) Fellowship.....	90,588.57	6,300.25	6,300.25	6,300.25
Phillips (Harriet S.) for Barnard College.....	36,728.46	730.00	730.00	730.00
Phillips (Harriet S.) for School of Journalism.....	295.13	456.76	920.29	920.29
Phillipson (Brainerd F.) Scholarship.....	1,164.29	36.50	608.62	608.62
Philolexian Centennial Washington Prize.....	54.75	54.75	54.75	54.75
Philolexian Prize.....	1,301.22	127,317.03	63,238.38	64,078.65
Phoenix.....	295.13	295.13	295.13	295.13
Plummer (Mary Wright) Scholarship.....	1,164.29	1,164.29	1,164.29	1,164.29
Porter.....	182.50	182.50	182.50	182.50
Prentice.....	698.45	1,999.67	1,999.67	1,480.67
President's House Furnishing and Equipment.....				

	Debit Balances June 30, 1945	Credit Balances June 30, 1945	Received 1945-1946	Total Credits	Expended 1945-1946	Debit Balances June 30, 1946	Credit Balances June 30, 1946
Proudfit (Alexander Monerief)		\$1,687.50	\$547.50	\$2,235.00	\$1,095.00		\$1,140.00
Psychology		3,650.00	3,650.00	3,650.00	3,650.00		
Pulitzer (Joseph) for School of Journalism		3,463.29	47,450.00	50,913.29	49,329.77		1,583.52
Pulitzer Prize		7,168.82	20,087.49	27,256.31	17,931.03		9,325.28
Pulitzer Scholarship		3,557.80	11,315.00	14,872.80	8,566.00		6,306.80
Pupin Foundation		32,988.26	14,000.33	46,988.59	10,016.00		36,972.59
Renwick (Anna Cooper) Professorship			112.79	112.79			112.79
Renwick (Anna Cooper) Publication			112.79	112.79			112.79
Renwick (James Jr.) Scholarship			225.59	225.59			225.59
Raymond for Religious and Social Work		83.48	293.10	376.58	300.00		76.58
Raymond for University Medical Office		23.45	586.20	609.65	570.04		39.61
Reckford (Louis J.)		110.61	91.25	201.86	18.58		183.28
Reisinger (Hugo)		545.10	182.50	727.60	32.90		694.70
Rhodes (F. B. F.)			137.56	137.56	137.56 (27)		
Ritchie (Peter C. Jr.)		7.95	161.92	169.87	161.92		7.95
Rogers (Howard Malcolm)		122.05	197.10	319.15	200.00		119.15
Rolker (Charles M. Jr.)		29.25	36.50	73.00			73.00
Romaine (Benjamin F.)			2.19	31.41			31.41
Ross (George)		1,268.12	2,614.78	3,882.90	3,000.00		882.90
Sackett (Henry W.)		123.33	438.00	561.33	438.00		123.33
Sandham (Anna M.)			365.00	365.00	365.00		
Saunders (Alexander)		438.00	438.00	876.00	438.00		438.00
Saunders (Leslie M.) Endowment		73.00	219.00	292.00	219.00		73.00
Schermerhorn (F. Augustus) Endowment			6,796.41	6,796.41	6,796.41		
Schermerhorn (F. Augustus) Fellowship		5,099.28	456.25	5,555.53			5,555.53
Schermerhorn Scholarship		21.67	182.50	204.17	182.50		21.67
Schermerhorn (William C.)		4,589.60	18,250.00	22,839.60	17,681.28		5,158.32
Schieffelin (Lucy Stella) for Musical Education			508.43	5.24			5.24
Schiff Fellowship		4,397.87	657.00	5,054.87	1,200.00		3,854.87

Schiff (Jacob H.) Endowment.....	3,650.00	3,650.00	3,650.00	3,650.00
Scholarship Endowment.....	.37	.37	.37	.37
Schurz (Carl) Fellowship.....	1,248.77	1,200.00	1,200.00	413.77
Scranton.....	1,424.52	1,815.07	543.60	1,266.47
Seager (Schuyler Fiske) No. 1.....	401.77	834.45		834.45
Seager (Schuyler Fiske) No. 2.....	145.73	1,134.50	1,085.72	48.78
Seidl.....	16,129.09	18,814.41	225.00	18,589.41
Shaver (Mary M.) Scholarship.....	928.00	1,366.00	876.00	490.00
Shepherd Foundation.....	21,195.16	32.31	32.31	
Shoemaker (William Brock).....	40.91	11,317.08	15,000.00	17,512.24
Smith (David Eugene).....	605.74	365.00	405.91	29.21
Smyth (David W.).....	365.00	1,239.65	1,845.39	1,637.64
Social and Political Ethics Professorship.....	267.47	730.00	1,095.00	1,095.00
Stokes (Caroline Phelps).....	90.00	1,380.29	1,647.76	267.47
Stross (Ludwig) Scholarship.....	36.50	730.00	820.00	775.00
Stuart Scholarship.....	123.00	1,095.00	1,131.50	36.50
Studies in History, Economics and Public Law.....	.29	219.00	342.00	123.00
Todd (Miriam Gilman).....		166.68	166.39	
Thompson (William B.).....	20,516.85	73.00	73.00	73.00
Todd (Henry Alfred) Prize.....	787.88	3,711.96	24,228.81	23,295.81
Toppau Prize.....	107.25	365.00	1,152.88	1,152.88
Townsend (Grace C.) Scholarship.....	351.08	153.30	260.55	153.30
Tremaine.....	41,008.96	182.50	533.58	533.58
Trowbridge Fellowship.....	2,187.39	20,526.28	61,535.24	53,535.24
Turner (Charles W.).....	11.47	500.00	2,687.39	2,687.39
Tyndall Fellowship.....	6,045.14	225.64	237.11	237.11
University Publication.....	257.12	419.75	6,464.89	6,464.89
Van Am Prize.....	657.25	14.67	271.79	271.79
Van Amringe Mathematical.....	228.19	237.25	894.50	894.50
Van Amringe Memorial.....	335.04	186.15	414.34	228.19
Van Buren Mathematical.....		18.25	353.29	353.29
Vanderpool.....	2,680.83	200.75	200.75	
Van Rensselaer (Mariana Griswold).....		912.50	3,593.33	3,468.33
Van Sinderen (Howard).....		36.50	36.50	
		365.00	365.00	

	Debit Balances June 30, 1945	Credit Balances June 30, 1945	Received 1945-1946	Total Credits	Expended 1945-1946	Debit Balances June 30, 1946	Credit Balances June 30, 1946
Van Valkenburgh.....		\$177.83	\$25.76	\$203.59			\$203.59
Vernon (Susan Huntington).....		26.61	53.92	80.53	\$25.00		55.53
Von Schrenk (Arnold).....		135.29	328.50	463.79			463.79
Waring.....		10,950.00	3,650.00	14,600.00			14,600.00
Watson.....			574.56	574.56	(31)		
Wendell Medal.....		27.68	27.33	55.01			55.01
Wheeler (H. A.) Scholarship.....		144.00	219.00	363.00			363.00
Wheeler (John Visscher) Scholarship.....		876.00	438.00	1,314.00	219.00		1,095.00
Willis (Henry Parker) Fellowship.....		104.49	182.50	286.99			286.99
Wilson (Edmund B.).....		1,319.96	365.00	1,684.96	633.08		1,051.88
Wolfram (Adeline).....		430.70	109.50	540.20			540.20
Wolfram (Charles Berthold).....		737.13	182.50	919.63	26.40		893.23
Woodberry Prize.....			58.40	58.40			58.40
Woodbridge.....		1,698.35	772.78	2,471.13	1,000.00		1,471.13
Wright (Henry Memorial).....		17.47	27.68	45.15	8.04		37.11
Special Investments Account Unassigned Income.....		874,583.93	238,322.37	1,112,906.30	9,362.93		1,103,543.97
MEDICAL SCHOOL							
Bache (Jules S.) Fellowship.....			638.75	638.75			638.75
Anonymous for Cancer Research.....		1,825.00	365.00	2,190.00			2,190.00
Anonymous for Department of Medicine.....		3,772.97	7,300.00	11,072.97	7,921.27		3,151.70
Anonymous for Scholarships in the College of P.&S.		4,777.98	1,825.00	6,602.98	1,094.96		5,508.02
Beekman (Gerard) Fellowship.....		2,947.56	912.50	3,860.06	750.00		3,110.06
Blumenthal (George, Jr.).....		2,232.76	972.30	3,205.06	(32)		1,968.91
Bondy (Emil C.).....		2,700.02	3,650.00	6,350.02	3,600.00		2,750.02
Borne (John E.).....		1,896.01	9,006.63	10,902.64	9,500.00		1,402.64
Bull (William T.).....		1,836.73	1,177.13	3,013.86	781.64		2,232.22
Bark (Arthur W.).....			94.63	94.63			94.63
Cahill (George F.).....		184.41	1,194.94	1,379.35	1,379.35		

Carnegie Corporation for Graduate Medical In- struction and Research.....	1,825.00	1,825.00	1,825.00	1,825.00
Carpenter (Clarence).....	730.00	4,380.00	4,380.00	4,380.00
Carpentier (R. S.).....	3,650.00	3,650.00	3,650.00	3,650.00
Carter (Herbert S.).....	693.50	9,895.65	9,895.65	9,895.65
Cartwright Lectureship.....	454.10	454.10 (33)	454.10	1,834.79
Clark Scholarship.....	556.63	1,834.79	1,834.79	1,834.79
Class of 1899 Scholarship.....	182.50	1,302.48	1,302.48	1,302.48
Class of 1912.....	299.16	3,135.38	3,135.38	3,135.38
Class of 1920.....	88.51	94.82	94.82	94.82
Class of 1928.....	37.65	44.29	44.29	44.29
Class of 1933.....	20.88	20.88 (34)	20.88	20.88
Cock (Thomas F. M. D.).....	41.06	698.06	698.06	698.06
Crocker (George).....	54,202.50	166,054.64	61,570.13	104,484.51
Delafield Professorship.....	8,342.59	10,736.71	8,500.00	2,236.71
DeLamar (Joseph R.).....	198,806.32	250,957.84	210,079.20	40,878.64
Dennett (Horace).....	6,343.70	24,933.56	6,519.97	18,413.59
Dental Columbian Scholarship.....	25.00	31.22	31.22	31.22
Devendorf (David M.).....	237.25	738.00	738.00	738.00
Doughty (Francis, M. D.).....	365.00	1,300.51	1,300.51	1,300.51
Draper Library.....	73.00	265.97	265.97	265.97
Du Bois (Dr. Abram).....	657.00	657.00	657.00	657.00
Eichner (Joseph Herman & Hannah) Research.....	313.02	1,565.10	1,565.10	1,565.10
Eichner (Joseph Herman & Hannah) Scholarship.....	469.33	1,660.70	1,660.70	1,660.70
Ewell (Ella Marie) Medal.....	36.50	20.05	20.05	20.05
Faulkner (Edward Daniels).....	36.50	219.91	219.91	219.91
George & Charlie Scholarship.....	276.70	883.17	883.17	883.17
Gies (William J.).....	1,260.17	1,260.17 (35)	1,260.17	1,260.17
Griffiths (William E.).....	1,085.49	4,301.56	300.00	4,001.56
Grosvenor (Robert) Memorial.....	91.25	91.29	91.29	91.29
Harkness Funds.....	101,289.31	117,801.37	108,708.00	9,093.37
Harkness (Edward S.) for Surgery.....	3,834.39	25,734.39	25,734.39	25,734.39
Harsen Scholarship.....	1,146.10	3,652.96	3,652.96	3,652.96
Hartley (Frank).....	219.00	905.24	905.24	905.24

	Debit Balances June 30, 1945	Credit Balances June 30, 1945	Received 1945-1946	Total Credits	Expended 1945-1946	Debit Balances June 30, 1946	Credit Balances June 30, 1946
Hays (Walter) Memorial.....			\$36.50	\$36.50	\$36.50		
Hemingway Scholarship.....			1,003.33	1,003.33	1,003.33		
Holt (L. Emmett).....		\$3,465.75	894.25	4,360.00	375.00		\$3,985.00
Huber (Francis) Scholarship.....		462.50	182.50	645.00			645.00
Huber (Joseph & Christina).....		208.24	182.50	390.74			390.74
Huber (Viola B.) Scholarship.....		198.33	182.50	380.83	182.50		198.33
Jacobi (Abraham) Library.....		474.01	183.41	657.42			657.42
Jacobi (Abraham) Scholarship.....		1,900.01	730.00	2,630.01			2,630.01
James (Walter) Belknap.....		912.52	1,825.00	2,737.52	1,825.00		912.52
Janeway (E. G.).....		968.31	976.38	1,944.69	525.38		1,419.31
Janeway Prize.....			36.50	36.50			
Knapp Memorial.....		80,991.27	33,066.00	114,057.27	13,189.72		100,867.55
Koplik.....		4,368.75	547.50	4,916.25	2,500.00		4,916.25
La Montagne (Beatrice).....			8,153.19	8,153.19			8,153.19
Lee.....		4,985.16	1,095.00	6,080.16	864.50		5,215.66
Mahoney (Mary Murray).....			1,349.53	1,349.53			1,349.53
Markoe (Francis Hartman).....		913.33	365.00	1,278.33			1,278.33
McAneny (Marjorie).....		459.84	182.50	642.34			642.34
Medical School Equipment Fund.....		3,034.96	450.41	3,485.37			3,485.37
Meierhof (Dr. Harold Lee).....			36.50	36.50			36.50
Miller (Guy B.).....		365.00	365.00	730.00	365.00		365.00
Oponhym.....		23,882.57	5,386.03	29,268.60			29,268.60
Ottman (Madeleine L.).....		3,371.39	1,825.00	5,196.39	1,482.67		3,763.72
Pierre (Charles and Lillian).....		1,378.90	365.00	1,743.90			1,743.90
Proudfit (Maria McLean).....		2,728.02	547.50	3,275.52	637.00		2,638.52
Robinson (Meyer B.).....			18.25	18.25			18.25
School of Dental and Oral Surgery Endowment.....			2,773.84	2,773.84			2,773.84
Simon.....			313.90	313.90			313.90

Smith Prize.....	2,024.13	189.80	2,213.93	.....	2,213.93
Stevens Prize.....	2,586.57	69.35	2,655.92	.....	2,655.92
Surgical Bacteriology Research.....	189.51	365.00	548.51	.....	548.51
Swift Memorial.....	2,576.10	293.83	2,869.93	.....	2,869.93
Tilney (Frederick).....	3,865.32	1,256.82	5,122.14	.....	5,122.14
Tucker (Ervin Alden).....	13,860.32	1,825.00	15,185.32	.....	15,185.32
Van Praag (L. A.).....	3,922.53	292.00	4,214.53	.....	4,214.53
Van Woert Scholarship.....	72.46	174.26	246.72	172.82	73.90
Watson (Dr. William Perry).....	.....	189.80	189.80	189.80	.....
Wechsler (Robert M.).....	.....	500.00	500.00	500.00	.....
Weinstein (Alexander).....	53.75	29.20	82.95	.....	82.95
Wheclock (George G.).....	959.25	186.15	1,145.40	.....	1,145.40
White (Minnie Marsh).....	.....	224.07	224.07	.....	224.07
	<u>\$7,131.90</u>	<u>\$2,134,205.16</u>	<u>\$4,252,291.48</u>	<u>\$1,900,796.56</u>	<u>\$8,003.19</u>
		Less	Transfers	109,883.05	
				<u>\$1,790,913.51</u>	

INCOME OF SPECIAL ENDOWMENTS—NOTES

TRANSFERS

(1) To Alumni News Fund Gift	\$1.93
(2) To Principal Mary Perin Barker Fund	129.82
(3) To Barnard Medal Gift	70.00
(4) To President's Gift Account	1,769.23
(5) To Principal Burglary and Theft Insurance Fund	23.12
(6) To Principal Business Alumni Scholarship Fund	258.60
(7) To Principal Benjamin N. Cardozo Fund	50,345.33
(8) Refund to Donor	1,043.40
(9) To Principal Civil Engineering Research Laboratories Fund	18,529.85
(10) To Principal Class of 1896 Arts and Mines Fund	967.23
(11) To Principal Class of 1917 College and Journalism Dormitory Room Endowment Fund . . . . .	.78
(12) To Income Dean Hawkes Memorial Fund	399.88
(13) To Class of 1932 College, Dormitory Room Gift	43.78
(14) To Principal W. Bayard Cutting, Jr. Fellowship Fund	756.37
(15) To Principal A. M. Davis Scholarship Fund	13.28
(16) To Principal Fine Arts Endowment Fund	24,397.88
(17) To Principal Franklin Carl Gilbert Fund	806.75
(18) To Principal Heat and Mass Flow Analyzer Laboratory Fund	418.18
(19) To Principal Italian Societies Endowment Fund	183.67
(20) To Law School Special Scholarship Gift	20.42
(21) To Principal Ralph Edward Mayer Fund	102.57
(22) To Megrue Loan Fund	365.00
(23) To Principal Robert Peele Fund	119.71
(24) To Principal William Richmond Peters Jr. Fund	5,362.74
(25) To Principal Mary Wright Plummer Fund	295.13
(26) To Porter Loan Fund	1,164.29
(27) To Principal F. B. F. Rhodes Scholarship Fund	137.56
(28) To Principal Dean Hawkes Memorial Fund . . . . .	.37
(29) To Principal Mary M. Shaver Scholarship Fund	32.31
(30) To Shoemaker Loan Fund	182.50
(31) To President's Gift Account	574.56
(32) To Blumenthal Loan Fund	486.15
(33) To Principal Cartwright Lectureship Fund	454.10
(34) To Class of 1933 Gift	20.88
(35) To Principal Wm. J. Gies Fellowship Fund	405.68

\$109,883.05

GIFTS, AND RECEIPTS FOR DESIGNATED PURPOSES, RECEIPTS AND DISBURSEMENTS FOR THE YEAR ENDING JUNE 30, 1946

	Debit Balances June 30, 1945	Credit Balances June 30, 1945	Received 1945-1946	Total Credits	Expended 1945-1946	Debit Balances June 30, 1946	Credit Balances June 30, 1946
Accounting Publicity Gift.....		\$446.71		\$446.71			\$446.71
Alcoa Fellowship in Geology Gift.....			\$1,500.00	1,500.00	\$1,500.00		
Aldridge Gift for Student Aid—College.....			250.00	250.00	250.00		
Alley Gift to be expended under the direction of the Dean of the Faculty of Law.....			1,000.00	1,000.00			1,000.00
Allied Chemical & Dye Corp. Fellowship Gift.....		250.00	810.00	1,060.00	1,010.00		50.00
Alpha Xi Delta Fraternity Inc.....		500.00		500.00			500.00
Alumni Association of the Columbia School of Library Service Scholarship Gift.....		12.50	50.00	62.50			62.50
Alumni Federation of Columbia University Gift.....			59,082.66	59,082.66	(26) 59,082.66		
Alumni News Fund Gift.....			12.78	12.78	12.78		
American Council Institute of Pacific Relations Inc. Gift for Salaries—Dept. of Chinese and Japanese.....		5,020.87	3,000.00	8,020.87	4,350.00		3,670.87
American Jewish Committee Gift for Research in the Dept. of History.....		900.04		900.04			900.04
American Lecithin Company Gift for Study of the influence of soybean phosphatides on Vitamin A metabolism.....			400.00	400.00	255.95		144.05
American Manufacturers of Toilet Articles Research Gift.....		776.75		776.75			776.75
American Philosophical Society Gift—Dept. of Anthropology.....		400.00		400.00	400.00		
American Philosophical Society Gift—Dept. of History.....		127.32	1,000.00	1,127.32	960.62		166.70
American Press Institute Gift.....			140,200.00	140,200.00	12,582.39		127,617.61
American Society of Civil Engineers Gift for Research.....		225.00		225.00			225.00

	Debit Balances June 30, 1945	Credit Balances June 30, 1945	Received 1945-1946	Total Credits	Expended 1945-1946	Debit Balances June 30, 1946	Credit Balances June 30, 1946
American Society of Refrigerating Engineers Gift for application of Geometrical Electric Analogue to Refrigeration Heat Transfer Studies			\$500.00	\$500.00			\$500.00
Anderson (Arthur) Fellowship Gift		\$250.00		250.00			250.00
Anonymous Gift for American School of Indic and Iranian Studies		1,791.02	65.37	1,856.39			1,856.39
Anonymous Gift for the Athletic Association		7.50		7.50			7.50
Anonymous Gift for a Chinese Graduate School of Journalism in Chungking, China		69,886.50		69,886.50	(1) \$61,932.91		7,953.59
Anonymous Gift for Hartley Hall		68.48		68.48			68.48
Anonymous Gift toward the Salary of a Lecturer in History	\$375.00						
Anonymous Gift for School of Engineering			4,550.00	4,175.00	4,175.00		
Anonymous Gift for General Support of the University		64,541.12	2,355.75	66,896.87			66,896.87
Anonymous Gift for Geology Assistance			220.00	220.00	220.00		
Anonymous Gift for New Boat House at Baker Field		213.37		213.37			213.37
Anonymous Gift for Prizes in the Auditing Laboratory		4,948.11	180.60	5,128.71			5,128.71
Anonymous Gift for Research in Dept. of Chemical Engineering		50.00	100.00	150.00	50.00		100.00
Anonymous Gift for Salaries, Dept. of Philosophy		1,001.31		1,001.31			1,001.31
Anonymous Gift for a Special Study		2,196.72	4,393.40	6,590.12			6,590.12
Anonymous Gift for the Support of the Columbia University Statistical Bureau		50.00		50.00			50.00
Anonymous Gift for William Welsh Vibbert Memorial		36,778.50	1,407.40	38,185.90			38,185.90
		205.08	7.48	212.56			212.56

REPORT OF THE TREASURER

Anonymous Gift to be Expended under the Direction of the Provost.	47.83	450.00	497.83	481.16	16.67
Anonymous Gift for Aid to Deserving Students under the Graduate Faculties of the Social Sciences.	170.00	.....	170.00	.....	170.00
Anthropology Equipment Account (For Purchase of a Station Wagon)	1,125.00	.....	1,125.00	.....	1,125.00
Anthropology Research Gift.	1,728.43	.....	1,728.43	750.00	978.43
Appointments Office Gift. . . . .	.....	125.00	125.00	.....	125.00
Armstrong Gift for Salaries—Dept. of Electrical Engineering.	50.00	1,000.00	1,050.00	.....	.....
Ascoli (Marion R.) Fund Gift for Salary of Visiting Research Professor of Public Law.	1,600.00	.....	1,600.00	.....	.....
Astronomical Hollerith Computing Bureau.	2,252.65	.....	2,252.65	210.42	2,042.23
Auchincloss Gift for Chemical Research.	400.00	1,200.00	1,600.00	1,400.00	200.00
Barnard College Gift for American Council on Education. . . . .	.....	20.00	20.00	.....	.....
Barnard College Residence Halls Service Gift. . . . .	.....	6,536.00	6,536.00	.....	.....
Barnard Medal.	350.00	70.00	420.00	.....	420.00
Beggs Gift for Scholarship Assistance in Civil Engineering. . . . .	.....	750.00	750.00	.....	750.00
Bartok (Bela) Research Gift.	67.04	.....	67.04	.....	67.04
Benjamin and Cartwright Gift for Alterations—Law Library.	6,787.57	.....	6,787.57	.....	6,787.57
Benjamin and Cartwright Gift for the Park Benjamin Collection of Books.	7,748.10	.....	7,748.10	41.39	7,706.71
Benjamin and Cartwright Gift for a Research Scholarship.	2,868.75	.....	2,868.75	2,868.75	.....
Benjamin Gift for Students' Aid in University Extension.	637.00	.....	637.00	.....	637.00
Bischof (Ernest) Co., Inc. Gift for Purchase of Equipment for the Organic Technological Laboratory.	2,593.75	720.39	3,314.14	.....	3,314.14

	Debit Balances June 30, 1945	Credit Balances June 30, 1945	Received 1945-1946	Total Credits	Expended 1945-1946	Debit Balances June 30, 1946	Credit Balances June 30, 1946
Bogue Gift for Chapel Music.....		\$250.00	\$50.00	\$300.00			\$300.00
Bogue (Morton G.) Gift for Maintenance of Boat Houses, Shells and Launches.....		500.00	200.00	700.00			700.00
Books and Serials Gift—Library.....			36.50	36.50	\$36.50		
Brady (John H.) Gift to be expended under the direction of the Dean of the Faculty of Business			708.00	708.00			708.00
Burke Gift for the Stephen P. Burke Memorial Col- lection.....			500.00	500.00			500.00
Butzel Gift for Research in International and Com- parative Law.....	\$150.00		1,500.00	1,350.00	1,500.00	\$150.00	
Camp Columbia Dormitory Gift.....		155.00	100.00	255.00			255.00
Carleton Gift for a "1904 Cottage" Camp Columbia		1,500.00		1,500.00			1,500.00
Carnegie Corporation Gift for Work in Town Plan- ning.....		307.52		307.52	78.85		228.67
Carnegie Corporation Gift for Research in Con- nection with National Defense.....		196.21		196.21	(2) 196.21		
Casa Italiana Scholarship Gift.....		257.23		257.23			257.23
Cattell Fund Gift for Research in Applied Psychology		1,000.00		1,000.00			1,000.00
Chapel Collection Gift.....		1,437.43	782.93	2,220.36			2,220.36
Chapel Organ Gift.....		1,050.25		1,050.25			1,050.25
Check Guarantee Gift.....		511.60		511.60			511.60
Chemical Foundation Gift for Research in Biological Chemistry.....		220.51	14.50	235.01			235.01

Chemical Foundation Gift for Isotope Research.....	12.90	.....	.....	12.90	.....	.....	12.90
Chemical Foundation Gift for Research in the Field of Solvents Pertaining to the Oil Industry.....	22.58	1,750.00	.....	1,772.58	1,735.52	.....	37.06
Chinese Embassy Gift for Chinese Cultural Fellow- ships.....	3,750.00	4,500.00	.....	8,250.00	8,250.00	.....	.....
Cinchona Products Institute, Inc. Gift for Research on Alkaloids of cinchona—Dept. of Botany.....	.....	400.00	.....	400.00	400.00	.....	.....
Class of 1891 Scholarship Gift.....	500.00	.....	.....	500.00	.....	.....	500.00
Class of 1903 Gift for a building at Camp Columbia.....	1,500.00	.....	.....	1,500.00	.....	.....	1,500.00
Class of 1903 Gift for Expenditure under the direc- tion of the University Medical Officer.....	320.00	.....	.....	320.00	.....	.....	320.00
Class of 1906 College and Engineering Gift for Chapel Entrance Gates.....	3,074.83	4,858.27	.....	7,933.10	(10) 1,192.40	.....	6,740.70
Class of 1908 Gift for Rent of a Room for a Senior Student.....	22.57	.....	.....	22.57	.....	.....	22.57
Class of 1912 College Engineering and Architecture Gift for Equipment of a Rifle Team.....	182.66	.....	.....	182.66	.....	.....	182.66
Class of 1914 College and Engineering Gift.....	17.00	.....	.....	17.00	.....	.....	17.00
Class of 1917 College and Journalism 25th Anni- versary Gift.....	20.00	.....	750.00	20.00	(3) 20.00	.....	.....
Class of 1920 Engineers Gift for General Purposes.....	.....	.....	.....	750.00	.....	.....	750.00
Class of 1924 College Gift for Rental of a Scholarship Room in Hartley Hall.....	248.50	428.00	.....	676.50	.....	.....	676.50
Class of 1925 College 15th Anniversary Scholarship Gift.....	275.00	.....	.....	275.00	(4) 275.00	.....	.....
Class of 1925 Scholarship Gift.....	875.00	275.00	.....	1,150.00	.....	.....	1,150.00
Class of 1932 College Dormitory Room Gift.....	.....	185.28	.....	185.28	.....	.....	185.28
Class of 1945 Journalism Gift for Purchase of an Illuminated Globe.....	40.00	.....	.....	40.00	.....	.....	40.00
College of Pharmacy Gift for Salaries—Dept. of English.....	.....	1,500.00	.....	1,500.00	1,500.00	.....	.....

	Debit Balances June 30, 1945	Credit Balances June 30, 1945	Received 1945-1946	Total Credits	Expended 1945-1946	Debit Balances June 30, 1946	Credit Balances June 30, 1946
Collings (W. A.) Gift for the General Purposes of the University.....			\$300.00	\$300.00			\$300.00
Columbia College Gift for Student Assistance.....		\$47.25	900.00	947.25	\$747.50		199.75
Columbia College Scholarship Gift.....		604.57	700.00	1,304.57	888.25		416.32
Columbia University Club Scholarship Gift.....		32.94	2,723.00	2,755.94	2,643.00		112.94
Columbia University Religious Organizations—Earl Hall Activities Gift.....			345.32	345.32			345.32
Columbia University Religious Organizations—Jewish Division Gift.....			8,271.20	8,271.20			8,271.20
Committee of Fifty Fund for Purchase of Books.....		32.38		32.38			32.38
Commonwealth Fund Gift for Study of Control of Business in Medieval and Tudor England.....		144.43		144.43			144.43
Corn Industries Foundation Gift for Enzyme Studies on Starch.....		3,411.51	4,500.00	7,911.51	6,065.25		1,846.26
Corn Industries Research Foundation Gift for Research on Chemistry of Starch.....		3,127.47	5,000.00	8,127.47	4,847.41		3,280.06
Cox (William H. D.) Gift.....			100.00	100.00			100.00
Coykendall (Frederick) Gift for the Support of Athletics.....		75.00		75.00			75.00
Crocchio Goliardico Gift for Student Aid for a Course in Italian.....		146.40		146.40			146.40
Crosby Gift for Dramatic Museum.....		2,430.01	88.69	2,518.70			2,518.70
Croxton Gift for Statistical Equipment.....			200.00	200.00	200.00		
Cultivated Mushroom Institute of America Inc. Gift for Work in the Dept. of Chemistry.....		10.65		10.65			10.65
Cushman Gift for Student Aid.....		233.00		233.00			233.00
Cutting Gift for Piano and Organ Practice.....		456.50		456.50 (5)	456.50		
Czecho-Slovak Culture Lectures Gift.....		26.00		26.00			26.00

Czecho-Slovak Government Gift.....	97.00	1,000.00	1,000.00	1,097.00	1,000.00	97.00
Dean's Emergency Fund.....	3,793.00	615.31	793.40	4,408.31	793.40	3,614.91
Dean's Fund for Relief of Students in Columbia College.....	4,460.22	378.31		4,838.53		4,838.53
Dean of the Law School Gift for Needy Students.....	507.17			507.17		507.17
Dell Publishing Company, Inc. Gift for General Purposes of the University.....	500.00	5,000.00		5,000.00		5,000.00
Deller Scholarship Gift.....	87.18	700.00	787.18	787.18		500.00
Deutsches Haus Maintenance Gift.....	100.00			100.00		100.00
Dickinson (Harold T.) Gift for Assistance of an Undergraduate in Mining Engineering Course.....						
Doane Gift for the Scientific Libraries of the University.....		50.00	50.00	50.00		
Dodge Gift for the Marcellus Hartley Research Laboratory.....	795.46	5,000.00	32.97	5,795.46		5,762.49
Dodge Gift toward the Cost of Renovation in the Rotunda of Low Memorial Library.....	500.00			500.00		500.00
Donaldson Gift for Maintenance of Nevis.....	17,293.81			17,293.81		17,293.81
Douglas Gift for Furnishings and Fittings of the Manor House.....	1,000.00			1,000.00		1,000.00
Duka Gift for Student Aid—University Extension.....	2,000.00	50.00	50.00	50.00	50.00	
du Pont Fellowship.....	1,000.00	11,128.00	2,718.00	13,128.00	2,718.00	10,410.00
East Hall Changes for Alumni Federation Gift.....	1.00			1.00		1.00
Eastman Kodak Co. Fellowship Gift—Dept. of Chemical Engineering.....	750.00			750.00		750.00
Economic Geology Gift.....	25.00			25.00	25.00	
Economic Geography Gift.....	1,175.94			1,175.94	34.49	1,141.45
Ellis (George A.) Gift for Bust of Justice Stone.....	100.00			100.00		100.00
Emergency Committee in Aid of Displaced Foreign Scholars (Public Law).....		2,400.00	2,400.00	2,400.00		
Engineering Foundation Gift for Barodynamic Research.....	10,892.29			10,892.29		10,832.29

	Debit Balances June 30, 1945	Credit Balances June 30, 1945	Received 1945-1946	Total Credits	Expended 1945-1946	Debit Balances June 30, 1946	Credit Balances June 30, 1946
Engineering Laboratories Equipment Gift.....		\$4,796.27	\$969.39	\$5,765.66			\$5,765.66
Epstein Gift for the Development of the Epstein Collection on Photography.....		138.10	2,420.29	2,558.39			2,558.39
Epstein Gift to Defray Publication Cost of the Translation of the Epstein Collection.....		5,000.00		5,000.00	\$5,000.00		
Farwell (H. W.) Gift for General Purposes.....		537.17	100.00	100.00	100.00		
Fawley (Wilbur) Prize Gift in Journalism.....			19.61	556.78			556.78
Feller Gift for the School of Law.....			111.33	111.33			111.33
French Government Gift for French Activities.....		1,957.50		1,957.50			1,957.50
Friedlander (Louis) Scholarship Gift.....		2,000.00		2,000.00	800.00		1,200.00
Geology Grinding Laboratory Account.....		397.87		397.87	261.99		135.88
Germanic Review Gift.....			300.00	300.00			300.00
Graduate School—Social Room Gift.....		19.21		19.21			19.21
Grady Gift for University Medical Office.....		98.50		98.50			98.50
Grosse Gift for Research on Atomic Energy.....		2,000.00		2,000.00	1,000.00		1,000.00
Gymnasium Gift.....		20.00	10.00	30.00			30.00
Harkness (Edward S.) Gift for Construction and Equipment of South Hall.....		4,460.34		4,460.34			4,460.34
Hayden Foundation Scholarship Gift.....		36,052.24		36,052.24	(6) 36,052.24		
Heat Research Laboratory Account.....		8,888.12	9,955.49	18,888.61	21,840.41	\$3,001.80	
Heat Transfer Research Gift.....		4,464.89		4,464.89			4,464.89
Heavy Water Research Gift.....		655.18		655.18			655.18
Heffernan Gift for Graduate Fellowship in Law.....		1,500.00		1,500.00			1,500.00
Herstein (Carl M.) Gift for Purchase of Books.....		121.86		121.86	2.00		119.86
Hispanic Institute General Account.....		3,583.45		3,583.45	1,887.16		1,696.29
Hispanic Institute Sephardic Studies Gift.....		373.37	1.78	375.15			375.15

Hitchock (Gilbert M.) Scholarship Gift—School of Journalism.....	171.00	1,000.00	1,171.00	1,000.00	171.00
Hopkins Gift for Medal in Commemoration of Professor Frank Dempster Sherman.....	100.00	.....	100.00	.....	100.00
Hopkins (Mary D.) Gift for Student Aid in University Extension.....	100.50	.....	100.50	.....	100.50
Huttenlocher Gift for School of Law.....	847.66	.....	847.66	.....	847.66
Institut des Etudes Francaises Scholarship Fund.....	2,550.63	113.10	2,663.73	.....	2,663.73
Institute of Roumanian Culture Gift.....	1,255.43	45.82	1,301.25	.....	1,301.25
International Business Machines Corporation Gift for General Purposes.....	.....	25,000.00	25,000.00 (7)	25,000.00	.....
Irvington Varnish & Insulation Co., Gift for Research—Dept. of Chemistry.....	820.16	4,000.00	4,820.16	3,770.84	1,049.32
Italian Inter-University Bureau—Casa Italiana.....	215.98	53.11	269.09	.....	269.09
Jaffa Gift for Student Aid in Home Study.....	10.00	.....	10.00	.....	10.00
Jones Gift for Student Aid—Drama Class.....	.....	42.50	42.50	42.50	.....
Kaliski (John) Gift for Support of Jewish Religion.....	5.00	.....	5.00	.....	5.00
Keeler (Floyd Y.) Gift for College Scholarships.....	665.00	.....	665.00	.....	665.00
Kent Hall Renovation Gift.....	25.00	.....	25.00	.....	25.00
Kings Crown Deposit Account.....	12,506.27	2,209.78	14,716.05	.....	14,716.05
Kings Crown Scholarship Gift.....	25.00	.....	25.00	.....	25.00
Kosmopoulos Gift for Lithoprinting Booklet.....	.....	300.00	300.00	9.00	291.00
Kovbat Gift for General Purposes.....	4.00	.....	4.00	4.00	.....
Krumb (Henry) Gift for Benefit of the Engineering Schools.....	789.95	.....	789.95	.....	789.95
Krumb (Henry) Gift for Incidental Expenses—Camp Columbia.....	40.65	.....	40.65	.....	40.65
Laboratory of Industry Hygiene Inc., Gift for Chemical Research.....	416.70	1,000.00	1,416.70	349.98	1,066.72
Lafrantz (F. W.) Gift for Germanic Review.....	.....	100.00	100.00	100.00	.....
Lampe Gift for Purchases of Finnish and Scandinavian Materials.....	50.00	.....	50.00	.....	50.00
Law School Gift for Publication of Manuscripts.....	374.51	13.67	388.18	.....	388.18
Law School Special Scholarship Gift.....	125.00	150.42	275.42	.....	275.42

	Debit Balances June 30, 1945	Credit Balances June 30, 1945	Received 1945-1946	Total Credits	Expended 1945-1946	Debit Balances June 30, 1946	Credit Balances June 30, 1946
Lee (Mrs. Frederic S.) Gift for Dept. of Romance Languages.....		\$44.18		\$44.18			\$44.18
Legislative Drafting Research Fund.....		9,051.53		9,051.53			9,051.53
Lending Service Account—Library.....		5,908.93		5,908.93			5,908.93
Lewisohn Gift for Cost of Pedestal and Installation of Bust of Justice Holmes.....		65.69		65.69			65.69
Low (William G.) Gift.....		133.26		133.26			133.26
Lilly (Ely) and Company Gift for Research in Dept. of Chemistry.....		3,538.89	\$1,500.00	5,038.89	\$1,122.58		3,916.31
Lincoln (James F.) Arc Welding Foundation Gift for Purchase of Books to be used by Engineering School.....		45.32		45.32			45.32
Lindberg Gift for the Library.....		1,456.61		1,456.61			1,456.61
Mac Alarney (Prof. Robert E.) Memorial Gift.....		1,678.00	1,678.00	1,678.00			1,678.00
Macy (Josiah Jr.) Foundation Gift for Research in Dept. of Zoology.....		519.72		519.72	492.16		27.56
McMahon Gift for Scholarship in Law School.....		250.00		250.00			250.00
Marcus Gift for Special Lecturer in Anthropology.....		91.93		91.93			91.93
Merck and Company Inc., Gift for Research on New Organic Compounds for Protection against Tropical Diseases.....			900.00	900.00	900.00		
Merrill Gift for the Rehabilitation of Columbia University Students who are Maimed or Wounded in Military Service.....		2,290.11		2,290.11			2,290.11
Metropolitan Retail Florists Association Gift for the Development of the Collection of Modern Greek Books.....		100.00		100.00			100.00
Miles Fellowship Gift.....		1,000.00		1,000.00	1,000.00		

Minthorne (Leonard L.) Gift for a Fellowship for a Graduate in Pacific College.....	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00
Monsky (Jacob) Gift.....	1,000.00	1,000.00	1,000.00	1,000.00	833.30	166.70
Montgomery (Robt. H.) Gift for the Library.....	500.00	500.00	500.00	500.00	120.59	681.46
National Academy of Sciences Gift for Machine Computations of General Perturbations to Astronomy.....	100.00	100.00	100.00	100.00		100.00
National Society of Colonial Dames Gift for the Colonial Dames Scholarship.....	500.00	500.00	500.00	500.00	500.00	500.00
National Lead Company—Titanium Division Fellowship Gift.....	4,125.00	4,125.00	4,125.00	4,125.00		4,125.00
New England Tank and Tower Company Gift for Research on the Problems in the Field of Agitation.....	500.00	500.00	500.00	500.00		500.00
New York Botanical Garden Gift for Research on Vitamins and related substances in relation to plant growth.....	3,626.19	3,626.19	3,626.19	3,626.19	3,531.26	94.93
New York Botanical Garden Gift toward a Salary in the Dept. of Botany.....	2,050.00	2,050.00	2,050.00	2,050.00	2,050.00	
New York State Library School Association Gift for Scholarship in the School of Library Service.....	830.00	830.00	830.00	3,034.71	1,642.50	1,392.21
Nutrition Foundation Inc., Gift for Research on Carbohydrate Metabolism with the aid of Heavy Hydrogen.....	2,864.10	2,864.10	5,000.00	7,864.10	5,387.00	2,477.10
Nutrition Foundation Inc., Gift for Research in Quantitative Relations of Vitamin A Intake to Bodily Store and Well Being at Different Ages.....	408.50	408.50	2,000.00	2,408.50	1,976.72	431.78
Nutrition Foundation Inc., Gift for Research in the Effects of Environment on Nutrition Requirements and Cell Respiration.....	2,118.87	2,118.87	10,000.00	12,118.87	12,727.59	608.72
Nutrition Foundation Inc., Gift for a Study of the Oxidizing Enzymes and Other Factors Related to Nutritive Value of Dehydrated Foods.....	73.27	73.27		73.27	19.56	53.71
Odell (Isaac H.) Jr. Bequest.....	152.41	152.41		152.41		152.41

	Debit Balances June 30, 1945	Credit Balances June 30, 1945	Received 1945-1946	Total Credits	Expended 1945-1946	Debit Balances June 30, 1946	Credit Balances June 30, 1946
Parker Gift for Current Expenses of the Institute of International Affairs.....		\$29,600.25	\$38,245.57	\$67,845.82	(8) \$48,351.14		\$19,494.68
Paterno Gift for the Library.....		.69	1,500.00	1,500.00			1,500.00
Paterno Library Collection of Italian Studies Account				.69			.69
Physical Anthropology Gift.....		90.00		90.00			90.00
Phi Lambda Phi Foundation Gift.....		498.13		498.13			
Prentis (Edmund A.) Gift for Columbiana.....		455.92		455.92			344.75
Prentis Gift for Columbiana Society.....		52.36		52.36			16.12
Prentis (Edmund A.) Gift toward the Cost of the "1906 Gate".....		9,350.00	867.41	10,217.41			10,217.41
Prentis Gift to Cover Cost of a Cottage at Camp Columbia.....		1,500.00		1,500.00	(9) 1,000.00		500.00
Prentis Gift for Hamilton Arboretum.....		54.50		54.50			54.50
Prentis Gift for the School of Engineering.....		1,000.00		1,000.00	(11) 1,000.00		
Prentis (Edmund A.) Gift toward the Cost of the Proposed Engineering Laboratory.....							
President's Gift Account.....		16,274.28	43,555.80	43,555.80			43,555.80
Publication Gift—School of Library Service.....		5,676.65	10,115.69	26,389.97	3,918.09		22,471.88
Publications in the Indo-Iranian Series.....		2,852.59	1,392.05	7,068.70			7,068.70
Pulitzer Scholarship Gift.....		1,835.50	104.12	2,956.71			2,956.71
Putnam Gift—Mathematics.....		144.53	260.00	2,095.50			2,095.50
Queen Wilhelmina Professorship Gift.....			7,500.00	144.53	130.90		13.63
Radio Corporation of America Scholarship Gift.....			600.00	7,500.00	7,500.00		
Radio Receptor Co., Inc. Gift for Radio Receptor Fellowship.....				600.00	600.00		
Randolph (William Fitz) Bequest.....		2,500.00		2,500.00			2,180.00
Redmond (Roland L.) Gift for Columbia Law School Refrigeration Research Foundation Gift for Special Research in Refrigeration.....		47,211.44		47,211.44	1,349.49		45,861.95
		782.50		782.50			782.50
		1,612.81		1,612.81	158.18		1,454.63

Religious Counselors' Interfaith Fund.....	355.35	355.35	355.35	355.35	355.35
Research Corporation Gift for the Advancement and Extension of Technical and Scientific Investigation, Research and Experimentation.....	3,438.81	3,438.81	3,438.81	3,438.81	3,438.81
Research Corporation Gift for Multi-Path Flow Distribution by Automatic Electric Simulation.....	10,000.00	10,000.00	10,000.00	916.12	9,083.88
Research Corporation Gift in Support of Work in the Creation of an Electric Mechanism for Measuring Velocities of Water—Dept. of Civil Engineering.....	1,229.01	1,229.01	1,229.01	770.84	458.17
Research Corporation Gift for Scientific Work in Astronomy.....	750.00	750.00	750.00	348.27	401.73
Research in Food Chemistry Gift.....	400.00	2,701.38	1,411.08	1,411.08	1,290.30
Research in Social Sciences Gift.....	40,821.51	40,821.51	40,821.51	876.09	39,645.42
Rockefeller Foundation Gift for Bureau of Applied Social Research.....	5,000.00	5,000.00	5,000.00	4,059.93	940.07
Rockefeller Foundation Gift for use of the Columbia University Press.....	3,500.00	3,500.00	3,500.00	3,500.00	.....
Rockefeller Foundation Gift for Dept. of Chinese and Japanese.....	316.45	316.45	316.45 (12)	316.45	.....
Rockefeller Foundation Gift toward the Expenses of a History of American Economic Thought.....	4,600.00	4,600.00	4,600.00	4,537.43	62.57
Rockefeller Foundation Gift for Research on Variation in Genetic Constitution in Relation to Growth and Development—Zoology.....	25,000.00	25,000.00	25,000.00	20,423.09	4,576.91
Rockefeller Foundation Gift for Salaries in Public Law.....	2,500.00	2,500.00	2,500.00	2,500.00	.....
Rockefeller (Laura Spelman) Memorial Gift for Social Research in France.....	691.48	691.48	691.48	.....	691.48
Rockefeller Foundation Gift for Research in Radio.....	1,038.19	1,038.19	1,038.19	1,038.19	.....
Rockefeller Foundation Gift for Researches on Vitamins and Related Substances in Relation to Plant Growth.....	2,500.00	2,500.00	153.73	2,900.78	\$2,747.05
Rockefeller Foundation Gift for Research in Dept. of Zoology.....	2,400.00	2,400.00	2,400.00	2,400.00	.....

	Debit Balances June 30, 1945	Credit Balances June 30, 1945	Received 1945-1946	Total Credits	Expended 1945-1946	Debit Balances June 30, 1946	Credit Balances June 30, 1946
Rockefeller Foundation Gift for a Study of the Determinants of Occupational Choice.....		\$830.53		\$830.53 (13)	\$830.53		\$1,630.12
Rockefeller Foundation Gift for Study of the Eco- nomic Aspects of Public Finance.....		1,712.74	\$7,637.30	9,350.04	7,719.92		3,350.00
Rockefeller Foundation Gift for a Study of the Theory of Public Utility Rates.....		3,350.00		3,350.00			
Rockefeller Foundation Gift for Salary—Dept. of History.....		333.34		333.34	333.34		
Rockland Farms Gift for the Study of Animal Diets Rosoff Gift for Prize in Accounting.....		25.00	2,300.00	2,300.00			2,300.00
Sammis (Walter H.) for a Scholarship.....		75.00	25.00	50.00	25.00		25.00
Schieffelin Gift for Archaeological Work in New Mexico and Arizona.....		2,000.00		2,000.00			2,000.00
Schiller (Louise S.) Bequest.....			15.00	15.00	15.00		
Schluter (F. E.) Gift for Student Aid.....		44.00	23.75	67.75	67.75		67.75
School of Architecture Scholarship Gift.....		10.00		10.00			10.00
School of Business Accounting Scholarship Gift.....		490.00		490.00			490.00
Selig (Estate of Alfred E.) Bequest for a Scholarship School of Engineering.....		1,000.00		1,000.00			1,000.00
Seligman Library Gift for the purchase of Seligman Collection.....		5,092.84		5,092.84			5,092.84
Seth Low Students Association Gift.....		199.05		199.05			199.05
Sherman (Henry C.) Testimonial Volume Gift.....			4,000.00	4,000.00			4,000.00
Sigma Chi Foundation Scholarship Gift.....			100.00	100.00	100.00		
Smith (David Eugene) Gift for the David Eugene Smith Library.....		76.74		76.74	76.74		
Smith Gift for Maison Francaise.....		125.00		125.00			125.00
Social Science—Study in Social Work.....		500.00		500.00			500.00

	Debit Balances June 30, 1945	Credit Balances June 30, 1945	Received 1945-1946	Total Credits	Expended 1945-1946	Debit Balances June 30, 1946	Credit Balances June 30, 1946
Watnnull Foundation Gift for Fellowship—Dept. of Sociology.....		\$2,500.00	\$650.00	\$3,150.00	\$3,150.00		
Watnnull Foundation Gift for a Special Scholarship for the Study of Statistics.....			750.00	750.00	350.00		\$400.00
Welding Research Gift.....		2.49	1,300.00	1,302.49	1,222.39		80.10
Westchester Alumni Scholarship Gift.....		300.00		300.00			300.00
Wiley Gift to Meet the Cost of Publication of a Monograph on the University of King's College, Halifax.....		150.00		150.00			150.00
Williams-Waterman Fund of Research Corp. Gift for Research—Dept. of Botany.....			2,500.00	2,500.00	2,048.76		451.24
Williams-Waterman Fund of Research Corporation Gift for Research in Food Chemistry.....		75.00		75.00	75.00		
Woodbridge Lecture Publication Fund.....		1,400.00		1,400.00	400.00		1,000.00
Woodworth Gift for the Purchase of Furniture for the use of the Psychology Library.....			135.00	135.00	135.00		
Zabriskie Law Book Gift for the Purchase of Law Books for the Libraries.....			1,000.00	1,000.00			1,000.00
MEDICAL SCHOOL							
Alumni of the College of Physicians and Surgeons Gift for the Huntington Memorial Library.....		2,114.27	77.17	2,191.44			2,191.44
American Bureau for Medical Aid to China Inc. Gift for Development of Visual Aids.....			4,500.00	4,500.00	951.66		3,548.34
American Medical Association Gift for Research Dept. of Biochemistry.....			350.00	350.00	283.94		66.06
Anonymous Gift for Cancer Research.....		1,805.85		1,805.85			1,805.85
Anonymous Gift for College of Physicians and Surgeons.....		1,158.32		1,158.32	851.28		307.04

Anonymous Gift toward the Salary of a Lecturer in Physiology.....	2,000.00	6,000.00	8,000.00	8,000.00	8,000.00	.....
Anonymous Gift for Scholarships in College of Physicians and Surgeons No. 2.....	894.08	32.63	926.71	926.71	926.71	926.71
Anonymous Gift for Scholarships in College of Physicians and Surgeons No. 3.....	2,676.74	97.70	2,774.44	2,774.44	2,774.44	2,774.44
Anonymous Gift for Scholarships in College of Physicians and Surgeons No. 5.....	4,583.57	167.30	4,750.87	4,750.87	4,750.87	4,750.87
Anonymous Gift for Scholarships in College of Physicians and Surgeons No. 6.....	6,303.55	230.08	6,533.63	6,533.63	6,533.63	6,533.63
Anonymous Scholarship Gift No. 4.....	2,986.74	108.28	3,075.02	3,075.02	3,075.02	3,075.02
Anonymous Gift for Special Research (Dermatology)	8,719.61	10,000.00	18,719.61	7,306.64	11,412.97	11,412.97
Anonymous Gift for the Study of Respiratory Infections.....	1,054.77	5,000.00	6,054.77	6,054.77	2,141.21	2,141.21
Anonymous Gift to be Expended under the Direction of Dean Carman.....	4,053.79	.....	4,053.79	4,053.79	4,053.79	4,053.79
Asthma Physiological Gift—Dept. of Medicine.....	.....	5,000.00	5,000.00	5,000.00	3,851.64	3,851.64
Abbott Laboratories Gift for Research in Parasitology	.....	2,000.00	2,000.00	2,000.00	2,000.00	2,000.00
Baruch Fellowship Gift.....	.....	2,362.86	2,362.86	(17)	112.86	2,250.00
Baruch (Bernard M.) Gift for Physical Medicine.....	412,158.58	10,000.00	422,158.58	20,187.53	401,971.05	401,971.05
Bertrand Gift for Study of Hypertension—Dept. of Medicine.....	.....	5,000.00	5,000.00	5,000.00	3,922.27	3,922.27
Biochemistry Special Printing.....	563.50	.....	563.50	563.50	563.50	563.50
Blow (Richard) Gift.....	5,743.90	75.00	5,818.90	5,818.90	5,818.90	5,818.90
Borden Undergraduate Research Award Gift.....	.....	2,500.00	2,500.00	2,500.00	2,500.00	2,500.00
California Fruit Growers Exchange Gift—Dept. of Bacteriology.....	200.00	.....	200.00	200.00	.....	.....
Cancer Research Gift—Dept. of Surgery.....	11,164.54	8,000.00	19,164.54	11,108.33	8,056.21	8,056.21
Cardiology Research Gift—Dept. of Medicine.....	1,749.35	1,500.00	3,249.35	377.09	2,872.26	2,872.26
Chemical Pathology Research Gift.....	2,029.21	.....	2,029.21	1,359.16	670.05	670.05
Class of 1929 Prize for Pedodontics.....	150.00	.....	150.00	25.00	125.00	125.00
Class of 1933 Physicians and Surgeons Gift for the Purchase of Medical Instruments.....	.....	87.88	87.88	87.88	87.88	87.88
College of Physicians and Surgeons Scholarship Gift	60.00	100.00	160.00	160.00	160.00	160.00
Columbia University Dental Hygiene Gift.....	5,050.00	5,050.00	5,050.00	5,050.00	5,050.00

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Commonwealth Fund Gift for Dept. of Obstetrics and Gynecology.....		\$756.12	\$95.00	\$851.12 (18)	\$851.12		\$112.38
Commonwealth Fund Gift for Clinical Review of Essential Hypertension.....		351.00		351.00	238.62		
Commonwealth Fund Gift for the Study of Chronic Malnutrition in Infants and Children.....			5,490.00	5,490.00	4,954.56		535.44
Commonwealth Fund Gift for Study of Serum Treat- ment of Influenza Meningitis—Dept. of Pedi- atrics.....		631.50	8,440.00	9,071.50 (19)	7,992.94		1,078.56
Commonwealth Fund Gift for Respiratory Physi- ology.....		5,090.55	10,975.00	16,065.55	13,745.51		2,320.04
Cutter Laboratories Gift—Dept. of Pediatrics.....			1,800.00	1,800.00	1,110.00		690.00
Dazian Foundation Gift in the Dept. of Biochemistry.....		5.54		5.54	5.54		
Dazian Foundation Gift for Medical Research.....		242.03	3,500.00	3,742.03	3,288.64		453.39
Dental and Oral Surgery Scholarship Gift.....		43,871.85	5,906.76	49,778.61	4,765.28		45,013.33
Dental Research Gift.....		3,681.91	600.00	4,281.91	1,493.70		2,788.21
Dental School Dormitory Building Gift.....		1,338.70		1,338.70			1,338.70
Dermatology—Special Research Fund.....		88.80	1,000.00	1,088.80	15.75		1,073.05
Elliott Gift for Research in Oral Histology.....		774.71		774.71	168.99		605.72
Emergency Gift for Biochemical Research.....		\$171.24	821.24	650.00	825.00	\$175.00	
Emergency Gift in the Dept. of Surgery.....		1,000.00		1,000.00			1,000.00
Endocrine—Cytology Studies Fund—Dept. of Anatomy.....		1,933.62		1,933.62	11.00		1,922.62
Faulkner (Edward Daniels) Memorial Gift for the Study and Treatment of Arthritis.....		18,575.47	24,500.21	43,075.68	25,294.20		16,781.48
Fisher (Marguerite) Gift.....			2,150.00	2,150.00	160.97		1,989.03
Fluegge Gift for Cancer Research—Dept. of Surgery.....			3,200.17	3,200.17			3,200.17
Foundation for the Investigation of Chronic Pul- monary Disease Gift—Dept. of Medicine.....		1,175.00		1,175.00	690.00		485.00

Gagarin Gift for Electrophoresis.....	559.10	.....	559.10	.....	559.10	.....
Given (John L.) Gift for Research in Dept. of Urology	81.00	1,700.00	1,781.00	141.07	1,639.93	.....
Gottesman (D. S. and R. H.) Foundation Gift Dept. of Surgery.....	9,833.34	.....	9,833.34	5,701.04	4,132.30	.....
Halloran General Hospital Gift for Lectures by Dr. Abner Wolf.....	800.00	.....	800.00	800.00	.....	.....
Hartford Foundation Gift—Dept. of Medicine.....	1,325.53	5,000.00	6,325.53	4,165.76	2,159.77	.....
Hercules Powder Company Gift for Research in the Dept. of Pharmacology.....	7.36	.....	7.36	7.36	.....	.....
Hiss (Philip Hanson, Jr.) Memorial Gift.....	1,048.84	2,300.00	3,348.84	3,148.53	200.31	.....
Historical Dental Literature Gift.....	.....	100.00	100.00	49.50	50.50	.....
Hofheimer (Estate of Lester N.) Gift for Psychoneuro-analytic Psychosomatic Clinic for Training and Research Dept. of Psychiatry.....	34,007.13	.....	34,007.13	9,077.31	24,929.82	.....
Human Sex Biology Gift—Dept. of Psychiatry.....	492.19	.....	492.19	.....	492.19	.....
Huntington Portrait Gift.....	70.75	.....	70.75	.....	70.75	.....
Hyde (Lillia Babbitt) Foundation Gift for Radiological Research Laboratory.....	8,022.45	.....	8,022.45	3,212.02	4,810.43	.....
Iason (Alfred H.) Scholarship Gift in the College of Physicians and Surgeons.....	.....	500.00	500.00	500.00	.....	.....
Industrial Ophthalmology Gift.....	6,138.64	.....	6,138.64	64.79	6,073.85	.....
Insulin Research Gift—Dept. of Medicine.....	72.00	900.00	972.00	900.00	72.00	.....
International Cancer Research Foundation Gift—Dept. of Biochemistry.....	740.55	4,050.00	3,309.45	4,945.11	1,635.66	.....
International Cancer Research Foundation Gift—Dept. of Pathology.....	400.00	.....	400.00	193.79	206.21	.....
Jarcho (Julius) Gift for the Physicians and Surgeons Library.....	88.13	25.00	113.13	.....	113.13	.....
Johnson Research Foundation Gift for Research—Dept. of Anatomy.....	1,495.12	.....	1,495.12	21.00	1,474.12	.....
Johnson Research Foundation Gift for Research in the Bacteriological Research Laboratory—Dept. of Surgery.....	500.00	.....	500.00	.....	500.00	.....
Johnson Research Foundation Gift for Study of Absorbable Materials in Surgery.....	1,200.00	1,200.00	392.28	807.72

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Katzenstein (Estate of Hattie N.) Gift for Cancer Research.....		\$500.00		\$500.00	\$500.00		
Kellogg (W. K.) Foundation Gift for Graduate Medical Education.....			\$50,000.00	50,000.00	19,154.31		\$30,845.69
Kellogg (W. K.) Foundation Gift for Scholarship Occupational Therapy.....		968.00		968.00	900.00		68.00
Kellogg (W. K.) Foundation Gift for Scholarships in the DeLamar Institute of Public Health.....		3,200.00		3,200.00	600.00		2,600.00
Kellogg (W. K.) Foundation Gift for Scholarships at the College of Physicians and Surgeons.....		3,158.42		3,158.42			3,158.42
Kellogg (W. K.) Foundation Gift for Training Program in Hospital Administration in the School of Public Health.....		20,000.00		20,000.00	20,195.21	\$195.21	
Laboratory Development Gift—Dept. of Bacteriology.....		214.94		214.94	9.04		205.90
Lamport (Sadie and Arthur) Foundation Gift for Research Dept. of Obstetrics and Gynecology.....		28.12		28.12			28.12
Lasker (Albert and Mary) Foundation Inc., Gift for Study of Animal and Human Arteriosclerosis.....		853.41	10,000.00	10,853.41	9,807.90		1,045.51
Lasker (Albert and Mary) Foundation Inc., Gift for the Study of Hypertension.....			10,000.00	10,000.00	1,115.50		8,884.50
Lasker (Albert and Mary) Foundation Inc., Gift in Urology.....			20,000.00	20,000.00			20,000.00
Lederle Laboratories Gift for Research Work on Toxoids.....		330.94	2,400.00	2,730.94	2,212.50		518.44
Lederle Laboratories Gift for Study of Canine Distemper.....		386.28	1,400.00	1,786.28	1,381.53		404.75
Lederle Laboratories Gift for Studies on the Renal Complications of Sulfadiazene Therapy.....		244.72	366.03	610.75			610.75

Life Insurance Medical Research Fund Gift for Study of Action of Certain Cardiovascular Drugs—Dept. of Medicine.....	6,615.00	1,422.03	6,615.00	1,422.03	5,192.97
Life Insurance Medical Research Fund Gift for Study of Hypertention—Dept. of Medicine.....	12,705.00	2,310.69	12,705.00	2,310.69	10,394.31
Lilly (Eli) and Company Gifts for the Study of Carbohydrate Metabolism—Dept. of Pharmacology	1,500.00	958.07	1,500.00	958.07	541.93
Lilly (Eli) and Company Gift for Study of Retardation of Healing of the Cornea—Dept. of Ophthalmology.....	3,000.00	583.12	3,000.00	583.12	2,466.88
Loomis Institute for Scientific Research Inc., Gift for Enzyme Laboratory—Dept. of Medicine.....	5,000.00	.....	5,000.00	.....	5,000.00
Macy Penicillin Aerosol Gift.....	15,420.10	3,417.31	18,837.41	10,658.39	8,179.02
Macy (Josiah, Jr.) Foundation Gift for Intermediary Metabolism and Cholesterol.....	21.13	5.87	21.13	5.87	15.26
Macy (Josiah, Jr.) Foundation Gift for Psychosomatic Research in Psychiatric Criminology.....	2,651.71	6,758.06	5,901.71	851.35	.....
Macy (Josiah, Jr.) Foundation Gift for Studies in Intermediary Metabolism of Choline, Colamine and Related Compounds.....	1,000.82	2,152.25	4,750.32	2,152.25	2,598.07
Macy (Josiah, Jr.) Foundation Gift for Investigation of the use of Radioactive Isotopes in Bacteriology.....	43.34	.....	43.34	.....	43.34
Macy (Josiah, Jr.) Foundation Gift for Investigations on the Relation of Lipoids to Processes of Growth and Aging.....	310.51	186.22	310.51	186.22	174.29
Macy (Josiah, Jr.) Foundation Gift for the Signal Corps.....	602.71	.....	602.71	.....	602.71
Macy (Josiah, Jr.) Foundation Gift for Study of Changes in Blood Plasma in Various Forms of Shock.....	2,042.50	.....	2,042.50	.....	2,042.50
Macy (Josiah, Jr.) Foundation Gift for Study of the Mechanism of the Transmission of Nerve Impulse.....	42.57	7,042.57	7,000.00	7,042.57

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Macy (Josiah, Jr.) Foundation Gift for Study of Obesity in Childhood.....		\$117.33		\$117.33			\$117.33
Macy (Josiah, Jr.) Foundation Gift for Support and Development of Work in Graduate Medicine.....		44,425.73	\$1,518.88	45,944.61	\$2,812.50		43,132.11
Macy (Josiah, Jr.) Foundation Gift for Study of Traumatic Shock—Dept. of Physiology.....		4,818.90		4,818.90	2,818.31		2,000.59
Macy (Josiah, Jr.) Foundation Gift for Adrenal Function Studies.....		74.94		74.94	74.94		
Macy (Josiah, Jr.) Foundation Gift for Adrenal Cortex Studies.....		463.11	2,500.00	2,963.11	2,297.52		665.59
Macy (Josiah, Jr.) Foundation Gift for a Study of Aldehydes in Relation to the Intermediary Metabolism—Dept. of Psychiatry.....		635.65	2,800.00	3,435.65	2,640.00		795.65
Macy (Josiah, Jr.) Foundation Gift for Industrial Ophthalmology.....		5,000.00		5,000.00	5,000.00 (20)		
Macy (Josiah, Jr.) Foundation Gift for Investigations on the Role of Lyozyme and Related Enzymes in Bacterial Infection.....		1,190.52	5,000.00	6,190.52	5,964.16		226.36
Macy (Josiah, Jr.) Foundation Gift for Investigation of Therapeutic Procedure for the Relief of Psychosomatic Disorders—Dept. of Neurology.....		2,279.03		2,279.03	87.80		2,191.23
Macy (Josiah, Jr.) Foundation Gift for Program of Tropical Medicine.....		35,227.23	30,000.00	65,227.23	18,987.08		46,240.15
Macy (Josiah, Jr.) Foundation Gift for Emergency Consultation Service—Army Air Force—Dept. of Medicine.....		2,975.60	3,000.00	5,975.60	4,401.58		1,574.02
Macy (Josiah, Jr.) Foundation Gift for Research on Aging.....		7,978.01	17,500.00	25,478.01	25,275.22		202.79
Markham Research Gift.....		2,813.33		2,813.33	2,104.80		708.53

Markle (John and Mary R.) Foundation Gift for the Study of Lipoproteins—Dept. of Biochemistry.	2,282.74	1,700.00	3,962.74	3,594.12	368.62
Markle (John and Mary R.) Foundation Gift for the Study of Blood Coagulation.	407.48	3,920.46	4,327.94 (21)	2,116.67	2,211.27
Markle (John and Mary R.) Foundation Gift for Research in Dept. of Dermatology.	1,863.58	2,500.00	4,363.58	2,868.90	1,494.68
Markle (John and Mary R.) Foundation Gift for Study of Nutritional Life History as Influenced by Dietary Enrichments.		1,500.00	1,500.00	1,196.45	303.55
Markle (John and Mary R.) Foundation Gift in Support of a Study of the Effect of Vitamin E Deficiency on Muscle Metabolism.		2,500.00	2,500.00	2,443.35	56.65
Markle (John and Mary R.) Foundation Gift for Study of Antibiotic Derived from the plant A. pulsatilla—Dept. of Bacteriology.	1,888.72	2,625.00	4,513.72	4,175.96	337.76
Markle (John and Mary R.) Foundation Gift for the Study in Enzyme Chemistry—Dept. of Medicine		5,500.00	5,500.00	2,792.45	2,707.55
Markle (John and Mary R.) Foundation Gift for the Study of Chemotherapy of Filariasis in Dept. of Public Health.	7,007.29		7,007.29	6,262.65	744.64
Markle (John and Mary R.) Foundation Gift for Study of the Physiology of Premature and New-born Infants—Dept. of Pediatrics.		3,068.00	3,068.00	1,618.38	1,449.62
Markle (John and Mary R.) Foundation Gift for Investigation concerning Disintegration of Bacteria.	828.75		828.75 (22)	828.75	
Matheson (William J.) Commission Gift—Dept. of Neurology.	8,789.60	10,120.00	18,909.60	13,511.55	5,398.05
Medical School Memorial Gift.	323.50		323.50		323.50
Merck Gift for Special Studies in Otolaryngology.		2,500.00	2,500.00	240.00	2,260.00
Multiple Sclerosis Gift.	5,000.00		5,000.00		5,000.00
Munger Gift for Hospital Administration—Dept. of Public Health.		250.00	250.00		250.00
Mycology Gift—Dept. of Dermatology.		1,025.00	1,025.00	600.00	425.00

	Debit Balances June 30, 1945	Credit Balances June 30, 1945	Received 1945-1946	Total Credits	Expended 1945-1946	Debit Balances June 30, 1946	Credit Balances June 30, 1946
National Board of Fire Underwriters Gift for a Study of Pathological Fire-Setting.....	\$70.71			Dr. \$70.71		\$70.71	
National Research Council Gift for Research on Nucleic Acid of Normal and Cancer Tissue—Dept. of Surgery.....		\$4,245.48	\$1,000.00	1,000.00	\$871.04		\$128.96
National Foundation for Infantile Paralysis Gift.....			6,100.00	10,345.48	5,290.90		5,054.58
National Tuberculosis Association Gift—Dept. of Medicine.....	140.00		950.00	810.00	810.00		
Nutrition Foundation Inc. Gift for a Study of the Role of Acetic Acid in Intermediary Metabolism (Floyd B.) Gift for Study of Myasthenia Gravis Dept. of Medicine.....	18.31		2,500.00	2,481.69	2,494.23	12.54	
Obstetrics and Gynecology—Chemical Foundation Gift.....		7,513.35		7,513.35	3,226.34		4,287.01
Otology Research Gift.....		228.70		228.70			228.70
Parke, Davis and Company Gift (Epilepsy).....			1,300.00	1,300.00	1,200.00		100.00
Parke, Davis and Company Gift on Chemistry of Glutamic Acid—Dept. of Neurology.....			2,500.00	2,500.00	500.00		2,000.00
Parke, Davis and Company Gift for Research on Dilantin—Dept. of Neurology.....			4,500.00	4,500.00	400.17		4,099.83
Parke, Davis and Company Gift for Research on Glutamic Acid—Dept. of Neurology.....		300.00		300.00	37.95		262.05
Periodontia Research Gift—Dept. of Dental and Oral Surgery.....		1,042.18	9,000.00	10,042.18	10,433.79	391.61	
Personal Products Corporation Gift in Dept. of Obstetrics and Gynecology.....			100.00	100.00			100.00
Pfeiffer (Gustavus and Louise) Research Foundation Gift—Dept. of Bacteriology.....		413.50		413.50			413.50
		333.59		333.59	330.64		2.95

Phi Delta Epsilon Fraternity Gift for the Purchase of Books for the Library of the College of Physicians and Surgeons	173.92	50.00	223.92	.....	223.92
Philip Morris and Company Gift in Pharmacology	1,366.49	.....	1,366.49	521.57	844.92
Presbyterian Hospital Gift for Bacteriology Departmental Appropriation	.....	800.00	800.00	800.00	.....
Presbyterian Hospital Scientific Research Fund Gift—Dept. of Neurology	68.98	.....	.....	.....	.....
Presbyterian Hospital Gift for Surgery, Chest Division Supplies Account	.....	400.00	400.00	400.00	.....
Proctor and Gamble Company Gift for Research in School of Dental and Oral Surgery	3,906.20	.....	3,906.20	865.35	3,040.85
Proctor (Francis L.) Trust Gift for Salaries in Dept. of Ophthalmology	5,130.21	1,500.00	6,630.21	.....	6,630.21
Pfeiffer (Gustavus and Louise) Research Foundation Gift for Research on Tooth Decay	1,486.61	.....	1,486.61	765.31	721.30
Proctor (Francis L.) Trust Gift in Ophthalmology No. 4	1,618.26	.....	1,618.26	.....	1,618.26
Psychiatry Gift for the Study of Behavior in Conflict Situations	59.51	.....	59.51	.....	59.51
Psychiatry—Social Service Gift	291.66	.....	291.66	.....	291.66
Psychosomatic Training Gift	602.04	.....	.....	.....	.....
Putnam Salzer Gift—Dept. of Neurology	3,550.00	.....	2,947.96	8,013.86	5,065.90
Putnam (Tracy) Special Gift—Dept. of Neurology	17,626.78	5,525.00	23,151.78	14,600.12	8,551.66
Psychoanalytic Clinic for Training and Research	17.17	.....	17.17	17.17	.....
Research Council on Problems of Alcohol Gift Dept. of Psychiatry	.....	7,765.00	7,765.00	.....	7,765.00
Reynolds Gift—Dept. of Cancer Research	142.88	112.26	255.14	255.14	.....
Robbins Gift—Dept. of Surgery	1,131.60	1,500.00	2,631.60	1,677.02	954.58
Rocketteller Foundation Gift for Research in Dept. of Anatomy	31.35	.....	31.35	.....	31.35
Rocketteller Foundation Gift for Research in Dept. of Anatomy	1,749.44	6,835.62	8,585.06	7,618.29	966.77
Rocketteller Foundation Gift for Research—Dept. of Biochemistry (Isotopes)	.....	14,500.00	14,500.00	14,389.62	110.38
Rocketteller Foundation Gift for Research in Immunology	4,500.00	4,500.00	4,191.08	308.92

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Rockefeller Foundation Gift for Medical Fellowship in Medicine, Ophthalmology, Oorthopedic Surgery.....			\$4,000.00	\$4,000.00 (23)	\$2,999.96		\$1,000.04
Rockefeller Foundation Gift for Research on Con- stitutional Aspects of Disease.....		\$7,487.13	8,100.00	15,587.13 (24)	15,587.13		
Rockefeller Foundation Gift for Research in Neuro- pathology.....		497.65	2,500.00	2,997.65	1,724.16		1,273.49
Rockefeller Foundation Gift for Research in the Enzyme Chemistry.....		192.62	7,307.26	7,499.88	5,999.16		1,500.72
Rockland Farms Gift for the Study of Animal Diets Rosett (Joshua) Research Gift.....		247.17	247.17	247.17	2,264.94		\$2,017.77
Rubin (Dr. I. C.) Gift—Dept. of Obstetrics and Gynecology.....		3,306.86		3,306.86	2,132.60		1,174.26
Rockefeller Foundation Gift for the Investigation of Genetic Factors in the Incidence of Nervous and Mental Diseases Peculiar to Old Age.....		1,000.00		1,000.00			1,000.00
Salzer (Benjamin) Gift for Study of History of Medi- cine.....		2,149.20	8,000.00	10,149.20	7,766.40		2,382.80
Salzer (Myra G.) Gift.....		1,365.64	2,812.00	4,177.64	2,384.65		1,792.99
Sandoz Chemical Works, Inc., Gift for Research in Dept. of Neurology.....		7,600.00		7,600.00			7,600.00
Schenley Research Institute Gift for Study of Penicillin—Dept. of Medicine.....		1,250.00	250.00	1,500.00			1,500.00
School of Nursing Special Account.....		1,000.00		1,000.00			1,000.00
Schroeder Scholarship Gift.....		10,863.76		10,863.76	400.00		10,463.76
Schweekendieck (Edith M.) Trust Gift for the Pre- vention and Relief of Cancer—Dept. of Surgery Seaman (Louis Livingston) Fund—Dept. of Bacteri- ology.....		50.00		50.00			50.00
		1,697.44		1,697.44	1,550.00		147.44
		.96		.96			.96

Sharp and Dohme, Inc. Gift in Support of the Work on the Amino Acid Analysis of Proteins—Dept. of Biochemistry.....	2,062.50	2,200.00	4,262.50	741.89	3,520.61
Sharp and Dohme Gift for the Treatment of Endomolba Histolytica Infections in the Dept. of Public Health.....	1,575.12	2,000.00	3,575.12	2,282.71	1,292.41
Special Cancer Research Gift.....	1,550.00	.....	1,550.00	.....	1,550.00
Special Dean's Gift No. 1 Medical School Administration.....	3,495.95	.....	3,495.95	.....	3,495.95
Special Dean's Gift No. 2 Medical School Administration.....	1,000.00	1,000.00	2,000.00	443.83	1,556.17
Special Infantile Paralysis Gift—Dept. of Bacteriology.....	2,682.34	300.00	2,982.34	1,704.96	1,277.38
Special Research Gift—Pathology.....	3,788.69	1,200.00	4,988.69	1,631.08	3,357.61
Special Scholarship—Medical School.....	5,195.08	25.00	5,220.08	.....	5,220.08
Squibb (E. R.) and Sons Gift for Research in Endocrinology—Dept. of Pharmacology.....	.....	15,000.00	15,000.00	113.30	14,886.70
Squibb (E. R.) and Sons Gift for Study of Ambiotic derived from plant A pulsatilla.....	.....	600.00	600.00	.....	600.00
Surgical Bacteriological Research Fund in the Dept. of Surgery No. 1.....	3,888.96	3,482.26	7,371.22	1,313.74	6,057.48
Surgical Bacteriology Research Gift No. 2.....	7,078.55	2,760.00	9,838.55	1,312.81	8,525.74
Surgical Pathology Laboratory—Special Assistance Gift.....	1,672.67	595.89	2,268.56	855.55	1,413.01
Teagle Foundation Gift for Study of Diseases of the Nervous System—Dept. of Neurology.....	.....	3,000.00	3,000.00	1,750.00	1,250.00
Tuberculosis Gift.....	2,299.97	335.64	2,635.61	.....	2,635.61
U. S. Public Health Service Gift for Blood Group Studies—Dept. of Neurology.....	.....	6,475.00	6,475.00	5,119.42	1,355.58
U. S. Public Health Service Grant for Investigation on Preparation and Immunizing Properties of Protamine Precipitated Bacterial Toxoids—Dept. of Biochemistry.....	.....	3,100.00	3,100.00	600.00	2,500.00
University Patents, Inc. Gift.....	.....	6,000.00	6,000.00	.....	6,000.00

	Debit Balances June 30, 1945	Credit Balances June 30, 1945	Received 1945-1946	Total Credits	Expended 1945-1946	Debit Balances June 30, 1946	Credit Balances June 30, 1946
Upjohn Company Gift for Research in the School of Dental and Oral Surgery in Biochemistry and Periodontology.....		\$436.16		\$436.16			
Viking Fund Gift for Summer Session in Physical Anthropology—Dept. of Anatomy.....		1,265.05	\$4,000.00	4,000.00	616.59		\$4,000.00
Viking Gift—Dept. of Anatomy.....			2,000.00	3,265.05			2,648.46
Vedder (Harran A.) Gift for Research Work in Medicine.....		580.00		580.00	81.70		498.30
Wallace and Tiernan Products, Inc. Gift for a Study of Globin.....		1,500.00		1,500.00			1,500.00
Warburg Gift for Research on Constitutional Aspects of Disease.....		81.70		81.70			81.70
Warner Institute Gift for Research on Neurotropic Viruses.....		21.61		21.61	21.61		
Warner Gift for Research on Encephalomyelitis and other Virus Diseases.....		1,965.26		1,965.26			1,965.26
Westbury Chemical Company Gift for Study of Acid-ester Preparations in Laboratory Animals —Dept. of Surgery.....			2,985.00	2,985.00	1,232.71		1,752.29
Willkie (Wendel) Memorial Gift of the Lasker Foundation.....		3,000.00	6,000.00	9,000.00	6,000.00		3,000.00
Warner (William R.) and Company, Inc. Gift for Poliomyelitis Research in the Dept. of Bacteri- ology.....		83.41		83.41	83.41		
Warner (William R.) and Company, Inc. Gift for Study of Burn Treatments.....		5,449.17		5,449.17	2,584.51		2,864.66
Webster Gift for Purchase of the Jerome P. Webster Library of Plastic Surgery.....		529.32		529.32	189.84		339.48

Williams-Waterman Fund of Research Corporation	5,006.80	5,006.80	6,186.25	1,179.45	
Gift for an Enzyme Study—Dept. of Medicine					
Williams-Waterman Fund of Research Corporation	5,935.17	5,000.00	4,585.36		6,349.81
Gift for Research in Use of Glutamic Acid in Disease of the Nervous System					
Winthrop Chemical Company, Inc. Gift for Investigation of the Chemotherapy of Filariasis	634.03	4,500.00	1,921.55		3,212.48
Winthrop Chemical Company, Inc. Gift for Studies in Enzyme Chemistry—Dept. of Medicine		3,000.00	1,620.81		1,379.19
Winthrop Gift—Dept. of Pharmacology		600.00	571.40		28.60
	\$4,683.10	\$1,230,789.17	\$1,074,622.19	\$19,154.56	\$1,752,287.73
		Less			
		Transfers	224,647.41		
			\$849,974.78		

GIFTS AND RECEIPTS—NOTES

TRANSFERS

(1) Refund to Donor.....	\$50,000.00
(2) Refund to Donor.....	196.21
(3) To Principal Class of 1917 Dormitory Room Endowment Fund.....	20.00
(4) To Class of 1925 Scholarship Gift.....	275.00
(5) To President's Gift Account.....	456.50
(6) To Principal Hayden Memorial Scholarship Fund.....	36,052.24
(7) To University Land, Buildings and Equipment.....	25,000.00
(8) To Principal Parker Fund for Institute of International Affairs.....	40,000.00
(9) To University Land, Buildings and Equipment.....	1,000.00
(10) To University Land, Buildings and Equipment.....	1,192.40
(11) To University Land, Buildings and Equipment.....	1,000.00
(12) Refund to Donor.....	175.40
(13) Refund to Donor.....	784.90
(14) Refund to Donor.....	262.50
(15) To Principal Miriam Gilman Todd Fund.....	2,000.00
(16) To University Extension Scholarship Gift.....	25.00
(17) Refund to Donor.....	112.86
(18) Refund to Donor.....	851.12
(19) Refund to Donor.....	631.50
(20) Refund to Donor.....	5,000.00
(21) Refund to Donor.....	549.79
(22) Refund to Donor.....	39.46
(23) Refund to Donor.....	1,666.68
(24) Refund to Donor.....	4,829.19
(25) Refund to Donor.....	225.00
(26) To Income and Expense Account.....	52,301.66
	<hr/>
	\$224,647.41
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**SECURITIES OWNED FOR ACCOUNT OF SPECIAL
ENDOWMENTS, GENERAL ENDOWMENTS AND
DESIGNATED FUNDS**

AT JUNE 30, 1946

Bonds

SCHEDULE I—U. S. GOVERNMENT

	<i>Book Value</i>
\$2,125,000 Treasury 1½% Bonds, due 1950	\$2,155,399.30
1,878,000 Treasury 2¼% Bonds, due June 15, 1962	1,878,185.58
2,716,000 Treasury 2¼% Bonds, due Dec. 15, 1962	2,728,269.92
400,500 Treasury 2¼% Bonds, due June 15, 1969	400,500.00
39,000 Treasury 2½% Bonds, due Dec. 15, 1969	39,000.00
3,627,000 Treasury 2½% Bonds, due Dec. 15, 1972	3,633,727.03
1,375 War Savings Bonds, Series F, due 1954 and 1957	1,017.50
97,700 War Savings Bonds, Series G, due 1954, 1955, 1956	97,700.00
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	\$10,938,799.33
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Bonds

SCHEDULE II—RAILROAD

\$50,000 Ann Arbor R. R. Co. 4% First Mortgage Bonds, due 1995 . . .	\$32,227.50
50,000 Central New England Ry. Co. 4% First Mortgage Bonds, due 1961	35,970.00
1,000 Central R. R. Co. of New Jersey 5% General Mortgage Bonds, due 1987	1,000.00
4,000 Illinois Central R. R. Co. 4% Refunding Mortgage Bonds, due 1955	4,187.08
20,000 Missouri, Pacific R.R. Co. 4% General Mortgage Bonds, due 1975	11,700.00
10,000 New York, New Haven and Hartford R. R. Co. 3½% Con- vertible Debentures, due 1956	4,850.00
24,000 Texas and Pacific Ry. Co. 3⅞% General and Refunding Mort- gage Bonds, due 1985	24,399.75
70,000 Wisconsin Central Ry. Co. 4% Firt Mortgage Bonds, due 1949	57,298.05
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	\$171,632.38
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Bonds

SCHEDULE III—PUBLIC UTILITY

100,000 West Penn Electric Co. 5% Debentures, due 2030	\$99,460.00
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	\$99,460.00
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Bonds

SCHEDULE IV—MUNICIPAL

	<i>Book Value</i>
\$100 City of New York 4% Corporate Stock, due 1957	\$102.02
3,000 City of New York 4½% Corporate Stock, due 1957	3,014.74
550 City of New York 4% Corporate Stock, due 1958	453.13
500 City of New York 4% Corporate Stock, due 1959	510.57
5,000 City of New York 4¼% Corporate Stock, due 1960	5,608.35
500 City of New York 4¼% Corporate Stock, due 1962	500.00
100 City of New York 4¼% Corporate Stock, due 1966	103.67
500 City of New York 4¼% Corporate Stock, due 1974	518.20
2,000 City of New York 4% Corporate Stock, due 1980	2,015.16
600 City of New York 3% Corporate Stock, due 1980	615.37
	<hr/>
	\$13,441.21
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Bonds

SCHEDULE V—REAL ESTATE

\$9,161.46 Fifth Twenty-Second St. Corp. 5½% Income Debentures, due 1953	\$1.00
5,580.00 657 Lexington Ave. Corp. 4% Debentures, due 1956	2.00
250.00 95 Lorimer St. Realty Corp. 5% Income Debentures, due 1945	1.00
1,500.00 Savoy-Plaza Inc. 3% Second Mortgage Income Bonds, due 1956	427.50
8,263.67 580 West End Ave. Corp. 5½% Income Debentures, due 1955	1.00
3,497.83 29-35 West 32nd St. Corp. 5% Income Debentures, due 1955	1.00
11,107.50 315 St. Marks Ave. Corp. 4% Income Debentures, due 1946	1.00
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	\$434.50
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Bonds

SCHEDULE VI—MISCELLANEOUS

\$45,100.00 Columbia University Club 3% Income Debentures, due 1952	\$43,925.00
150.00 Town Hall Club Inc. 4% Debentures, due 1955	1.00
	<hr/>
	\$43,926 00
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Preferred Stocks

SCHEDULE I—RAILROAD

<i>Shares</i>	<i>Book Value</i>
1,300 Atchison, Topeka and Santa Fe R. R. Co. 5% Non-Cum.	\$112,852.53
	<hr/>
	\$112,852.53
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Preferred Stocks

SCHEDULE II—PUBLIC UTILITY

<i>Shares</i>		<i>Book Value</i>
500	American District Telegraph Co. 5%	\$52,500.00
600	Jersey Central Power and Light Co. 5½%	62,872.50
1,000	New Orleans Public Service Inc. 4¾%	110,825.00
500	Northern Indiana Public Service Co. 5%	52,375.00
500	Northern States Power Co. \$5	49,187.50
1,000	Ohio Cities Water Co. 6%	101,000.00
1,000	Pacific Lighting Corp. \$5	103,000.00
1,100	Philadelphia Co. 6% (Par \$50)	38,548.45
1,000	South Carolina Electric and Gas Co. 5% (Par \$50.)	52,875.00
2,200	Southern California Edison Co. 6%, Series B, (Par \$25)	63,250.00
1,000	Southwestern Gas and Electric Co. 5%	105,576.75
300	West Penn Electric Co. 6%	27,421.20
1,700	West Penn Electric Co. 7%	165,325.60
		<hr/>
		\$984,757.00

Preferred Stocks

SCHEDULE III—INDUSTRIAL

100	American Smelting and Refining Co. 7%	\$11,825.00
100	American Woolen Co. 7%	7,550.00
926	Crown Zellerbach Corp. \$4 Convertible	98,234.05
20	E. I. Du Pont de Nemours and Co. \$4.50	2,000.00
200	Hooker Electrochemical Co. \$4.25	19,800.00
1,000	International Nickel Co. of Canada Ltd. 7%	120,000.00
100	Melville Shoe Corp. 4% Convertible	10,500.00
250	New York Times Co. 8% Third Non-Cum	25,000.00
100	United States Rubber Co. 8% Non-Cum	4,562.50
		<hr/>
		\$299,471.55

Preferred Stocks

SCHEDULE IV—MISCELLANEOUS

75	Huron Mineral Land Co.	\$1.00
5	New York Realty and Improvement Co. 6%	1.00
106	Rolfe Coal Mining Co.	1.00
2	Samarkand, Inc. 8%	1.00
		<hr/>
		\$4.00

Common Stocks

SCHEDULE I—RAILROAD

2,000	Atchison, Topeka and Santa Fe R. R. Co.	\$263,546.87
5,000	Chesapeake and Ohio Ry. Co.	185,653.10
4,100	Great Northern Ry. Co. (Pfd.)	285,325.90
100	Illinois Central R. R. Co.	3,250.00
2,000	Louisville and Nashville R. R. Co.	129,628.25

<i>Shares</i>		<i>Book Value</i>
100	New York Central R. R. Co.....	\$3,575.00
1,342	Norfolk and Western Ry. Co.....	278,915.90
100	Pennsylvania R. R. Co.....	3,512.50
800	Southern Pacific Co.....	71,010.99
100	Southern Ry. Co.....	3,275.00
2,174	Union Pacific R. R. Co.....	323,022.97
		<hr/> <hr/> \$1,550,716.48

Common Stocks

SCHEDULE II—PUBLIC UTILITY

3,800	American Gas and Electric Co.....	\$157,390.40
2,350	American Telephone and Telegraph Co.....	365,791.00
7,200	Commonwealth Edison Co.....	201,612.54
1,000	Consolidated Gas, Electric Light and Power Co. of Baltimore.	90,107.50
2,010	Consolidated Natural Gas Co.....	80,516.13
4,000	Delaware Power and Light Co.....	82,762.50
4,000	Florida Power Corp.....	73,358.65
4,000	General Telephone Corp.	140,655.79
100	Missouri-Kansas Pipe Line Co.....	2,452.50
4,000	North American Co.....	138,118.16
7,500	Pacific Gas and Electric Co.....	323,263.99
2,000	Pacific Lighting Corp.....	126,389.56
2,000	Panhandle Eastern Pipe Line Co.....	94,434.90
2,000	Pennsylvania Power and Light Co.....	54,610.54
3,000	Philadelphia Electric Co.....	90,940.79
4,000	Southern California Edison Co.....	155,812.33
3,742	Southwest Natural Gas Co.....	18,710.00
		<hr/> <hr/> \$2,197,127.28

Common Stocks

SCHEDULE III—INDUSTRIAL

1,200	Abbott Laboratories, Inc.....	\$35,789.64
2,000	Addressograph-Multigraph Corp.....	53,995.94
1,500	Air Reduction Co.....	71,445.50
500	Allied Chemical and Dye Corp.....	74,233.00
2,500	Allis-Chalmers Manufacturing Co.....	104,000.00
5,700	Amerada Petroleum Corp.....	277,503.37
20	Amerex Holding Corp.....	138.50
525	American Can Co.....	59,170.75
100	American Car and Foundry Co.....	2,750.00
500	American Chicle Co.....	50,712.50
3,500	American Cyanamid Co.....	121,630.00
2,000	American Home Products Corp.....	141,076.18
100	American Locomotive Co.....	3,450.00
1,000	American Tobacco Co., "B".....	74,345.92
4,000	Atlantic Refining Co.....	134,364.08
500	Bethlehem Steel Corp.....	43,942.50
500	Borg-Warner Corp.....	12,769.69
100	California Packing Corp.....	2,687.50

<i>Shares</i>	<i>Book Value</i>
100 Christiana Securities Co.....	\$287,094.50
1,500 Columbian Carbon Co.....	42,956.00
4,000 Continental Oil Co.....	169,015.63
3,000 Creole Petroleum Corp.....	102,246.05
1,000 Crown Zellerbach Corp.....	16,140.00
10,000 General Electric Co.....	589,745.01
3,500 General Motors Corp.....	211,651.50
2,000 General Precision Equipment Corp.....	57,768.46
100 Great Western Sugar Co.....	2,900.00
3,000 Gulf Oil Corp.....	167,539.42
500 Homestake Mining Co.....	19,541.52
7,510 Hudson Bay Mining and Smelting Co., Ltd.....	199,586.80
4,000 Humble Oil and Refining Co.....	143,375.00
503 International Business Machines Corp.....	44,200.41
500 International Harvester Co.....	36,027.20
6,000 International Nickel Co. of Canada, Ltd.....	263,010.70
1,500 Johnson and Johnson.....	85,299.75
100 Kennecott Copper Corp.....	2,150.00
200 Life Savers Corp.....	2,969.88
500 Liggett and Myers Tobacco Co., "B".....	55,627.00
2,000 May Department Stores Co.....	47,553.50
500 McIntyre Porcupine Mines Ltd.....	32,443.25
2,050 Melville Shoe Corp.....	78,668.50
1,916 Metal and Thermit Corp.....	45,515.00
2,500 Montgomery Ward and Co.....	120,786.07
800 National Lead Co.....	12,098.00
2,000 Newmont Mining Corp.....	107,354.38
4,000 Ohio Oil Co.....	76,717.58
3,300 J. C. Penney Co.....	101,025.00
4,000 Phillips Petroleum Co.....	214,648.06
2,000 Pittsburgh Plate Glass Co.....	63,012.50
1,000 Pullman Inc.....	52,429.50
2,000 Remington Rand Inc.....	58,683.74
2,100 R. J. Reynolds Tobacco Co., "B".....	113,837.50
400 St. Joseph Lead Co.....	11,924.00
1,000 Sears Roebuck and Co.....	18,741.64
1,000 Sherwin-Williams Co.....	112,147.50
5,000 Socony-Vacuum Oil Co.....	79,451.54
600 Sperry Corp.....	24,595.65
3,500 Standard Oil Co. of California.....	164,681.85
4,000 Standard Oil Co. of Indiana.....	160,794.01
4,100 Standard Oil Co. of New Jersey.....	231,199.84
4,000 Sterling Drug Inc.....	122,518.59
4,000 Texas Co.....	217,404.01
100 Texas Gulf Sulphur Co.....	3,586.91
800 Timken Roller Bearing Co.....	51,420.00
1,376 10/100 Twentieth Century-Fox Film Corp.....	38,500.00
1,000 Union Carbide and Carbon Corp.....	79,597.50
6,000 United Fruit Co.....	216,692.65
	<hr/>
	\$6,420,878.17
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Common Stocks

SCHEDULE IV—INSURANCE

<i>Shares</i>		<i>Book Value</i>
6,000	American Re-Insurance Co.....	\$110,815.52
2,000	Merchants Fire Assurance Co.....	58,025.00
		<hr/>
		\$168,840.52
		<hr/> <hr/>

Common Stocks

SCHEDULE V—BANK

1,000	Bankers Trust Co.....	\$47,300.00
250	Bank of New York.....	126,374.11
500	Central Hanover Bank & Trust Co.....	52,750.00
6,700	Chase National Bank.....	262,658.76
7,500	Chemical Bank and Trust Co.....	325,291.65
2	First Boston Corp.....	36.00
2,200	Guaranty Trust Co.....	768,438.75
2,500	Manufacturers Trust Co.....	145,387.50
200	Marine Bancorporation.....	4,800.00
6,700	National City Bank of New York.....	278,312.50
273	Seattle First National Bank.....	6,393.59
		<hr/>
		\$2,017,742.86
		<hr/> <hr/>

Common Stocks

SCHEDULE VI—MISCELLANEOUS

2	American Womans Realty Co. Inc.....	\$1.00
10	Burlington Gas Light Co.....	1.00
2,000	Godfrey L. Cabot Inc.....	1.00
40	Capitol Building Co.....	3,900.00
10	City Housing Corp.....	1.00
4	Clinton Hall Association and Mercantile Library.....	4.00
200	Ferro-Nil Corp.....	1.00
225	Huron Mineral Land Co.....	1.00
110	Lawyers Mortgage Co. (Old).....	3,570.00
200	Maple Leaf Mining and Development Co.....	1.00
125	New Brunswick Ry. Co.....	1.00
1	New York Historical Society.....	1.00
10	New York Realty and Improvement Co.....	1.00
1	New York Society Library.....	1.00
450	Phillips (Thomas) Co.....	45,000.00
135	Rolfe Coal Mining Co.....	1.00
400	Tropical Fruit Growers Association.....	1.00
18	Yuruari Development and Gold Dredging Co.....	1.00
		<hr/>
		\$52,488.00
		<hr/> <hr/>

Miscellaneous

<i>Shares</i>	<i>Book Value</i>
Agreement with Greenberg, Publisher, Inc.....	\$1.00
Agreement with Harcourt, Brace and Co.....	1.00
Agreements with Macmillan Co.....	3.00
Agreement with Charles Scribner's Sons	1.00
Agreement with D. Van Nostrand Co.....	1.00
Agreements with Yale University Press.....	2.00
Contract with Westinghouse Electric and Manufacturing Co.....	1.00
Interest in Geneva County, Alabama, Oil Syndicate.....	2.00
Interest in Los Pozos Gold Mining Co. of Mexico City.....	2.00
Stock in Affiliated Corporations.....	500.00
	<hr/>
	\$514.00

Bonds and Mortgages

<i>Face Amount</i>	<i>Book Value</i>
\$55,160.00 Amsterdam Avenue and 167th Street, New York, at 4½%, Open Mortgage.....	\$55,160.00
57,024.00 2479-2491 Amsterdam Avenue, New York, at 4% Due 1951.....	57,024.00
107,812.50 Southwest Corner Bailey Avenue and 230th Street, Bronx, at 6%, Open Mortgage.....	107,812.50
3,097.50 530 Beach Avenue, Bronx, at 4%, due 1950.....	3,097.50
2,812.50 172 Beaumont Street, Manhattan Beach, Brooklyn, at 6%, Open Mortgage.....	2,812.50
277,000.00 26-28 Beaver Street, New York, at 4%, due 1948.....	277,000.00
3,529.17 676 Bedford Avenue, Brooklyn, at 5%, Open Mortgage (¾ interest in \$5,293.75 Mortgage).....	3,495.84
59,000.00 188 Bowery, New York, at 4%, Open Mortgage.....	59,000.00
2,976.55 102 Brighton 11th Street, Brooklyn, at 5%, Open Mortgage (¾ interest in \$4,464.82 Mortgage).....	2,501.16
537,625.00 1218-1228 Broadway, New York, at 4%, Open Mortgage....	537,625.00
546,927.50 1241-1251 Broadway, New York, at 4%, due 1955.....	546,927.50
2,000.00 Camp Columbia, Morris, Conn. (Portion of) due 1948.....	2,000.00
3,066.67 2762 Clafin Avenue, Bronx, at 5%, Open Mortgage (¼ interest in \$9,200 Mortgage).....	3,040.11
3,720.00 2819 Clarendon Road, Brooklyn, at 6%, Open Mortgage....	3,720.00
5,750.00 60 Coleridge Street, Brooklyn, at 5%, Open Mortgage.....	5,750.00
223,589.37 Southwest Corner College Avenue and East 170th Street, Bronx, at 6%, Open Mortgage.....	223,589.37
17,368.75 203-5 Crescent Street, Long Island City, at 5½%, Open Mortgage.....	17,368.75
5,500.00 2080 Dean Street, Brooklyn, at 5%, Open Mortgage.....	5,500.00
11,840.00 4667 Delafield Avenue, Riverdale, New York, at 5%, Open Mortgage.....	11,840.00
7,375.00 31 Diamond Street, Brooklyn, at 5%, Open Mortgage.....	6,399.57
125,000.00 49-51 Duane Street, New York, at 4½%, due 1947.....	125,000.00
116,985.41 812 Eighth Avenue, New York, at 4%, due 1955.....	116,985.41
318,400.00 Eleventh Avenue-18th to 19th Street, New York, at 4%, due 1956.....	318,400.00
4,600.00 5021 Eleventh Avenue, Brooklyn, at 5%, Open Mortgage....	4,600.00
6,000.00 890 Faile Street, Bronx, at 4%, Open Mortgage.....	5,876.59
70,687.50 168 Fifth Avenue, New York, at 4½%, due 1950.....	58,323.38
3,720.00 6016 Fifteenth Avenue, Brooklyn, at 5%, Open Mortgage....	3,645.60
26,400.50 92-4 First Avenue, New York, at 5%, due 1956.....	26,400.50

<i>Face Amount</i>		<i>Book Value</i>
332,160.82	Northeast Corner First Avenue and 89th Street, New York, at $\frac{3}{4}\%$, Open Mortgage.....	\$332,160.82
178,125.00	131-145 Flatbush Avenue, Brooklyn, at $5\frac{1}{2}\%$, Open Mortgage	178,125.00
6,093.75	171-63 Forty-sixth Avenue, Flushing, New York, at 5%, Open Mortgage.....	6,093.75
6,093.75	171-67 Forty-sixth Avenue, Flushing, New York, at 5%, Open Mortgage.....	6,093.75
11,810.75	293 Front Street, New York, at 5%, due 1956.....	11,810.75
3,386.25	2440 Gilmore Street, Elmhurst, Long Island, at 5%, Open Mortgage.....	3,386.25
299,250.00	98-102 Gold Street, New York, at $3\frac{1}{2}\%$, due 1951.....	299,250.00
115,665.00	644-654 Greenwich Street and 111-115 Barrow Street, New York, at $4\frac{1}{2}\%$, due 1948.....	115,665.00
40,000.00	Southwest Corner Greenwich and Hubert Street, New York, at $4\frac{1}{4}\%$, due 1956.....	40,000.00
2,250.00	211-17 Hollis Avenue, Queens Village, Long Island, at 5%, Open Mortgage ($\frac{3}{8}$ interest in \$3,375 Mortgage).....	2,250.00
3,906.00	1304 Intervale Avenue, New York, at $4\frac{1}{2}\%$, Open Mortgage ($\frac{1}{3}$ interest in \$11,718 Mortgage).....	3,906.00
8,600.00	66 Irving Place, New York, at 4%, due 1948 ($\frac{1}{8}$ interest in \$51,600 Mortgage).....	8,600.00
13,725.00	Property in Village of Irvington, Town of Greenburgh, Westchester County, N. Y. at 5%, due 1947.....	13,725.00
300.00	Property in Jackson County, Kansas, at $4\frac{1}{2}\%$, due 1949....	300.00
15,199.99	Jericho Turnpike and Park Place, Floral Park, Long Island, at 6%, Open Mortgage ($\frac{1}{7}$ interest in \$106,400 Mortgage)...	15,199.99
5,500.00	110-11 Jerome Avenue, Richmond Hill, Long Island, at $4\frac{1}{2}\%$, Open Mortgage.....	5,500.00
22,331.25	1214 Avenue K, Brooklyn, at 5%, due 1951 ($\frac{1}{4}$ interest in \$89,325 Mortgage).....	22,331.25
10,000.00	394 Kingston Avenue, Brooklyn, at $4\frac{1}{2}\%$, Open Mortgage..	9,670.42
42,000.00	34 Laight Street and 13 Vestry Street, New York, at 4%, due 1951.....	42,000.00
1,635.00	1940 Lexington Avenue, New York, at 5%, Open Mortgage ($\frac{1}{5}$ interest in \$4,905 Mortgage).....	1,635.00
104,081.25	101 Macombs Place, New York, at $4\frac{1}{2}\%$, due 1956.....	104,081.25
333,000.00	800 Madison Avenue, New York, at 5%, Open Mortgage....	333,000.00
19,593.96	1136 Madison Avenue, New York, at 4%, due 1950.....	19,593.96
3,940.00	1473 Madison Avenue, New York, at 4%, Open Mortgage ($\frac{1}{5}$ interest in \$11,820 Mortgage).....	3,860.00
5,624.17	438 Manhattan Avenue, New York, at $3\frac{1}{2}\%$, Open Mortgage ($\frac{1}{5}$ interest in \$16,872.50 Mortgage).....	5,624.17
5,156.25	475 Manhattan Avenue, New York, at $5\frac{1}{2}\%$, Open Mortgage	5,156.25
7,815.94	51 Market Street, New York, at 5%, due 1956.....	7,815.94
3,543.23	1723 Matthews Avenue, Bronx, N. Y. at 5%, due 1956.....	3,543.23
39,700.00	5-7 Mercer Street, New York, at $4\frac{1}{2}\%$, due 1956.....	39,700.00
2,480.01	365 Milford Street, Brooklyn, at 5%, Open Mortgage ($\frac{1}{4}$ interest in \$7,440 Mortgage).....	2,480.01
3,500.00	170 Minna Street, Brooklyn, at 5%, Open Mortgage ($\frac{3}{8}$ interest in \$5,250 Mortgage).....	3,422.67
59,375.00	1732-1742 Morris Avenue, Bronx, at $4\frac{1}{2}\%$, due 1950.....	59,375.00
15,000.00	88-90 Murray Street, New York, at 5%, Open Mortgage....	15,000.00
250,000.00	126-136 Nassau Street, New York, at $4\frac{1}{2}\%$, due 1949.....	250,000.00
2,350.00	679 Nereid Avenue, Bronx, at 5%, due 1948.....	2,350.00
49,000.00	136 Newark Avenue, Jersey City, N. J., at 4%, Open Mortgage	49,000.00

<i>Face Amount</i>		<i>Book Value</i>
2,703.13	373 New Lots Avenue, Brooklyn, at 5%, due 1947 ($\frac{1}{4}$ interest in \$10,812.50 Mortgage).....	\$2,703.13
775.00	123-02 One Hundred Seventh Avenue, Richmond Hill, L. I., at 5%, Open Mortgage ($\frac{1}{4}$ interest in \$2,325 Mortgage)...	775.00
200,521.56	Southwest Corner Pinehurst Avenue and 176th Street, New York, at 4%, Open Mortgage.....	200,521.56
265,011.03	Northeast Corner Riverside Drive and Payson Avenue, New York, at 5 $\frac{1}{2}$ %, Open Mortgage.....	265,011.03
55,771.51	318 Rochester Avenue, Brooklyn, at 5 $\frac{1}{2}$ %, Open Mortgage ($\frac{2}{3}$ interest in \$83,657.25 Mortgage).....	55,504.85
85,000.00	25-31 Rose Street, New York, at 5 $\frac{1}{2}$ %, due 1956.....	85,000.00
3,984.34	439 Sackman Street, Brooklyn, at 5%, Open Mortgage.....	3,984.34
3,900.00	257 Seventh Avenue, New York, at 3 $\frac{1}{2}$ %, due 1952 ($\frac{1}{4}$ interest in \$11,700.00 Mortgage).....	3,900.00
5,227.17	7203 Sixteenth Avenue, Brooklyn, at 5%, Open Mortgage ($\frac{2}{3}$ interest in \$7,840.75 Mortgage).....	5,033.83
16,600.00	28 South Street, New York, at 4 $\frac{1}{2}$ %, due 1953.....	16,600.00
15,244.65	Northwest Corner Stagg Street and Morgan Avenue, Brooklyn, at 4 $\frac{1}{2}$ %, due 1948 ($\frac{18}{100}$ interest in \$84,692.50 Mortgage).....	15,213.14
5,783.59	376 Sterling Place, Brooklyn, at 4%, due 1949.....	5,783.59
217,454.77	289-91 Third Avenue and 205-15 East 22nd Street, New York, at 4%, due 1950.....	217,454.77
3,424.41	1884 Third Avenue, New York, at 5 $\frac{1}{2}$ %, Open Mortgage, ($\frac{2}{3}$ interest in \$10,273.25 Mortgage).....	3,424.41
8,075.00	3850 Third Avenue, Bronx, at 4 $\frac{1}{2}$ %, due 1946 ($\frac{1}{4}$ interest in \$24,225 Mortgage).....	8,075.00
1,487.49	55-19 Thirty Second Avenue, Woodside, L. I., at 4%, due 1947 ($\frac{1}{4}$ interest in \$5,950 Mortgage).....	1,487.49
16,749.00	981 Tiffany Street, Bronx, at 4%, Open Mortgage.....	10,817.21
198,090.00	780-6 Twelfth Avenue, New York, at 4 $\frac{1}{2}$ %, due 1947.....	198,090.00
1,600.00	4418 Twelfth Avenue, Brooklyn, at 4 $\frac{1}{2}$ %, due 1948 ($\frac{1}{4}$ interest in \$6,400 Mortgage).....	1,600.00
6,800.00	44-11 Twenty-eighth Avenue, Long Island City, at 4 $\frac{1}{2}$ %, Open Mortgage ($\frac{2}{3}$ interest in \$10,200 Mortgage).....	6,796.66
4,062.50	35-04 Twenty-first Avenue, Long Island City, at 6%, Open Mortgage ($\frac{2}{3}$ interest in \$6,093.75 Mortgage).....	4,062.50
12,707.50	859 Union Avenue, Bronx, at 5%, Open Mortgage.....	9,707.50
888.33	321 Van Brunt Street, Brooklyn, at 4%, Open Mortgage ($\frac{1}{2}$ interest in \$2,665 Mortgage).....	867.73
104,500.00	183-7 Varick Street and 68-76 King Street, New York, at 4%, due 1949.....	104,500.00
3,319.28	Property in Washington County, Kansas, at 4 $\frac{1}{2}$ %, due 1947.....	1.00
79,385.00	771-5 Washington Street, New York, at 5 $\frac{1}{2}$ %, Open Mortgage.....	79,385.00
55,927.38	427-431 West Broadway, New York, at 5%, due 1956.....	55,927.38
20,147.75	430-434 $\frac{1}{2}$ West Broadway, New York, at 5%, due 1956.....	20,147.75
1,528.45	624 Wythe Avenue, Brooklyn, at 5%, due 1956.....	1,528.45
4,687.50	2208 Avenue X, Brooklyn, at 5%, Open Mortgage.....	4,687.50
7,294.88	411 East 5th Street, New York, at 5%, due 1956.....	7,294.88
28,179.00	745-7 East 6th Street, New York, at 5 $\frac{1}{2}$ %, Open Mortgage.....	28,179.00
3,380.14	1779 West 6th Street, Brooklyn, at 4%, due 1949.....	3,380.14
13,280.00	224 East 7th Street, New York, at 4%, due 1951.....	13,280.00
1,458.34	1440 East 7th Street, Brooklyn, at 4 $\frac{1}{2}$ %, due 1950 ($\frac{1}{4}$ interest in \$4,375 Mortgage).....	1,458.34
5,615.00	1025 East 10th Street, Brooklyn, at 5 $\frac{1}{2}$ %, Open Mortgage..	5,615.00

<i>Face Amount</i>		<i>Book Value</i>
2,169.17	629 East 12th Street, Brooklyn, at 5½%, Open Mortgage (½ interest in \$6,507.50 Mortgage)	\$2,169.17
2,674.79	South Side 14th Road and 165th Street, Whitestone, New York, at 5%, due 1956	2,674.79
110,000.00	18 East 16th Street, New York, at 4½%, due 1956	110,000.00
15,625.01	175-9 16th Street, Brooklyn, at 5%, Open Mortgage (¾ interest in \$23,437.50 Mortgage)	15,625.01
89,645.70	139-49 West 19th Street, New York, at 4%, due 1949	89,645.70
4,562.50	347 West 20th Street, New York, at 4%, Open Mortgage	4,562.50
55,720.00	542-8 West 21st Street, New York, at 4½%, due 1956	55,720.00
34,469.07	550-2 West 21st Street, New York, at 4½%, due 1950	34,469.07
120,000.00	136-140 West 23rd Street, New York, at 4%, due 1956	120,000.00
280,204.44	549-57 West 23rd Street and Northeast Corner 23rd Street and Thirteenth Avenue, New York, at 4%, due 1951	280,204.44
411,077.88	3-7 East 27th Street and 4-6 East 28th Street, New York, at 4%, due 1952	411,077.88
186,562.50	15-19 East 30th Street, New York, at 4½%, due 1956	186,562.50
69,650.00	25-27 West 30th Street, New York, at 4%, due 1956	69,650.00
330,411.25	6-8 West 32nd Street, New York, at 5%, Open Mortgage	330,411.25
106,287.05	401-13 East 33rd Street, 404-12 East 34th Street and 576-8 First Avenue, New York, at 4%, due 1956	106,287.05
6,562.50	2770 West 33rd Street, Brooklyn, at 5%, Open Mortgage	6,562.50
47,500.00	126 West 34th Street, New York, at 5%, Open Mortgage	42,500.00
290,575.00	335-43 West 35th Street, New York, at 4%, due 1954	290,575.00
271,387.18	19-21 West 36th Street, New York, at 4%, due 1955	271,387.18
622,562.21	141-5 West 36th Street, New York, at 4½%, due 1947	622,562.21
38,500.00	25-7 West 37th Street, New York, at 4%, Open Mortgage	38,500.00
290,771.97	40-42 West 37th Street, New York, at 4%, due 1955	290,771.97
411,725.00	323-7 West 38th Street, New York, at 4%, Open Mortgage	411,725.00
315,000.00	248-256 West 39th Street, New York, at 4½%, due 1954	315,000.00
1,058.33	1554-39th Street, Brooklyn, at 5%, Open Mortgage (½ interest in \$3,175 Mortgage)	1,058.33
190,000.00	18 East 41st Street, New York, at 4%, due 1949	190,000.00
110,000.00	16-18 West 46th Street, New York, at 4%, Open Mortgage	110,000.00
9,850.00	420-2 West 46th Street, New York, at 3%, Open Mortgage (½ interest in \$29,550 Mortgage)	9,548.00
48,506.25	41 West 47th Street, New York, at 4%, due 1950	48,506.25
42,782.57	530 West 47th Street, New York, at 4%, due 1950	42,782.57
13,020.00	553 West 51st Street, New York, at 6%, Open Mortgage	13,020.00
4,705.78	32-52 53rd Street, Woodside, Long Island, at 5%, Open Mortgage	4,455.78
129,339.73	154-6 East 53rd Street, New York, at 4%, Open Mortgage	129,339.73
4,872.47	1240-54th Street, Brooklyn, at 4%, due 1950	4,872.47
37,516.50	13-15 West 60th Street, New York, at 5%, due 1956	37,516.50
36,608.34	837 60th Street, Brooklyn, at 4½%, Open Mortgage (¾ interest in \$54,912.50 Mortgage)	36,608.34
1,712.50	2137 60th Street, Brooklyn, at 5%, due 1950 (½ interest in \$6,850.00 Mortgage)	1,712.50
21,312.48	579 61st Street, Brooklyn, at 5%, due 1947 (½ interest in \$85,250.00 Mortgage)	21,312.48
244,276.72	243-9 West 67th Street and 248-50 West 68th Street, New York, at 4½%, Open Mortgage	244,276.72
15,880.00	317 East 71st Street, New York, at 4%, Open Mortgage (Part of Mortgage for \$17,368 75)	15,692.80
6,000.00	40-39 73rd Street, Jackson Heights, Long Island, at 5%, due 1948	6,000.00

<i>Face Amount</i>		<i>Book Value</i>
134,325.00	524-8 East 73rd Street, New York, at 4½%, due 1956.	\$134,325.00
5,600.00	41-32 74th Street, Elmhurst, Long Island, at 5%, Open Mortgage.	5,600.00
10,050.00	417 East 78th Street, New York, at 4½%, Open Mortgage.	10,050.00
170,000.00	309-27 East 94th Street, New York, at 4½%, due 1948.	170,000.00
4,375.18	570 East 94th Street, Brooklyn, at 5%, Open Mortgage (¾ interest in \$6,562.78 Mortgage)	4,375.18
2,265.62	494 East 95th Street, Brooklyn, at 5%, due 1947 (¼ interest in \$9,062.50 Mortgage)	2,265.62
6,866.67	40-31 99th Street, Corona, Long Island, at 5%, Open Mortgage (¾ interest in \$10,300 Mortgage)	6,866.67
3,711.47	177-32-106th Road, Jamaica, Long Island, at 4%, due 1949.	3,711.47
9,500.00	525 West 113th Street, New York, at 4½%, due 1956.	9,500.00
4,000.00	123 East 114th Street, New York, at 5%, Open Mortgage.	4,000.00
12,000.00	542 West 114th Street, New York, at 5%, Open Mortgage.	12,000.00
2,812.50	89-32 116th Street, Richmond Hill, Long Island, at 5½%, Open Mortgage.	2,812.50
3,281.15	107-17 118th Street, Richmond Hill, Long Island, at 5½%, Open Mortgage.	3,281.15
3,255.00	107-23 118th Street, Richmond Hill, Long Island, at 6%, Open Mortgage.	3,255.00
30,812.50	417-419 West 118th Street, New York, at 4½%, due 1954.	30,812.50
15,000.00	58 East 120th Street, New York, at 4%, Open Mortgage.	15,000.00
3,000.00	145 West 123rd Street, New York, at 5½%, Open Mortgage (½ interest in \$9,000 Mortgage)	3,000.00
10,422.50	500 West 132nd Street, New York, at 4%, Open Mortgage (½ interest in \$31,267.50 Mortgage)	10,422.50
288,991.42	Northeast Corner 134th Street and Riverside Drive, New York, at 4%, Open Mortgage.	288,991.42
58,011.63	614-20 West 153rd Street, New York, at 5%, due 1956.	58,011.63
1,360.83	40-38 157th Street, Flushing, Long Island, at 5%, Open Mortgage (½ interest in \$4,082.50 Mortgage)	1,360.83
34,472.38	569 West 171st Street, New York, at 4%, due 1950.	34,472.38
9,000.00	83 West 174th Street, Bronx, at 4%, Open Mortgage.	9,910.71
10,500.00	85 West 174th Street, Bronx, at 4½%, Open Mortgage.	10,244.69
25,000.00	401 West 201st Street, New York, at 3%, due 1949.	25,000.00
		<u>\$11,943,013.43</u>

Participation Certificates

\$1,294.14	594-596 Broadway, New York, at 3%, due 1951.	\$1,294.14
2,806.93	1705 Caton Avenue, Brooklyn, at 4%, due 1946.	2,806.93
100,000.00	38-44 Court Street, 186 Remsen Street and 391 Fulton Street, Brooklyn, at 2%, past due.	100,000.00
772.06	2203-2217 Ditmas Avenue, Brooklyn, at 5%, past due.	765.23
1,885.25	126-128 Franklin Street, New York, at 5%, past due.	1,885.25
2,090.00	Grand Street and 48th Street, Maspeth, Long Island, at 5%, past due.	2,090.00
391.02	2238 Hughes Avenue, Bronx, at 5½%, past due.	391.02
210.73	42-50 Johnson Street, Brooklyn, at 4½%, past due.	210.60
938.19	West Side Locust Valley Road, Brookville, Long Island, at 5½%, past due.	925.98
4,217.74	325 Marine Avenue, Brooklyn, at 5%, past due.	4,217.74
116.45	178 Ocean Parkway, Brooklyn, at 4½%, past due.	114.16
11,979.78	209-223 Avenue P, Brooklyn, at 4½%, due 1945.	11,816.92

<i>Face Amount</i>	<i>Book Value</i>
3,382.50 1069-75 Park Avenue, New York, at 3%, due 1947.....	\$2,192.50
4,691.98 805 Riverside Drive, New York, at 4½%, due 1948.....	4,241.98
188.42 343 St. Nicholas Avenue, Ridgewood, Queens, at 4½%, due 1947.....	188.42
2,147.18 Southwest Corner Sherman Avenue and Isham Street, New York, at 4½%, due 1949.....	2,147.18
809.57 47-55 Sickles Street, New York, at 4½%, due 1947.....	806.35
4,324.80 586-600 Teasdale Avenue, Bronx, at 4½%, past due.....	4,324.80
2,412.50 3300-8 Third Avenue and 991-5 Boston Road, Bronx, at 3½%, past due.....	2,412.50
138.33 118-124 Waverly Avenue, Brooklyn, at 5½%, past due.....	50.60
567.15 620 West End Avenue, New York, at 5%, past due.....	567.15
1,086.95 858 West End Avenue, New York, at 4½%, due 1949.....	1,086.95
679.26 109-113 South 5th Street, Brooklyn, at 4½%, due 1950.....	679.26
23.55 972 East 14th Street, Brooklyn, at 5%, past due.....	17.80
1,177.19 532 West 30th Street, New York, at 4%, due 1947.....	1,177.19
620.52 150-154 East 49th Street, New York, at 4%, due 1948.....	608.33
2,025.50 474 51st Street, Brooklyn, at 4%, past due.....	2,025.50
3,851.68 16-18 East 53rd Street, New York, at 4%, due 1947.....	3,851.68
1,029.78 39-25 65th Street, Woodside, New York, at 4%, due 1950...	1,029.78
2,917.16 205-213 East 67th Street, New York, at 2%, due 1949.....	1,185.34
14,519.31 172 West 79th Street, New York at 5%, past due.....	14,519.31
7,087.50 37-32 80th Street, Jackson Heights, L. I., at 4½%, past due.	6,971.25
5,362.87 163-169 East 81st Street, New York, at 2½%, due 1949....	3,462.87
5,824.99 526-528 86th Street, Brooklyn, at 3½%, due 1947.....	4,552.01
1,154.22 164 West 88th Street, New York, at 5%, past due.....	1,154.22
1,000.00 107-123 West 93rd Street, New York, at 5½%, past due....	1.00
10,851.51 143-149 West 96th Street, New York, at 2%, due 1949.....	6,199.43
310.00 New York Title and Mortgage Co. Series A2, at 5%, past due	25.00
366.66 Prudence Bonds Corp. Certificates (Dryden Apartments Is- sue), at 5%, past due.....	1.00
66.00 Westchester Title and Trust Co. Series 49A, at 5½%, past due	3.00
484.47 Westchester Title and Trust Co. Series 63B, at 5½%, past due	1.00
	<hr/> <hr/>
	\$192,001.37

SECURITIES SUMMARY

AT JUNE 30, 1946

Bonds

Schedule I—United States Government.....	\$10,938,799.33	
Schedule II—Railroad.....	171,632.38	
Schedule III—Public Utility.....	99,460.00	
Schedule IV—Municipal.....	13,441.21	
Schedule V—Real Estate.....	434.50	
Schedule VI—Miscellaneous.....	43,926.00	
		<u>\$11,267,693.42</u>

Preferred Stocks

Schedule I—Railroad.....	\$112,852.53	
Schedule II—Public Utility.....	984,757.28	
Schedule III—Industrial.....	299,471.55	
Schedule IV—Miscellaneous.....	4.00	
		<u>1,397,085.08</u>

Common Stocks

Schedule I—Railroad.....	\$1,550,716.48	
Schedule II—Public Utility.....	2,197,127.28	
Schedule III—Industrial.....	6,420,878.17	
Schedule IV—Insurance.....	168,840.52	
Schedule V—Bank.....	2,017,742.86	
Schedule VI—Miscellaneous.....	52,488.00	
		<u>12,407,793.31</u>
MISCELLANEOUS.....		514.00
BONDS AND MORTGAGES.....		11,943,013.43
PARTICIPATION CERTIFICATES.....		192,001.37
		<u>\$37,208,100.61</u>

DISTRIBUTION

Special Endowments—Principal.....	\$29,929,206.22
Special Endowments—Income.....	1,613,076.69
Student Loans.....	255,412.50
Gifts.....	2,206,739.06
General Endowment.....	3,203,616.14
	<u>\$37,208,100.61</u>

UNIVERSITY LAND, BUILDINGS AND EQUIPMENT

	At June 30, 1945	Additions 1945-1946	Deductions 1945-1946	At June 30, 1946
Land: 114th to 116th Streets, Amsterdam Ave. and Broadway.....	\$2,022,440.06	.....	.....	\$2,022,440.06
Improvements to Grounds.....	61,539.15	.....	.....	61,539.15
	\$2,083,979.21	.....	.....	\$2,083,979.21
116th to 120th Streets, Amsterdam Ave. and Broadway.....	2,000,000.00	.....	.....	2,000,000.00
Improvements to Grounds.....	429,601.17	.....	.....	429,601.17
	2,429,601.17	.....	.....	2,429,601.17
116th Street, north side, Morningside Drive to Amsterdam Avenue.....	.....	.....	.....	.....
117th Street, south side, Morningside Drive to Amsterdam Avenue.....	.....	.....	.....	.....
Baker Field, Broadway, 218th St. and Harlem Ship Canal.....	736,656.65	.....	.....	736,656.65
Improvements and additions to Baker Field.....	270,730.19	.....	.....	270,730.19
	1,007,386.84	.....	.....	1,007,386.84
Alumni House: Alterations and Equipment.....	.....	.....	.....	.....
Avery Library Building:	.....	.....	.....	.....
Construction.....	339,821.42	.....	.....	339,821.42
Equipment.....	1,829.68	.....	.....	1,829.68
	341,651.10	.....	.....	341,651.10
Baker Field Boat House.....	.....	.....	.....	.....
Baker Field Boat House Equipment.....	56,189.41	.....	.....	56,189.41
Baker Field Fence.....	2,554.82	.....	.....	2,554.82
Baker Field Grandstands.....	2,850.98	.....	.....	2,850.98
Manor House, Improvements and Furnishings.....	88,306.22	.....	.....	88,306.22
Boat House at Highland, N. Y.....	12,286.52	.....	.....	12,286.52
Casa Italiana:	.....	.....	.....	.....
Construction.....	315,526.06	.....	.....	315,526.06
Equipment.....	2,009.61	.....	.....	2,009.61

Land.....	\$265,388.90			\$265,388.90
Chemical Engineering Building: Construction.....		\$582,924.57		\$582,924.57
Crocker Research Building: X-Ray Equipment.....		3,166.44		3,166.44
Earl Hall: Construction and Equipment.....		18,465.53		18,465.53
Trophy Room Equipment.....		164,945.65		164,945.65
		980.00		980.00
Engineering Building: Construction.....		165,925.65		165,925.65
Equipment.....		286,575.50		286,575.50
		50,619.31		50,619.31
Faculty House: Construction.....		337,194.81		337,194.81
Equipment.....		299,725.43		299,725.43
		35,287.42		35,287.42
Fayerweather Hall: Construction.....		335,012.85		335,012.85
Equipment.....		362,610.91		362,610.91
		48,497.54		48,497.54
Furnald Hall: Construction.....		411,108.45		411,108.45
Equipment.....		352,666.66		352,666.66
		34,862.97		34,862.97
Hamilton Hall: Construction.....		387,529.63		387,529.63
Equipment.....		486,572.26		486,572.26
		24,156.49		24,156.49
Hartley Hall: Construction.....		510,728.75		510,728.75
Equipment.....		337,202.65		337,202.65
		37,007.38		37,007.38
Havemeyer Hall: Construction.....		374,210.03		374,210.03
Equipment.....		536,427.47		536,427.47
		126,199.67		126,199.67
Havemeyer Hall Annex: (Chandler Laboratory) Construction.....		662,627.14		662,627.14
Equipment.....		781,108.11		781,108.11
		219,241.87		219,241.87
John Jay Hall: Construction.....		1,000,349.98		1,000,349.98
Equipment.....		1,662,295.39		1,662,295.39
		141,063.14		141,063.14

	At June 30, 1945		Deductions 1945-1946	At June 30, 1946	
	Commons Equipment,	\$1,867,797.59		Additions 1945-1946	\$82,345.34
Johnson Hall:	Commons Equipment,	\$1,867,797.59		\$82,345.34	\$1,885,703.87
	Construction,			1,145,942.25	
	Equipment,			90,473.72	
	Commons Equipment,		1,289.32	49,173.94	
Kent Hall:	Construction,	1,284,300.59		583,704.91	1,285,589.91
	Post Office,			1,164.50	
Library Building:	Construction,	589,869.41		1,108,461.08	589,869.41
	Equipment,			103,038.31	
	Alterations,			46,600.00	
Livingston Hall:	Construction,	1,258,099.39		333,607.50	1,258,099.39
	Equipment,			32,106.83	
Philosophy Building:	Construction & Equipment				
Physics Building:	Construction,	365,714.33			365,714.33
(Pupin Physics Laboratory)	Equipment,	352,574.38		1,282,809.17	352,574.38
(Rutherford Observatory)				268,050.53	
President's House:	Construction,	1,550,859.70		196,830.82	1,550,859.70
	Furnishing,			24,410.17	
St. Paul's Chapel:	Construction,	221,240.99		266,676.54	221,240.99
	Equipment,			84,009.27	
Schermerhorn Hall:	Construction,	350,685.81		485,292.87	350,685.81
	Equipment,			117,948.38	
		603,241.25			603,241.25

Schermerborn Hall Extension: Construction.....	\$942,850.82	.....	.....	\$942,850.82
Equipment.....	255,240.02	.....	.....	255,240.02
School of Business: Construction.....	1,005,957.47	.....	.....	1,005,957.47
Equipment.....	70,534.86	.....	.....	70,534.86
School of Journalism: Construction.....	534,863.38	.....	.....	534,863.38
Equipment.....	42,314.45	.....	.....	42,314.45
School of Mines Building: Construction.....	309,817.97	.....	.....	309,817.97
Equipment.....	25,037.35	.....	.....	25,037.35
South Hall: Construction & Equipment.....	.....	.....	.....	.....
University Hall: Construction.....	988,431.53	.....	.....	988,431.53
Equipment.....	31,474.20	.....	.....	31,474.20
Power House Equipment.....	656,691.52	.....	.....	656,691.52
Power House Conduits.....	33,240.80	.....	.....	33,240.80
Gymnasium Equipment.....	43,149.23	.....	.....	43,149.23
No. 612 West 116th Street.....	1,752,987.28	.....	.....	1,752,987.28
No. 411 West 117th Street (Maison Francaise).....	24,184.92	.....	\$101.75	24,286.67
No. 413 West 117th Street (Chaplain's Residence).....	34,624.72	.....	.....	34,624.72
No. 415 West 117th Street (Dean's Residence—College).....	24,789.89	.....	.....	24,789.89
No. 417 West 117th Street (Dean's Residence—Engineering).....	45,225.25	.....	.....	45,225.25
No. 419 West 117th Street (Research).....	31,333.33	.....	.....	31,333.33
No. 421 West 117th Street (Institute of International Affairs).....	22,833.00	.....	.....	22,833.00
No. 423 West 117th Street (Deutsches Haus).....	37,712.65	.....	.....	37,712.65
No. 429 West 117th Street (Research).....	23,943.55	.....	.....	23,943.55
No. 435 West 117th Street (Casa de las Espanas).....	21,691.88	.....	.....	21,691.88
Class of 1830 Gates.....	2,000.00	.....	.....	2,000.00
Class of 1881 Flagstaff.....	4,600.00	.....	.....	4,600.00
Brander Matthews Hall: Construction & Equipment.....	76,848.60	.....	.....	76,848.60
Class of 1883 Mines—Setting Bust of Professor Eggleston.....	390.00	.....	.....	390.00
Class of 1885 Sun Dial.....	10,000.00	.....	.....	10,000.00
	\$1,198,090.84			\$1,198,090.84
	1,076,492.33			1,076,492.33
	577,177.83			577,177.83
	334,855.32			334,855.32
	3,595,301.04			3,595,301.04
	1,752,987.28			1,752,987.28
	24,184.92		\$101.75	24,286.67
	34,624.72			34,624.72
	24,789.89			24,789.89
	45,225.25			45,225.25
	31,333.33			31,333.33
	22,833.00			22,833.00
	37,712.65			37,712.65
	23,943.55			23,943.55
	21,691.88			21,691.88
	2,000.00			2,000.00
	4,600.00			4,600.00
	76,848.60			76,848.60
	390.00			390.00
	10,000.00			10,000.00

COLUMBIA UNIVERSITY

	At June 30, 1945	Additions 1945-1946	Deductions 1945-1946	At June 30, 1946
Class of 1886 Granite Exedra.....	\$5,000.00			\$5,000.00
Class of 1888 Gates.....	2,000.00			2,000.00
Class of 1889 Mines "Hammerman".....	5,000.00			5,000.00
Class of 1890 Arts and Mines—Statue of Letters and pylon.....	8,598.72			8,598.72
Class of 1891 Gates.....	15,000.00			15,000.00
Class of 1893 Chapel Bell.....	5,114.84			5,114.84
Class of 1897 Boat House.....	8,000.00			8,000.00
Class of 1900 Statue of Science and pylon.....	13,148.95			13,148.95
Class of 1906 Chapel Entrance Gates.....		\$1,192.40		1,192.40
Class of 1906 Clock.....	1,159.16			1,159.16
Commemorative Portrait of Their Britannic Majesties' Visit to Columbia.....	4,197.27			4,197.27
Fountain of the God Pan.....	12,013.50			12,013.50
Granite Posts for Class of 1891 Gates.....	2,563.00			2,563.00
Hamilton Statue.....	10,900.00			10,900.00
Huntington Portrait.....	2,127.00			2,127.00
Lighting University Grounds.....	1,035.00			1,035.00
Portrait of President Butler.....	9,880.57			9,880.57
Seth Low Memorial Tablet.....	1,010.00			1,010.00
Marcellus Hartley Research Tablet.....	417.00			417.00
John B. Pine Tablet.....	1,374.00			1,374.00
Munroe Smith Tablet.....	1,840.00			1,840.00
Van Amringe Memorial.....	20,738.34			20,738.34
Hegeler Furnace.....	2,000.00			2,000.00
Model of Coal Mine.....	250.00			250.00
Braden Mine Models.....	1,700.00			1,700.00
Installation of Cross Connected Fire Mains.....	17,912.57			17,912.57
Animal Accommodations.....	1,842.49			1,842.49
South Court Fountains.....	4,932.88			4,932.88
Botany and Agricultural Greenhouses.....	16,486.50			16,486.50
Optical Instruments.....	7,100.00			7,100.00

Assessments:				
Boulevard Sewer.....	\$2,579.90			\$2,579.90
129th Street Sewer.....	749.25			749.25
Opening and acquiring title to Addition to Riverside Park.....				
Park.....	8,168.98			8,168.98
Opening 116th Street.....	2,882.77			2,882.77
Opening 120th Street.....	38,033.59			38,033.59
Opening Riverside Drive and Parkway.....	4,814.55			4,814.55
On 116th Street for Inwood Park.....	45.80			45.80
	\$57,274.84			\$57,274.84
Outside Street Work.....	107,140.39			107,140.39
Vaults: East.....	30,382.79			30,382.79
West.....	37,316.40			37,316.40
	67,699.19			67,699.19
Medical School: (59th Street)				
Buildings.....	628,969.31			628,969.31
Equipment.....	33,896.20			33,896.20
Library.....	1,400.00			1,400.00
Roof Laboratory.....	14,938.07			14,938.07
School of Dentistry.....	39,084.92			39,084.92
Sloane Hospital for Women.....	399,263.14			399,263.14
Medical School: (168th Street)				
New Site—168th Street—Land.....	724,075.50			724,075.50
New Residence Hall Site.....	513,488.01			513,488.01
Improvements to New Site.....	9,068.47			9,068.47
Bard Hall Construction and Equipment.....	1,720,845.40			1,720,845.40
Bard Hall Commons Equipment.....	43,432.73	\$825.34		44,258.07
New Buildings.....	4,347,444.60	350.67		4,347,795.27
New Equipment.....	76,950.10			76,950.10
School of Dental and Oral Surgery.....	703,549.17			703,549.17
Sloane Hospital and Vanderbilt Clinic Buildings and Equipment.....	750,000.00			750,000.00
	10,006,405.62			10,007,581.63
Primate Colony at Puerto Rico.....	1,522.70			1,522.70

	At June 30, 1945	Additions 1945-1946	Deductions 1945-1946	At June 30, 1946
Camp Columbia, Morris, Conn.	\$53,963.70	\$5,650.00	.....	\$59,613.70
Irvington-on-Hudson, N. Y., Property	1.00	.....	.....	1.00
Less Reserve for Depreciation of Dining Halls Equipment.	\$97,085.93	.....	.....	\$102,219.03
Less Reserve for Johnson Hall	1,462.80	.....	.....	1,437.75
Less Reserve for Dental School	1.75	.....	.....	1.75
Less Reserve for Mapes Gates .....	.....	.....	.....	285.00
Less Reserve for Pupin Physics Laboratory	3,121.34	.....	.....	3,121.34
Less Reserve for Depreciation of Academic Buildings and Equipment	368,483.15	.....	.....	402,614.24
Less Reserve for Chandler Hall	1,462.52	.....	.....	1,175.48
Less Reserve for Gould Boat House	147.00	.....	.....	.....
Less Reserve for John Jay	1,924.77	.....	.....	40.15
Less Reserve for Restoration Chandler Museum	6,000.00	.....	.....	5,702.85
Less Reserve for Restoration of the Grove	50.00	.....	.....	50.00
	479,739.26			516,647.59
	<u>\$39,286,208.80</u>			<u>\$39,276,616.23</u>

RENTAL PROPERTY

	At June 30, 1945 (Net)	Increase and Charges to Depreciation Reserve	Decrease and Depreciation	At June 30, 1946 (Net)
GENERAL FUNDS				
UPPER ESTATE AT 1935 ASSESSED VALUATION..... Land	\$28,230,310.76			\$28,230,310.76
LOWER ESTATE AT 1935 ASSESSED VALUATION, \$2,394,000.00 PLUS SUBSEQUENT ADDITIONS AT COST..... Land	2,435,367.63			2,435,367.63
	\$30,665,678.39			\$30,665,678.39
OTHER PROPERTIES AT NET BOOK VALUES				
Amsterdam Avenue and 115th Street..... Leasehold	\$97,293.99		\$2,230.36	\$95,063.63
47-9 Barclay Street..... Building	11,200.45		269.83	10,930.62
51 Barclay Street..... Building and Lease	9,994.73		257.35	9,737.38
53 Barclay Street..... Building	34,027.89		756.17	33,271.72
56-7 Barclay Street..... Building	53,598.13		1,191.07	52,407.06
61 Barclay Street..... Building	14,003.42		311.19	13,692.23
63 Barclay Street..... Building	16,291.45		362.03	15,929.42
65-7 Barclay Street..... Building and Lease	51,225.75		1,204.44	50,021.31
69-73 Barclay Street..... Building	23,972.15		528.05	23,444.10
75-77-79 Barclay Street..... Building	30,257.86		1,019.46	29,238.40
81 Barclay Street..... Building	9,468.76		202.18	9,266.58
83 Barclay Street..... Building	1.00			1.00
503-11 Broadway..... Building	692,972.42		23,989.42	668,983.00
231-5 Greenwich Street..... Land and Building	19,304.70		946.10	18,358.60
237 Greenwich Street..... Building	5,117.60		113.72	5,003.88
239-41-43 Greenwich Street..... Building and Lease	21,766.66		483.70	21,282.96
245-47 Greenwich Street..... Building and Lease	2,049.70		45.55	2,004.15
252-4 Greenwich Street..... Building and Lease	21,760.85		483.57	21,277.28
253-9 Greenwich Street..... Building	44,361.43		1,355.63	43,005.80

	At June 30, 1945 (Net)	Increase and Charges to Depreciation Reserve	Decrease and Depreciation	At June 30, 1946 (Net)
261-7 Greenwich Street.....	\$63,061.51	.....	\$1,404.14	\$61,657.37
38 Murray Street.....	21,427.90	.....	510.36	20,917.54
40 Murray Street.....	3,116.72	.....	69.26	3,047.46
42 Murray Street.....	3,568.19	.....	97.14	3,471.05
44 Murray Street.....	5,307.13	.....	117.94	5,189.19
46 Murray Street.....	7,025.10	.....	156.12	6,868.98
48 Murray Street.....	3,558.72	.....	101.81	3,456.91
50 Murray Street.....	1.00	.....	.....	1.00
52-4 Murray Street.....	14,107.31	.....	317.25	13,790.06
56-8 Murray Street.....	13,716.40	.....	304.81	13,411.59
68 Murray Street.....	23,576.02	.....	681.91	22,894.11
70 Murray Street.....	8,983.74	.....	222.07	8,761.67
72 Murray Street.....	2,088.92	.....	158.48	1,930.44
26 West Broadway.....	11,338.20	.....	251.96	11,086.24
28-30 West Broadway.....	36,265.22	.....	814.60	35,450.62
32 West Broadway.....	6,834.72	.....	151.88	6,682.84
40 West Broadway.....	18,091.23	.....	402.58	17,688.65
42 West Broadway.....	27,122.23	\$1,222.95	602.72	27,742.46
44 West Broadway.....	23,646.44	.....	525.48	23,120.96
46 West Broadway.....	30,015.52	.....	672.02	29,343.50
48 West Broadway.....	8,180.25	.....	181.78	7,998.47
50 West Broadway.....	5,967.63	.....	132.61	5,835.02
52 West Broadway.....	13,603.72	.....	302.31	13,301.41
18 East 16th Street.....	166,277.97	.....	166,277.97	.....
306 East 35th Street.....	286,396.08	.....	.....	286,396.08
41 West 47th Street.....	61,750.72	.....	61,750.72	.....
524 East 73rd Street.....	119,166.68	.....	119,166.68	.....
405 West 117th Street.....	20,461.98	.....	192.99	20,268.99
407 West 117th Street.....	17,926.17	.....	175.09	17,751.08

425 West 117th Street.....	Land and Building	14,329.62	200.00	102.64	14,426.98
431 West 117th Street.....	Land and Building	18,440.49		186.04	18,254.45
433 West 117th Street.....	Land and Building	18,121.67		179.25	17,942.42
401 West 118th Street.....	Land and Building	99,173.28		959.11	98,214.17
405 West 118th Street.....	Land and Building	51,961.82	45,323.02	1,528.21	95,756.63
501 West 121st Street.....	Land and Building	180,532.24	1,740.50	2,269.01	180,003.73
520 West 123rd Street.....	Land and Building	15,685.62		186.73	15,498.89
524 West 123rd Street.....	Land and Building	15,829.74	1,601.12	288.56	17,142.30
526 West 123rd Street.....	Land and Building	12,840.87		151.73	12,689.14
		\$2,608,167.71	\$50,087.59	\$397,343.78	\$2,260,911.52
Total General Funds.....		\$33,273,846.10	\$50,087.59	\$397,343.78	\$32,926,589.91
SPECIAL FUNDS					
Cardozo (Benjamin N.) Endowment: 1308 Avenue "N," Brooklyn.....	Land and Building	\$13,931.65		\$13,931.65	
234 Rivington Street.....	Land and Building	29,885.72		29,885.72	
523 East 5th Street, Brooklyn.....	Land and Building	8,193.63		13.97	\$8,179.66
224 East 7th Street.....	Land and Building	20,322.45		20,322.45	
		\$72,333.45		\$64,153.79	\$8,179.66
Carpentier (H. W.) Endowment: 88 Morningside Drive.....	Land and Building	\$1,172,402.51		\$33,524.04	\$1,138,878.47
90 Morningside Drive.....	Land and Building	407,494.76		4,060.92	403,433.84
445 Riverside Drive.....	Land and Building	202,488.17	\$282.05	3,218.11	199,552.11
460-64 Riverside Drive.....	Land and Building	392,175.35	508.74	8,685.37	383,998.72
		\$2,174,560.79	\$790.79	\$49,488.44	\$2,125,863.14
Columbia University Permanent Alumni Endowment: 14th Road and 165th Street, Whitestone, N. Y.....	Land	\$1.00		\$1.00	

	At June 30, 1945 (Net)	Increase and Charges to Depreciation Reserve	Decrease and Depreciation	At June 30, 1946 (Net)
Delafield Endowment:				
171 East 107th Street.....	\$12,603.01		\$16.81	\$12,586.20
Eno (Amos F.) Endowment:				
1556-60 Broadway.....	\$1,421,162.31		\$663.09	\$1,420,499.22
1680-8 Broadway.....	1,560,444.23		250.00	1,560,194.23
1680-8 Broadway.....	46,770.87			46,770.87
1910 Broadway.....	369,810.00			369,810.00
Broadway, 63th Street, Amsterdam Avenue and 69th Street.....	1,116,289.45		4,795.00	1,111,494.45
21 Claremont Avenue.....	231,064.48	\$341.88	5,953.47	225,452.89
21 Claremont Avenue.....	2,697.01			2,697.01
29-35 Claremont Avenue.....	327,547.81	461.54	7,952.77	320,056.58
13-15 Coenties Slip.....	6,248.00			6,248.00
27 Coenties Slip.....	44,100.00			44,100.00
34 Front Street.....	22,335.00			22,335.00
35 Front Street.....	24,610.00			24,610.00
36 Front Street.....	28,955.00			28,955.00
229-31 Front Street.....	26,670.00		1,700.00	26,670.00
70 Haven Avenue.....	406,355.28		6,615.63	399,739.65
136 MacDougal Street.....	33,198.36			33,198.36
MacDougal Street, Washington Square South, Sullivan Street and West 3rd Street.....	422,210.55		905.92	421,304.63
5-7 Mercer Street.....	56,300.00		56,300.00	
133 Roosevelt Street and 293 Front Street.....	39,818.48		39,818.48	
21 South Street.....	45,480.00			45,480.00
185 Amsterdam Avenue.....		15,677.45		15,677.45
153 West 68th Street.....		24,117.35		24,117.35

19 South William Street.....	Land and Building	69,112.62	.....	69,112.62
40 Washington Square South.....	Land and Building	70,202.82	.....	70,202.82
50 Washington Square South and 93 West 3rd Street.....	Land and Building	59,480.00	.....	59,480.00
50 Washington Square South and 93 West 3rd Street.....	..... Equipment	1,000.00	.....	1,000.00
426-8 West Broadway.....	Land and Building	116,633.88	.....	116,633.88
427-9-31 West Broadway.....	Land and Building	89,786.27	.....	89,786.27
430 West Broadway.....	Land and Building	11,446.15	.....	11,446.15
432 West Broadway.....	Land and Building	10,891.41	.....	10,891.41
434 West Broadway.....	Land and Building	10,628.54	.....	10,628.54
434½ West Broadway.....	..... Land	19,509.68	.....	19,509.68
474-6-8 West Broadway.....	Land and Building	140,441.16	.....	140,441.16
13-15 West 60th Street.....	Land and Building	197,486.59	.....	197,486.59
44 West 64th Street.....	Land and Building	52,666.56	.....	52,666.56
46 West 64th Street.....	Land and Building	54,022.24	.....	54,022.24
430 West 118th Street.....	Land and Building	231,138.32	.....	2,147.90
423 West 120th Street.....	Land and Building	333,260.76	.....	4,708.05
		\$7,740,741.18	\$40,598.22	\$471,558.95
				\$7,309,780.45
Gregory Endowment:				
Saw Mill Valley Road, Irvington, N. Y. (1/40 Interest).....		\$1.00	.....	\$1.00
131-3 Sullivan Street (1/40 Interest).....		1.00	.....	1.00
149-51 Sullivan Street (1/40 Interest).....		1.00	.....	1.00
893-7 West 12th Street (1/40 Interest).....		1.00	.....	1.00
		\$4.00	.....	\$3.00
Griffiths Endowment:				
1861 82nd Street, Brooklyn.....	Land and Building	\$5,305.89	.....	\$5,305.89
Hemingway Endowment:				
237 Grand Street, Jersey City, New Jersey.....	Land and Building	\$6,926.26	.....	\$6,926.26
51 Market Street.....	Land and Building	21,610.17	.....	\$21,610.17
		\$28,536.43	.....	\$21,610.17

	At June 30, 1945 (Net)	Increase and Charges to Depreciation Reserve	Decrease and Depreciation	At June 30, 1946 (Net)
Kennedy Endowment:				
39-41 Claremont Avenue.....	\$389,566.43	\$407.00	\$7,108.27	\$382,865.16
1002 Foster Avenue, Brooklyn (1/4 Interest).....	72,419.37	.....	289.75	72,129.62
403 West 115th Street.....	191,479.80	.....	2,562.79	188,917.01
404 West 116th Street.....	179,080.06	.....	1,984.26	177,095.80
420 West 116th Street.....	326,969.29	.....	6,181.72	320,787.57
424-30 West 116th Street.....	350,245.04	.....	4,426.13	345,818.91
117th Street, Morningside Drive and 118th Street.....	687,162.08	.....	9,021.15	678,140.93
	\$2,196,922.07	\$407.00	\$31,574.07	\$2,165,755.00
Knapp Endowment:				
500 West 57th Street.....	\$6,778.59	\$3,072.58	\$100.00	\$9,751.17
Openhym Endowment:				
1354 College Avenue, Bronx (2/3 Interest).....	\$2,840.65	.....	.....	\$2,840.65
375 McDonough Street, Brooklyn (1/3 Interest).....	1.00	.....	.....	1.00
375-9 Rockaway Avenue, Brooklyn (1/3 Interest).....	17.67	.....	.....	17.67
2046 Second Avenue (1/3 Interest).....	160.37	.....	.....	160.37
Throop Avenue and Hopkins Street, Brooklyn (1/3 Interest).....	1.00	.....	.....	1.00
1988 Madison Avenue.....	2,784.68	.....	.....	2,784.68
401 Powell Street, Brooklyn (1/3 Interest).....	1,526.83	.....	.....	1,526.83
1665 50th Street, Brooklyn (1/3 Interest).....	1.00	.....	.....	1.00
	\$7,333.20	.....	.....	\$7,333.20

Phillips Endowment:						
Englewood, New Jersey.....	Land	\$2,700.00				\$2,700.00
Highland Falls, New York.....	Land	9,050.00				9,050.00
Teanack, New Jersey.....	Land	1,100.00				1,100.00
55 West 90th Street (Remainder Interest).....	Land and Building	14,259.00				14,259.00
		\$27,109.00				\$27,109.00
Phoenix Endowment:						
92 First Avenue.....	Land and Building	\$25,922.76			\$25,922.76	
94 First Avenue.....	Land and Building	17,953.52			17,953.52	
176 Madison Avenue.....	Land and Building	215,500.00				\$215,500.00
411 East 5th Street.....	Land and Building	15,799.71			15,799.71	
21 East 33rd Street.....	Land and Building	113,750.00				113,750.00
		\$388,325.99			\$59,075.99	\$329,250.00
Porter Endowment:						
1301 Howell Street, Seattle, Washington.....	Land and Building		\$1.00			\$1.00
Schieffelin Endowment:						
624 Wythe Avenue, Brooklyn.....	Land and Building	\$7,879.87			\$7,879.87	
Randolph Gift:						
558 East 158th Street.....	Land and Building	\$20,263.32				\$20,263.32
Special Endowments (Unallocated)						
362-70 Avenue "A".....	Land and Building	\$127,044.86			\$127,044.86	
25 Claremont Avenue.....	Land and Building	252,151.73	\$317.87			\$252,469.60
636 Eighth Avenue.....	Land and Building	211,490.81			883.67	210,607.14
Eleventh Avenue between 18th and 19th Streets.....	Land and Building	322,092.03			322,092.03	
106-8 Fulton Street.....	Land and Building	443,728.42				443,728.42
306 Lexington Avenue.....	Land and Building	65,112.49				65,112.49
101-7 Macombs Place.....	Land and Building	125,196.28			125,196.28	
1723 Matthews Avenue.....	Land and Building	4,522.97			4,522.97	
450 Riverside Drive.....	Land and Building	295,973.83	341.88			296,315.71

	At June 30, 1946 (Net)	Increase and Charges to Depreciation Reserve	Decrease and Depreciation	At June 30, 1946 (Net)
136-40 West 23rd Street.....	\$158,611.68	.....	\$158,611.68	.....
15-19 East 30th Street and 20 East 31st Street.....	238,679.93	.....	238,679.93	.....
25-7 West 30th Street.....	102,281.57	.....	102,281.57	.....
542-8 West 36th Street.....	137,820.43	.....	2,209.58	\$135,310.85
521-31 West 43rd Street.....	671,974.81	.....	.....	671,974.81
580-2 West 47th Street.....	47,976.47	.....	47,976.47	.....
522-4 East 81st Street.....	77,947.01	.....	.....	77,947.01
614-20 West 153rd Street.....	85,363.23	.....	85,363.23	.....
25-31 Rose Street.....	105,532.60	.....	105,532.60	.....
	\$3,473,201.15	\$659.75	\$1,320,394.87	\$2,153,466.03
Tremaine Endowment:				
Atlantic Highway, Camden, Maine.....	\$1.00	.....	.....	\$1.00
2532 Hennepin Ave., Minneapolis, Minnesota.....	1.00	.....	.....	1.00
	\$2.00	.....	.....	\$2.00
Van Cortlandt (Robert B.) Endowment:				
15 Claremont Avenue.....	.....	\$177,512.67	\$232.90	\$177,279.77
Total Special Funds.....	\$16,161,900.94	\$223,042.01	\$2,026,087.86	\$14,358,855.09
Total of General and Special Funds Rental Property.....	\$49,435,747.04	\$273,129.60	\$2,423,431.64	\$47,285,445.00

SPECIAL ENDOWMENTS

	At June 30, 1945	Additions 1945-1946	At June 30, 1946
(A) For General Purposes			
ALTSCHUL (BENJAMIN) FUND: Bequest of Benjamin Altschul, the income and, after twenty-five years, the principal may be used for any purpose of the University. Established 1933	\$2,887.44	.....	\$2,887.44
ALUMNI WAR BONDS FUND: Proceeds of Adjusted Compensation Certificates donated by Columbia University War Veterans, the income to be expended in such manner and for such purposes as the Trustees may from time to time direct. Established 1929	36,609.14	.....	36,609.14
BURGESS (JOHN W.) FUND: Gift of Anonymous Donors to the general endowment of the University. Established 1910	100,000.00	.....	100,000.00
CARPENTIER (H. W.) ENDOWMENT FUND: Legacy of Horace W. Carpentier, the income to be expended in such manner and for such purposes as the Trustees may from time to time direct. Established 1918	1,320,000.00	.....	1,320,000.00
CIVIL ENGINEERING RESEARCH LABORATORIES FUND: Created by act of the Trustees on January 5, 1925, by the transfer of the sum of \$10,000 from the unexpended balance on June 30, 1924, of receipts from the Civil Engineering Testing Laboratories, this sum to be set up as a Civil Engineering Testing Laboratories Fund, the income or principal of which shall be used as the Trustees may from time to time determine. Name changed in 1945. Established 1925	89,918.63	\$24,926.86	114,845.49
CLASS OF 1897 ARTS, MINES AND ARCHITECTS ENDOWMENT FUND: Gift of the Class of 1897, in commemoration of the fortieth anniversary of their graduation, the income to be used for the general purposes of the University. Established 1937	9,945.00	125.00	10,070.00

	At June 30 1945	Additions 1945-1946	At June 30, 1946
CLASS OF 1902 FUND: Gift of the Class of 1902 College, the income to be used for the general purposes of the University. Established 1928	\$17,000.00	.....	\$17,000.00
CLASS OF 1912 COLLEGE, ENGINEERING AND ARCHITECTURE FUND: Gift of the Class of 1912, in commemoration of the twenty-fifth anniversary of their graduation, the income to be used for the general purposes of the University. Established 1937	3,501.62	.....	3,501.62
CLASS OF 1917 COLLEGE, ENGINEERING AND JOURNALISM FUND: Twenty-Fifth anniversary gift of the combined 1917 classes of College, Engineering and Journal- ism. The income to be used for the general purposes of the University. Established 1942	10,000.00	.....	10,000.00
COLUMBIA UNIVERSITY PERMANENT ALUMNI FUND: Inaugurated by a gift of \$10,000.00 from the Class of 1895 Arts and Mines and subsequently in- creased by gifts from the Alumni Federation of Columbia University, the income to be expended in such manner and for such purposes as the Trustees may from time to time direct. Established 1919	166,770.55	\$7,274.98	174,045.53
ENO (AMOS F.) ENDOWMENT FUND: Bequest of Amos F. Eno, the principal and income to be expended in such manner and for such purposes as the Trustees may from time to time direct. Established 1923	7,933,773.85	204,603.33 (Decrease)	7,729,170.52
FIRE INSURANCE FUND: For the purpose of meeting the cost of repairing damage due to fire in those academic buildings which are not specifically insured, the income to be used for the general purposes of the University.	50,000.00	.....	50,000.00
GREGORY (HENRY ELSWORTH) FUND: Bequest of Henry Elsworth Gregory, the income to be used for the general purposes of the Uni- versity. Established 1941	58,486.83	4,015.43	62,502.26

<p>KENNEDY (JOHN STEWART) ENDOWMENT FUND: Bequest of John Stewart Kennedy, a Trustee of Columbia University 1903 to 1909, the principal and income to be expended in such manner and for such purposes as the Trustees may from time to time direct. Established 1910.</p>	<p>2,553,374.71</p>	<p>4,246.53 (Decrease)</p>	<p>2,549,128.18</p>
<p>KILLOUGH (W. H. D.) FUNDS: Bequest of Walter H. D. Killough, for the general endowment of the University. (Principal held by the Trustees under the Will.) Established 1930.</p>	<p>40,247.14</p>	<p>395.16</p>	<p>40,642.30</p>
<p>KRUMB (HENRY) FUND: Gift of Henry Krumb, the income to be paid to beneficiaries in accordance with the deed of gift, thereafter the income to be used for the general purposes of the University. Established 1941.</p>	<p>653,693.46</p>	<p>955.44</p>	<p>654,648.90</p>
<p>PELL (MARY B.) FUND: Bequest of Mary B. Pell, the income to be expended in such manner and for such purposes as the Trustees may from time to time direct. Established 1914.</p>	<p>818,259.34</p>	<p>.....</p>	<p>818,259.34</p>
<p>REUSSNER (ELLA) FUND: Bequest of Ella Reussner, the income to be used for such purposes as the Trustees may direct. (Principal held by the Trustees under the Will.) Established 1939.</p>	<p>2,365.95</p>	<p>.....</p>	<p>2,365.95</p>
<p>VAN CORTLANDT (ROBERT B.) FUND: Bequest of Robert B. Van Cortlandt, the income to be expended in such manner and for such purposes as the Trustees may from time to time direct. Established 1918.</p>	<p>\$13,866,833.66</p>	<p>\$171,156.99 (Decrease)</p>	<p>\$13,695,676.67</p>
<p>YEAR END CLUB FUND: Gift of the Year End Club in memory of the fifteen original members, the income to be used for the general purposes of the University. Established 1940.</p>			

	At June 30, 1945	Additions 1945-1946	At June 30, 1946
(B) For Designated Purposes			
ADAMS (ERNEST KEMPTON) FUND FOR PHYSICAL RESEARCH: Gift of Edward D. Adams, in memory of his son, Ernest Kempton Adams, such part of the income as shall be designated by the Trustees to be applied to the stipend of the Research Fellow pursuing researches in the Physical Sciences or in their practical applications; the income received in excess of such stipend to be used in the publication and distribution of the results of the investigation carried on by such Fellows. Established 1904	\$65,000.00		\$65,000.00
ALDRICH (JAMES HERMAN) SCHOLARSHIP FUND: Gift of James H. Aldrich, of the Class of 1863, to establish this fund in commemoration of the fiftieth anniversary of his graduation. Established 1913	5,000.00		5,000.00
ALDRIDGE (WALTER H.) FUND: Gift of Walter H. Aldridge, the income to provide scholarships in the School of Engineering. Established 1936	25,000.00		25,000.00
ALUMNI NEWS ENDOWMENT FUND: Gift of various donors to establish this fund. Established 1940	10.85	\$10.85 (Decrease)	
ALUMNI SCHOLARSHIP FUND: Gift of various donors, the income to be used in connection with the annual appropriation known as the President's Scholarship Fund. Established 1935	3,251.00		3,251.00
ANONYMOUS FUND FOR CHURCH AND CHORAL MUSIC: Gift of an Anonymous Donor to establish this fund, the income to be used to maintain a Professorship in Church and Choral Music. Established 1913	101,000.00		101,000.00

ANONYMOUS FUND FOR THE DEPARTMENT OF MINING AND METALLURGY: Gift of an Anonymous Donor to establish a fund for the use and benefit of the Department of Metallurgy in the School of Mines. The clear Annual Sum of \$5,000 to be paid to the donor during his lifetime. Established 1925.....	100,000.00	.....	100,000.00
ANONYMOUS FUND FOR SCHOOL OF BUSINESS: Gift of an anonymous donor, the income to be used for the support and promotion of work in the field of agricultural economics and rural and social sciences in the School of Business of the University. Established 1942.....	7,670.29	.....	7,670.29
ANONYMOUS FUND FOR STUDENT AID: Gift of an Anonymous Donor, the income to be paid to the donor during his lifetime and thereafter to be loaned to students in the School of Engineering. Any sums repaid by students to be set up in separate fund, the income to be used in aid of scientific research in Physics and Chemistry. Established 1934.....	62,300.00	.....	62,300.00
ART PROFESSORSHIP FUND: Bequest of Hugo Reisinger to found a professorship of the History of Arts. Established 1916.....	100,000.00	.....	100,000.00
AVERY ARCHITECTURAL FUND: Gift of Samuel P. Avery and Mary Ogden Avery in memory of their deceased son, Henry Ogden Avery, the income of the fund to be applied to the purchase of books relating to architecture, decorations and allied arts. Established 1890, and augmented in 1910 by \$20,000.....	50,000.00	.....	50,000.00
BAIER (VICTOR) FELLOWSHIP FUND: Bequest of Victor Baier to establish a fellowship in church music to be governed by such rules and regulations as may be determined by the Trustees. Established 1922.....	21,000.00	.....	21,000.00
BANCROFT (EDGAR A. AND FREDERIC) FOUNDATION: Bequest of Frederic Bancroft, the income, after certain charges as provided in the will, to be expended for the purchase of books or literary material upon the subjects of American History, American Diplomacy and American International Relations. Established 1945.....	45,277.99	.....	45,277.99

	At June 30, 1945	Additions 1945-1946	At June 30, 1946
BANGS (FRANCIS SEDGWICK) FUND: Gift of Mrs. Francis Sedgwick Bangs to establish a scholarship in the School of Law in memory of her husband, Francis Sedgwick Bangs of the Class of 1878 and a Trustee of the University from 1900 to 1920; the scholarship to be awarded to a qualified student who is a member of either the Anglo-Saxon, the Germanic, the Scandinavian, or the Latin race; and preferably one who has been a student in Columbia College. Established 1926	\$6,000.00	.....	\$6,000.00
BARKER (CLARENCE) MUSICAL SCHOLARSHIP FUND: Bequest of Mrs. Virginia Purdy Bacon, to establish a graduate scholarship in the Department of Music. Established 1921	29,000.00	.....	29,000.00
BARKER (MARY PERIN) FUND FOR STUDENT AID, SCHOOL OF ENGINEERING: Gift of staff members, alumni, students and friends of the School of Engineering, the income or principal to be used as an emergency fund for the benefit of students in that School. Established 1938	3,556.72	\$129.82	3,686.54
BARLOW (DR. WALTER J.) FUND: Gift of Dr. Walter J. Barlow, the income or principal to be used to meet the cost of Columbia University Metals. Established 1930	2,200.00	.....	2,200.00
BARNARD FELLOWSHIP FUND: Legacy from President Barnard to establish the 'Barnard Fellowship for encouraging Scientific Research.' Established 1889	10,000.00	.....	10,000.00

BARNARD LIBRARY FUND:

The residuary estate of President Barnard was left to the Trustees of Columbia College to constitute a fund under the name of the 'Barnard Fund for the Increase of the Library', the income of which is to be devoted to the purchase of books, especially those relating to physical and astronomical science; but out of the income of this fund so much as may be necessary is to be applied in procuring a gold medal of the bullion value of not less than \$200, to be styled the 'Barnard Medal for Meritorious Service to Science,' to be awarded every five years on the judgment of the National Academy of Sciences of the United States. The medal will next be awarded in June, 1950. Established 1889 and Augmented in 1892 by a bequest of \$16,250.00 under the will of Mrs. Margaret Barnard, widow of President Barnard.....

75,850.00

16,250.00

59,600.00

BARNARD (MARGARET) FUND:

The residuary estate of Margaret Barnard, widow of the late President Barnard, was left to the Trustees of Columbia College, 'to augment the sum left by my late husband.' Established 1892.....

.....

16,250.00

16,250.00

(Decrease)

BARSTOW (FREDERIC D.) SCHOLARSHIP FUND:

Gift of William S. Barstow, the income to provide scholarships in Columbia College. Established 1935.....

43,617.90

.....

43,617.90

BARSTOW (W. S.) SCHOLARSHIP FUND:

Gift of William S. Barstow, the income to provide scholarships in any of the Engineering Schools of the University. Established 1935.....

141,744.48

.....

141,744.48

BEARNS (JOSEPH H.) FOUNDATION:

Bequest of Lillia M. Bearns, the income to be used for prizes in Music, (Principal held by the Trustees under the Will.) Established 1926.

BEAUMONT (LOUIS D.) FUND:

Gift of the Louis D. Beaumont Trust, the income to be used at the discretion of the President. Established 1945.....

50,000.00

50,000.00

	At June 30, 1945	Additions 1945-1946	At June 30, 1946
BECK FUNDS:			
Charles Bathgate Beck bequeathed the sum of \$10,000.00 to be applied as follows: \$2,000 to found one free scholarship, the income to be applied 'to the free yearly tuition and education in said College of one student forever, under such terms and conditions as the rules of said College and said Trustees shall prescribe, the income of the remaining \$8,000 to be used for an annual prize 'to the student in the Law School who shall pass the best examination in Real Estate Law. Established 1899	\$10,000.00	.....	\$10,000.00
Beck Scholarship Fund.....	\$2,000.00		
Beck Prize Fund.....	8,000.00		
BEEKMAN (GERARD) FUND:			
Bequest of Gerard Beekman, formerly a Trustee of Columbia University, the income to be used in connection with the work of the Chaplain. Established 1920.....	10,000.00	.....	10,000.00
BEER (JULIUS) LECTURE FUND:			
Bequest of Julius Beer, the income to be applied to providing lectures at intervals not exceeding three years, by lecturers nominated by the Faculty of Political Science and confirmed by the Trustees. Established 1903	10,300.00	.....	10,300.00
BENNETT PRIZE FUND:			
Gift of James Gordon Bennett, the income or a medal of equal value, to be given for 'an essay in English prose upon some subject of contemporaneous interest in the domestic or foreign policy of the United States.' Established 1893.....	1,000.00	.....	1,000.00
BERGH (HENRY) FUND:			
Anonymous Gift, the income to be used for the promotion of humane education. Established 1907.....	100,000.00	.....	100,000.00
BERTUCH (FREDERICK) SCHOLARSHIP FUND:			
Bequest of Frederick Bertuch, the income to be applied in assisting needy students to pursue courses of study in any department of the University. Established 1929.....	88,675.67	\$15.65	88,691.32

BJORKWALL (CHARLES H.) PRIZE FUND: Bequest of Ottilie E. Bjorkwall in memory of her brother, Dr. Charles H. Bjorkwall, the income to provide an annual prize to a member of the graduating class of Columbia College who has given conspicuous evidence of unselfishness during his college course. Established 1937	1,570.00	1,570.00
BLUMENTHAL ENDOWMENT FUND: Gift of George Blumenthal for the endowment of a Chair of Politics. Established 1906.	126,720.35	126,720.35
BORING FELLOWSHIP FUND: Gift of Edward C. Moore, Jr., to establish a Fellowship in the School of Architecture. Established 1922.	6,200.00	6,200.00
BOUVIER (W. SERGEANT) MEMORIAL CUP FUND: Gift of John Vernou Bouvier, Jr. and John Vernou Bouvier III, the income to provide an annual Cup to be presented to the member of the Freshman Crew who has best exhibited the qualities of college loyalty, self-discipline and improvement in watermanship throughout the rowing season. Established 1930.	1,000.00	1,000.00
BRAINARD (EDWARD SUTLIFF) MEMORIAL PRIZE FUND: Gift of Miss Phoebe T. Sutliff in memory of her nephew, Edward Sutliff Brainard, of the Class of 1921, the income to be awarded annually to that student in the graduating class of Columbia College who is adjudged by his classmates, according to such rules as the Faculty may prescribe, as most worthy of distinction on the ground of his qualities of mind and character. Established 1920.	1,200.00	1,200.00
BREVOORT-EICKEMEYER FELLOWSHIP FUND: Bequest of Mrs. Florence Brevoort Eickemeyer in memory of her father, James Renwick Brevoort and her husband, Rudolph Eickemeyer, the income to provide a fellowship and prize in Painting and Photography. Established 1943.	2,500.00	2,500.00
BRIDGHAM (SAMUEL WILLARD) FUND: Gift of Mrs. Fanny Bridgham to establish a fund, in memory of Samuel Willard Bridgham, of the Class of 1867, School of Mines, the income to be applied to the support of a Fellowship to be awarded annually by the Faculty of Applied Science. Established 1915.	25,500.00	25,500.00

	At June 30, 1945	Additions 1945-1946	At June 30, 1946
BRITTON (NATHANIEL LORD AND ELIZABETH GERTRUDE) FUND: Bequest of Nathaniel Lord Britton, the income to be used for the Departments of Geology and Botany. Established 1934.....	\$24,028.60	.....	\$24,028.60
BRONNER (HARRY) SCHOLARSHIP FUND: Bequest of Harry Bronner, the income to provide a Scholarship for a deserving student in the School of Business. Established 1941.....	7,010.83	.....	7,010.83
BUNNER PRIZE FUND: Gift of friends of Henry Cuyler Bunner, the income to be used to provide every year the 'H. C. Bunner Medal,' to be given to the student who shall present the best essay on an assigned subject in American literature. Established 1896.....	2,000.00	.....	2,000.00
BURGESS (ANNIE P.) SCHOLARSHIP FUND: Bequest of Annie P. Burgess to establish a fund, the income to be applied to the tuition and expenses each year of a worthy and deserving young man of good habits and Christian character. Established 1913.....	5,000.00	.....	5,000.00
BURGESS (DANIEL M.) SCHOLARSHIP FUND: Bequest of Annie P. Burgess to establish a fund, the income to be applied to the tuition and expenses each year of a worthy and deserving young man of good habits and Christian character. Established 1913.....	5,000.00	.....	5,000.00
BURGLARY AND THEFT INSURANCE FUND: To provide for possible claims against the University for loss of property while in cloak rooms, check rooms, etc. at the University. Established 1942.....	483.39	\$173.12	656.51
BUSINESS ALUMNI SCHOLARSHIP FUND: Gift of various donors, the income to be used for one or more Alumni Scholarships in the School of Business. Established 1934.....	2,618.34	271.17	2,889.51

BUTLER (NICHOLAS MURRAY) MEDAL FUND: Gift of Archer M. Huntington to establish a fund, the income to be used in providing a gold medal every five years and a silver or bronze medal annually for the most distinguished contribution made anywhere in the world of philosophy, or to educational theory, practice or administration. Established 1914	3,000.00	.....	3,000.00
BUTLER (RICHARD) SCHOLARSHIP FUND: Gift of Mrs. Richard Butler in memory of her deceased husband, Richard Butler. Open to students born in the State of Ohio. Established 1903	6,000.00	.....	6,000.00
BUTLER (SUSANNA EDWARDS SCHUYLER) FUND: Bequest of Eliza Rhees Butler, the income to be expended under the direction of the President. Established 1935	2,742.75	.....	2,742.75
CABOT (MARIA MOORS) FUND: Gift of Dr. Godfrey L. Cabot, the income to be awarded annually as the Maria Moors Cabot Prizes for distinguished public service in journalism which shall advance sympathetic understanding among the peoples of the Western Hemisphere. Established 1941	1.00	.....	1.00
CALDWELL (EUGENE WILSON) FUND: Bequest of Eugene Wilson Caldwell, the income to be used in support of instruction and research in the application of physical science to medicine, surgery and public health. Established 1935	1.00	.....	1.00
CAMPBELL SCHOLARSHIP FUND: Gift of \$3,000 each from Miss Maria L. Campbell and Miss Catherine B. Campbell to establish two scholarships in Columbia College in memory of Robert B. Campbell, of the Class of 1844, and Henry P. Campbell, of the Class of 1847. Established 1900	6,000.00	.....	6,000.00
CAMPBELL (WILLIAM) FELLOWSHIP FUND: Bequest of William Campbell, the income to provide a Fellowship in Scientific Research. Established 1938	228,084.50	.42	228,084.92
CARDOZO (BENJAMIN N.) FUND: Bequest of Benjamin N. Cardozo, to establish a Chair of Jurisprudence in the Law School. Established 1938	219,095.42	44,127.77	263,223.19

	At June 30, 1945	Additions 1945-1946	At June 30, 1946
CARNEGIE (ANDREW) FUND FOR THE SCHOOL OF LIBRARY SERVICE: Gift of the Carnegie Corporation, the income or principal to be used for the support of the School of Library Service. Established 1938.....	\$75,000.00	.....	\$75,000.00
CARNEGIE CORPORATION FUND FOR INSTITUTE OF INTERNATIONAL AFFAIRS: Established by the transfer of a gift for the same purpose, the income to accumulate until further action by the Trustees. Established 1937.....	15,000.00	.....	15,000.00
CARNEGIE CORPORATION PROFESSORSHIP FUND: Gift of the Carnegie Corporation to endow a professorship in the School of Library Service. Established 1938.....	150,000.00	.....	150,000.00
CARPENTIER (EDWARD R.) FUND: Gift of Mrs. Maria H. Williamson for the endowment of a 'Professorship, or an endowed lectureship, on the origins and growth of civilization among men.' Established 1906.....	250,000.00	.....	250,000.00
CARPENTIER (JAMES S.) FUND: Gift of General H. W. Carpenter to establish a fund in memory of his brother, James S. Carpenter, for the benefit of the Law School. Established 1903.....	300,100.00	.....	300,100.00
CASA ITALIANA ENDOWMENT FUND: Gift of various donors, the income to be applied toward the maintenance of the Casa Italiana. Established 1926.....	8,477.87	.....	8,477.87
CASNER (HAMILTON YOUNG) FUND: Bequest of Cora M. Perkins, the income to be invested by the Trustees of Columbia University in such manner as shall in their judgment most effectively encourage chemical investigation and research. Established 1923.....	285,000.00	.....	285,000.00

CENTER FUND:	Gift of Mary E. Ludlow, in memory of her son, Robert Center, the income to be applied either to the salary of a Professor of Music, or of other Instructors of Music, or to Fellowships, Scholarships in Music, or to be used in any one or more of these or such other ways as shall, in the judgment of the Trustees, tend most effectually to elevate the standard of musical instruction in the United States, and to afford the most favorable opportunity for acquiring instruction of the highest order. Established 1896.	180,000.00	.....	180,000.00
CHAMBERLAIN (JOSEPH P.) ENDOWMENT FUND:	Gift of Joseph P. Chamberlain for the endowment of a chair of legislation. Established 1917.	151,792.50	.....	151,792.50
CHAMBERLAIN (LYDIA C.) FUND:	Gift of Lydia C. Chamberlain, the income to be used for fellowships in accordance with the terms of the Deed of Trust. (Principal held by Trustees under the Deed of Trust.) Established 1920.	7,500.00	.....	7,500.00
CHANDLER (CHARLES FREDERICK) FUND:	From the Alumni of Columbia University to establish this fund in honor of Professor Charles Frederick Chandler, the income to be applied to the delivery and publication of at least one public lecture each year on some phase of the science of Chemistry, etc. Established 1910.	1,100.00	.....	1,100.00
CHANLER PRIZE FUND:	Bequest of J. Winthrop Chanler, of the Class of 1847, to found an annual prize for 'the best original manuscript essay in English prose on the History of Civil Government of America, or some other historical subject.' Established 1877.	381.00	.....	381.00
CHAPEL FURNISHING FUND:	Created by act of the Trustees on Feb. 1, 1926, by the transfer of the balance of the St. Paul's Chapel Windows Gift Account. This sum to constitute a special fund, either the principal or income of which may be used for furniture and equipment of St. Paul's Chapel. Established 1926.	1,050.00	.....	1,050.00
CHAPEL MUSIC FUND:	Gift of Gerard Beekman of the Class of 1864 to establish this fund, the income to be applied to the purchase of suitable music for use in the services in St. Paul's Chapel. Established 1913.			

	At June 30, 1945	Additions 1945-1946	At June 30, 1946
CLASS OF 1848 SCHOLARSHIP FUND:			
Gift of an Anonymous Friend, for the endowment of two Scholarships in Columbia College, Es- tablished 1902.....	\$10,000.00	.....	\$10,000.00
CLASS OF 1869 FUND:			
Representing the amount held by the Treasurer of the Class of 1869 at the time of his death. The income or principal to be used as the surviving members of the class may designate. Established 1924.....	100.00	.....	100.00
CLASS OF 1878 MINES:			
Gift of the Class of 1878 Mines of \$1,000.00, added to the Permanent Alumni Fund. Received 1929.			
CLASS OF 1880:			
Gift of the Class of 1880 of \$5,000.00 added to the Columbiana Endowment Fund. Received 1930.			
CLASS OF 1880:			
Gift of the Class of 1880 of \$200.00 added to the Permanent Alumni Fund. Received 1931.			
CLASS OF 1881 ARTS AND MINES FUND:			
Gift of the Class of 1881 Arts and Mines in commemoration of the fortieth anniversary of their graduation, for the maintenance of the Class of 1881 flagpole and for the purchase of Columbia flags. Established 1921.....	2,000.00	.....	2,000.00
CLASS OF 1881 COLLEGE:			
Gift of the Class of 1881 College of \$10,000.00 added to the Columbiana Endowment Fund. Re- ceived 1931.			
CLASS OF 1882:			
Gift of the Class of 1882 of \$8,250.00 added to the Columbiana Endowment Fund. Received 1932, 1933, 1934, 1935.			

CLASS OF 1883: Gift of the Class of 1883 of \$1,500.00 added to the Columbiana Endowment Fund. Received 1933.			
CLASS OF 1884: Gift of the Class of 1884 of \$50.00 added to the Columbiana Endowment Fund. Received 1935.			
CLASS OF 1884 ARTS AND MINES: Gift of the Class of 1884 Arts and Mines of \$380.00 added to the Columbiana Endowment Fund. Received 1934.			
CLASS OF 1884 ENGINEERING: Gift of the Class of 1884 Engineering of \$700.00 added to the Columbiana Endowment Fund. Received 1934.			
CLASS OF 1885 SCHOOL OF MINES FUND: Gift of the Class of 1885 School of Mines in commemoration of the twenty-fifth anniversary of their graduation, the income to be applied to the maintenance of a Scholarship in the Schools of Mines, Engineering and Chemistry. Established 1910.....	14,125.00	14,125.00	14,125.00
CLASS OF 1886 FUND: Gift of the Class of 1886, the income to be used for the purchase of books or pamphlets. Established 1936.....	2,310.00	2,310.00	2,310.00
CLASS OF 1887 MINES: Gift of the Class of 1887 Mines of \$50.00 added to the Columbiana Endowment Fund. Received 1931.			
CLASS OF 1887 MINES, DORMITORY ROOM ENDOWMENT FUND: Gift of the Class of 1887 Mines, for the endowment of room 933 Livingston Hall, the occupancy thereof to be awarded as provided in the deed of gift. Established 1937.....	8,000.00	8,000.00	8,000.00
CLASS OF 1888 ARTS AND MINES FUND: For the maintenance of the Class of 1888 Gates. Established 1917.....	425.00	425.00	450.00
CLASS OF 1888 COLLEGE AND ENGINEERING FUND: Gift of the Class of 1888 Arts and Mines, of \$2520. Added to the Columbiana Endowment Fund...			\$25.00

	At June 30, 1945	Additions 1945-46	At June 30, 1946
CLASS OF 1889 MEDAL FUND:			
Gift of the Class of 1889 School of Mines in commemoration of the twenty-fifth anniversary of their graduation, the income to be applied to the cost of a medal to be awarded triennially to a graduate of the School of Mines, or of any of the schools of applied science or architecture, who shall have distinguished himself by eminent achievement in any sphere of human effort. Established 1915	\$500.00	.....	\$500.00
CLASS OF 1892 ARTS AND MINES FUND:			
Gift of the Class of 1892 Arts and Mines for the endowment of rooms 633 Hartley and 431 Fernald, the occupancy thereof to be awarded as provided in the deed of gift. If in any year the income be in excess of the amount required for this purpose, the University may apply such surplus income for the general use of the University. Established 1917.	15,300.00	.....	15,300.00
CLASS OF 1893 MEMORIAL FUND:			
Gift of the Class of 1893, the income to be expended as designated by the Class. Unless the Class shall make such designation, the income to be used in such manner as the Trustees may direct. Established 1933	1,040.29	.....	1,040.29
CLASS OF 1895 ARTS AND MINES:			
Gifts of the Class of 1895 Arts and Mines of \$16,108.11 added to the permanent alumni fund. Received 1919, 1923, 1931 and 1940			
CLASS OF 1896 ARTS AND MINES SCHOLARSHIP FUND:			
Gift of the Class of 1896, Arts and Mines in commemoration of the twenty-fifth anniversary of their graduation. Established 1921.	18,300.00	\$12,667.23	30,967.23

<p>CLASS OF 1898 PRIZE FUND: Gift of the Class of 1898 in commemoration of the twenty-fifth anniversary of its graduation and in memory of John Howard Van Arninge of the Class of 1860 to establish a fund, the income to be used in providing a bronze medal to be awarded each year to that member of the Sophomore Class who shall have most distinguished himself for service, character and courtesy in his relations to faculty, fellow students and visitors to the University. Established 1923. (See Van Arninge Prize Fund in this Schedule for amount.)</p>	6,356.47
<p>CLASS OF 1898 COLLEGE, ENGINEERING AND ARCHITECTURE FUND: Gift of the Class of 1898, the income to be used for the purchase of books for the Library. Established 1937.</p>	6,356.47
<p>CLASS OF 1899 COLLEGE: Gift of the Class of 1899 College of \$1,000.00 added to the Students Loan Fund. Received 1925.</p>	250.00
<p>CLASS OF 1899 COLLEGE AND ENGINEERING FUND: Gift of the Class of 1899 College and Engineering, the income or principal to be used as an emergency fund for the benefit of students of the School of Engineering. Established 1939.</p>	250.00
<p>CLASS OF 1900 COLLEGE AND ENGINEERING FUND FOR STUDENT AID: Gift of the Class of 1900 College and Engineering, the income or principal to be used as an emergency fund for the benefit of the students in the School of Engineering. Established 1940.</p>	500.00
<p>CLASS OF 1901 COLLEGE AND MINES FUND FOR ROWING TROPHY: Gift of the Class of 1901 College and Mines, the income to be used for the purchase each year of a cup or other suitable trophy to be awarded to a member of the Varsity Crew as provided in the deed of gift. Established 1941.</p>	1,200.00
<p>CLASS OF 1901 DECENNIAL FUND: Gift of the Class of 1901 College and Applied Science, the income to be applied toward the expenses of maintaining the work of the Committee on Employment of Students. Established 1911.</p>	1,400.00

	At June 30, 1945	Additions 1945-1946	At June 30, 1946
CLASS OF 1903: Gift of the Class of 1903 of \$12,000.00 added to the Students Loan Fund. Received 1930.			
CLASS OF 1904 SCHOLARSHIP FUND: Gift of the Class of 1904 College and Science, the income to be used for scholarships in accordance with the terms of the gift. Established 1929.	\$21,130.00	\$220.00	\$21,350.00
CLASS OF 1905 COLLEGE AND ENGINEERING FUND: Gift of the Class of 1905 College and Engineering, in commemoration of the 35th anniversary of their graduation. For the maintenance of the Class of 1905 gates at Baker Field and other parts of Baker Field. Established 1940.	3,600.00	.....	3,600.00
CLASS OF 1906: Gift of the Class of 1906 of \$12,603.03 added to the Revolving Fund for Athletic Activities. Received 1931.			
CLASS OF 1907 COLLEGE AND ENGINEERING SCHOLARSHIP FUND: Gift of the Class of 1907, in commemoration of the thirtieth anniversary of their graduation, the income to be used for "The Class of 1907 Scholarship," to be awarded annually, with first preference to sons and other descendants of class members. Established 1937.	9,297.00	.....	9,297.00
CLASS OF 1909 FLAGPOLE FUND: Created by act of the Trustees November 7, 1927, the income to be used for the care and maintenance of the flagpole on Baker Field.	1,000.00	.....	1,000.00
CLASS OF 1909 MEMORIAL FUND: Gift of the Class of 1909, to be held by the University until further advice of the members of the Class, Established 1944.	12,840.39	6,322.50	19,162.89

CLASS OF 1911 FUND: Gift of the Class of 1911 to endow a room in one of the dormitories for a deserving student each Session. Established 1936.	4,500.00	4,500.00	9,000.00
CLASS OF 1912 LAW FUND: Gift of the Class of 1912, in commemoration of the twenty-fifth anniversary of their graduation, the income to be disposed of under the guidance of members of the Class and of the Law School Faculty. Established 1937.	1,500.00	1,500.00	1,500.00
CLASS OF 1913 SCHOLARSHIP FUND: Gift of the Class of 1913, the income to be used for scholarships. Established 1938.	7,357.00	50.00	7,407.00
CLASS OF 1914 COLLEGE AND ENGINEERING—25TH ANNIVERSARY FUND: Gift of the Class of 1914, to Establish a Fund in Commemoration of the 25th Anniversary of its Graduation. Established 1937.	8,920.00	.....	8,920.00
CLASS OF 1916, COLLEGE AND ENGINEERING FUND: Gift of the Class of 1916, College and Engineering, the income to endow Room 201 in Hartley Hall. Established 1941.	5,500.00	.....	5,500.00
CLASS OF 1916 LAW-SCHOLARSHIP ENDOWMENT FUND: Gift of the Class of 1916, to be held by the University for Scholarship Endowment. Established 1937.	1,389.42	.....	1,389.42
CLASS OF 1917 ENGINEERING: Gift of the Class of 1917 Engineering of \$2,500.00 added to the Engineering School Student Loan Fund. Received 1928.	3.00	.....	.....
CLASS OF 1917 ENGINEERING—DORMITORY ROOM ENDOWMENT FUND: Gift of the Class of 1917, to be held by the University for Dormitory Room Endowment. Established 1938.	.....	3.00 (Decrease)	.....
CLASS OF 1917 COLLEGE AND JOURNALISM—DORMITORY ROOM ENDOWMENT FUND: Gift of the Class of 1917 College and Journalism, the income to endow a Dormitory Room in Perpetuity. Established 1936.	4,545.00	23.78	4,568.78

	At June 30, 1945	Additions 1945-1946	At June 30, 1946
CLASS OF 1918 FUND FOR BOOKS FOR THE COLLEGE STUDY: Established by the transfer of a gift for the same purpose, the income to be used for the purchase of books. Established 1945.....	\$2,830.00	.....	\$2,830.00
CLASS OF 1920 DECENNIAL FUND: Gift of the Class of 1920 for the endowment of room 603 Hartley Hall, the occupancy thereof to be awarded as provided in the deed of gift. Established 1930.....	4,500.00	.....	4,500.00
CLASS OF 1920-25TH ANNIVERSARY FUND: Gift of the Class of 1920, to be held by the University until further advice of the members of the Class. Established 1944.....	9,904.85	\$21,306.43	31,211.28
CLASS OF 1921 MINES: Gift of the Class of 1921 Mines of \$110.00 added to the Wendell Medal Fund. Received 1927.			
CLASS OF 1921 SCHOLARSHIP FUND: Gift of the Class of 1921 College, the income to be used for scholarships. Established 1936.....	2,055.61	8,005.00	10,060.61
CLASS OF 1922 COLLEGE-SCHOLARSHIP ENDOWMENT FUND: Gift of the Class of 1922, to be held by the University for Scholarship Endowment. Established 1937.....	972.00	85.00	1,057.00
CLASS OF 1926 COLLEGE-DORMITORY ROOM ENDOWMENT FUND: Gift of the Class of 1926, to be held by the University for Dormitory Room Endowment. Established 1937.....	487.00	1,565.00	2,002.00
CLASS OF 1927 COLLEGE-LIBRARY ENDOWMENT FUND: Gift of the Class of 1927, to be held by the University for Library Endowment. Established 1937.....	169.00	.....	169.00

<p>CLASS OF 1927 FUND: Gift of the members of the Class of 1927, the income to be added to the principal until further advice of the members of the Class. Established 1929.....</p>	1,286.23	8.01 (Decrease)	1,278.22
<p>CLASS OF 1929 TENTH ANNIVERSARY FUND: Gift of the Class of 1929, the income to be used for general purposes unless the class otherwise designates. Established 1939.....</p>	373.86		373.86
<p>CLASS OF 1930 DECENNIAL FUND: Gift of the Class of 1930 to establish a fund for underwriting the expenses of qualified representatives who may be invited to speak concerning, or give exhibitions of, college activities. Established 1940.....</p>	704.93		704.93
<p>CLASS OF 1931 COLLEGE, TENTH ANNIVERSARY FUND: Gift of the Class of 1931 College, to be held by the University until further advice of the members of the Class. Established 1941.....</p>	1,506.98		1,506.98
<p>CLASS OF 1932 FUND: Gift of the Class of 1932 to endow a Dormitory Room annually. Established 1936.....</p>	141.50	141.50 (Decrease)	
<p>CLASS OF 1935—5TH ANNIVERSARY FUND: Gift of the Class of 1935 College, to establish a cumulative scholarship fund designed to send some son or sons of members of the class through Columbia. Established 1940.....</p>	277.67		277.67
<p>COLE FUND: Bequest of Edward F. Cole, the income to be used to assist worthy, deserving and desirable students. Established 1943.....</p>	24,000.00	5,909.75	29,909.75

	At June 30, 1945	Additions 1945-1946	At June 30, 1946
COLLINS (PERRY McDONOUGH) SCHOLARSHIP FUND: Request of Kate Collins Brown, the annual income to be divided into amounts of three hundred dollars (\$300.) to be paid annually under such rules and regulations as the Board of Trustees of the College may from time to time establish, to each of those undergraduates in the academic and scientific courses of the College whose pecuniary condition and resources are, in the judgment of the Board of Trustees, insufficient to defray the expenses of his college education; and if the College is unable in any year to use the entire income of the said Fund for the purpose aforesaid, after making every proper effort to do so, the balance of the income from the Fund in that year, not needed for the aforesaid purposes, shall be applied to the general purposes of the academic and scientific departments of the College. Established 1918.....	\$566,000.00		\$566,000.00
COLUMBIA ALUMNI IN MEMORIAM FUND: Gifts received through the Columbia Alumni Fund, the income to be paid to the Columbia Alumni Fund. Established 1928.....	1,325.00		1,325.00
COLUMBIA ALUMNI IN PERPETUITY FUND: Gifts received through the Columbia Alumni Fund, the income to be paid to the Columbia Alumni Fund. Established 1928.....	4,000.00		4,000.00
COLUMBIA HUDSON-FULTON PRIZE FUND: Gift of the representatives of the various Committees having charge of the reception given on the University grounds in October, 1909, under the auspices of the Hudson-Fulton Celebration Commission, the income to be used for an annual prize or prizes, to be known as the Columbia Hudson-Fulton Prize or Prizes, for an athletic event. Established 1909.....	1,000.00		1,000.00
COLUMBIANA ENDOWMENT FUND: Gift of various donors, the income to be used for the support of Columbiana. Established 1930.....	34,481.91		34,481.91

COLUMBIA SCHOLASTIC PRESS ASSOCIATION FUND: Representing surplus funds of the association, the income may be used for scholarship aid if not needed by the association. Established 1940.	6,026.68	\$77.00	6,103.68
COLUMBIA UNIVERSITY FOOTBALL ASSOCIATION FUND: From the Trustees of the trust created by the Columbia University Football Association, the income to be applied towards the support of athletic teams or crews representing Columbia University in intercollegiate sports. Established 1911.	10,037.72	.....	10,037.72
CONVERS (E. B.) PRIZE FUND: Gift of Miss Alice Convers and Miss Clara B. Convers to endow, in memory of their brother, Ebenezer Buckingham Convers, of the Class of 1866, a prize in the Columbia Law School. Established 1906.	1,100.00	.....	1,100.00
COTHEAL FUND: Gift of Mrs. James R. Swords and Mrs. Samuel Lawrence as a memorial to their brother, Alexander I. Cotheal, the income to be used for the purchase of books in the Oriental Languages, or relating to Oriental countries. Established 1896.	17,025.00	.....	17,025.00
COWLES (JUSTUS A. B.) FUND: Bequest of Justus A. B. Cowles, the income to be used in support of the athletic interest of the University. Established 1940.	2,500.00	.....	2,500.00
CROSBY (WILLIAM O.) COLLECTION OF LANTERN SLIDES FUND: Gift of \$1,800 from friends of Professor William O. Crosby, of Boston, to establish and maintain the collection of geological lantern slides in the Department of Geology known by above title. One hundred dollars was made immediately available and \$1,700 is to constitute a permanent fund, the income only to be used for above purposes. Established 1913.	1,700.00	.....	1,700.00
CURRIER (NATHANIEL) FUND: Bequest of Laura Currier, to establish the Nathaniel Currier Fund, the income to be used for the purchase of books for the Library. Established 1908.	50,000.00	.....	50,000.00

	At June 30, 1945	Additions 1945-1946	At June 30, 1946
CURTIS (CARLTON C.) FUND: Gift of Carlton C. Curtis for the endowment of a branch of creative investigation under the terms and conditions as set forth in the deed of gift. Established 1921.	\$30,262.40	\$859.69	\$31,122.09
CURTIS FELLOWSHIP FUND: Gift of the George William Curtis Memorial Committee to establish a fellowship in the School of Political Science in Columbia University, to bear the name and to perpetuate the memory of George William Curtis, the holder of the fellowship to devote himself to the study of the science of government, with a special view to its application to the then existing conditions of the United States, or the State or City of New York, and to publish a monograph on some subject relating to the then existing condition of the United States, etc. Established 1899.	10,000.00	.....	10,000.00
CURTIS (GEORGE WILLIAM) MEDALS FUND: Gift from an associate of George William Curtis in the Civil Service Reform work. Established 1902.	1,300.00	.....	1,300.00
CUTHIELL (CHESTER W.) 1905 SCHOLARSHIP FUND: Gift of the Class of 1905 to establish this fund. Established 1945.	19,000.00	.....	19,000.00
CUTTING (W. BAYARD) FUND: Gift of Mrs. W. Bayard Cutting and her children to establish this fund in memory of W. Bayard Cutting, of the Class of 1869, the income to provide travelling fellowships. Established 1913.	160,000.00	.....	160,000.00
CUTTING (W. BAYARD, JR.) FELLOWSHIP FUND: Gift of W. Bayard Cutting, to establish the 'W. Bayard Cutting, Jr. Fellowship Fund.' \$600 annually is payable to Grafin Eva von Wurmbbrand during her lifetime; thereafter, the income shall be used to provide a fellowship in International Law, to be awarded annually at the pleasure of the Trustees, to that student, who, in their judgment, shall have attained a standard of excellence to justify the award. Established 1912.	21,170.03	1,743.63 (Decrease)	19,426.40

<p>DA COSTA PROFESSORSHIP FUND: Charles M. DaCosta, a member of the Class of 1855, bequeathed to the Trustees of Columbia College \$100,000. Of this sum, the Trustees, on October 6, 1891, for the endowment of a chair in the Department of Biology, set apart \$80,000, which has been increased by the profits of certain investments to.....</p>	86,600.00	.....	86,600.00
<p>DARLING (EDWARD A.) PRIZE FUND: Bequest of Edward A. Darling, formerly Superintendent of Buildings and Grounds, the income to be awarded as a prize each year at Commencement to that student of the senior class in Engineering whose work during his course of study is voted by his classmates to have been the most honest and thorough. Established 1903.....</p>	1,070.00	.....	1,070.00
<p>DAVIS (A. M.) SCHOLARSHIP FUND: Gift of A. M. Davis, the income to be added to principal until further notice. Established 1944..</p>	308.92	113.28	422.20
<p>DAVIS (EDWIN F.) SCHOLARSHIP FUND: Bequest of Edwin F. Davis to establish this fund, the income to provide one or more scholarships in the University. Established 1939.....</p>	38,333.01	15,108.76	53,441.77
<p>DEAN LUNG PROFESSORSHIP OF CHINESE FUND: Gift of an anonymous friend to found a department of Chinese Languages, Literatures, Religion and Law and especially for the establishment of a Professorship to be known as the Dean Lung Professorship of Chinese. Established 1901.....</p>	250,000.00	.....	250,000.00
<p>DEUTSCHER VEREIN PRIZE FUND: Gift of the Deutscher Verein in Columbia University to establish an annual prize in German. Established 1917.....</p>	1,000.00	.....	1,000.00
<p>DEUTSCHES HAUS ENDOWMENT FUND: Gift of Adolph Busch received in 1912 and later transferred to the Germanistic Fund; re-established in 1928, the income to be expended in equipping and maintaining the Deutsches Haus.....</p>	17,873.00	.....	17,873.00

	At June 30, 1945	Additions 1945-1946	At June 30, 1946
DEWITT (GEORGE G.) SCHOLARSHIP FUND: Gift of Mrs. George G. DeWitt of New York to establish this fund, the net annual income to be awarded as a scholarship by the Faculty of Law to any graduate of Columbia College of good mental and moral standing in his class, who may need such assistance to enable him to pursue the three years course at the Law School and who, in the judgment of the Faculty of Law, shall be worthy of such privilege; provided that the holder of this scholarship shall reside in one of the Residence Halls of the University during his period of study. Established 1917.	\$15,400.00	.....	\$15,400.00
DIBBLEE (EZRA REED AND FRANCES M.) SCHOLARSHIP FUND: Bequest of Charlotte Dibblee, in memory of her father and mother, the income to provide two scholarships in accordance with the terms of the Will. Established 1933.	12,880.00	.....	12,880.00
DITSON (ALICE M.) FUND: Bequest of Alice M. Ditson, the income to provide fellowships in Music. Established 1940.	381,656.51	\$7,157.09	388,813.60
DITSON (CHARLES H.) ENDOWMENT FUND: Bequest of Charles H. Ditson, the income to maintain a chair, to provide scholarships, fellowships etc., in Music. Established 1931.	100,000.00	.....	100,000.00
DONALDSON (MRS. JOHN WILLCOX) FUND FOR NEVIS: Gift of Mrs. John Willcox, the income to be used for the care and maintenance of Nevis. Established 1940.	2,500.00	.....	2,500.00
DOWNES (STANCLIFF BAZEN) SCHOLARSHIP FUND: Bequest of Bazena Treat Downes Merriman, the income to provide a scholarship in Civil Engineering. Established 1945.	10,000.00	.....	10,000.00
DRISLER CLASSICAL FUND: Gift of Seth Low, formerly President of the University, for the endowment of the 'Henry Drisler Classical Fund' for the purchase of books, maps, charts, busts and such other equipment as will tend to make instruction in the classics more interesting and effective. Established 1894.	11,500.00	.....	11,500.00

DUNNING (WILLIAM A.) FUND: Request of William A. Dunning, the income to be applied to the promotion of instruction and research in the Department of History. Established 1923.	43,500.00	43,500.00
DWIGHT MEMORIAL RESIDENCE SCHOLARSHIP FUND: Gift of various donors, the income to be used for Scholarships in the Law School. Established 1936.	1,460.00	1,460.00
DYCKMAN FUND: Gift of Isaac Michael Dyckman in memory of his uncles, Dr. Jacob Dyckman of the class of 1810 (M.D. 1813) and James Dyckman of the class of 1811, to establish the 'Dyckman Fund for the Encouragement of Biological Research,' the interest derived therefrom to be devoted annually to such object, consistent with the purposes of the gift, as shall be recommended by the Department of Zoology and approved by the President. Established 1899.	11,500.00	11,500.00
DYCKMAN INSTITUTE FUND: Gift of the Dyckman Institute, the income to assist one or more students as provided in the deed of gift. Established 1943.	48,053.47	48,053.47
EARLE PRIZE FUND: Gift of the Earle Memorial Committee to establish the Earle Prize in Classics. Established 1907.	1,325.00	1,325.00
EATON PROFESSORSHIP FUND: Bequest of Dorman B. Eaton to endow and maintain a Professorship of Municipal Science and Administration in the College. Established 1903.	100,000.00	100,000.00
EDSON (HERMAN ALDRICH) SCHOLARSHIP FUND: Bequest of Mary Gertrude Edson Aldrich to establish this Fund. Established 1925.	5,000.00	5,000.00
EIMER (AUGUST O.) MEDAL FUND: Gift of the classmates and friends of August O. Eimer of the Class of 1906, the income to provide medals for proficiency in swimming under the direction of the Columbia University Athletic Association. Established 1927.	1,000.00	1,000.00

	At June 30, 1945	Additions 1945-1946	At June 30, 1946
EINSTEIN FUND: Gift of Dr. and Mrs. Charles Waldstein, as a memorial to Mrs. Waldstein's parents, Mr. and Mrs. D. L. Einstein, the income of which is to be awarded annually to that graduate student doing the best and most original work in the field of American Diplomacy. Established 1911	\$5,000.00	.....	\$5,000.00
ELLIS (GEORGE ADAMS) SCHOLARSHIP FUND: Gift of George Adams Ellis, the income to provide an annual scholarship in the Law School. Established 1927	8,000.00	.....	8,000.00
ELLIS (GEORGE W.) FELLOWSHIP FUND: Bequest of George W. Ellis for Fellowships for graduate students from the State of Vermont. Established 1930	75,000.00	.....	75,000.00
ELSBERG (ALBERT MARION) PRIZE FUND: Gift of Mrs. Albert Elsberg to establish this fund as a memorial to her son, Albert Marion Elsberg, of the Class of 1905, the income to provide the 'Albert Marion Elsberg Prize in Modern History.' Established 1912	2,100.00	.....	2,100.00
EMMONS (SAMUEL FRANKLIN) MEMORIAL FUND: Amount collected by the Committee of the Emmons Memorial Fund for a fellowship in Scientific Research. Established 1913	16,750.00	.....	16,750.00
ERB SCHOLARSHIP FUND: Gift of Frank C. Erb, in memory of Adele M. Erb, Frederic W. Erb and Frank C. Erb, the income to be awarded at such intervals when the amount is adequate for the purpose to a student of American history. Established 1946 . . . . .	.....	\$15,000.00	15,000.00
EVANS (HENRY) FELLOWSHIP FUND: Gift of Mrs. Henry Evans in memory of her husband, Henry Evans of the Class of 1881, the income to be awarded annually as a fellowship in accordance with the terms and conditions of the gift. Established 1928	30,000.00	.....	30,000.00

EVANS (HENRY) SCHOLARSHIP FUND: Gift of Mrs. Henry Evans in memory of her husband, Henry Evans of the Class of 1881, the income to be paid under such rules and regulations as the Trustees may from time to time establish, to an undergraduate in Columbia College entering upon his Freshman year, whose pecuniary condition and resources are, in the judgment of the Faculty, insufficient to defray the cost of his college education. Established 1926.	20,000.00	.....	20,000.00
FACULTY HOUSE MAINTENANCE FUND: Created by act of the Trustees on October 5, 1925 by the transfer of the balance of the Schermerhorn (F. Augustus) Bequest, this sum to constitute a special fund, the income to be used for the physical maintenance and upkeep of the Faculty House. Established 1925.	15,002.85	.....	15,002.85
FERGUSON (DAVID W. AND ELLEN A.) FELLOWSHIP FUND: Gift of William C. Ferguson of the Class of 1887, School of Mines, to establish a fellowship in the Department of Chemistry, the holder of the fellowship to devote himself to investigation upon the subject of synthetic drugs and medicines. Established 1921.	10,000.00	.....	10,000.00
FIELD (OTIS W.) FUND: Bequest of Otis W. Field, the income to be awarded annually to the man of the Junior or Senior Class who, in the judgment of the Dean of the University, shall be deemed most worthy to receive same; basing the award on the good character and fair scholarship of a scholar who is working his way through college and is in need of financial assistance. Established 1930.	3,000.00	.....	3,000.00
FINE ARTS ENDOWMENT FUND: Gift of an anonymous donor to establish this fund for the benefit of the School of Architecture Established 1913.	668,435.10	24,397.88	692,832.98
FISHER (LIZETTE ANDREWS) FELLOWSHIP FUND: Bequest of Lizette A. Fisher, the income to provide a fellowship to a woman graduate student in the Department of English. Established 1945.	51,907.02	6,329.39	58,236.41
FOX (RICHARD H.) MEMORIAL PRIZE FUND: Gift of Mr. and Mrs. Leon S. Fox, the income to provide the Fox Prize in the College. Established 1927.	561.00	.....	561.00

	At June 30, 1945	Additions 1945-1946	At June 30, 1946
FRIENDS OF THE LIBRARY FUND: Representing the amount of life memberships. The income to be used for the current expenses of the organization. Established 1936.	\$760.35	.....	\$760.35
GARBALDI (GIUSEPPE) MEMORIAL FUND: Gift of the Italian Government, the income to defray the tuition expenses of worthy students who plan to specialize in the study and teaching of Italian. Established 1932.	10,000.00	.....	10,000.00
GARTH MEMORIAL FUND: Gift of Horace E. Garth to establish a fellowship in Political Economy in memory of his son, the late Granville W. Garth. Established 1904.	16,500.00	.....	16,500.00
GEBHARD FUND: Bequest of Frederick Gebhard to found a Professorship of German Language and Literature. Established 1843.	20,000.00	.....	20,000.00
GEOLOGICAL SOCIETY OF AMERICA RESEARCH FUND: Gift of the Geological Society of America, the income to be used for research. Established 1940.	18,000.00	\$2,000.00	20,000.00
GERMAN LECTURE FUND: Gift for an endowment for Public Lectures in German at the University, the income to be used for advertising, printing, slides, etc. Established 1901.	1,250.00	.....	1,250.00
GIBSON (WILLIAM HENRY) SCHOLARSHIP FUND: Gift of Mrs. Honora Gibson Pelton in memory of her father, William Henry Gibson, of the Class of 1875, the income to be awarded annually as a scholarship in accordance with the terms and conditions of the gift. Established 1927.	10,000.00	.....	10,000.00
GIFFORD (RALPH WALDO) SCHOLARSHIP FUND: Gifts of Various Alumni to establish a scholarship Fund. Established 1937.	155.00	.....	155.00

GILBERT (FRANKLIN CARL) FUND: Gift of Alice M. Gilbert, the income and such part of the principal as may be necessary to be paid to the donor during her lifetime in accordance with the terms of agreement. Established 1942.	22,752.89	393.25 (Decrease)	22,359.64
GILDER (RICHARD WATSON) FUND FOR THE PROMOTION OF GOOD CITIZENSHIP: Contributions by the friends of Richard Watson Gilder to establish this fund in his honor, the income to be used to enable succeeding classes of students to devote themselves as 'Gilder Fellows' to the investigation and study of political and social conditions in this country and abroad, etc. Established 1911.	50,500.00	.....	50,500.00
GLADNEY (FRANK Y.) DORMITORY ROOM ENDOWMENT FUND: Gift of Frank Y. Gladney, a member of the Class of 1902, the income to be used each year for the cost of a dormitory room for a deserving Law School Senior. Established 1937.	5,900.00	1,100.00	7,000.00
GOLDSCHMIDT (SAMUEL ANTHONY) FELLOWSHIP FUND: Gift of George B. Goldschmidt, to establish this fund, as a memorial to Samuel Anthony Goldschmidt, of the Class of 1871, the income to be used for the maintenance of a fellowship in Chemistry. Established 1908.	30,000.00	.....	30,000.00
GOTTHEIL (GUSTAV) LECTURESHIP FUND: Gift from Temple Emanu-El to establish a lectureship, the holder of which is to be nominated by the Professors in the Department of Semitic Languages, subject to confirmation by the Trustees. Established 1903.	18,425.00	.....	18,425.00
GOTTSBERGER (CORNELIUS HEENEY) FELLOWSHIP FUND: Bequest of Ellen Josephine Banke to establish a fellowship to bear the name and be in memory of her deceased brother, Cornelius Heeney Gottsberger. Established 1904.	9,500.00	.....	9,500.00
GOULD (EDWIN J.) FUND: Gift of Edwin J. Gould, the income to be used toward the expenses of the Columbia University Rowing Crews. Established 1933.	6,992.00	.....	6,992.00
GREEN PRIZE FUND: Gift of Mr. and Mrs. Asher Green to establish this fund, in memory of their son, a member of the Class of 1914, the income to provide the Green Prize in the College. Established 1913.	1,000.00	.....	1,000.00

	At June 30, 1945	Additions 1945-1946	At June 30, 1946
HALL (GEORGE HENRY) FUND: Bequest of George Henry Hall to establish this fund, the income to be used to maintain continuously one scholar in the University for the full term of four years, such scholar to be selected by the Trustees. Established 1913.	\$14,500.00	.....	\$14,500.00
HAMILTON (JOHN CHURCH) FUND: Bequest of Miss Adelaide Hamilton to be set apart as a fund for the purchase of books, as a memorial to her father, John Church Hamilton, a son of Alexander Hamilton, a proper book-plate to be set in each volume purchased with the income of the fund. Established 1917.	1,000.00	.....	1,000.00
HAND (ELLEN KING) MEMORIAL FUND: Bequest of Oliver Kane Hand, the income to be used for the aid of deserving students who are candidates for the degree of Bachelor of Arts in Columbia College. Established 1941.	5,000.00	.....	5,000.00
HAND (THOMAS JENNINGS) MEMORIAL FUND: Bequest of Oliver Kane Hand of \$1047.34 added to the Columbia University Permanent Alumni Fund. Received 1941.			
HARRIMAN (REVEREND ORLANDO) FUND: Gift of the children of Reverend Orlando Harriman, of the Class of 1835, as a memorial to their father, the income until further action by the Trustees, to be applied to the salary of the Professor of Rhetoric and English. Established 1908.	119,000.00	.....	119,000.00
HARRIS (ELLEN C.) FUND: Bequest of Ellen C. Harris for the erection and endowment of a building as a memorial to her mother, Evelina M. Harris. Established 1922.	144,890.46	\$4,597.00	149,487.46
HARRISON (JAMES RENWICK) SCHOLARSHIP FUND: Bequest of James Renwick Harrison of the Class of 1917 to the Athletic Association, the income to be used for the James Renwick Harrison Scholarship in accordance with a plan to be approved by Mrs. Harrison, his mother. Established 1932.	10,000.00	.....	10,000.00

HAUGHTON (PERCY D.) MEMORIAL FUND: Gift of the Haughton Memorial Committee in memory of Percy D. Haughton, the income to be applied to the rental and maintenance of a specified room in John Jay Hall to be known as the Haughton Memorial Room. Established 1926.	6,614.45	6,614.45	6,614.45
HAWKES (DEAN HERBERT E.) MEMORIAL FUND: Gift of various donors, the income to be expended for Scholarships for deserving students in Columbia College. Established 1943.	1,423.90	20,205.29	21,629.19
HAYDEN (CHARLES) MEMORIAL SCHOLARSHIP ENDOWMENT FUND: Established by the transfer of a gift for the same purpose, the income to be used for scholarships in accordance with the eligibility rules of the Foundation. Established 1945.	36,052.24		36,052.24
HEAT AND MASS FLOW ANALYZER LABORATORY FUND: Established by the transfer of various gifts for the same purpose, the income and principal to be expended by the Department of Mechanical Engineering for the work of the Laboratory. Established 1946.	29,018.18		29,018.18
HEPBURN (A. BARTON) ENDOWMENT FUND: Gift of A. Barton Hepburn, formerly a trustee of the University, the income to be applied as the Trustees may from time to time provide, to the maintenance and conduct of the School of Business. Established 1918.	910,000.00	910,000.00	910,000.00
HEPBURN (A. BARTON) PROFESSORSHIP FUND: Bequest of A. Barton Hepburn, formerly a trustee of the University, to found or aid in founding a professorship in either economics or history. Established 1922.	150,000.00	150,000.00	150,000.00
HERVEY (WILLIAM ADDISON) MEMORIAL SCHOLARSHIP FUND: Gift of William Addison Hervey Memorial Committee, the income to provide a scholarship in the department of Germanic Languages. First awarded October 1, 1925, and biennially thereafter. Established 1924.	3,610.20	3,610.20	3,610.20
HIRSH (MORTIMER) MEMORIAL PRIZE FUND: Bequest of Hattie Hirsch in memory of her son, Mortimer Hirsch, the income to be awarded annually to a deserving student in the School of Architecture. Established 1945.	1,000.00	1,000.00	1,000.00

	At June 30, 1945	Additions 1945-1946	At June 30, 1946
HOLLINGWORTH (LETA STETTER) FELLOWSHIP FUND: Gift of Harry L. Hollingworth, the income to be used for a fellowship to be awarded each year to a woman graduating or graduated from the University of Nebraska under the terms and conditions as set forth in the deed of gift. Established 1944.....	\$51,000.00	.....	\$51,000.00
HORN (JAMES T.) SCHOLARSHIP FUND: Gift of Sarah L. and Mary T. Horn to establish this Fund. Established 1935.....	12,500.00	.....	12,500.00
HORN (JAMES T.) SCHOLARSHIP FUND IN THE SCHOOL OF ENGINEERING: Gift of Sarah L. and Mary T. Horn, the income to be available for the assistance of a student in that School. Established 1938.....	7,500.00	.....	7,500.00
HOW (HALL J.) FUND: Bequests of Minnie How, Mary How Steffens and John Gordon How in memory of their father Hall J. How, the income to provide a professorship. Established 1936.....	110,097.20	.....	110,097.20
HOWARD (BRONSON) LIBRARY FUND: Representing assets received from the Society of American Dramatists and Composers, the income to be devoted to the maintenance of the collection known as "The Bronson Howard Collection for American Dramatists." Established 1942.....	7,319.84	.....	7,319.84
HUBER (FREDERICK W., JR.) SCHOLARSHIP FUND: Gift of Dr. Frederick W. Huber to establish a scholarship to be awarded, under the terms of the gift, to a student in the first or freshman year in Columbia College. Established 1924.....	5,000.00	.....	5,000.00
ILLIG FUND: Bequest of William C. Illig, of the Class of 1882 School of Mines, the income to be applied to the purchase of prizes to be awarded to students of the graduating class of the School of Mines who shall, in the judgment of the Faculty, have merited the same by commendable proficiency in such scientific subjects as the Faculty may designate. Established 1898.....	2,300.00	.....	2,300.00

INDO-IRANIAN FUND: Gift of an Anonymous Donor to found this Fund, the income to be used for the maintenance of the Department of Indo-Iranian Languages. Established 1908.....	15,000.00	.....	15,000.00
INSTITUTO HISPANICA ENDOWMENT FUND: Gift of various donors, the income to be applied toward the maintenance of the Instituto Hispanica. Established 1930.....	5,612.99	.....	5,612.99
INSTITUTO HISPANICA PERMANENT FUND, FELLOWSHIP INTERCOLLEGIATE ALLIANCE: Gift of various donors, the income to be applied toward the maintenance of the Instituto Hispanica. Established 1930.....	105.10	.....	105.10
INTERCOLLEGIATE CHESS LEAGUE FUND: Established by the transfer of a gift, the income to be expended through King's Crown for the chess teams. Established 1932.....	396.00	.....	396.00
ITALIAN SOCIETIES ENDOWMENT FUND: Gift of the Italian Societies, the income to be added to the principal until such time as the principal shall amount to \$100,000, the income then to be used for the support of scholarships for students in Italian or for support of research and general studies in the field of Italian literature, the sciences, history and art. Established 1934.....	5,032.12	183.67	5,215.79
JACKSON (A. V. WILLIAMS) FELLOWSHIP FUND IN INDO-IRANIAN LANGUAGES AND LITERATURES: Created by act of the Trustees on January 9, 1939, by the transfer of the balance remaining on July 1, 1938 in the gifts received from Alexander Smith Cochran and from Dr. and Mrs. Frederic S. Lee; the fund to be administered in accordance with the suggestions set forth in Mrs. Jackson's letter addressed to the President under date of December 21, 1938. Established 1939.....	9,999.35	.....	9,999.35
JACKSON (RICHARD G.) MEMORIAL PRIZE FUND: Gift of Mrs. Margaret Doyle to establish the Richard G. Jackson Memorial Prize in Columbia College, in memory of her grandson. Established 1943.....	1,000.00	.....	1,000.00

	At June 30, 1945	Additions 1945-1946	At June 30, 1946
JAMES (D. WILLIS) FUND: Bequest of D. Willis James, the income to be applied until further action by the Trustees, to the salary of the Professor of Geology. Established 1908.....	\$100,000.00	.....	\$100,000.00
JEFFERSON STATUE MAINTENANCE FUND: From the Executors of the Estate of Joseph Pulitzer, the income to be used for the care and repair of the Statue of Thomas Jefferson. Original gift, \$1,589.92 to which has been added accrued income \$210.08. Established 1917.....	1,800.00	.....	1,800.00
JOHNSON (ALICE AND DOUGLAS) FUND: Bequest of Douglas W. Johnson, the income to be used for research in Geology in accordance with the terms of the will. Established 1945.....	21,000.00	\$1,025.38	22,025.38
JOHNSTON (EDWARD W. S.) FUND: Bequest of Mrs. Anna A. Johnston, the income to be used for the upkeep of the Scudder-Johnston collection in the Library. Established 1926.....	2,000.00	.....	2,000.00
JOHNSTON (EDWARD W. SCUDDER) SCHOLARSHIP FUND: Bequest of Mary Mandeville Johnston, in memory of Edward W. Scudder Johnston, the income to be used for scholarships. Established 1946.....	.....	8,333.34	8,333.34
JOE (ADAM LEROY) MEMORIAL PRIZE FUND: Gift of Mrs. Lily S. Murray Jones, the income to provide a prize in Logic and the Methods of Science. Established 1934.....	1,100.00	.....	1,100.00
JOUET (CAVALIER HARGRAVE) SCHOLARSHIP FUND: Bequest of Belinda Hearn Jouet, the income to provide a scholarship in the School of Mines. Established 1941.....	5,000.00	.....	5,000.00

KELLETT (EURETTA J.) FELLOWSHIP FUND: Bequest of Eurette Jane Schlegel, to establish fellowships for the study of letters at Oxford or Cambridge University, England. Established 1931.....	209,872.78	19,384.80	229,257.58
KEMP (JAMES FURMAN) FUND: Gift of an Anonymous Donor, the income to be exclusively for the benefit of the Department of Geology and to be used for fellowships, scholarships, loans to students or research. Established 1924.....	20,000.00	.....	20,000.00
KEMP (JAMES FURMAN) MEMORIAL FUND FOR RESEARCH AND PUBLICATION IN GEOLOGY: Gift of former students and friends of Professor James Furman Kemp and others interested in scientific research, the income and under exceptional circumstances portions of principal, to be expended in support of research and publication in Geology, in accordance with the deed of Gift. Established 1936.....	45,045.87	.....	45,045.87
KENDALL (EDWARD HALE) FUND: Bequest of Edward Hale Kendall, the income to provide a scholarship or travelling fellowship in the Department of Architecture. Established 1935.....	34,559.87	.....	34,559.87
KEPPEL (FREDERICK PAUL) MEMORIAL FUND: Gift of James H. Mackintosh to establish this fund, the purpose to be determined later. Established 1945.....	1,000.00	.....	1,000.00
KILLOUGH (JAMES H.) SCHOLARSHIP FUND: Bequest of Walter H. D. Killough, the income to be used for scholarships in accordance with the terms of the Will. (Principal held by Trustees under the Will.) Established 1930.	.....	.....	.....
KRUMB (HENRY) MINING AND METALLURGICAL SCHOLARSHIP FUND: Gift of Henry Krumb, the income to provide annual scholarships in Mining Engineering, Metallurgy and Ore Dressing. Established 1945.....	.....	14,555.00	14,555.00
KUNZ (GEORGE FREDERICK) FUND: Bequest of George Frederick Kunz, the income to be used for the purchase of specimens in the Department of Mineralogy in accordance with the terms of the Will. Established 1935.....	1,500.00	.....	1,500.00

	At June 30, 1945	Additions 1945-1946	At June 30, 1946
LAHEY SCHOLARSHIP FUND: Bequest of Richard Lahey to establish a free scholarship in the School of Science. Established 1932.....	\$5,000.00	.....	\$5,000.00
LASHER (JOHN K.) FUND: Bequest of John K. Lasher, Jr., the income to be applied toward the support of the work of the Columbia University Christian Association. Established 1920.....	1,000.00	.....	1,000.00
LAW LIBRARY FUND: Created by act of the Trustees on March 5, 1900, by the consolidation of the Alexander Cole gift (\$1,500), John J. Jenkins Legacy (\$500), John McKeon Fund (\$1,000), Samson Simpson Fund (\$1,000), and Edgar J. Nathan Gift (\$250), the income to be applied to the purchase of law books. Augmented by act of the Finance Committee, October 2, 1907, by adding the Pyne Law Gift (\$1,000).....	8,250.00	.....	8,250.00
LAW SCHOLARSHIP FUND: Gift of various donors, the income to be used for scholarships. Established 1938.....	130.00	\$130.00 (Decrease)	.....
LEGISLATIVE DRAFTING RESEARCH FUND: Gift of Joseph P. Chamberlain, the income to be used for the expenses of the Bureau having to do with legislative drafting. Established 1938.....	137,572.80	3,440.00	141,012.80
LIBBEY (JONAS M.) FUND: Bequest of Jonas M. Libbey, the income to be used to promote and support research and to publish and distribute the results of such research in regard to the application of the principles of biological and pathological chemistry, and of electro-chemistry and electro-physics to human need and welfare. Established 1923.....	216,764.00	.....	216,764.00

LODGE (STANWOOD COCKEY) FOUNDATION: Gift of an Anonymous Donor the income to be paid to the donor during his lifetime, to his wife after his death and thereafter for the publication of works in Classical Philology and Literature. Established 1930.	84,325.87	1,843.36	86,169.23
LOEB (JAMES) FUND: Bequest of James Loeb, the income to be used to maintain the Labor Library. Established 1934.	5,175 21	.....	5,175 21
LOUBAT FUND: Gift of Joseph F. Loubat for prizes to be given every five years for works in the English Language on the History, Geography, Archaeology, Ethnology, Philology or Numismatics of North America. First Prize, \$1,000; second prize, \$400. Established 1892.	12,000.00	.....	12,000.00
LOUBAT PROFESSORSHIP FUND: Gift of Joseph F. Loubat to establish the Loubat Professorship in American Archaeology. Established 1903.	100,000.00	.....	100,000.00
LOWENFISH (LUCILLE SMYSER) MEMORIAL PRIZE FUND: Gift of Martin Lowenfish, the income to be awarded annually to the student submitting the best thesis for the degree of Bachelor of Architecture. Established 1945.	.....	1,500.00	1,500.00
LYDIG FELLOWSHIP FUND: Bequest of Hannah M. Lydig, for the endowment and maintenance of a Fellowship. Established 1931.	40,000.00	.....	40,000.00
MACMAHON (KATHERINE) SCHOLARSHIP FUND: Bequest of Katherine MacMahon, the income to be awarded to the first year student in Journalism deemed most worthy by the Faculty of that School as a help for further study in the School of Journalism during the following year. Established 1925. Bequest \$1,500.00 augmented by gifts from Mrs. Louise Ewing Dexter, \$4,500.00.	6,000.00	.....	6,000.00
MAISON FRANCAISE ENDOWMENT FUND: Gift of Robert Bacon, the income to be used in defraying the running expenses of the Maison Francaise. Established 1913.	5,000.00	.....	5,000.00

	At June 30, 1945	Additions 1945-1946	At June 30, 1946
MANNERS (EDWIN) FUND: Legacy of Edwin Manners, the income to be applied to the purchase of books on the English Language and Literature. Established 1914.	\$3,000.00	.....	\$3,000.00
MARLING (ALFRED E.) SCHOLARSHIP FUND: Bequest of Alfred E. Marling, the income to be applied toward scholarships in accordance with a resolution adopted by the Trustees on March 7, 1938. Established 1938.	5,000.00	.....	5,000.00
MASON (WILLIAM) MUSICAL SCHOLARSHIP FUND: Bequest of Mina Mason Van Sinderen, the income to be applied toward the education and support of needy and worthy students in Music, or to the purchase of books for the University Library of Music, or as a prize for musical composition or otherwise for the advancement of the art of music in the discretion of the Trustees. Established 1933.	10,000.00	.....	10,000.00
MATHEWS LECTURES FUND: Bequest of Charles T. Mathews to establish a lectureship in the School of Architecture, said lectureship to consist of ten lectures during each and every school year on the "History of Gothic Architecture." Established 1934.	50,000.00	.....	50,000.00
MATTHEWS (JAMES BRANDER) FUND FOR THE DRAMATIC MUSEUM: Bequest of James Brander Matthews for the maintenance and enlargement of the Brander Matthews Dramatic Museum. Established 1930.	75,114.69	.....	75,114.69
MAYER (RALPH EDWARD) FUND: Contributions by the friends of Professor Ralph Edward Mayer to establish this fund to perpetuate the memory of his constant devotion to the University and of his unselfish service to the Alumni, the income to be used for a scholarship or loan fund for the benefit of deserving students in the Schools of Mines, Engineering and Chemistry who may be in need of assistance Established 1924.	13,769.03	\$102.57	13,871.60

<p>McCLYMONDS (LOUIS K.) SCHOLARSHIP FUND: Bequest of Mrs. Annie M. McClymonds in memory of her husband, Louis K. McClymonds, the income to provide scholarships to young men of limited means receiving the relative highest standing in the entrance examinations in Columbia College. Established 1926.</p>	27,450.00	27,450.00	27,450.00
<p>McCORMICK (JOHN KERNAN) MEMORIAL FUND: Bequest of Edith A. McCormick in memory of her son John Kernan McCormick of the Class of 1913, the income to be applied to the Dean's Fund of Columbia College. Established 1945.</p>	1,000.00	1,000.00	1,000.00
<p>McKIM FELLOWSHIP FUND: Gift of Charles F. McKim for two travelling fellowships in the Department of Architecture. The fellowships are awarded in odd-numbered years. Established 1889.</p>	25,000.00	25,000.00	25,000.00
<p>MEAD (WILLIAM RUTHERFORD) FUND: Proceeds of a Trust Fund established by William Rutherford Mead on May 25, 1920, the income to be used toward the cost of maintenance of the School of Architecture. Established 1936.</p>	80,469.02	80,469.02	80,469.02
<p>MEDALIE (GEORGE Z.) MEMORIAL FUND: Gift of various donors, the purpose to be designated later. Established 1946.</p>	7,765.00	7,765.00	7,765.00
<p>MEGRUE (ROI COOPER) EMERGENCY LOAN FUND: Bequest of Stella Cooper Megrue, the income to be loaned to deserving students. Established 1928.</p>	10,000.00	10,000.00	10,000.00
<p>MEGRUE (ROI COOPER) SCHOLARSHIP FUND: Bequest of Stella Cooper Megrue, the income to be awarded annually as a scholarship in accordance with the terms and conditions of the gift. Established 1928.</p>	7,000.00	7,000.00	7,000.00
<p>MEGRUE (STELLA COOPER) FUND: Bequest of Stella Cooper Megrue, the principal or income to be expended for the support and maintenance of the basketball team in such manner as the Trustees may direct. Established 1928.</p>	1,000.00	1,000.00	1,000.00
<p>MEGRUE (STELLA COOPER) SCHOLARSHIP FUND: Bequest of Stella Cooper Megrue, the income to be awarded annually as a scholarship in accordance with the terms and conditions of the gift. Established 1928.</p>	7,000.00	7,000.00	7,000.00

	At June 30, 1945	Additions 1945-1946	At June 30, 1946
MEMBER OF THE CLASS OF 1885 FUND:			
Gift of Grant Squires, of the Class of 1885, the income to be awarded every five years to defray the expenses of a sociological investigation that promises results of a scientific value. Established 1895.....	\$1,050.00	.....	\$1,050.00
MERGENTIME (JAMES HENRY) FUND:			
Bequest of James Henry Mergentime to be used at the discretion of the Trustees to promote the study of organic chemistry. Established 1930.....	1,600.00	.....	1,600.00
MICHAELIS (DR. ALFRED MORITZ) PRIZE FUND:			
Gift of Mrs. Jeanette Michaelis, to establish this fund, the income to be awarded annually to a student in Columbia College for proficiency in certain designated courses in Physics. Established 1926.....	1,000.00	.....	1,000.00
MILLER (NATHAN J.) FUND:			
Gift of Mrs. Nathan J. Miller, in memory of her husband, Nathan J. Miller, to found a Chair in Jewish History, Literature and Institutions. Established 1928.....	268,000.00	.....	268,000.00
MITCHEL (JOHN PURROY) MEMORIAL FUND:			
Bequest of Mary Purroy Mitchel, the income to be used for the sole purpose of assisting one or more young men of American birth and citizenship enrolled as regular undergraduate students in Columbia College. Established 1938.....	54,873.80	\$48.27	54,922.07
MITCHELL (WILLIAM) FELLOWSHIP FUND:			
Bequest of Benjamin D. Stillman to establish, in honor and memory of his friend, William Mitchell, deceased, the William Mitchell Fellowship Fund in Letters or Science. Established 1908.....	10,000.00	.....	10,000.00
MOFFAT SCHOLARSHIP FUND:			
Bequest of William B. Moffat, M.D., of the Class of 1898, 'for the purpose of one or more scholarships for the education and instruction of one or more indigent students.' Established 1862.....	2,000.00	.....	2,000.00

MONTGOMERY (ROBERT H.) PRIZE FUND: Gift of Robert H. Montgomery to establish this fund, the income to be awarded as a prize to the member of the graduating class of the School of Business who has specialized in Accounting and who is deemed by the staff of the School of Business to be most proficient in all courses. Established 1916.	2,010.00	2,010.00
MORRIS (AUGUSTUS NEWBOLD) FUND: Gift of Newbold Morris, of the Class of 1891 Law, in memory of his father Augustus Newbold Morris, of the class of 1860, the income to provide a fellowship for an advanced student of Public or Private Law who may be a candidate for the degree of Doctor Juris. Established 1924.	12,500.00	12,500.00
MORROW (DWIGHT W.) FUND FOR THE LAW SCHOOL: Bequest of Dwight W. Morrow, the income to be used for the School of Law. Established 1932.	50,000.00	50,000.00
MOSENTHAL FELLOWSHIP FUND: Gift of the friends of Joseph Mosenthal, to found a fellowship in Music. Established 1898.	7,500.00	7,500.00
MUIR (DOWNIE D.) FUND: Bequest of Downie D. Muir, the income to assist young men working their way through the Graduate Business School of Administration. Established 1940.	44,500.00	44,500.00
MURRAY (GEORGE W.) FUND: Gift of George Welwood Murray, of the Class of 1876 Law, to establish this fund, the income to be used for Research in Legal History. Established 1924.	25,000.00	25,000.00
MURTHA (THOMAS F.) SCHOLARSHIP FUND: Gift of Clara W. Murtha, Raymond W. Murtha and Thomas V. Murtha in memory of Thomas F. Murtha, the income to be used for the benefit of needy students in the School of Law. Established 1932.	5,000.00	5,000.00
NEWBERRY (JOHN S.) PRIZE FUND: Bequest of Bashford Dean, the income to be awarded annually as the John S. Newberry Prize, in the Department of Zoology. Established 1929.	5,000.00	5,000.00

	At June 30, 1945	Additions 1945-1946	At June 30, 1946
NIVEN (ROBERT JOHNSTON) FUND: Bequest of Charlotte E. de Sers in memory of her father, Robert Johnston Niven, to endow a chair in such branch of learning as the Trustees may decide. Established 1930.	\$200,000.00	.....	\$200,000.00
OCHS (ADOLPH S.) FUND: Bequest of Adolph S. Ochs to establish this fund. Established 1936.	25,000.00	.....	25,000.00
ORDRONAUX (JOHN) FUND: Bequest of Dr. John Ordronaux, to establish prizes in the Law School, to be presented annually. Established 1909.	3,050.00	.....	3,050.00
PARKER FUND FOR INSTITUTE OF INTERNATIONAL AFFAIRS: Established by the transfer of \$30,000 from a gift for the same purpose, the income to be used for the current expenses of the Institute of International Affairs. Established 1937.	60,000.00	\$40,000.00	100,000.00
PATERNO LIBRARY ENDOWMENT FUND: Gift of Carlo M. Paterno and Dr. Charles V. Paterno, the income to be used for the purchase of books and the binding thereof for the Paterno Library in the Casa Italiana, etc. Established 1938.	30,000.00	.....	30,000.00
PEELE (ROBERT) PRIZE FUND: Gift of E. E. Olcott, the income to be given annually to a member of the graduating class in Mining and Metallurgical Engineering who shall have shown the greatest proficiency in his course of study. Established 1925.	3,279.80	119.71	3,399.51
PERKINS FELLOWSHIP FUND: Bequest of Willard B. Perkins, the income to be expended every four years for a travelling fellow- ship in the Architectural Department. Established 1898.	5,700.00	.....	5,700.00
PERKINS (EDWARD H., JR.) SCHOLARSHIP FUND: Bequest of Norton Perkins in memory of his father, Edward H. Perkins, Jr., the income to provide a scholarship in History or Economics. Established 1926.	15,000.00	.....	15,000.00

<p>PETERS (WILLIAM RICHMOND, Jr.) FUND FOR ENGINEERING RESEARCH: Gift of Mr. and Mrs. William R. Peters to establish this fund as a memorial to their son, William Richmond Peters, Jr., of the Class of 1911, Civil Engineering, the income to be applied to the work of research in the Department of Civil Engineering. Established 1912.</p>	66,500.00	5,362.74	71,862.74
<p>PFISTER (JOSEPH C.) FELLOWSHIP FUND: Gift of Joseph C. Pfister the income to provide one or more fellowships in the field of Mathematical Physics in accordance with the terms of the gift. Established 1945.</p>	194,958.81	8,976.56	208,935.37
<p>PHILLIPS (HARRIET S.) FUND: Bequest of Harriet S. Phillips, the income to be used for Scholarships in the School of Journalism. Established 1931.</p>	20,000.00	.....	20,000.00
<p>PHILLIPS (HARRIET S.) FUND FOR BARNARD COLLEGE: Bequest of Harriet S. Phillips, the income to be used for any purpose of Barnard College. Established 1931.</p>	79,587.07	307.34	79,894.41
<p>PHILLIPSON (BRAINERD F.) SCHOLARSHIP FUND: Gift of an anonymous donor, the income to provide a scholarship in the School of Engineering in accordance with the terms of the gift. Established 1936.</p>	12,514.00	.....	12,514.00
<p>PHILOLEXIAN CENTENNIAL WASHINGTON PRIZE FUND: Gift of the Philolexian Society from J. Ackerman Coles, of the Class of 1864, the accumulated income to be expended every four years for a duplicate of the life-size bronze bust of George Washington, modeled from life at Mount Vernon, by Jean Antoine Houlton. Bust to be cast at the Barbadienne Foundry, Paris, France, and to be given to that member of the Philolexian Society, who, in the opinion of the President of the University, the President of the Society, and a third man of their choosing, shall be deemed most worthy, upon his delivery of an original patriotic address. Established 1902.</p>	1,000.00	.....	1,000.00
<p>PHILOLEXIAN PRIZE FUND: From the Philolexian Society, the income to be paid to the Society for prizes. Established 1904.</p>	1,500.00	.....	1,500.00

	At June 30, 1945	Additions 1945-1946 (Decrease)	At June 30, 1946
PHOENIX FUND: Request of Stephen Whitney Phoenix, the income to be used for the purpose of scientific instruction and research. Established 1881.	\$1,176,848.57	\$13,730.16 (Decrease)	\$1,163,118.41
PLUMMER (MARY WRIGHT) SCHOLARSHIP FUND: Gift of the Alumni Association of the Library School of the New York Public Library to establish a scholarship in the School of Library Service. Established 1932.	8,085.78	295.13	8,380.91
PORTER (DAVID B. AND WIFE) MEMORIAL FUND: Request of Thekla B. Porter, the income to be loaned to worthy students in the Law School. Established 1936.	31,840.12	309.14	32,149.26
PRENTICE FUND FOR ROWING: Established by transfer of the Prentice Gift for Rowing received in 1926, the income to be paid to the Athletic Association for the support of rowing. Established 1929.	5,000.00	.....	5,000.00
PRESIDENT'S HOUSE (FURNISHING AND EQUIPMENT) FUND: Created by act of the Trustees on November 6, 1922, by the transfer of \$13,415.13 remaining in the anonymous gift of \$30,000.00 reported to the Trustees on March 6, 1911, and increased from the general funds of the University to \$20,000.00, this sum to constitute the principal of a special fund for the furnishing and equipment of the President's House, the income of which, and if necessary any portion of the principal, to be expended as may be needed under the direction of the President. Established 1922.	19,135.68	.....	19,135.68
PROUDFIT (ALEXANDER MONCRIEF) FELLOWSHIP FUND: Bequest of Alexander Moncrief Proudfit, of the Class of 1892, to found a fellowship for the encouragement of study in English Literature, to be known as the 'Alexander Moncrief Proudfit Fellowship in Letters,' to be held only by such persons as, being the sons of native-born American parents, shall have taken the degree of Bachelor of Arts after a three years residence in Columbia College, and shall, while enjoying such fellowship, or the income thereof, remain unmarried. Established 1899.	15,000.00	.....	15,000.00

PSYCHOLOGY FUND: Gift of John D. Rockefeller, as an endowment of the head professorship of the Psychological Department of Columbia University. Established 1899.	100,000.00	.....	100,000.00
PULTZER (JOSEPH) FUND FOR SCHOOL OF JOURNALISM: Gift from Joseph Pulitzer to establish and endow a School of Journalism in Columbia University. Established 1903.	1,300,000.00	.....	1,300,000.00
PULTZER PRIZE FUND: Gift of Joseph Pulitzer, the income to be used for prizes in accordance with the terms of the gift. Established 1903.	550,000.00	.....	550,000.00
PULTZER SCHOLARSHIP FUND: Gift of \$100,000 by Joseph Pulitzer to found thirty scholarships for graduates of City Grammar Schools, one-half the sum to be used on improvements on the new site at 116th St. Established 1893. Augmented in 1912.	310,000.00	.....	310,000.00
PUPIN FOUNDATION: Gift of Michael I. Pupin, the income to be used in aid of scientific research in Physics and Physical Chemistry in accordance with the terms of agreement. Established 1923.	307,022.99	2,000.78	309,023.77
RAYMOND (ROBERT M.) FUND FOR RELIGIOUS AND SOCIAL WORK: Bequest of Robert M. Raymond, the income to be used for the benefit of the Religious and Social work of the University. Established 1939.	7,810.78	323.88	8,134.66
RAYMOND (ROBERT M.) FUND FOR UNIVERSITY MEDICAL OFFICE: Bequest of Robert M. Raymond, to be used in connection with the work done by the Resident Physician and his assistants on the campus. Established 1939.	15,619.58	647.77	16,267.35
RECKFORD (LOUIS J.) FUND: Gift of Miss Adelaide Reckford in memory of her father, Louis J. Reckford, of the Class of 1886, the income to be used for the purchase of books and other illustrative material for the University Library. Established 1929.	2,500.00	.....	2,500.00

	At June 30, 1945	Additions 1945-1946	At June 30, 1946
REISINGER (HUGO) FUND: Bequest of Hugo Reisinger, the income to be applied in the discretion of the Trustees to the purchase of books, periodicals and other material for instruction and research in matters relating to the German peoples. Established 1919.	\$5,000.00	.....	\$5,000.00
RENWICK (ANNA COOPER) PROFESSORSHIP FUND: Bequest of Anna Cooper Renwick, the income to be applied to the salary of the Renwick Professor of Civil Engineering. Established 1946.	.....	\$12,500.00	12,500.00
RENWICK (ANNA COOPER) PUBLICATION FUND: Bequest of Anna Cooper Renwick, the income to be used by the Renwick Professor of Civil Engineering for the publication of various department researches, papers and essays reflecting the interest of Professor James Renwick of the class of 1807. Established 1946.	.....	12,500.00	12,500.00
RENWICK (JAMES JR.) SCHOLARSHIP FUND: Bequest of Anna Cooper Renwick, in memory of James Renwick Jr. of the class of 1836, the income to provide a scholarship in the School of Architecture. Established 1946.	.....	25,000.00	25,000.00
RHODES (F. B. F.) SCHOLARSHIP FUND: Gift of E. E. Olcott in memory of his classmate, Francis Bell Forsyth Rhodes, School of Mines, '74, to establish this fund, the income to be awarded on Commencement Day of each year to a member of the graduating class in Metallurgy, in accordance with the terms of the gift. Established 1926.	3,768.86	137.56	3,906.42
RITCHIE (PETER C., JR.) SCHOLARSHIP FUND: Bequest of Virginia J. Ritchie to establish a scholarship in Columbia College. Established 1939.	4,436.14	.....	4,436.14
ROGERS (HOWARD MALCOLM) SCHOLARSHIP FUND: Bequest of Henrietta Rogers to establish this Fund. Established 1925.	5,400.00	.....	5,400.00

ROLKER (CHARLES M., JR.) PRIZE FUND: Gift of Mrs. Charles M. Rolker, the annual income to constitute a prize to be publicly awarded on Class Day of each year to that member of the graduating class in Columbia College, who in the judgment of his classmates, has proven himself most worthy of special distinction as an undergraduate student, either because of his industry and success as a scholar, or because of his helpful participation in student activities, or because of pre-eminence in athletic sports. Established 1909.	1,000.00	1,000.00
ROMAINE (BENJAMIN F.) PRIZE FUND: Gift of Benjamin F. Romaine to establish a prize for proficiency in the Greek language and literature. Established 1922.	3,630.00	3,630.00
ROSS (GEORGE) FUND: Bequest of Catherine A. Ross, the income to be used for the advancement and development of athletics at Columbia University. Established 1923.	71,637.91	71,637.91
SACKETT (HENRY W.) FUND: Bequest of Henry W. Sackett, the income to provide two annual scholarships in the School of Journalism. Established 1930.	12,000.00	12,000.00
SANDHAM (ANNA M.) SCHOLARSHIP FUND: Bequest of Anna M. Sandham to establish a scholarship at Barnard College. Established 1922.	10,000.00	10,000.00
SAUNDERS (ALEXANDER) SCHOLARSHIP FUND: Bequest of Mary Ellen Saunders in memory of her husband Alexander Saunders, to establish an undergraduate scholarship for the benefit of an American boy of Scotch, English or Irish parentage, to be nominated by the superintendent, principal and teachers of the Yonkers High School, in Yonkers, N. Y. Established 1922.	12,000.00	12,000.00
SAUNDERS (LESLIE M.) SCHOLARSHIP FUND: Bequest of Alexander Saunders to establish a scholarship for the benefit of the youth nominated therefor by the principal and teachers of the Yonkers High School in Yonkers, N. Y., in the first instance, and thereafter to fill a vacancy as it may occur from time to time perpetually, and upon such conditions as such principal and teachers may determine, with such power and authority to them to fill such a scholarship for a term of either one year, two years, three years, or four years, as they may from time to time determine. Established 1917.	6,000.00	6,000.00

	At June 30, 1945	Additions 1945-1946	At June 30, 1946
SCHERMERHORN (F. AUGUSTUS) FUND: Established by the Trustees for a travelling fellowship in the Department of Architecture in recognition of the liberality of Mr. F. Augustus Schermerhorn of the Class of 1868, to this Department. This fellowship is awarded in even-numbered years. (Name changed from Columbia Fellowship Fund.) Principal reduced from \$13,000.00 to \$12,500.00. Established 1889	\$12,500.00	.....	\$12,500.00
SCHERMERHORN (F. AUGUSTUS) ENDOWMENT FUND: Established by the transfer of the unexpended balance on June 30, 1932 of the Schermerhorn Gift, the income to be applied to the maintenance and equipment of the work to be carried on in Schermerhorn Hall and Schermerhorn Hall Extension. Established 1932.	186,203.00	.....	186,208.00
SCHERMERHORN SCHOLARSHIP FUND: Bequest of John J. Schermerhorn, of the Class of 1825, 'for the purpose of free scholarships, the nomination to which shall vest in my nearest male relative in each generation during his lifetime.' Established 1877.	5,000.00	.....	5,000.00
SCHERMERHORN (WILLIAM C.) MEMORIAL FUND: Bequest of Mrs. John Innes Kane in memory of her father, William C. Schermerhorn, the income to be applied, as the Trustees may direct, to the support of the religious work of the University. Established 1927	500,000.00	.....	500,000.00
SCHIEFFELIN (LUCY STELLA) FUND: Bequest of Lucy Stella Schieffelin, the income to be used for the furtherance of musical education. Established 1937	17,661.80	\$5,758.39 (Decrease)	11,903.41
SCHIFF FELLOWSHIP FUND: Gift of Jacob H. Schiff to found a fellowship in the School of Political Science, to be annually awarded by the Faculty on the nomination of the donor or his eldest living male descendant, etc. Established 1898	18,000.00	.....	18,000.00

SCHIFF (JACOB H.) ENDOWMENT FUND: Gift of Jacob H. Schiff for the endowment of a Professorship of Social Economy in order to make possible a close affiliation between Columbia University and the New York School of Philanthropy. Established 1905.....	100,000.00	.....	100,000.00
SCHOLARSHIP ENDOWMENT FUND: Gift of Various Alumni to establish this Fund. Established 1937.....	274.50	274.50 (Decrease)	.....
SCHURZ (CARL) FELLOWSHIP FUND: From the Carl Schurz Fund Committee in honor of Carl Schurz. Established 1900.....	10,000.00	.....	10,000.00
SCHURZ (CARL) LIBRARY FUND: From the Carl Schurz Fund Committee in honor of Carl Schurz, the income to be devoted to the purchase of books, maps, pamphlets and the like, in the field of the German Language and Literature. Established 1900.....	10,700.00	.....	10,700.00
SCRANTON (MARY N.) SCHOLARSHIP FUND: Bequest of Mary N. Scranton, the income to provide free scholarships to deserving young men, residents of the Borough of Brooklyn, N. Y. Established 1937.....	10,000.00	.....	10,000.00
SEAGER (SCHUYLER FISKE) ENDOWMENT FUND: Bequest of Professor Henry R. Seager, the income to be paid to beneficiaries under the Will during their life-time, thereafter the income is to be expended annually for the advancement of economic study and research. Established 1932.....	83,486.53	2,731.19	86,217.72
SEIDL FUND: The proceeds of a memorial performance held at the Metropolitan Opera House on March 23, 1899, in honor of Anton Seidl, the income of the fund to be paid to Mrs. Seidl during her life-time, and thereafter 'to be awarded at least every second year to the most promising candidate, either man or woman, prepared to devote himself, or herself, to the study of musical composition at Columbia University, or elsewhere in this country or abroad.'.....	12,000.00	.....	12,000.00
SHAYER (MARY M.) MEMORIAL SCHOLARSHIP FUND: Gift of various donors, the income to be used to aid a student in the School of Library Service. Established 1943.....	885.11	32.31	917.42

	At June 30, 1945	Additions 1945-1946	At June 30, 1946
SHEPHERD FOUNDATION: Bequest of William R. Shepherd, the income to be paid to his widow during her lifetime and thereafter approximately one-half of the income shall be used for the promotion of research and instruction in history; the remaining half for the promotion of the Medical Service of the University as a Faculty Health Fund for members of the teaching staff of the University. Established 1938.	\$170,256.46	\$39,417.11	\$209,673.57
SHOEMAKER (WILLIAM BROCK) FUND: Gift as a memorial to William Brock Shoemaker, of the Class of 1902, in Columbia College, established jointly by his wife, Ella de Peyster Shoemaker, and his father, Henry F. Shoemaker, the income to be used for the benefit of self-supporting students. Established 1908.	10,000.00	.....	10,000.00
SMITH (DAVID EUGENE) FUND FOR THE LIBRARY: Bequest of David Eugene Smith, the income to be used for enlarging the library on the history of mathematics. Established 1944.	33,962.93	.....	33,962.93
SMYTH (DAVID W.) SCHOLARSHIP FUND: Gift of David W. Smyth, of the Class of 1902, the income to be awarded annually as a scholarship to a student in Columbia College whose pecuniary condition and resources are, in the judgment of the Faculty, insufficient to defray the expenses of a collegiate education. Established 1926.	20,000.00	.....	20,000.00
SOCIAL AND POLITICAL ETHICS PROFESSORSHIP FUND: To endow a chair of Social and Political Ethics. Established 1918.	37,816.25	.....	37,816.25
STOKES (CAROLINE PHELPS) FUND: Bequest of Caroline Phelps Stokes, the income to be used for lectures, prizes or essays by the students of Columbia, Barnard and Teachers Colleges. Established 1910.	20,000.00	.....	20,000.00
STROSS (LUDWIG) SCHOLARSHIP FUND: Bequest of Ines Stross, in memory of her husband, Ludwig Stross, the income to furnish financial aid to students working their way through college or academic department of the University. Established 1943.	30,000.00	.....	30,000.00

STUART SCHOLARSHIP FUND:			
The gift of Mrs. Cornelia A. Atwill, in memory of her grandsons, Sidney Barculo Stuart, of the Class of 1880, and Eugene Tolman Stuart, of the Class of 1881, to found two scholarships in the College, to be known as "Stuart Scholarships." Established 1895.....		6,000.00	6,000.00
STUDIES IN HISTORY, ECONOMICS AND PUBLIC LAW FUND:			
Representing royalties received by the Faculty of Political Science, the income to be used for the expenses of the studies. Established 1941.....		5,000.00	1,000.00 (Decrease)
THE 1884 SCHOOL OF ARTS SCHOLARSHIP FUND:			
Gift of the Class of 1884, School of Arts, the income to be used in accordance with present practice for a Resident Scholarship to be held by a student in Columbia College. Established 1934.....		4,000.00	4,000.00
THOMPSON (WILLIAM BOYCE) FUND:			
Gift of William Boyce Thompson, the principal or income to be used under the direction of a committee of five, for the purpose of stimulating interest in the School of Mines, Engineering and Chemistry in accordance with the deed of gift. Established 1936.....		101,697.75	101,697.75
TODD (HENRY ALFRED) SCHOLARSHIP FUND:			
Gift of Mrs. Henry A. Todd, the income to provide an annual prize in French. Established 1936.....		10,000.00	10,000.00
TODD (MIRIAM GILMAN) FUND:			
Bequest of Miriam Gilman Todd, the income to be used for the support of the Romanic Review. Established 1945.....			2,000.00
TOPPAN PRIZE FUND:			
Gift of Mrs. Sarah M. Toppan, to establish this fund in memory of her husband, Robert Noxon Toppan, the income to be used annually in providing the Robert Noxon Toppan Prize in the School of Law. Established 1904.....		4,200.00	4,200.00
TOWNSEND (GRACE C.) SCHOLARSHIP FUND:			
Bequest of Grace C. Townsend, the income to be awarded as a scholarship at such times and in such manner as the University may determine. Established 1941.....		5,000.00	5,000.00

	At June 30, 1945	Additions 1945-1946	At June 30, 1946
TREMAINE (ADA B. B.) FUND: Bequest of Ada Byron Bampton Tremaine, the income to be used for a course of not exceeding twenty lectures in each year; the subject to be of a theologic, scientific, art or hygienic nature. Established 1942.	\$663,309.42	\$23,335.73	\$686,645.15
TROWBRIDGE FELLOWSHIP FUND: Gift of the Alumni Association of the School of Mines as a memorial of the late Professor Trowbridge to establish the "William Petit Trowbridge Fellowship in Engineering." Established 1893.	13,500.00	.....	13,500.00
TURNER (CHARLES W.) SCHOLARSHIP FUND: Gift of Wallis S. Turner, of the Class of 1900, to establish, in memory of his father, Charles W. Turner, a scholarship in Columbia College, to aid the education of a needy or deserving student to the end that through the advantages of such education the recipient may aspire to the highest type of American Citizenship. Established 1920.	6,182.00	.....	6,182.00
TYNDALL FELLOWSHIP FUND: Gift of Professor John Tyndall, of London, the income to be applied to the support of 'American pupils who may have shown decided talent in Physics, etc.' Established 1885.	11,500.00	.....	11,500.00
UNIVERSITY PUBLICATION FUND: Created by act of the Trustees November 6, 1922, from part of the bequest of the late Daniel B. Fayerweather, the income of such fund, and if necessary any portion of the principal, to be expended under the direction of the President, to meet the cost of publishing the works of scholarship and research through the Columbia University Press. Established 1922.	402.00	.....	402.00
VAN AM PRIZE FUND: Gift of the Class of 1898 in commemoration of the twenty-fifth anniversary of its graduation and in memory of John Howard Van Amringe of the Class of 1860 to establish a fund, the income to be used in providing a bronze medal to be awarded each year to that member of the Sophomore Class who shall have most distinguished himself for service, character and courtesy in his relations to faculty, fellow students and visitors to the University. Established 1923.	6,500.00	.....	6,500.00

<p>VAN AMRINGE (PROFESSOR) MATHEMATICAL PRIZE FUND: Gift of George G. DeWitt, of the Class of 1867, to establish this fund, the annual income to constitute the Professor Van Amringe Mathematical Prize in Columbia College. Established 1910. . . .</p>	<p>5,100.00</p>	<p>.....</p>	<p>5,100.00</p>
<p>VAN AMRINGE MEMORIAL FUND: Established by the transfer of the balances of gifts received for the Van Amringe Memorial, the income to be used for the upkeep and repair of the Van Amringe Memorial. Established 1927. . . .</p>	<p>500.00</p>	<p>.....</p>	<p>500.00</p>
<p>VAN BUREN (JOHN D., JR.) MATHEMATICAL PRIZE FUND: Gift of Mrs. Louis T. Hoyt, to establish this fund in memory of her nephew John Dash Van Buren, Jr., of the Class of 1905. Established 1906. . . .</p>	<p>5,500.00</p>	<p>.....</p>	<p>5,500.00</p>
<p>VANDERPOEL (FRANK) SCHOLARSHIP FUND: Bequest of Frank Vanderpoel to found scholarships in the Schools of Applied Science. Established 1936. . . .</p>	<p>25,000.00</p>	<p>.....</p>	<p>25,000.00</p>
<p>VAN RENSELAER (MARIANA GRISWOLD) PRIZE FUND: Gift of Maximilian Foster, the income to be awarded to the student who submits during the college year the best example of English lyric verse. Established 1926. . . .</p>	<p>1,000.00</p>	<p>.....</p>	<p>1,000.00</p>
<p>VAN SINDEREN (HOWARD) SCHOLARSHIP FUND: Bequest of Mina Mason Van Sinderen, the income to be applied toward the education and support of needy and worthy students of the Law School, or any other purpose designated by the President with the approval of the Trustees. Established 1933. . . .</p>	<p>10,000.00</p>	<p>.....</p>	<p>10,000.00</p>
<p>VAN VALKENBURGH (AGNES) MEMORIAL FUND: From a committee representing the faculty and alumni of the former Library School of the New York Public Library, the principal or income to be expended under the direction of the faculty of the School of Library Service. Established 1936. . . .</p>	<p>705.69</p>	<p>.....</p>	<p>705.69</p>
<p>VERNON (SUSAN HUNTINGTON) FUND: Established by the transfer of the balance remaining in the Hispanic Institute General Account Gift, the income to provide a prize in Spanish. Established 1941. . . .</p>	<p>1,477.25</p>	<p>.....</p>	<p>1,477.25</p>

	At June 30, 1945	Additions 1945-1946	At June 30, 1946
VON SCHRENK (ARNOLD) FUND: Bequest of Helen von Schrenk in memory of her husband, Arnold von Schrenk, the income to be used for scholarships in the School of Engineering. Established 1913.....	\$9,000.00	.....	\$9,000.00
WARING MUNICIPAL FUND: The Chamber of Commerce of the State of New York, in the latter part of the year 1898, raised by public subscription the sum of \$100,000 to perpetuate the memory of George E. Waring. The income of the fund shall be devoted to the purpose of instruction in municipal affairs in such manner as the President and Board of Trustees of such College may direct.....	100,000.00	.....	100,000.00
WATSON (MR. AND MRS. THOMAS J.) FUND: Gift of Mr. and Mrs. Thomas J. Watson, the income or principal to be expended in such ways as the President may direct. Established 1936.....	10,340.00	.....	10,340.00
WENDELL MEDAL FUND: Gift of the friends in the Alumni and Faculty of Professor George Vincent Wendell to honor and perpetuate his memory, the income to be applied to the cost of a medal to be awarded each year to a student in the graduating class of the Schools of Mines, Engineering and Chemistry who has been chosen by his class as best exemplifying the ideals of character, scholarship and service represented by Professor Wendell. Established 1924.....	773.80	.....	773.80
WHEELER (H. A.) SCHOLARSHIP FUND: Gift of H. A. Wheeler of the Class of 1880, School of Mines, to establish a scholarship for students in mining, engineering or geology who need financial assistance to carry on their work in the undergraduate department of Columbia University. Established 1923.....	6,000.00	.....	6,000.00
WHEELER (JOHN VISSCHER) SCHOLARSHIP FUND: Bequest of Susan E. Johnson Hudson to establish this fund, the income to provide a scholarship in the University. Established 1914.....	12,000.00	.....	12,000.00

WILLIS (HENRY PARKER) FELLOWSHIP FUND: Gift of various donors through the Henry Parker Willis Fellowship Committee, the income to be used for a fellowship in the School of Business as provided in the deed of gift. Established 1941.	5,000.00	5,000.00	5,000.00
WILSON (EDMUND B.) FUND FOR THE ADVANCEMENT OF BIOLOGICAL RESEARCH: Bequest of Frederic Kammerer, the income to be expended solely for aid to biological research under the direction of the Department of Zoology. Established 1933.	10,000.00	10,000.00	10,000.00
WOLFFRAM (ADELINE) FUND: Bequest of Adeline Wolfram, the income to be used for the Department of German. Established 1941.	3,000.00	3,000.00	3,000.00
WOLFFRAM (CHARLES BERTHOLD) FUND: Bequest of Amalie Wolfram, in memory of her husband, Charles Berthold Wolfram, the income to purchase literary works published and printed in the German language. Established 1931.	5,000.00	5,000.00	5,000.00
WOODBERRY PRIZE FUND: Gift of the Woodberry Society, the income to provide a biennial prize to an undergraduate of Columbia for an original poem. Established 1935.	1,600.00	1,600.00	1,600.00
WOODBIDGE FUND: Bequest of Frederick J.E. Woodbridge, the income to be used for the work of the Department of Philosophy. Established 1940.	21,172.12	21,172.12	21,172.12
WRIGHT (HENRY) MEMORIAL LIBRARY FUND: Gift of the Housing Study Guild, the income to be used for the purchase of additions to the Henry Wright Memorial Library. Established 1938.	758.45	758.45	758.45
MEDICAL SCHOOL			
ANONYMOUS FUND FOR CANCER RESEARCH: Established by transfer of a gift for the same purpose, the income to be used for the work of the Institute of Cancer Research. Established 1932.	10,000.00	10,000.00	10,000.00

	At June 30, 1945	Additions 1945-1946	At June 30, 1946
ANONYMOUS FUND FOR DEPARTMENT OF MEDICINE: Established by the transfer of a gift for the erection of a Medical School Dormitory, the income to be used for the Department of Medicine until such time as the principal is used for the erection of the Dormitory. Established 1932.	\$200,000.00	.....	\$200,000.00
ANONYMOUS FUND FOR SCHOLARSHIPS IN THE COLLEGE OF PHYSICIANS AND SURGEONS: Gift of an anonymous donor, the income to provide one or more scholarships as the Trustees may direct. Established 1937.	50,000.00	.....	50,000.00
BACHE (JULES S.) FELLOWSHIP FUND: Gift of Mrs. Muriel Richards Pershing and Mrs. Dorothy Richards Hirshon in memory of their grandfather, Jules S. Bache, the income to provide one or more fellowships in the Department of Obstetrics and Gynecology. Established 1945. ....	.....	\$30,000.00	30,000.00
BARK (ARTHUR W.) FUND: Bequest of Arthur W. Bark, the income to be used for dental research. Established 1946. ....	.....	15,319.83	15,319.83
BEEKMAN (GERARD) FELLOWSHIP FUND IN ORTHOPEDIC SURGERY: Gift of the Beekman Family Association, the income to help pay the expenses of a Fellow to serve at the Hospital for Ruptured and Crippled in New York City. Established 1940.	25,000.00	.....	25,000.00
BLUMENTHAL (GEORGE, JR.) FUND: Gift of Mr. and Mrs. George Blumenthal, the income to be awarded to students of Medicine to cover the cost of tuition, or for other purposes. Established 1909.	26,638.43	.....	26,638.43
BONDY (EMIL C.) FUND: Bequest of Emil C. Bondy, the income to be applied, first, toward investigation into the cause, prevention and cure of cancer, and second, toward general research in medicine and surgery and their allied subjects. Established 1916.	100,000.00	.....	100,000.00

<p>BORNE (JOHN E.) PROFESSORSHIP FUND: Bequest of Ellen Mills Borne in memory of her husband, John E. Borne, the income to provide a Professorship for Medical and Surgical research. Established 1939.....</p>	<p>215,427.26</p>	<p>953.31</p>	<p>216,380.57</p>
<p>BULL (WILLIAM T.) MEMORIAL FUND: From the William T. Bull Memorial Fund Committee, in honor of William T. Bull, M. D., the income to be applied to meet the cost of conducting original research under the direction of the Department of Surgery. Established 1911.....</p>	<p>32,250.00</p>	<p>.....</p>	<p>32,250.00</p>
<p>CAHILL (GEORGE F.) FUND: Gift of various donors, the income to be used in the Department of Urology under the direction of Dr. Cahill. Established 1945.....</p>	<p>10,600.00</p>	<p>10,277.67</p>	<p>20,877.67</p>
<p>CARNEGIE CORPORATION FUND FOR GRADUATE MEDICAL INSTRUCTION AND RESEARCH: Gift of the Carnegie Corporation, the income to be used for graduate medical instruction and research at the College of Physicians and Surgeons. Established 1938.....</p>	<p>50,000.00</p>	<p>.....</p>	<p>50,000.00</p>
<p>CARPENTER (CLARENCE) FUND: Gift of Mrs. Josephine L. Carpenter in memory of her husband, Clarence Carpenter, the income to be used to promote Cancer Research. Established 1928.....</p>	<p>20,000.00</p>	<p>.....</p>	<p>20,000.00</p>
<p>CARPENTIER (R. S.) FUND: Gift of General H. W. Carpentier towards a professorship in the Medical School, in memory of Reuben S. Carpentier. Established 1904.....</p>	<p>100,000.00</p>	<p>.....</p>	<p>100,000.00</p>
<p>CARTER (HERBERT S.) MEMORIAL FUND: Gift of the family and friends of Dr. Herbert S. Carter, the income to be used primarily for lectures in the Medical School. Established 1929.....</p>	<p>19,000.00</p>	<p>.....</p>	<p>19,000.00</p>
<p>CARTWRIGHT LECTURESHIP FUND: Gift of the Alumni Association of the College of Physicians and Surgeons, the income to be allowed to accrue and to be added to the principal until further action by the Trustees, the annual income then to be used for the support of lectureships at the Medical School in accordance with the wishes of Benjamin Cartwright. Original gift \$8,800.50. Established 1928.....</p>	<p>16,341.06</p>	<p>454.10</p>	<p>16,795.16</p>

	At June 30, 1945	Additions 1945-1946	At June 30, 1946
CLARK SCHOLARSHIP FUND: Bequest of Alonzo Clark, M. D., formerly President of the College of Physicians and Surgeons, for the purpose of promoting the discovery of new facts in medical science. First prize bestowed October 1, 1894.....	\$15,250.00	.....	\$15,250.00
CLASS OF 1899 COLLEGE OF PHYSICIANS AND SURGEONS SCHOLARSHIP FUND: Gift of the Class of 1899 of the College of Physicians and Surgeons in commemoration of the thirty-fifth anniversary of their graduation, the income to provide a Resident Scholarship at the College of Physicians and Surgeons. Established 1934	5,000.00	.....	5,000.00
CLASS OF 1912 PHYSICIANS AND SURGEONS SCHOLARSHIP FUND: Gift of the Class of 1912 of the College of Physicians and Surgeons, the income to be used for Scholarships in accordance with the wishes of the Class. Established 1927.....	8,196.11	\$155.00	8,351.11
CLASS OF 1920 COLLEGE OF PHYSICIANS AND SURGEONS SCHOLARSHIP FUND: Gift of the Class of 1920, the income to be used for scholarship purposes. Established 1945.....	2,425.00	55.00	2,480.00
CLASS OF 1928 PHYSICIANS AND SURGEONS DECENNIAL FUND: Gift of the Class of 1928, the purpose to be designated later. Established 1939	182.00	.....	182.00
CLASS OF 1933 PHYSICIANS AND SURGEONS FUND: Gift of the Class of 1933 for the purchase of medical instruments. Established 1936.....	67.00	67.00 (Decrease)	.....
COCK (THOMAS F., M.D.) PRIZE FUND: Bequest of Augustus C. Chapin, the income to be used to provide an annual prize to be known as the "Thomas F. Cock, M. D., Prize" for the best thesis on puerperal fever. Established 1915..	1,125.00	.....	1,125.00
CROCKER (GEORGE) SPECIAL RESEARCH FUND: Bequest of George Crocker, the income to be used in Cancer Research. Established 1911.....	1,415,000.00	.....	1,415,000.00

<p>DELAFIELD (FRANCIS) ALUMNI PROFESSORSHIP FUND: Gift of the Alumni Association of the College of Physicians and Surgeons, the income to be allowed to accrue and to be added to the principal until such time as the principal shall amount to \$200,000, the income then to be used for the salary of a professorship in the Department of Pathology. Original gift \$119,022.20. Established 1928.</p>	<p>141.63 (Decrease)</p>	<p>198,996.94</p>	<p>198,854.71</p>
<p>DE LAMAR (JOSEPH R.) FUND: Bequest of Joseph R. Delamar, the income to be expended in such manner as the Trustees may from time to time direct in accordance with the terms of the bequest. Established 1919.</p>	<p>.....</p>	<p>5,446,035.08</p>	<p>5,446,035.08</p>
<p>DENNETT (HORACE) SCHOLARSHIP FUND: Bequest of Lizzie Dennett Lockwood, the income to provide annual scholarships to Third and Fourth year students in the College of Physicians and Surgeons. Established 1932.</p>	<p>.....</p>	<p>173,800.00</p>	<p>173,800.00</p>
<p>DENTAL COLUMBIAN SCHOLARSHIP FUND: Representing the proceeds of the publication of the 1940 Dental Columbian, the principal to be held by the University until the accrued interest is sufficient to offer as a scholarship. Established 1941.</p>	<p>.....</p>	<p>170.48</p>	<p>170.48</p>
<p>DEVENDORF (DAVID M.) SCHOLARSHIP FUND: Gift of Mrs. David M. Devendorf, to establish the 'David M. Devendorf Scholarship Fund' as a memorial to her deceased husband, David M. Devendorf, the income to provide a scholarship in the College of Physicians and Surgeons. Established 1911.</p>	<p>.....</p>	<p>6,500.00</p>	<p>6,500.00</p>
<p>DOUGHTY (FRANCIS, M.D.) SCHOLARSHIP FUND: Bequest of Phebe Caroline Swords to establish the 'Francis E. Doughty, M.D., Scholarship Fund' in the College of Physicians and Surgeons, open to members of any class. Established 1912.</p>	<p>.....</p>	<p>10,000.00</p>	<p>10,000.00</p>
<p>DRAPER LIBRARY FUND: Gift of an anonymous donor, the income to be used to maintain the Draper Memorial Collection of books in the Medical School Library. Established 1929.</p>	<p>.....</p>	<p>2,000.00</p>	<p>2,000.00</p>

	At June 30, 1945	Additions 1945-1946	At June 30, 1946
DU BOIS (DR. ABRAM) MEMORIAL FUND: Gift of William A. Du Bois, Matthew B. Du Bois and Katharine Du Bois, in memory of their father, Dr. Abram Du Bois, the income to be applied to the maintenance of a fellowship to be known as the Doctor Abram Du Bois Fellowship, to be open to a graduate of the College of Physicians and Surgeons devoting himself to the subject of diseases of the eye. Established 1910.....	\$18,000.00	.....	\$18,000.00
EICHNER (JOSEPH HERMAN AND HANNAH) FUND FOR CANCER RESEARCH: Bequest of Benjamin Bernard Eichner in memory of his parents Joseph Herman and Hannah Eichner, the income to be used for cancer research. Established 1941.....	8,575.87	.....	8,575.87
EICHNER (JOSEPH HERMAN AND HANNAH) SCHOLARSHIP FUND: Bequest of Benjamin Bernard Eichner in memory of his parents Joseph Herman and Hannah Eichner, the income to be used for a scholarship or for research work in the College of Physicians and Surgeons. Established 1941.....	12,863.92	.....	12,863.92
EWELL (ELLA MARIE) MEDAL FUND: Bequest of Glover C. Beckwith-Ewell in memory of his wife, Ella Marie Ewell, the income to provide an annual medal in the School of Dental and Oral Surgery. Established 1926.....	1,000.00	.....	1,000.00
FAULKNER (EDWARD DANIELS) FUND FOR THE CURE OF ARTHRITIS: Gift of Marianne Gaillard Faulkner, the income to be used for the prosecution of research into the cause, prevention, cure and treatment of arthritis. Established 1940.....	1,000.00	.....	1,000.00
GEORGE AND CHARLIE SCHOLARSHIP FUND: Gift of the Alumni of the College of Physicians and Surgeons through the George and Charlie Scholarship Committee, the income to be used for a scholarship for undergraduate students enrolled in the College of Physicians and Surgeons. Established 1942.....	7,578.50	\$55.00	7,633.50
GIES (WILLIAM J.) FELLOWSHIP FUND: Gift of the William J. Gies Fellowship Fund Committee to establish a fellowship in Dental and Medical research. Established 1923.....	34,525.16	405.68	34,930.84

<p>GRIFITHS (WILLIAM E.) FUND: Bequest of William E. Griffiths, for the general purposes of the College of Physicians and Surgeons. Established 1936.....</p>	<p>17,959.62</p>	<p>17,959.62</p>
<p>GROSVENOR (ROBERT) MEMORIAL FUND: Gift of Mr. William Grosvenor of Providence, R. I., in behalf of his mother and her family, in memory of Robert Grosvenor, deceased, a former member of the Class of 1918 in the Medical School, the income to be used for the purchase of books for the library at the Medical School. Established 1920.....</p>	<p>2,500.00</p>	<p>2,500.00</p>
<p>HARKNESS (EDWARD S.) FUND: Gift of Edward S. Harkness, the income to be used for medical education and research. Established 1922.....</p>	<p>1,083,027.81</p>	<p>1,083,027.81</p>
<p>HARKNESS (EDWARD S.) FUND FOR DEPARTMENT OF SURGERY: Gift of Edward S. Harkness, the income to be used for the department of Surgery in accordance with the terms of the gift. Established 1930.....</p>	<p>600,000.00</p>	<p>600,000.00</p>
<p>HARKNESS (MRS. STEPHEN V.) FUND: Gift of Mrs. Stephen V. Harkness, the income to be used for medical education and research. Established 1922.....</p>	<p>1,312,763.96</p>	<p>1,312,763.96</p>
<p>HARSEN SCHOLARSHIP FUND: Founded by Jacob Harsen, M.D., in 1859, the income to be given in prizes. Under an order of the N. Y. Supreme Court in 1903, the income is thereafter to be used for scholarships in the Medical School, to be known as the Harsen Scholarships.....</p>	<p>31,400.00</p>	<p>31,400.00</p>
<p>HARTLEY (FRANK) SCHOLARSHIP FUND: Gifts from friends of Frank Hartley, M.D., to endow a scholarship in the College of Physicians and Surgeons, as a memorial. Established 1914.....</p>	<p>6,000.00</p>	<p>6,000.00</p>
<p>HAYS (WALTER) MEMORIAL FUND: Gift of Mrs. Walter Hays, the income to be used for the promotion of research at the College of Physicians and Surgeons Established 1929.....</p>	<p>1,000.00</p>	<p>1,000.00</p>

	At June 30, 1945	Additions 1945-1946	At June 30, 1946
HEMINGWAY (W. H.) SCHOLARSHIP FUND:			
Gift of William Herbert Hemingway, to be used for the Hemingway Scholarships in Medicine. Established 1928.....	\$83,817.00	\$11,166.02 (Decrease)	\$72,650.98
HOLT (L. EMMETT) FELLOWSHIP FUND:			
Bequest of Dr. L. Emmett Holt to establish a fellowship for the study of the diseases of children. Established 1925.....	24,500.00	.....	24,500.00
HUBER (FRANCIS) SCHOLARSHIP FUND:			
Gift of Francis Huber to establish a scholarship to be awarded to a student entering the Medical School from an institution other than Columbia College, Barnard College or Hunter College. Established 1921.....	5,000.00	.....	5,000.00
HUBER (JOSEPH AND CHRISTINA) MEDICAL LIBRARY FUND:			
Gift of Francis Huber, the income to be expended for the purchase of books on internal medicine. Established 1929.....	5,000.00	.....	5,000.00
HUBER (VIOLA B.) SCHOLARSHIP FUND:			
Gift of Francis Huber to establish a scholarship to be awarded to a student entering the Medical School from Hunter College. Established 1921.....	5,000.00	.....	5,000.00
JACOBI (ABRAHAM) LIBRARY FUND:			
Gift of Francis Huber, the income thereof to be expended for the purchase of books and journals on pediatric subjects for the Library of the Medical School. Established 1921.....	5,025.00	.....	5,025.00
JACOBI (ABRAHAM) SCHOLARSHIP FUND:			
Gift of Francis Huber to establish four scholarships, two of which shall be awarded to students entering the Medical School from Columbia College and two to students entering the Medical School from the College of the City of New York. Established 1921.....	20,000.00	.....	20,000.00

JAMES (WALTER BELKNAP) RESEARCH FELLOWSHIP FUND: Bequest of Dr. Walter B. James, the income to be used for the benefit of Physicians and Surgeons. Established 1927. Augmented in 1928 by gift of Mrs. Walter B. James, \$25,000.00.	50,000.00	50,000.00
JANEWAY (E. G.) LIBRARY ENDOWMENT FUND: Gift of Mrs. Russell Sage to establish the E. G. Janeway Library Endowment Fund, the income to be devoted to the maintenance and extension of the Janeway Library in the College of Physicians and Surgeons. Established 1912.	26,750.00	26,750.00
JANEWAY PRIZE FUND: Bequest of Matilda S. Wisner, the income to be awarded annually to the student graduating from the College of Physicians and Surgeons, with the highest marks for efficiency and ability. Established 1933.	1,000.00	1,000.00
KNAPP MEMORIAL FOUNDATION: Representing assets received from the Herman Knapp Memorial Eye Hospital at the time of its consolidation with the University, the income to be used for postgraduate study, teaching and research in Ophthalmology in accordance with the terms of the Agreement. Established 1940.	775,977.51	9,402.18
KOPLIK CHILDREN'S SCHOLARSHIP FUND: Bequest of Henry Koplik in memory of his wife, Stephanie Koplik, the income to be paid every two years to the physician, under thirty years of age, who shall be selected by a committee appointed by the Faculty of the Medical School for having shown special aptitude for original work in the investigation of diseases of children. Established 1928.	15,000.00	15,000.00
LA MONTAGNE (BEATRICE) RESEARCH FUND: Gift of Beatrice La Montagne, the income, after the death of the donor and her husband, to be used for research in medicine and surgery. Established 1945.	502,243.65	502,243.65
LEE FUND: Gift of Dr. and Mrs. Frederic S. Lee to establish this fund, the income to be used to meet the cost of equipment and research in the Department of Physiology. Established 1914. Original gift \$20,000.00. Augmented in 1928 by \$10,000.00.	30,000.00	30,000.00

	At June 30, 1945	Additions 1945-1946	At June 30, 1946
MAHONY (MARY MURRAY) MEMORIAL FUND: Gift of Janet Morgan Mahony Wilson, Mary Murray Mahoney and Walter Butler Mahony Jr., the income, after payments to be used for cancer research. Established 1946.	.....	\$104,530.21	\$104,530.21
MARKOE (FRANCIS HARTMAN) SCHOLARSHIP FUND: Bequest of Madeline Shelton Markoe in memory of her husband Francis Hartman Markoe, the income to be awarded annually to a student in the College of Physicians and Surgeons. Established 1929	\$10,000.00	.....	10,000.00
MCANENY (MARJORIE) SCHOLARSHIP FUND: Gift of Francis Huber to establish a scholarship to be awarded to a student entering the Medical School from Barnard College. Established 1921.	5,000.00	.....	5,000.00
MEDICAL SCHOOL EQUIPMENT FUND: Created by act of the Committee on Finance on October 31, 1922, by the transfer of \$12,340 received from the United States Government on account of the cost of equipment received from the Columbia War Hospital, this sum to constitute a special fund for the purchase of equipment for the Medical School, the income of which, and if necessary any portion of the principal, to be expended as may be needed under the direction of the Trustees. Established 1924.	12,340.00	.....	12,340.00
MEIERHOF (DR. HAROLD LEE) MEMORIAL PRIZE FUND: Gift of Dr. and Mrs. Edward Lee Meierhof, as a memorial to their son, Dr. Harold Lee Meierhof, the income to be awarded annually, in recognition of some meritorious piece of research accomplished in the Department of Pathology. Established 1921.	1,000.00	.....	1,000.00
MILLER (GUY B.) FUND: Bequest of Guy B. Miller, of the Class of 1898, College of Physicians and Surgeons, for the general purposes of the Medical School. Established 1904.	10,000 00	.....	10,000.00

<p>OPENHYM RESEARCH FUND: Bequest of Augustus W. Openhym, the income to be used for research into the cause, prevention and cure of cancer. Established 1936.</p>	116,670.98	24,649.96	141,320.94
<p>OTTMANN (MADELEINE L.) RESEARCH FUND: Bequest of Madeleine L. Ottmann, the income or principal to be used for research in the Department of Neurology. Established 1931.</p>	50,000.00		50,000.00
<p>PIERRE (CHARLES AND LILLIAN) EDUCATIONAL FUND: Gift of Lillian Pierre, the income to be used for the promotion of the work of the Department of Urology at the Medical School. Established 1934.</p>	10,000.00		10,000.00
<p>PROUDFIT (MARIA McLEAN) FELLOWSHIP FUND IN MEDICINE: Bequest of Alexander Moncrief Proudft, of the Class of 1892, to found a fellowship to be known as the 'Maria McLean Proudft Fellowship,' to be held only by such persons, as being the sons of native-born American parents, shall, under the direction of the Medical Faculty of Columbia College, pursue advanced studies in Medicine, and shall, while enjoying such fellowship, or the income thereof, remain unmarried. Established 1899.</p>	15,000.00		15,000.00
<p>ROBINSON (MEYER R.) FUND: Bequest of Meyer R. Robinson, the income to be used in support of medical research. Established 1937.</p>	500.00		500.00
<p>SCHOOL OF DENTAL AND ORAL SURGERY ENDOWMENT FUND: Gift of Various Donors for the endowment of the School of Dental and Oral Surgery. Established 1929.</p>	75,995.49		75,995.49
<p>SIMON (THEODORE W.) FUND: Bequest of Theodore W. Simon for the general purposes of the Medical School. Established 1927.</p>	8,600.00		8,600.00
<p>SMITH PRIZE FUND, SCHOOL OF MEDICINE: Gift of relatives, friends and pupils of Joseph Mather Smith, M.D., as a memorial of his services as Professor in the College of Physicians and Surgeons from 1826 to 1866. An annual prize of \$100 is to be awarded for the best essay on the subject for the year by an alumnus of the College. Established 1894.</p>	5,200.00		5,200.00

	At June 30, 1945	Additions 1945-1946	At June 30, 1946
STEVENS PRIZE FUND, SCHOOL OF MEDICINE: Established by Alexander Hodgdon Stevens, formerly President of the College of Physicians and Surgeons. The income of the fund is to be awarded every three years for the best medical essay covering original research as determined by the committee in charge of the prize. Established 1891.	\$1,900.00	.....	\$1,900.00
SURGICAL BACTERIOLOGY RESEARCH FUND: Gift of various donors, the principal and income to be drawn upon by Dr. Meleney in the Department of Surgery. Established 1944.	10,000.00	.....	10,000.00
SWIFT MEMORIAL FUND: Gift from the Trustees of the Association of the Alumni of the College of Physicians and Surgeons, representing the principal sum and accrued income as of December 31, 1920, of the Swift Memorial Fund, created in 1883 by Dr. James T. Swift as a memorial to his brother, Dr. Forest Swift, of the Class of 1857. Established 1921.	8,050.00	.....	8,050.00
TILNEY (FREDERICK) MEMORIAL FUND: Gift of various donors, the income to be used for research in the field of neurological sciences. Established 1940.	34,000.00	2,000.00	36,000.00
TUCKER (ERVIN ALDEN) FUND: Bequest of George Anna Tucker, in memory of her husband, Ervin Alden Tucker, M.D., the income to provide an annual fellowship in Obstetrics. Established 1936.	50,000.00	.....	50,000.00
VAN PRAAG (L. A.) FUND: Bequest of L. A. Van Praag to be used by the Trustees, at their discretion, for research into the causes and cure of cancer. Established 1915.	8,000.00	.....	8,000.00
VAN WOERT SCHOLARSHIP FUND: Gift of various donors, to provide a scholarship to a senior student in the School of Dental and Oral Surgery. Established 1940.	2,134.50	206.00	2,340.50

WATSON (DR. WILLIAM PERRY) FOUNDATION IN PEDIATRICS:			
Gift of Dr. William Perry Watson, to establish a permanent fund, the annual income of which shall be given in cash to that member of the graduating class showing the most efficient work in the study of the Diseases of Infants and Children. Established 1921.	5,200.00	.....	5,200.00
WECHSLER (ROBERT M.) SCHOLARSHIP FUND:			
Gift of various donors, the income or principal to be expended under the direction of the Dean of the Medical School. Established 1944.	2,879.45	621.93	3,501.38
WEINSTEIN (ALEXANDER) MEMORIAL FUND:			
Gift of the classmates and friends of Alexander Weinstein, a member of the Class of 1921 College of Physicians and Surgeons, to establish this fund, the income from which is to be used in purchasing annually for the library of the Medical School additional copies of those reference books which are in greatest demand among the students. Established 1921.	800.00	.....	800.00
WHEELOCK (GEORGE G.) FUND:			
Gift of Mrs. George G. Wheelock, and William H. Wheelock, to establish this fund in memory of Dr. George G. Wheelock, the income to be used to meet the needs of the Department of Physiology. Established 1907.	5,100.00	.....	5,100.00
WHITE (MINNIE MARSH) FUND:			
Bequest of Minnie Marsh White, the income or principal to be devoted to the work of the Department of Cancer Research. Established 1945.	.....	10,000.00	10,000.00
	<u>\$43,801,141.81</u>	<u>\$1,084,692.97</u>	<u>\$44,885,834.78</u>

PERMANENT FUNDS

ESTABLISHED BY GIFT FOR PURCHASE OF LAND AND ERECTION AND
EQUIPMENT OF BUILDINGS

	At June 30, 1945	Additions 1945-1946	At June 30, 1946
Apparatus: Optical	\$7,110.00		\$7,110.00
Autobiography: John Stuart Mill	100.00		100.00
Avery Architectural Building	341,079.68		341,079.68
Baker Field	732,483.30		732,483.30
Bard Hall	1,764,373.50		1,764,373.50
Boat House: Baker Field	58,334.23		58,334.23
Boat House: Class of 1897	8,000.00		8,000.00
Casa Italiana	315,000.00		315,000.00
Castings: Duriron	75.00		75.00
Chapel Furnishing	3,382.00		3,382.00
Chemical Laboratories	30,000.00		30,000.00
Clock: Class of 1906	1,159.64		1,159.64
Commemorative Portrait of Their Bri- tannic Majesties' Visit to Columbia ..	4,197.27		4,197.27
Crocker Research Laboratory: X-Ray Equipment	18,465.53		18,465.53
Da Costa Laboratory	20,000.00		20,000.00
Deutsches Haus	30,000.00		30,000.00
Earl Hall: Building	164,950.82		164,950.82
Earl Hall Close	5,075.00		5,075.00
East Field	420,000.00		420,000.00
Egleston (Professor): Setting of Bust ..	390.00		390.00
Engineering Apparatus	450.00		450.00
Engineering Building	333,486.84		333,486.84
Eredra: Granite	5,000.00		5,000.00
Faculty House: Building	306,965.37		306,965.37
Faculty House: Equipment	28,047.48		28,047.48
Fayerweather Hall: Building	330,894.03		330,894.03
Filter: Rotary	1,000.00		1,000.00
Flagstaff: Class of 1881	4,600.00		4,600.00
Fountain of Pan	12,013.50		12,013.50
Furnace: Hegeler	2,000.00		2,000.00
Furnald Hall: Building	350,000.00		350,000.00
Gates: Class of 1882	1,500.00		1,500.00
Gates: Class of 1888	2,000.00		2,000.00
Gates: Class of 1891	15,000.00		15,000.00
Goldsmith Library	850.00		850.00
Hamilton Hall: Building	507,059.16		507,059.16
Hamilton Hall: Clock	1,913.90		1,913.90
Hamilton Hall: Gates	2,020.00		2,020.00
Hamilton Hall: Gemot	1,000.00		1,000.00
Hamilton Hall: Class of 1909 Shield ..	20.00		20.00
Hamilton Statue	11,000.00		11,000.00
"Hammerman" Statue	5,000.00		5,000.00
Hartley Hall: Building	350,000.00		350,000.00
Hartley Hall: Stained Glass Windows ..	2,000.00		2,000.00
Havemeyer Hall: Building	567,321.73		567,321.73
Havemeyer Hall: Annex	999,749.98		999,749.98
Havemeyer Hall: Laboratory	600.00		600.00
Highland, N. Y.: Property	30,000.00		30,000.00
Gates: Class of 1906		\$1,192.40	1,192.40
Camp Columbia		2,000.00	2,000.00

	At June 30, 1945	Additions 1945-1946	At June 30, 1946
Huntington Portrait.....	\$2,127.00		\$2,127.00
Illuminating University Grounds.....	1,035.00		1,035.00
Instruments: Optical.....	9,930.00		9,930.00
Irvington-on-Hudson, N. Y.: Property..	1.00		1.00
John Jay Hall: Building.....	1,662,295.39		1,662,295.39
John Jay Hall: Equipment.....	6,000.00		6,000.00
Johnson Hall: Building.....	1,235,846.93		1,235,846.93
Kent Hall: Building.....	588,704.91		588,704.91
Library: Building.....	1,100,639.32		1,100,639.32
Library Building: Alterations.....	15,800.70		15,800.70
Library: Equipment.....	2,570.00		2,570.00
Library: Marble Columns.....	1,678.00		1,678.00
Library: Torcheres.....	6,000.00		6,000.00
Livingston Hall: Building.....	333,707.50		333,707.50
Livingston Hall: Memorial Window.....	1,124.00		1,124.00
Maison Francaise: Building.....	33,300.00		33,300.00
Medical School (New): Building.....	4,094,044.02		4,094,044.02
Medical School (New): Equipment.....	18,569.72		18,569.72
Medical School (New): Residence Hall Site	508,692.43		508,692.43
Medical School (New): Site.....	855,001.00		855,001.00
Medical School (Old): Additions.....	117,842.07		117,842.07
Medical School (Old): Building.....	71,551.05		71,551.05
Medical School: Removing and Rebuild- ing.....	53,000.00		53,000.00
Medical and Surgical Equipment.....	14,912.80		14,912.80
Mineral Specimens: Dufourcq Collection	300.00		300.00
Model: Buildings and Grounds.....	19,972.70		19,972.70
Model: Braden Copper Co.....	1,700.00		1,700.00
Model: Coal Mine.....	250.00		250.00
Morningside Heights Site.....	331,150.00		331,150.00
Nichols Laboratories.....	30,000.00		30,000.00
Pathological Laboratory.....	19,136.94		19,136.94
Philosophy: Building.....	350,000.00		350,000.00
Physics: Building.....	1,521,163.94		1,521,163.94
Power House: Equipment.....	428,250.00		428,250.00
Precision Laboratory.....	8,000.00		8,000.00
President's House Furnishing.....	14,410.17		14,410.17
Primate Colony at Puerto Rico.....	1,522.70		1,522.70
Publications: Cragin Collection.....	1,400.00		1,400.00
St. Paul's Chapel: Bell.....	5,120.84		5,120.84
St. Paul's Chapel: Building.....	250,000.00		250,000.00
St. Paul's Chapel: Furniture.....	3,221.62		3,221.62
St. Paul's Chapel: Memorial Windows...	32,700.00		32,700.00
St. Paul's Chapel: Organ and Case.....	27,000.00		27,000.00
St. Paul's Chapel: Tablet.....	880.00		880.00
St. Paul's Chapel: Torcheres.....	5,280.00		5,280.00
Schermerhorn Hall: Building.....	544,552.44		544,552.44
Schermerhorn Hall: Extension.....	1,198,090.84		1,198,090.84
School of Business: Building.....	995,009.01		995,009.01
School of Dental and Oral Surgery (New)	380,627.53		380,627.53
School of Dentistry: Building.....	33,500.00		33,500.00
School of Dentistry: Equipment.....	5,584.92		5,584.92
School of Journalism: Building.....	563,501.21		563,501.21
School of Mines: Building.....	335,111.03		335,111.03

	At June 30, 1945	Additions 1945-1946	At June 30, 1946
School of Mines: Torcheres	\$1,000.00	.....	\$1,000.00
Ski Jump at Camp Columbia	400.00	.....	400.00
Sloane Hospital for Women: Additions and Alterations	399,263.14	.....	399,263.14
Smith (Munroe) Tablet	1,840.00	.....	1,840.00
South Court Fountains	4,932.88	.....	4,932.88
South Field	54,707.00	.....	54,707.00
South Field Grading	11,500.00	.....	11,500.00
South Hall	3,594,755.04	.....	3,594,755.04
Statue of Letters and pylon	8,598.72	.....	8,598.72
Statue of Science and pylon	13,148.95	.....	13,148.95
Sun Dial—116th Street	10,000.00	.....	10,000.00
Telescope	5,497.35	.....	5,497.35
Trophy Room: Equipment	980.00	.....	980.00
University Hall: Enlargement	764,385.76	.....	764,385.76
Van Amringe Memorial	20,238.34	.....	20,238.34
Vanderbilt Clinic: Building	350,000.00	.....	350,000.00
Villard (Henry) Legacy	50,000.00	.....	50,000.00
Watson Laboratory .....	.....	\$25,000.00	25,000.00
	\$30,928,723.87	\$28,192.40	\$30,956,916.27

GIFTS AND BEQUESTS
Received for the Purchase of Land and Erection and
Equipment of Buildings
See Permanent Funds pages 200-202

(For list of gifts other than money see separate pamphlet)

<i>Name</i>	<i>Purpose</i>	<i>Date</i>	<i>Amount</i>
Adams (Edward D.).....	Precision Laboratory: Physics Building.....	1913	\$8,000.00
Adams (Edward D.).....	Deutsches Haus, 419 West 117th Street.....	1910	30,000.00
Aldrich (Mrs. Richard).....	Medical School (old) Additions.	1917	5.00
Alexander (Chas. W.).....	Clinton window, St. Paul's Chapel.....	1906	300.00
Alumni Association of Columbia College.....	Hamilton Hall Building.....	1906	997.50
Alumni Association of Columbia College.....	Hamilton Statue, South Field..	1908	10,000.00
Alumni Association of Columbia College.....	University Hall, enlargement...	1900-13	100,756.41
Alumni Fund.....	School of Dental & Oral Surgery (new).....	1921-27	28,540.29
	Gifts..... \$27,290.29		
	Interest..... 1,250.00		
	<u>\$28,540.29</u>		
Anderson (Mrs. E. M.).....	Medical School (old) Additions.	1917	5,000.00
Animal Care Equipment Fund..	Primate Colony at Puerto Rico	1940	1,522.70
Anonymous.....	Furnishing President's House..	1910	14,410.17
	Gift..... \$30,000.00		
	Expenses \$2,174.70		
	Transfer to Special Endowments... 13,415.13		
	<u>15,589.83</u>		
	<u>\$14,410.17</u>		
Anonymous.....	Boat House, Baker Field.....	1931-32	56,834.23
Anonymous.....	Chemical Laboratories: Havemeyer Hall.....	1915	30,000.00
Anonymous.....	Hamilton Statue.....	1909	1,000.00
Anonymous.....	Livingston Hall Equipment...	1937	100.00
Anonymous.....	Medical School (new) Building	1929	150,007.65
Anonymous.....	Medical School (old) Additions	1917-19	10,691.58
Anonymous.....	Medical School (removing and rebuilding).....	1915	15,000.00
Anonymous.....	Medical and Surgical Equipment.....	1919-21	4,712.80
Anonymous.....	Models of buildings and grounds	1906-08	19,972.70
Anonymous.....	Furniture, St. Paul's Chapel...	1908	2,846.62
Anonymous.....	School of Dental & Oral Surgery (new).....	1926-27	75,891.20
	Gifts..... \$61,742.35		
	Interest..... 14,148.85		
	<u>\$75,891.20</u>		

<i>Name</i>	<i>Purpose</i>	<i>Date</i>	<i>Amount</i>
Anonymous.....	South Field Grading.....	1909	\$1,500.00
Anonymous.....	South Hall Equipment.....	1935	111.62
Anonymous.....	Trophy Room Equipment.....	1922	980.00
Arnold (Harriette).....	Power House Equipment.....	1945	100,000.00
Association of the Alumni of Col- umbia College.....	Ski Jump at Camp Columbia..	1935	400.00
Aub (Miss Alma C.).....	Medical and Surgical Equipment	1921	200.00
Avery (Samuel P.).....	Avery Library Building.....	1911-14	339,250.00
Babcock (Samuel D.).....	Morningside Heights Site.....	1892	5,000.00
Babcock & Wilcox.....	Steam Boilers—Power House..	1907	3,250.00
Baker (George F., Jr.).....	Medical School (old) Additions	1917	2,500.00
Baker (George F.).....	Baker Field.....	1922-24	730,583.15
Total amount of			
	Gifts.....	\$771,940.59	
	Taxes.....	41,357.44	
			\$730,583.15
Baldwin (Helen, M. D.).....	Medical School (old) Additions	1917	100.00
Bausch & Lomb Optical Co.....	Optical Instruments.....	1920-24	9,100.00
Beck (Chas. Bathgate) Bequest.....	Kent Hall Building.....	1899-1912	385,672.57
	Total Bequest....	\$382,808.37	
	Interest on bequest	10,373.20	
			\$393,181.57
	Less legal expenses	7,509.00	
			\$385,672.57
Beekman (Gerard).....	Beekman window: St. Paul's Chapel.....	1906	600.00
Beekman (Gerard).....	Minturn window: St. Paul's Chapel.....	1906	600.00
Benson (Mary).....	Medical School (old) Additions	1917	25.00
Bernheim (A. C.).....	Morningside Heights Site.....	1892	1,000.00
Bernheim (Mrs. Geo. B.).....	Medical School (old) Additions	1917	1,000.00
Blossom (Francis).....	Earl Hall Close.....	1932	1,000.00
Bolling (Virginia C. S.) Trust....	Power House Equipment.....	1945	7.00
Bondy Fund Income.....	X-Ray Equipment: Crocker Laboratory.....	1922	10,677.85
Bondy Fund Income.....	X-Ray Equipment: New Medi- cal School.....	1935	13,427.90
Brackenridge (Geo. W.).....	Medical School (old) Additions	1917	50,000.00
Braden Copper Co.....	Models of copper mines.....	1925	1,700.00
Bruce (Catherine Wolfe).....	Telescope for New Observatory. Gift of \$10,000 received 1899. The gift with interest was partly used in expenses; the balance remaining was used in part payment of the cost of a telescope in the Physics Building erected in 1925-26.	1899	5,497.35
Building Reconstruction.....	School of Business Building... ..	1937	255.69
Burgess (Annie P.) Estate of....	Havemeyer Hall Construction..	1927-29	6,525.00
Burgess (Annie P.) Estate of....	School of Business Building... ..	1913-24	64,188.71
	Bequest.....	\$63,396.26	
	Interest.....	792.45	
			\$64,188.71

<i>Name</i>	<i>Purpose</i>	<i>Date</i>	<i>Amount</i>
Carnegie Corporation	Medical School (new) Building	1925-28	\$1,100,000.00
Carter (Henry C.)	Morningside Heights Site	1892	150.00
Cheesman (Dr. T. M.)	Cheesman window: St. Paul's Chapel	1905	600.00
Cheesman (Dr. T. M.) Estate of	School of Business Building	1920	11,162.81
	Bequest	\$10,000.00	
	Interest	1,162.81	
		<u>\$11,162.81</u>	
Civil Engineering Testing Laboratory Fund	Testing Machine: Engineering Building	1935	22,999.65
	Principal	\$18,497.76	
	Income	4,501.89	
		<u>\$22,999.65</u>	
Clark (Alfred C.)	Morningside Heights Site	1893	10,000.00
Clark (Edward Severin)	Fountain of Pan: the Grove	1908-09	12,013.50
Clark (J. William)	School of Dental and Oral Surgery (new)	1927	10,511.11
	Gift	\$10,000.00	
	Interest	511.11	
		<u>\$10,511.11</u>	
Class of 1874	Marble Columns in Library	1912-13	1,678.00
Class of 1880	Gates: Hamilton Hall	1907	2,020.00
Class of 1881, Arts and Mines	Gemot: Hamilton Hall	1911	1,000.00
Class of 1881	Flagstaff: the Quadrangle	1906	4,600.00
Class of 1881, College, Mines and Political Science	Mantel: John Jay Hall	1926	2,500.00
Class of 1882	120th Street Gates	1897-98	1,500.00
Class of 1882, Science	Torcheres: School of Mines	1907	1,000.00
Class of 1883, Arts, Mines, and Political Science	Torcheres: St. Paul's Chapel	1908	5,280.00
Class of 1883, Mines	Setting Bust of Professor Egles-ton	1913	390.00
Class of 1884, Arts and Mines	Clock: Hamilton Hall	1907	1,913.90
Class of 1884, Science	Grading South Field	1909	5,000.00
Class of 1885, College	Stained glass window "Sophocles," Hartley Hall	1885	1,000.00
Class of 1885, College	Sun Dial: South Field	1910	10,000.00
Class of 1886	Granite Exedra: the Quadrangle	1911	5,000.00
Class of 1888	Gates at Amsterdam Avenue and 119th Street	1913	2,000.00
Class of 1889	Barnard Window: St. Paul's Chapel	1914	1,200.00
Class of 1889, Mines	Meunier Statue, "The Hammerman"; the Quadrangle	1914	5,000.00
Class of 1890	Statue of Letters and pylon: S. E. Cor. Broadway and 116th Street	1913-16	8,598.72
Class of 1891, College	Stained Glass Window "Vergil" (Hartley Hall)	1891	1,000.00

<i>Name</i>	<i>Purpose</i>	<i>Date</i>	<i>Amount</i>
Class of 1891.....	Gates between Mines and Engineering Buildings.....	1916	\$15,000.00
Class of 1891.....	Earl Hall Close.....	1932	4,075.00
Class of 1893.....	Bell: St. Paul's Chapel.....	1918	5,120.84
Class of 1896, Arts and Mines.....	Panels: John Jay Hall.....	1926	2,500.00
Class of 1897.....	Boat-house: Baker Field.....	1922-23	8,000.00
Class of 1897, Arts and Mines.....	Prentice Eight-oared shell.....	1927	1,500.00
Class of 1899.....	Grading South Field.....	1909	5,000.00
Class of 1900.....	Statue of Science and pylon: N. E. Cor. Broadway and 116th Street.....	1925	13,148.95
Class of 1906.....	Chapel Entrance Gates.....	1946	1,192.40
Class of 1906.....	Clock on South Field.....	1916	1,159.64
Class of 1909.....	Shield: Hamilton Hall.....	1912	20.00
Class of 1915, College and Science.....	Mantel and Clock: John Jay Hall.....	1927	1,000.00
Clinton (De Witt).....	Clinton Window: St. Paul's Chapel.....	1906	300.00
Cochran (Alexander Smith).....	Kent Hall Building.....	1909	100,000.00
College of Dental and Oral Surgery.....	Equipment: School of Dental and Oral Surgery (New).....	1924	68,654.09
College of Physicians and Surgeons.....	Medical School (old) Building	1903	71,551.05
Columbia University Athletic Association.....	Boat-house at Highland, N. Y.	1921	30,000.00
Converse (E. C.).....	Medical School (old) Additions	1919	1,000.00
Cragin (E. B.).....	Publications.....	1919	1,400.00
Crocker Fund Income.....	X-Ray Equipment: Crocker Laboratory.....	1921	7,787.68
Crocker Fund Income.....	X-Ray Equipment: New Medical School.....	1935	5,141.82
Cutting (R. Fulton).....	Morningside Heights Site.....	1893	10,000.00
Commonwealth Fund.....	Laboratory Building: New Medical School.....	1936-37	290,000.00
Da Costa (Charles M.).....	Laboratory, Schermerhorn Hall	1890	20,000.00
Davies (Julien T.).....	Barnard Window: St. Paul's Chapel.....	1913	1,000.00
Davies (Julien T.).....	Benson Window: St. Paul's Chapel.....	1906	600.00
De Lamar Fund, Income of.....	Medical School (old) Additions	1920	3,600.00
De Peyster (Mrs. Frederic J.)...	De Peyster Window: St. Paul's Chapel.....	1905	600.00
DeWitt (George G.).....	Barnard Window: St. Paul's Chapel.....	1905	500.00
Dodge (Marcellus Hartley).....	Furnishing Men's Faculty Club	1925	495.00
Dodge (Marcellus Hartley).....	Hartley Hall Building.....	1904-05	175,000.00
Dodge (Marcellus Hartley).....	South Court Fountains.....	1906-08	4,932.88
Dodge (William E.).....	Earl Hall.....	1900-02	164,950.82
	Gift.....	\$159,540.38	
	Interest.....	5,410.44	
		<u>\$164,950.82</u>	
Donahue (Mrs. James P.).....	School of Dental and Oral Surgery (new).....	1926	55,745.15
	Gift.....	\$50,000.00	
	Interest.....	5,745.15	
		<u>\$55,745.15</u>	

<i>Name</i>	<i>Purpose</i>	<i>Date</i>	<i>Amount</i>
Douglas (Eliz.) Estate of.....	Power House Equipment.....	1945	\$50,000.00
Dryden (Forest F.).....	Medical School (old) Additions	1918	1,000.00
DuPont (Mrs. Coleman).....	Property at Irvington-on-Hudson, N. Y.....	1935	1.00
Duriron Castings Co.....	Castings for the Department of Chemical Engineering.....	1920	75.00
Eddy (Jesse L.).....	Medical School (old) Additions	1918	500.00
Epsilon Psi Epsilon.....	Optical Instruments.....	1927	1,800.00
Fayerweather (Daniel B.) Bequest.....	Fayerweather Hall Building.....	1891-1917	830,894.03
	Bequest.....		\$346,319.73
	Less Expenses....		15,425.70
			<u>\$330,894.03</u>
Fish (Stuyvesant).....	Fish Window: St. Paul's Chapel	1906	600.00
France-America Committee....	Maison Francaise Equipment..	1914	2,000.00
Frank (Dr. John) Estate of....	School of Business Building....	1923	2,589.64
	Bequest.....		\$2,389.85
	Interest.....		199.79
			<u>\$2,589.64</u>
Fuller (Paul, Jr.).....	Maison Francaise Equipment..	1913	100.00
Furnald, (Francis P., Jr.) Leg-acy.....	Furnald Hall Building.....	1912-14	350,000.00
General Education Board.....	Medical School (new) Building	1925-28	1,299,732.57
	Gift.....		\$1,250,000.00
	Interest.....		49,732.57
			<u>\$1,299,732.57</u>
General Optical Co.....	Optical Instruments.....	1920-27	2,020.00
Globe Optical Co.....	Optical Instruments.....	1920	250.00
Goldsmith (Byron B.) Estate of.	Goldsmith Library.....	1927	850.00
Gould (George J.).....	Toward Purchase of East Field	1909	100,000.00
Griscom (Acton).....	St. Paul's Chapel Furnishing...	1924	30.00
Guiterman (Edward) Estate of..	Power House Equipment.....	1945	400.00
Hall (Martha M.) Foundation, Inc.....	Laboratory Building: New Medical School.....	1937	180,000.00
Hamilton Manufacturing Co....	Optical Instruments.....	1927	560.00
Hand (Mrs. Learned).....	Medical School (old) Additions	1917	50.00
Harkness (Edward S.).....	New Medical School Site.....	1923	855,001.00
	Gift, 1923 assessed valuation....		\$1,180,000.00
	Less Value of land transferred as follows:		
	Neurological Institute..		\$120,000.00
	New York State Psychiatric Hospital..		74,999.00

<i>Name</i>	<i>Purpose</i>	<i>Date</i>	<i>Amount</i>
	Presbyterian Hospital \$130,000.00		
			\$324,999.00
			\$855,001.00
Harkness (Edward S.)	Residence Hall site, New Medi- cal School	1929-31	\$508,692.43
Harkness (Edward S.)	Bard Hall (new) Medical School	1930-33	1,764,373.50
Harkness (Edward S.)	South Hall	1933	3,594,643.42
Harkness (Edward S.)	Power House Equipment	1932	150,000.00
Harkness (Mrs. H. S.)	Medical and Surgical Equip- ment	1919	10,000.00
Harper (J. W.) Legacy	Morningside Heights Site	1901	5,000.00
Harris (Ellen C.) Bequest	Chemical Laboratories	1922-37	662,582.10
	Bequest \$710,925.59		
	Legal exp . . . \$500.00		
	Taxes 667.47		
	Harris (Ellen C.) Fund 141,017.64		
			142,185.11
			\$568,740.48
	Interest		93,841.62
			\$662,582.10
Havemeyer (Henry O.) and others	Havemeyer Hall Building	1896	414,206.65
	Gift of property valued at \$450,000.00		
	Less loss on sale 35,793.35		
			\$414,206.65
Hawes (A. J.)	Medical School (old) Additions	1919	100.00
Hepburn (A. Barton)	Maison Francaise: 411 West 117th Street	1913	30,000.00
Hepburn (A. Barton) Estate of	School of Business Building	1923-32	218,620.43
Hewitt (Hon. Abram S.)	Morningside Heights Site	1893-96	4,000.00
Hine (F. L.)	Medical School (old) Additions	1918	1,000.00
Hoffman (Charles Frederick) Estate of	School of Business Building	1920	5,581.40
	Bequest \$5,000.00		
	Interest 581.40		
			\$5,581.40
Huntington (Archer M.)	Medical School (old) Additions	1919	1,000.00
International Business Machines Corporation	Land and Building at 612 West 116th Street	1946	25,000.00
Israel (Leon)	School of Business Building	1919	3,255.00
	Gift \$5,000.00		
	Expense 1,745.00		
			\$3,255.00

<i>Name</i>	<i>Purpose</i>	<i>Date</i>	<i>Amount</i>
Jackson (Mrs. A. V. Williams)	Tablet: St. Paul's Chapel	1939	\$880.00
James (Arthur Curtis)	Medical School (old) Additions	1918	1,000.00
James (D. Willis)	Morningside Heights Site	1892-94	50,000.00
James (Dr. W. B.)	Medical School (old) Additions	1919	500.00
Jarvie (James N.)	School of Dental and Oral Surgery (new)	1916	105,000.00
	Gift		\$100,000.00
	Interest		5,000.00
			<u>\$105,000.00</u>
Jennings (Miss Anne B.)	Medical School (old) Additions	1917	500.00
Jenkins (Mrs. Helen Hartley)	Hartley Hall Building	1904-05	175,000.00
Jenkins (Mrs. Helen Hartley)	Philosophy Building	1910-11	350,000.00
Jessup (Morris K.)	Morningside Heights Site	1893	5,000.00
Jones (James Elwood)	Model of Coal Mine	1923	250.00
Jusserand (J. J.)	Maison Francaise Equipment	1913	200.00
Kane (Annie C.) Estate of	Havemeyer Hall Annex	1927	337,167.88
Kane (Annie C.) Estate of	Havemeyer Hall Building	1927	54,590.08
Kane (Annie C.) Estate of	University Hall	1927	108,242.04
Keene (Charles S.) Estate of	Engineering Building	1933	232,687.19
Kennedy (John Stewart)	Hamilton Hall Building	1905-06	506,061.66
	Gifts		\$500,000.00
	Interest		6,061.66
			<u>\$506,061.66</u>
King (Hon. John A.)	Morningside Heights Site	1892	1,000.00
King (Willard V.)	Medical School (removing and rebuilding)	1915-16	2,000.00
King (Willard V.)	School of Dental & Oral Surgery (new)	1927	2,000.00
Kingsland (Mrs. A. C.)	Kingsland Window: St. Paul's Chapel	1906	300.00
Kingsland (Mrs. Geo. L.)	Kingsland Window: St. Paul's Chapel	1906	300.00
Ladenberg (Mrs. Emily)	Medical School (removing and rebuilding)	1915	1,000.00
Lagemann (Miss Anna)	Medical School (old) Additions	1917	10.00
Lange (Edmund)	School of Dental & Oral Surgery (new)	1929	56.80
Langeloth (Jacob) Estate of	School of Business Building	1915	5,062.50
	Bequest		\$5,000.00
	Interest		62.50
			<u>\$5,062.50</u>
Lawrence (Mrs. Benj. B.)	Barnard and Lawrence Windows: St. Paul's Chapel	1923	18,400.00
	Gift		\$20,000.00
	Transferred to Chapel Furnishing Fund		1,600.00
			<u>\$18,400.00</u>
Lawrence (Mrs. Benj. B.)	St. Paul's Chapel Furnishing	1923	3,727.00

<i>Name</i>	<i>Purpose</i>	<i>Date</i>	<i>Amount</i>
	Balance of gift for Memorial Windows \$1,600.00 Interest \$2,456.53 Less trans- fer to Chapel Furnishing Fund . . . 329.53		
			2,127.00
			<u>\$3,727.00</u>
Lee (Mrs. Frederic S.)	School of Dental & Oral Surgery (new) Gift \$5,000.00 Interest 366.11	1927	\$5,366.11
			<u>\$5,366.11</u>
Lengovitz (Emil G.)	Engineering Apparatus	1919	450.00
Lewisohn (Adolph)	School of Mines Building	1904-05	250,000.00
Livingston (Edward de Peyster, John Henry and Goodhue)	Memorial Window, Livingston Hall	1909	1,124.00
Low (A. A.)	Morningside Heights Site	1892-94	15,000.00
Low (Seth)	Morningside Heights Site	1892	5,000.00
Low (Seth)	Library Building	1896-99	1,100,639.32
Low (Seth) Bequest	Library Building Alterations	1938	15,800.70
McClelland (John)	Pathological Laboratory: Med- ical School	1891	19,136.94
McLean (James)	Medical School (old) Additions	1918	1,000.00
Mackay (Clarence H.)	Maison Francaise Equipment	1914	1,000.00
Mackay (Clarence H.)	Medical School (old) Additions	1918	12,000.00
Macy (Mrs. and Mr. V. Everit)	Medical School (old) Additions	1917-19	6,000.00
Marling (A. E.)	Medical School (old) Additions	1919	1,000.00
McMillin (Emerson)	School of Business Building Gift of 2,040 Shares of Com- mon Stock of the American Light & Traction Co., the proceeds of which, together with interest and dividends, amounted to \$568,069.02.	1917-18	568,069.02
Mead (Grace Hartley)	Laboratory Building: New Med- ical School	1938	11,000.00
Mehler (Miss Elsa)	Medical School (old) Additions	1917	10.00
Moore (William H.)	Medical School (old) Additions	1918	1,000.00
Morgan (J. Pierpont)	Morningside Heights Site	1892-95	100,000.00
Morgan (William Fellowes)	Illumination of University Grounds	1913	1,035.00
Morgan (William Fellowes)	School of Dental & Oral Surgery (new) Gift \$2,500.00 Interest 122.92	1927	2,622.92
			<u>\$2,622.92</u>
Mosher (Eliza M.)	Medical School (old) Additions	1917	500.00

<i>Name</i>	<i>Purpose</i>	<i>Date</i>	<i>Amount</i>
Mower (Sara E.) Estate of	School of Business Building. . . .	1920-21	\$110,226.04
	Bequest		\$91,101.43
	Less Expenses		2,220.34
			<hr/>
			\$88,881.09
	Interest		21,344.95
			<hr/>
			\$110,226.04
			<hr/>
Munsey (Frank A.)	Toward Purchase of East Field	1910	50,000.00
Nash (William A.)	Medical School (old) Additions	1918	250.00
New Jersey Zinc Co.	Hegeler Furnace	1923	2,000.00
Nichols (William H.)	Laboratories: Havemeyer Hall	1912	30,000.00
Notman (George)	Medical School (old) Additions	1917	100.00
Notman (Mrs. George)	Medical School (old) Additions	1917	100.00
Ogden (David B.)	Ogden Window: St. Paul's		
	Chapel	1906	600.00
Oliver Continuous Filter Co.	Rotary Filter	1919	1,000.00
Optometrical Club of Brooklyn	Optical Instruments	1927	1,500.00
Optometrical Society of the City of New York	Optical Instruments	1927	1,750.00
Osborne (Mr. and Mrs. Wm. Church)	Medical School (old) Additions	1918	1,000.00
Ottendorfer (Oswald)	Morningside Heights Site	1892	5,000.00
Palmer (Edgar)	Medical School (old) Additions	1919	3,000.00
Parish (Henry)	Morningside Heights Site	1893	5,000.00
Parsons (Mrs. Elsie Clews)	Medical School (old) Additions	1918	100.00
Parsons (Mrs. Edgerton)	Medical School (old) Additions	1917	5.00
Parsons (General William Bar- clay)	Portrait	1928	2,570.00
Peabody (George Foster and Charles)	Organ and Case: St. Paul's		
	Chapel	1905-06	27,000.00
Pell (Howland) and others	Pell Window: St. Paul's Chapel	1906	600.00
Pendleton (Francis K.) et al.	Pendleton Window: St. Paul's		
	Chapel	1906	600.00
Philosophy, Department of (Members)	Autobiography of John Stuart Mill	1923	100.00
Phoenix Legacy: Income	Observatory and Telescope:		
	Physics Building	1928	35,748.90
	Equipment of Schermerhorn Hall	1930	39,960.84
	Engineering Building	1932	5,000.00
	School of Mines	1932	9,583.18
	Testing Machine: Engineering Building	1935	5,000.00
Pratt (Mrs. Chas. M.)	Medical School (old) Additions	1917	500.00
Prentis (Edmund A.)	Commemorative Portrait of Their Britannic Majesties' Visit to Columbia	1939	4,197.27
Prentis (Edmund A.)	Toward Purchase of Land and Cottage at Camp Columbia	1946	2,000.00
Pulitzer (Joseph)	School of Journalism Building Gift of \$1,000,000 to establish and endow a School of Jour- nalism, of which \$563,501.21 was expended in the con- struction of the building, the balance remaining in the Pulitzer (Joseph) Fund for School of Journalism.	1903-04	563,501.21

<i>Name</i>	<i>Purpose</i>	<i>Date</i>	<i>Amount</i>
Randolph (Wm. Fitz) Estate of	Havemeyer Hall Building	1933	\$92,000.00
Rathbone (Charles H.) Estate of	Medical School (new) Building	1938-42	10,000.00
Reid (D. G.)	Medical School (old) Additions	1918	1,000.00
Rives (George L.)	Barelay Window: St. Paul's Chapel	1906	600.00
Rives (George L.)	Medical School (Removing and Rebuilding)	1916	10,000.00
Rives (George L.) Estate of	Medical School (Removing and Rebuilding)	1918	25,000.00
Robinson (M. R.)	School of Dental & Oral Surgery (new)	1925	25.00
Rockefeller Foundation	Medical School (new) Building Gift \$1,008,333.33 Interest 43,495.47	1925-28	1,051,828.80
			<u>\$1,051,828.80</u>
Sands (B. Aymar)	Barnard Window: St. Paul's Chapel	1914	500.00
Sands (Sarah A.) Estate of	Sands Window: St. Paul's Chapel	1906	600.00
Schermerhorn (F. Augustus)	Barnard Window: St. Paul's Chapel	1913	1,000.00
Schermerhorn (F. Augustus) Es- tate of	Faculty House	1922-23	306,965.37
Schermerhorn (F. Augustus) Es- tate of	Faculty House Equipment	1922-23	27,552.48
	Bequest \$304,442.77 Interest 30,075.08		
			<u>\$334,517.85</u>
	Building \$306,965.37 Equipment 27,552.48		
			<u>\$334,517.85</u>
Schermerhorn (F. Augustus) Estate of	Schermerhorn Hall Extension \$1,158,130.00 Schermerhorn Hall (changes) 86,419.26	1929-32	1,244,549.26
			<u>\$1,244,549.26</u>
Schermerhorn (F. Augustus) Es- tate of	Livingston Hall	1926	275,000.00
	Bequest \$262,993.25 Interest 12,006.75		
			<u>\$275,000.00</u>
Schermerborn (William C.)	Schermerhorn Hall: Building . . .	1896-99	458,133.18
Schiff (Jacob H.)	Morningside Heights Site	1892	5,000.00
School of Dentistry Endowment Fund (Income)	School of Dentistry Building . . .	1919-21	26,000.00

<i>Name</i>	<i>Purpose</i>	<i>Date</i>	<i>Amount</i>
School of Dentistry Endowment			
Fund (Income).....	School of Dentistry Equipment	1921	\$5,584.92
Scribner (Mrs. Arthur).....	Medical School (old) Additions	1917	25.00
Seligman (Isaac N.) Estate of.....		1920	3,384.00
	Bequest.....		\$5,464.17
	Van Am- ringe Mem- orial.		\$1,554.32
	Avery Lib- rary.		1,829.68
			<u>3,384.00</u>
	Balance (Gift Acct.)		<u>\$2,080.17</u>
Shepard (F. J.).....	Medical School (old) Additions	1919	500.00
Sloan (Samuel).....	Morningside Heights Site.....	1892	5,000.00
Sloan (Samuel).....	Torcheres: Library.....	1907	6,000.00
Sloane (Mr. and Mrs. Wm. D.)	Sloane Hospital for Women (Al- terations and additions).....	1912	399,263.14
Smith (Lenox) Estate of.....	Engineering Building.....	1927	57,800.00
	Bequest.....		\$55,349.68
	Interest, etc.....		2,450.32
			<u>\$57,800.00</u>
Smith (Lenox) Estate of.....	University Hall.....	1937	20,104.99
Smith (Lenox) Estate of.....	Power House Equipment.....	1945	868.09
Smith (Mrs. Munroe).....	Memorial Tablet to the late Professor Munroe Smith.....	1927	1,840.00
Sorchan (Mrs. Victor).....	Medical School (old) Additions	1917	1,000.00
Staff (Mary E.) Bequest.....	Power House Equipment.....	1945	62.52
Standard Optical Co.....	Optical Instruments.....	1920	60.00
Stephens (Mrs. W. B. and Daughter).....	Mineral Specimens (Du Foureq collection).....	1921	300.00
Stetson (Francis Lynde).....	Kent Hall Building.....	1905	10,000.00
Stewart (Lispensard).....	Lispensard Window: St. Paul's Chapel.....	1906	600.00
Stewart (Wm. Rhinelander)....	Rhinelander Window: St. Paul's Chapel.....	1906	600.00
Stokes (Olivia Egleston Phelps)	Toward purchase of East Field.	1910	20,000.00
Stokes (Olivia Egleston Phelps and Caroline Phelps).....	St. Paul's Chapel Construction	1904-06	250,000.00
Straight (Mrs. Willard D.)....	Medical School (old) Additions	1917	1,000.00
Straus (Oscar S.).....	Barnard Window: St. Paul's Chapel.....	1906	500.00
Sulzberger (Dr. Nathan).....	Laboratory Equipment: Have- meyer Hall.....	1918	600.00
Sutro (Mrs. Lionel).....	Medical School (old) Additions	1917	50.00
Thomas (Belle).....	Medical School (old) Additions	1917	25.00
Thompson (Charles G.) Estate of.....	John Jay Hall Building.....	1935-36	1,662,295.39
Thompson (Charles G.) Estate of.....	Kent Hall Building.....	1936-37	93,032.34

<i>Name</i>	<i>Purpose</i>	<i>Date</i>	<i>Amount</i>
Thompson (Charles G.) Estate of.....	Livingston Hall Building.....	1936-37	\$58,607.50
Thompson (Charles G.) Estate of.....	School of Mines Building.....	1936-37	32,801.13
Thompson (Charles G.) Estate of.....	University Hall.....	1938	22,725.60
Thompson (Elizabeth G.) Estate of.....	Johnson Hall Building.....	1935-36	683,222.90
Thompson (Elizabeth G.) Estate of.....	School of Mines Building.....	1936-37	42,721.72
Thompson (Elizabeth G.) Estate of.....	University Hall.....	1936-37	177,944.05
Thompson (Mary Clark).....	Medical School (old) Additions	1918	2,500.00
Thompson (Mary G.) Estate of.....	Johnson Hall Building.....	1936-37	552,624.03
Thompson (Mary G.) Estate of.....	Physics Building.....	1936	1,485,415.04
Thompson (Mary G.) Estate of.....	Power House Equipment.....	1945	123,096.16
Thompson (Mary G.) Estate of.....	University Hall.....	1936-37	334,612.67
Van Amringe Memorial Com- mittee.....	Van Amringe Memorial.....	1917-22	18,684.02
Van Sinderen (Mina Mason) Es- tate of.....	Engineering Building.....	1934	10,000.00
Van Cortlandt (Robt. B.).....	Van Cortlandt Window: St. Paul's Chapel.....	1906	600.00
Vanderbilt (Cornelius, William K., Frederick W. and George W.).....	Vanderbilt Clinic: Building and Equipment.....	1895	350,000.00
Vanderbilt Clinic.....	School of Dentistry Building..	1920	7,500.00
Vanderbilt (Cornelius).....	Morningside Heights Site.....	1892	100,000.00
Vanderbilt (William K.).....	Toward purchase of East Field	1910-14	250,000.00
Various Donors.....	Casa Italiana, 437 W. 117th St.	1928	315,000.00
Various Donors.....	Columbia Stadium Site.....	Various	1,900.15
Various Donors.....	Huntington Portrait.....	1938	2,127.00
Various Donors.....	School of Business Building....	1936-37	4,881.49
Various Donors.....	School of Dental & Oral Surgery (new).....	1916-18	26,000.00
Various Donors.....	South Field.....	1903-05	54,707.00
Various Donors.....	Medical School Equipment....	1928	1,475.00
Various (Interest on Gifts).....	Medical School (old) Additions	1918	95.49
Villard (Henry) Estate of.....	Morningside Heights Site.....	1901	50,000.00
Wallace (J. M.).....	Medical School (old) Additions	1918	1,000.00
Waterbury (Elizabeth).....	Medical School (old) Additions	1918	1,000.00
Waterbury (John I.).....	Medical School (old) Additions	1918	2,500.00
Watson (Thomas J.).....	Medical School (old) Additions	1918	1,000.00
Webber (John) Estate of.....	School of Business Building....	1918	1,116.28
	Bequest.....	\$1,000.00	
	Interest.....	116.28	
			<u>\$1,116.28</u>
William (Blair S.).....	School of Dental & Oral Surgery (new).....	1927	214.86
	Gift.....	\$200.00	
	Interest.....	14.86	
			<u>\$214.86</u>
Wilson (Wm. A.) Estate of.....	Power House Equipment.....	1945	566.23
			<u>\$30,956,916.27</u>

GIFTS AND BEQUESTS RECEIVED DURING 1945-46

A. GIFTS TO CAPITAL:

1. *General Endowments:*

Alumni Federation, for the Columbia University Permanent Alumni Fund.....	\$3,684.69	
Alumni Fund Committee, from the following for the purposes named:		
Class of 1897 College and Engineering, for the Class of 1897 Arts, Mines and Architects Endowment Fund.....	125.00	
Estate of William Alexander Wilson, (unrestricted)....	4,311.75	
International Business Machines Corp.....	25,000.00	
Leff (Philip).....	2,500.00	\$35,621.44

2. *Special Endowments:*

Alumni Fund Committee, from the following, for the purposes specified:		
Anonymous, for the Class of 1896, Arts & Mines Scholarship Fund.....	\$1,000.00	
Class of 1888 College & Engineering, for the Class of 1888 Arts and Mines Fund	25.00	
Class of 1896 College & Engineering, for the Class of 1896 Arts and Mines Scholarship Fund.....	5,700.00	
Class of 1904 College & Engineering, for the Class of 1904 Scholarship Fund...	220.00	
Class of 1909 College & Engineering, for the Class of 1909 Memorial Fund....	400.00	
Class of 1911 College & Engineering, for the Class of 1911 Fund, for the endowment of a room in one of the dormitories.....	4,500.00	
Class of 1912 P. & S., for the Class of 1912 P. & S. Scholarship Fund.....	155.00	
Class of 1913 College & Engineering, for the Class of 1913 Scholarship Fund...	50.00	
Class of 1920, for the Class of 1920 Twenty-Fifth Anniversary Fund....	2,596.43	
Class of 1920 P. & S., for the Class of 1920 P. & S. Scholarship Fund.....	55.00	
Class of 1921, for the Class of 1921 College Scholarship Fund.....	8,005.00	
Class of 1922 College, for the Class of 1922 Scholarship Fund.....	85.00	
Class of 1926 College, for the Class of 1926 College Dormitory Room Endowment Fund.....	1,565.00	
Dental Alumni Association, for the Van Woert Scholarship Fund.....	306.00	
Krumb (Henry) for the Henry Krumb Mining & Metallurgical Scholarship Fund.....	355.00	
Schroeder (Frederick A.), for the George & Charlie Scholarship Fund.....	50.00	

Van Vleck (Joseph), for the Class of 1896 Arts & Mines Scholarship Fund	\$5,000.00	
Various donors, for the Hawkes (Dean Herbert E.) Memorial Fund	354.00	
Various donors, for the School of Engi- neering Loan Fund (Thomas H. Har- rington Scholarship)	55.00	
Various donors, for the Business Alumni Scholarship Fund	9.14	\$30,485.57
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Allis-Chalmers Mfg. Co., to be added to the Heat & Mass Flow Analyzer Laboratory Fund		2,500.00
American Cyanamid Company, to be added to the Heat & Mass Flow Analyzer Laboratory Fund		5,000.00
Bragg (James F.), for the Cahill (George F.) Fund, De- partment of Urology		750.00
Cahill (Dr. George F.), for the Cahill (George F.) Fund, Department of Urology		5,000.00
Carbide & Carbon Chemicals Corp., to be added to the Heat & Mass Flow Analyzer Laboratory Fund		1,000.00
Class of 1920, for the Class of 1920 Twenty-Fifth Anni- versary Fund		18,710.00
Davis (A. M.), for the Davis (A. M.) Scholarship Fund.		100.00
Detroit Edison Institute, to be added to the Heat & Mass Flow Analyzer Laboratory Fund		100.00
Dohr (Prof. James L.), for the Business Alumni Schol- arship Fund		3.43
Erb (Frank C.), to establish the Erb Scholarship Fund.		15,000.00
Estate of Frederic Bancroft, to establish the Bancroft (Edgar A. and Frederic) Foundation		46,000.00
Estate of Arthur W. Bark, to establish the Bark (Arthur W.) Fund		15,319.83
Estate of Louis D. Beaumont, to establish the Beaumont (Louis D.) Fund		50,000.00
Estate of Edward F. Cole, to be added to the Cole Fund		5,920.00
Estate of Lizette A. Fisher, for the Fisher (Lizette Andrews) Fellowship Fund		6,329.39
Estate of Hattie Hirsh, to establish the Hirsh (Mortimer) Memorial Prize Fund		1,000.00
Estate of Douglas W. Johnson, for the Johnson (Alice & Douglas W.) Fund		1,025.38
Estate of Mary Mandeville Johnston, to establish the Johnston (Edward W. Scudder) Scholarship Fund		8,333.34
Estate of Augustus W. Openhym, for the Openhym Re- search Fund		24,457.10
Estate of Robert M. Raymond, for the following pur- poses:		
Religious and social work	\$323.88	
University Medical Office	647.77	971.65
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Estate of Anna Cooper Renwick, to establish the follow- ing funds:		
Renwick (Anna Cooper) Professorship Fund	\$12,500.00	
Renwick (Anna Cooper) Publication Fund	12,500.00	
Renwick (James, Jr.) Scholarship Fund	25,000.00	50,000.00
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Estate of Minnie Marsh White, to establish the White (Minnie Marsh) Fund for the work of the Department of Cancer Research.	1,000.00	
Firestone Tire & Rubber Company, to be added to the Heat & Mass Flow Analyzer Laboratory Fund.	1,000.00	
Geological Society of America, Inc., for the Geological Society Research Fund.	2,000.00	
Gladney (Frank Y.), to be added to the Gladney (Frank Y.) Dormitory Room Endowment Fund.	1,100.00	
Gordon (Mrs. John D.), to be added to the Knapp Memorial Fund in the Department of Ophthalmology. . .	1,000.00	
Hirshon (Mrs. Dorothy Richards), to establish the Bache (Jules S.) Fellowship Fund at the College of Physicians and Surgeons, Department of Obstetrics & Gynecology. . .	15,000.00	
Haag (Joseph), Jr., for the Cahill (George F.) Fund, Department of Urology.	5,000.00	
International Nickle Co., Inc., to be added to the Heat & Mass Flow Analyzer Laboratory Fund.	5,000.00	
Kellogg (M. W.) Company, to be added to the Heat & Mass Flow Analyzer Laboratory Fund.	1,000.00	
Krumb (Henry) to establish the Krumb (Henry) Mining & Metallurgical Scholarship Fund.	14,200.00	
La Montagne (Mrs. Beatrice), to establish the La Montagne (Beatrice) Research Fund.	500,000.00	
Lowenfish (Martin), for the Lowenfish (Lucille Smyser) Memorial Fund in the School of Architecture.	1,550.00	
Martin (Mrs. Florence), for the Cahill (George F.) Fund, Department of Urology.	25.00	
McCook (Col. Philip), for the Cahill (George F.) Fund, Department of Urology.	100.00	
Mersereau (Dr. William J.), for the George & Charlie Scholarship Fund.	5.00	
Pershing (Mrs. Muriel Richards), to establish the Bache (Jules S.) Fellowship Fund at the College of Physicians and Surgeons, Department of Obstetrics & Gynecology	15,000.00	
Research Corporation, to be added to the Heat & Mass Flow Analyzer Laboratory Fund.	5,000.00	
Rockwell (W. S.) Company, to be added to the Heat & Mass Flow Analyzer Laboratory Fund.	1,000.00	
Standard Oil Development Company, to be added to the Heat & Mass Flow Analyzer Laboratory Fund.	5,000.00	
Tilney (Frederick) Memorial Inc., for the Tilney Memorial Fund for research in neurological sciences.	2,000.00	
United Engineering Trustees, Inc., to be added to the Heat & Mass Flow Analyzer Laboratory Fund.	1,000.00	
United States Rubber Company, to be added to the Heat & Mass Flow Analyzer Laboratory Fund.	1,000.00	
Various donors, for the Class of 1909 Memorial Fund. . .	5,922.50	
Various donors, for the Hawkes (Dean Herbert E.) Memorial Fund.	1,069.90	
Various donors, to establish the Medalie (George Z.) Memorial Fund.	7,765.00	
Wechsler, (Dr. I. S.), to be added to the Wechsler (Robert M.) Scholarship Fund.	1,000.00	\$890,743.09

3. *Buildings and Grounds:*

Alumni Fund Committee, from the following:

Class of 1906 College & Engineering, for the installation of gates, steps and hand rail leading to St. Paul's Chapel.—Surplus to be used for the general support of the University.....	\$4,438.50	
Lewinson (Victor A.), toward a new gymnasium.....	10.00	\$4,448.50

Kandel (Charles), for the Camp Columbia Dormitory

Gift.....	100.00	\$4,548.50
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B. GIFTS TO INCOME:

1. *For General Purposes:*

Alumni Fund Committee.....	\$50,838.93	
Alumni Fund Committee, from the following:		
Class of 1920 Engineers.....	\$750.00	
Ingalls (Roscoe C.).....	1,462.73	2,212.73
Anonymous.....	220.00	
Collings (W. A.).....	300.00	
Dell Publishing Company.....	5,000.00	
Farwell (Prof. Hermon W.).....	100.00	\$58,671.66

2. *For Specific Purposes:*

Alumni Fund Committee, from the following, for the purposes specified:

Alley (Rayford W.), to be used for the School of Law.....	\$1,000.00	
Astrachan (Morris), for the Pulitzer Scholarship Gift.....	10.00	
Auslander (Charles), for the Dean's Scholarship Fund of Columbia College.....	125.00	
Bogue (Morton G.), for the following purposes:		
For Chapel Music.....	\$50.00	
Towards the maintenance of boats and launches for the crew.....	200.00	250.00
Boyd (William B.), for aid to a needy student at the College of Physicians and Surgeons.....	25.00	
Class of 1901, for the Class of 1901 Student Loan Fund.....	2,050.00	
Class of 1919 P. & S., for the Class of 1919 P. & S. Loan Fund.....	10.00	
Class of 1924 College, for the rental of a Scholarship room in Hartley Hall....	428.00	
Class of 1936 College, for the Dean's Emergency Fund of Columbia College	144.31	
Cox (William H. D.), for the Dean's Fund of Columbia College.....	100.00	

Jarcho (Julius), for the Medical Library of the College of Physicians & Surgeons.....	\$25.00	
King (Willard V.), for the President's Gift Account.....	5,000.00	
Various donors, for designated purposes	6,794.00	
Various donors, for the support of the work of the Columbia Appointments Office.....	125.00	\$16,086.31
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Abbott Laboratories, for research in Parasitology.....		2,000.00
Alcoa Mining Company, to establish the Alcoa Fellowship in Geology.....		1,500.00
Aldridge (Walter H.), for aid to students.....		250.00
Allied Chemical & Dye Corporation, for the Allied Chemical & Dye Corporation Fellowship Gift.....		810.00
Alumni Association of the Columbia School of Library Service, for the School of Library Service Scholarship Gift.....		50.00
American Bureau for Medical Aid to China, Inc., for development of Visual Aids under Medical School Administration.....		4,500.00
American Council, Institute of Pacific Relations, Inc., for salaries in Department of Chinese and Japanese..		3,000.00
American Lecithin Company, for study of soybean phosphatides on Vitamin A metabolism.....		400.00
American Medical Association, for research in the Department of Biochemistry.....		350.00
American Otological Society, for Otology Research....		1,300.00
American Philosophical Society, for research in the Department of History.....		1,000.00
American Society of Refrigerating Engineers, for application of Geometrical Electric Analogue to Refrigeration Heat Transfer Studies.....		500.00
Anonymous for Psychosomatic Training, Department of Psychiatry.....		3,550.00
Anonymous, toward the salary of a Lecturer in History		4,175.00
Anonymous, for research in food chemistry.....		400.00
Anonymous, for a study of respiratory infections, Department of Medicine.....		5,000.00
Anonymous, for Insulin Research.....		900.00
Anonymous, for the Emergency Gift for Biochemical Research.....		821.24
Anonymous, for the Richard Blow Gift, Department of Urology.....		75.00
Anonymous, for the Benjamin Salzer Gift for the study of the history of medicine.....		162.00
Anonymous, for the Winthrop Gift, Department of Pharmacology.....		600.00
Anonymous, toward prizes in the Auditing Laboratory..		100.00
Anonymous, for research in the Department of Dermatology.....		10,000.00
Anonymous, for the Special Dean's Gift No. 2, Medical School.....		1,000.00
Anonymous, for the Surgical Bacteriology Research Gift No. 1, Department of Surgery.....		3,482.26

Anonymous, to be expanded under the direction of the Provost.....	\$450.00
Anonymous, for the Cancer Research Gift, Department of Surgery.....	8,000.00
Armstrong (Edwin H.), for salaries in Department of Electrical Engineering.....	1,000.00
Auchincloss (Mrs. Ruth C.), for the Auchincloss Research Fellowship, Department of Chemistry.....	1,200.00
Baruch Committee on Physical Medicine, for the Baruch Fellowship.....	2,362.86
Bastedo (Dr. Walter A.), for Surgical Bacteriology Research.....	25.00
Beggs (Mrs. George E.), for scholarship assistance in Civil Engineering.....	750.00
Bernstein (Theodore M.), for a memorial to the late Professor Robert E. MacAlarney.....	10.00
Berrien (John B.), for the Surgical Bacteriology Research Gift No. 2, Department of Surgery.....	10.00
Bertrand (Mrs. Herbert), for the study of hypertension, Department of Medicine.....	5,000.00
Blanchard (Fessenden S.), for the Surgical Bacteriology Research Gift No. 2, Department of Surgery.....	10.00
Borden Company Foundation, Inc., to establish the Borden Undergraduate Research Award in the Medical School.....	2,500.00
Boston Herald Traveler Corp., for the establishment of an American Press Institute.....	5,000.00
Brady (John H.), to be expended under the direction of the Dean of the Faculty of Business.....	708.00
Brooklyn Eagle Inc., for the establishment of an American Press Institute.....	1,000.00
Buffalo Evening News, for the establishment of an American Press Institute.....	10,000.00
Burke (Mrs. Stephen P.), for the purchase of books for the Stephen P. Burke Memorial Collection.....	500.00
Butzel (Fred M.), for research in international and comparative law.....	1,500.00
Buzzell (Miss Mary Louise), for a memorial to the late Professor Robert E. MacAlarney.....	10.00
Cahill (Dr. George), for the John L. Given Gift in Department of Urology.....	100.00
Caine (N. W.), for the Surgical Bacteriology Research Gift No. 2, Department of Surgery.....	1,000.00
Chandler (R. B.), for the establishment of an American Press Institute.....	500.00
Chemical Foundation, Inc., for research in the field of solvents pertaining to the oil industry.....	1,750.00
Chicago Sun, for the establishment of an American Press Institute.....	1,000.00
Chinese Embassy, for Chinese Cultural Scholarships...	4,500.00
Cinchona Products Institute, Inc., for research in the Department of Chemistry.....	400.00
Coene (John J.), for the Surgical Bacteriology Research Gift No. 2, Department of Surgery.....	25.00
Columbia Periodontia Group, to establish the Periodontia Research Gift, Department of Dental & Oral Surgery.....	100.00
Columbia University Club, for scholarships.....	2,723.00

Commonwealth Fund, for the following purposes:

Study of chronic malnutrition in Infants and Children, Department of Pediatrics	\$5,490.00	
Study of respiratory physiology	10,975.00	
Study of serum treatment of influenza meningitis—Department of Pediatrics	8,440.00	\$24,905.00
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Compton (Mrs. Katherine E.), for a memorial to the late Professor Robert E. MacAlarney		5.00
Cooper (George V.), to be placed at the disposal of the Dean of Columbia College		100.00
Corn Industries Research Foundation, for the following purposes:		
Research on the chemistry of starch	\$5,000.00	
Enzyme studies on starch	4,500.00	9,500.00
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Coulter (Miss Dolores Carolyn), for the Dean's Fund for the School of Journalism		100.00
Crane (Cornelius), for the Asthma Physiological Gift, Department of Medicine		5,000.00
Cross (Morton R.), toward the salary of a Lecturer in Physiology		500.00
Croxton (Prof. Frederick E.), for Statistical Equipment Cutter Laboratories, for the study of Triple Vaccine Immunization in the Department of Pediatrics		1,800.00
Czechoslovak Government Information Service, for aid to students taking courses in Czechoslovak culture and literature, University Extension		1,000.00
Dallas Morning News, for the establishment of an American Press Institute		1,000.00
Daniels (Fred H.), for the Putnam-Salzer Gift, Department of Neurology		5,000.00
Dazian Foundation, for Medical Research in the Department of Neurology		3,500.00
Department of Dental & Oral Surgery, to establish the Ellen Holliday Memorial Loan Fund		333.75
Detroit News, for the establishment of an American Press Institute		10,000.00
Doane (Capt. Edwin), for the scientific libraries of the University		50.00
Dobbs (Miss Phyllis), for a memorial to the late Professor Robert E. MacAlarney		1.00
Dodge (Marcellus Hartley), for the following purposes:		
Marcellus Hartley Research Laboratory	\$5,000.00	
Class of 1903 Student Loan Fund	850.00	5,850.00
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Dow, Jones & Company, Inc., for the establishment of an American Press Institute		1,000.00
Duka (Shaqo), for a scholarship to a student in Albanian, University Extension		50.00
duPont (E. I.) de Nemours & Co., Inc., for the du Pont Fellowship		11,128.00
Ehrlich (Dr. J.), for the Pulitzer Scholarship Gift		200.00
Elsas (Mrs. Carrie), toward the John L. Given Gift in the Department of Urology		1,500.00
Emergency Committee on Aid of Displaced Foreign Scholars, for salaries in Public Law		2,400.00

Evening Star Newspaper Company, Washington, D. C., for the establishment of an American Press Institute	\$10,000.00	
Everett (Mr. Roberts), for a memorial to the late Professor Robert E. MacAlarney.....	25.00	
Fairechild Publications Corporation, toward the establishment of an American Press Institute.....	1,500.00	
Feiler (Herbert Joseph), for the Law School.....	111.33	
Feldman (Leo), for the Surgical Bacteriology Research Gift No. 2, Department of Surgery.....	10.00	
Feldman (Sidney), for a memorial to the late Professor Robert E. MacAlarney.....	2.00	
Fierstein (Dr. Jacob), for the Pulitzer Free Scholarship Gift.....	50.00	
Fitzgerald (William J.), for a memorial to the late Professor Robert E. MacAlarney.....	3.00	
Fluegge (Rudolph), for the following purposes:		
Cancer Research in Department of Surgery.....	\$3,200.17	
To establish the "Marguerite Fisher Gift for Cancer Research in Department of Surgery.....	2,150.00	5,350.17
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Froeb (Charles), for the publication of the Germanic Review.....	100.00	
Frohnknecht (O. C.), for the Putnam-Salzer Gift, Department of Neurology.....	500.00	
Gannett Publishing Company, Inc., for the establishment of an American Press Institute.....	1,000.00	
Garbedian (H. Gordon), for a memorial to the late Professor Robert E. MacAlarney.....	20.00	
Gardner (Miss Nellie E.), for a memorial to the late Professor Robert E. MacAlarney.....	10.00	
Geffen (M. M.), for a memorial to the late Professor Robert E. MacAlarney.....	100.00	
General Ceramics & Steatite Corp., for the Special Infantile Paralysis Gift.....	300.00	
Gerdau (Mrs. Otto), for the maintenance of the Deutsches Haus.....	100.00	
Germanistic Society of America, toward the maintenance of the Deutsches Haus.....	500.00	
Given (John L.), for research in the Department of Urology.....	100.00	
Golluber (Otto A.), toward the salary of a Lecturer in Physiology.....	500.00	
Gould (Mrs. Beatrice), for a memorial to the late Professor Robert E. MacAlarney.....	5.00	
Greene (Arthur L.), for a memorial to the late Professor Robert E. MacAlarney.....	2.00	
Hamilton (Miss Alma Grace), for a memorial to the late Professor Robert E. MacAlarney.....	5.00	
Harrison (Walter M.), Jr., for a memorial to the late Professor Robert E. MacAlarney.....	5.00	
Hartford (John A.) Foundation, Inc., for study of Gout in the Department of Medicine.....	5,000.00	
Hays (Edwin D.), for the Surgical Bacteriology Gift No. 2, Department of Surgery.....	100.00	
Herald News, for the establishment of an American Press Institute.....	1,000.00	

Herman (Alexander C.), for a memorial to the late Professor Robert E. MacAlarney.....	\$100.00
Herrlein (H. G.), toward the Rockland Farms Gift, for study of animal diets.....	1,000.00
Hiss (Philip Hanson, Jr.), for the Hiss (Philip Hanson, Jr.) Memorial Fund in the Department of Bacteriology.....	2,300.00
Hitchcock (Mrs. Martha), for the Gilbert M. Hitchcock Scholarship Gift in the School of Journalism.....	1,000.00
Houston Printing Corp., for the establishment of an American Press Institute.....	1,000.00
Huber (Dr. Frederick), for the Loan Fund of the Association of the Alumni of the College of Physicians and Surgeons.....	50.00
Hughes (Alice), for a memorial to the late Professor Robert E. MacAlarney.....	15.00
Hunter (Dr. Thomas H.), for the Faulkner Memorial Gift, for study and treatment of arthritis.....	450.00
Huttenlocher (Louis F.), for the School of Law.....	847.66
Hyde (James H.), for the President's Gift Account....	1,000.00
Iason (Dr. Alfred H.), toward a scholarship in the College of Physicians and Surgeons.....	500.00
International Cancer Research Foundation, Inc., for research in the Department of Biochemistry.....	4,050.00
Irvington Varnish & Insulator, for research on cashew nut shell liquid, Department of Chemistry.....	4,000.00
Ittleson (Henry), for the religious counselors' interfaith fund.....	100.00
Jackson (P. L.), Oregon Journal, for the establishment of an American Press Institute.....	1,000.00
Jackson (Lt. Theodore), for student aid, Columbia College.....	50.00
Johnson Research Foundation, for the study of absorbable materials in Surgery.....	1,200.00
Jolles Corporation, toward the salary of a Lecturer in Physiology.....	500.00
Jolles Foundation, Inc., toward the salary of a Lecturer in Physiology.....	500.00
Jonas (George E.), to be expended under the direction of the Associate Dean of Columbia College.....	200.00
Jones (Mrs. Betty Smith), for student aid, Drama Class.....	42.50
Kojassar (Eleanor), for the Dean's Emergency Fund, School of Journalism.....	15.00
Kaufman (Ernest), for the Surgical Bacteriology Research Gift No. 2, Department of Surgery.....	25.00
Kaufman (Max), for the Surgical Bacteriology Research Gift No. 2, Department of Surgery.....	50.00
Kellogg (W. K.) Foundation, to establish the Kellogg Foundation gift for Graduate Medical Education....	50,000.00
Kilroe (Edwin P.), for the purchase of books for the Tammaniana Collection.....	36.50
Knoek (Mrs. Rose), for the Putnam-Salzer Gift, Department of Neurology.....	25.00
Kosmopoulos (Leslie Walker), for the lithoprinting of a booklet entitled "German Readings in the History and Theory of Fine Arts".....	300.00
Kranowitz (William C.), for a memorial to the late Professor Robert E. MacAlarney.....	10.00

Kusserow (Louis), for the Columbia College Scholarship Gift.....		\$200.00	
Laboratory of Industrial Hygiene, Inc., for chemical research, Department of Chemistry.....		1,000.00	
Lafrentz (F. W.), for the Germanic Review in 1946. . . .		100.00	
Lancaster Newspapers, Inc., for the establishment of an American Press Institute.....		1,000.00	
Land (Myrick E.), for the Dean's Emergency Fund, School of Journalism.....		150.00	
Lasker (Albert & Mary) Foundation, Inc., for the following purposes:			
Study of factors involved in animal and human arteriosclerosis.....	\$10,000.00		
Support of research problems in Urology	20,000.00		
Support of a research project in hypertension.....	10,000.00		
Wendell Wilkie Memorial Grant to be used in support of research in aging, Department of Pathology.....	6,000.00	46,000.00	
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Lederle Laboratories, Inc., for the following purposes:			
Study of Canine Distemper.....	\$1,400.00		
Research on Toxoids.....	2,400.00	3,800.00	
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Legation of Sweden, toward the salary of a lecturer in Swedish, Department of Germanic Languages.....		3,600.00	
Levy (Leo), for the Surgical Bacteriology Research Gift No. 2, Department of Surgery.....		10.00	
Life Insurance Medical Research Fund, for the following purposes:			
Study of hypertension in the Department of Medicine.....	\$12,705.00		
Study of action of certain cardiovascular drugs in Department of Medicine....	6,615.00	19,320.00	
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Lilly (Eli) & Company, for the following purposes:			
Study of retardation of healing of the Cornea, Department of Ophthalmology.....	\$3,000.00		
Study of carbohydrate metabolism in the Department of Pharmacology....	1,500.00		
Research in Department of Chemistry..	1,500.00	6,000.00	
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Loeb (Mrs. Jean R.), for a memorial to the late Professor Robert E. MacAlarney.....		5.00	
Loomis Institute for Scientific Research, Inc., for the Enzyme Laboratory, Department of Medicine.....		5,000.00	
Lowen (Walter A.), for a memorial to the late Professor Robert E. MacAlarney.....		10.00	
Lowenfish (Dr. F. Philip), for the Mycology Gift, Department of Dermatology.....		25.00	
Macksoud (John) Company, toward the salary of a Lecturer in Physiology.....		500.00	
Macy (Josiah) Jr. Foundation, for the following purposes:			
Adrenal Cortex Studies, Department of Biochemistry.....	\$2,500.00		

Research on Aging, Department of Pathology.....	\$17,500.00	
Study of aldehydes in relation to the intermediary metabolism of the nervous system.....	2,800.00	
Study of intermediary metabolism of chlorine, ethanolamine & related compounds with the aid of isotopes "labels".....	3,750.00	
Support of investigations on the role of lysozyme and related enzymes in bacterial infection, Department of Ophthalmology.....	5,000.00	
Study on the mechanism of transmission of nerve impulse.....	7,000.00	
Program of Tropical Medicine.....	30,000.00	
Emergency consultation service for clinical laboratory methods and interpretation for hospitals of the Army Air Forces.....	3,000.00	
Psychosomatic research in psychiatric criminology.....	3,250.00	
Penicillin Aerosol Gift.....	15,000.00	\$89,800.00
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Markel (Lester), for a memorial to the late Professor Robert E. MacAlarney.....		100.00
Markle (John & Mary R.) Foundation, for the following purposes:		
Study of Vitamin E Deficiency on Muscle Metabolism.....	\$2,500.00	
Study of the Physiology of Premature and new born infants, Department of Pediatrics.....	3,068.00	
Study of enzyme chemistry, Department of Medicine.....	5,500.00	
Study of Lipoproteins in the Department of Biochemistry.....	1,700.00	
Study in relationship of nutrition to metal poisoning, Department of Dermatology.....	2,500.00	
Study of chemistry and physiology of blood coagulation, Department of Biochemistry.....	3,500.00	
Study of nutritional life history as influenced by dietary enrichments....	1,500.00	
Study of Antibiotic derived from Plant A pulsatilla, Department of Bacteriology.....	2,625.00	22,893.00
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Matheson (William J.) Foundation, for the Department of Neurology.....		10,120.00
McMullen (J. H.), for a memorial to the late Professor Robert E. MacAlarney.....		10.00
Merck and Company, for the following purposes:		
Research on new organic compounds for protection against tropical diseases, Department of Chemistry.....	\$900.00	
Special Studies in Otolaryngology.....	2,500.00	3,400.00
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Meyer (Eugene & Agnes E.) Foundation, for the establishment of an American Press Institute.....		\$10,000.00
Merritt (Dr. Arthur H.), for the purchase of historical dental literature for the Medical Library.....		100.00
Millett (Mrs. Catherine L.), for a memorial to the late Professor Robert E. MacAlarney.....		5.00
Mills (Ray), for a memorial to the late Professor Robert E. MacAlarney.....		5.00
Minthorne (Leonard L.), for a fellowship for a graduate of Pacific College.....		1,500.00
Monser (Mrs. Nancy), for a memorial to the late Professor Robert E. MacAlarney.....		5.00
Monsky (Jacob), toward the salary of Dr. Raphael Taubenschlag.....		1,000.00
Montgomery (Col. Robert H.), for the Montgomery Library of Accountancy.....		1,000.00
Munger (Dr. Claude W.), for hospital administration in the Department of Public Health.....		250.00
National Foundation for Infantile Paralysis, for study of Atrophy of Denervated Muscles, Department of Neurology.....		6,100.00
National Research Council, for research on nucleic acid of normal and cancer tissue, Department of Surgery..		1,000.00
National Society of Colonial Dames, for the Colonial Dames Scholarship.....		500.00
National Tuberculosis Association, for research in the Department of Medicine.....		950.00
Netherlands Government, toward the salary of the Queen Wilhelmina Professor.....		7,500.00
New York Botanical Garden, for the following purposes:		
Toward a salary in the Department of Botany.....	\$2,050.00	
Research on vitamins and related substances in relation to plant growth... ..	3,626.19	5,676.19
<hr/>		
New York Herald Tribune, Inc., for the establishment of an American Press Institute.....		10,000.00
New York State Library School Association, for scholarships in the School of Library Service.....		830.00
New York Times, for the establishment of an American Press Institute.....		10,000.00
Noyes (Charles F.), toward the salary of a Lecturer in Physiology.....		1,000.00
Nutrition Foundation, for the following purposes:		
Research on the effects of environment on nutritional requirements and cell respiration.....	\$10,000.00	
Research on the role of acetic acid in intermediary metabolism.....	2,500.00	
Research on quantitative relations of vitamins A intake to bodily store and well-being at different ages.....	2,000.00	
Carbohydrate metabolism (with the aid of heavy hydrogen).....	5,000.00	
Henry C. Sherman Testimonial Volume.....	1,000.00	20,500.00
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Nutrition Research Laboratories of Chicago, for research in the School of Dental and Oral Surgery.....		600.00

Oklahoma Publishing Company, for the establishment of an American Press Institute.....	\$2,000.00	
Palmer (Maxwell), for the Surgical Bacteriology Research Gift No. 2, Department of Surgery.....		100.00
Parke, Davis & Company, for the following purposes: Research on glutamic acid, Dept. of Neurology.....	\$13,500.00	
Research on Epilepsy.....	2,500.00	16,000.00
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Paterno (Dr. Charles V.), for publication costs of certain books for the Paterno Library in the Casa Italiana..		1,500.00
Pearson (Miss Harriett), for a memorial to the late Professor Robert E. MacAlearney.....		1.00
Peck (Mrs. Mae), for the Surgical Bacteriology Research Gift No. 2, Department of Surgery.....		200.00
Penn (Benjamin), for the Surgical Bacteriology Research Gift No. 2, Department of Surgery.....		50.00
Perlman (Mrs. Phyllis), for a memorial to the late Professor Robert E. MacAlearney.....		25.00
Phi Delta Epsilon Fraternity, for the purchase of books as a memorial to the late Dr. Jacob Braun.....		50.00
Phillips (Eleanor M.), for the Tuberculosis Gift Fund..		15.00
Prentis (Edmund A.), for Aid to Students, Columbia College.....		300.00
Proctor (Estate of Dr. Francis I.), for research in the Department of Ophthalmology.....		1,500.00
Providence Journal, for the establishment of an American Press Institute.....		20,000.00
Radio Corporation of America, for scholarships.....		600.00
Ragno (Joseph S.), for the Dean's Fund of Columbia College.....		25.00
Reifman (Miss Ray), for a memorial to the late Professor Robert E. MacAlearney.....		2.00
Reinach (Mrs. Bertha M.), for the Benjamin Salzer Gift for study of the History of Medicine.....		150.00
Reinach (Udo M.), for the Benjamin Salzer Gift for study of History of Medicine.....		2,500.00
Research Corporation, for the following purposes: Multi-Path Flow Distribution by Auto- matic Electric Simulation.....	\$10,000.00	
Support of scientific work (Astronomy).....	750.00	10,750.00
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Research Council on Problems of Alcohol, for research in the Department of Psychiatry.....		112.26
Reynolds (Mrs. Nancy du Pont), for the Department of Cancer Research.....		1,500.00
Rich (Mrs. Helen O.), for a memorial to the late Professor Robert E. MacAlearney.....		100.00
Rockefeller Foundation, for the following purposes: Toward the expenses of a history of American Thought by Prof. Joseph Dorfman.....	\$4,600.00	
Research in enzyme chemistry.....	7,307.26	
Toward the salary of a Lecturer in Public Law.....	2,500.00	
For the constitutional aspects of disease	8,100.00	
Medical Fellowship in Medicine, Ophthalmology, and Orthopedic Surgery..	4,000.00	

Investigation of genetic factors in the incidence of nervous and mental diseases peculiar to old age.	\$8,000.00	
Research on vitamins and related substances in relation to plant growth.	2,500.00	
Research in neuropathology.	2,500.00	
Research on variation in genetic constitution in relation to growth and development, Department of Zoology.	25,000.00	
Research in the Department of Biochemistry.	14,500.00	
Research in the Department of Anatomy	6,835.62	
Research in Immuno-chemistry.	4,500.00	
Study of the economic aspects of public finance.	7,637.30	
Use of the Columbia University Press in preparing and publishing a selected bibliography of League of Nations documents.	3,500.00	
To enable the Bureau of Applied Social Research to meet expenses connected with a conference on the report of the Federal Communication Commission on the Public Service Responsibility of Broadcast Licenses.	5,000.00	\$106,480.18
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Rockland Farms, for a study of animal diets.		1,300.00
Rogers (Mrs. Francis), for the Surgical Pathology Laboratory Special Assistance Gift, Department of Surgery		100.00
Rosenthal (Mrs. Leon W.), for the Harrington Loan Fund for loans to engineering students.		50.00
Rosoff (Louis H.), for a prize in accounting in University Extension.		25.00
Rossides (Eugene), for the Columbia College Scholarship Gift.		250.00
Roston (Gilbert), for the Surgical Bacteriology Research Gift No. 2, Department of Surgery.		1,000.00
Rothman (A. D.), for a memorial to the late Professor Robert E. MacAlarney.		100.00
Rukeyser (Merryle S.), for a memorial to the late Professor Robert E. MacAlarney.		100.00
Ruml (Major Treadwell), for the Surgical Bacteriology Research Gift No. 2, Department of Surgery.		10.00
Russell (Parke Dean), for the Dean's Emergency Fund, School of Journalism.		200.00
Rutherford (Ira), for the Surgical Bacteriology Research Gift No. 2, Department of Surgery.		25.00
Ryder (Dr. George), for the Surgical Pathology Laboratory Special Assistance Gift.		495.89
Ryskind (Morrie), for a memorial to the late Professor Robert E. MacAlarney.		100.00
Sandoz Chemical Works, Inc., for research in the Department of Urology.		250.00
Sanger (Elliott M.), for a memorial to the late Professor Robert E. MacAlarney.		100.00
Sargeant (Mrs. Helene K.), for a memorial to the late Professor Robert E. MacAlarney.		5.00

Scarfs by Kimball, Inc., toward the salary of a Lecturer in Physiology.....		\$500.00
Schaefer (Fred), for the Surgical Bacteriology Gift No. 2, Department of Surgery.....		10.00
Schluter (Frederic), for Columbia College Student Assistance.....		100.00
School of Journalism, Press Club, for the Dean's Emergency Fund.....		50.31
Schuster (M. Lincoln), for a memorial to the late Professor Robert E. MacAlarney.....		100.00
Scripps-Howard Newspapers, Inc., for the establishment of an American Press Institute.....	10,000.00	
Seadler (Silas F.), for a memorial to the late Professor Robert E. MacAlarney.....		10.00
Sharp & Dohme, Inc., for the following purposes:		
Study of drugs used for the treatment of Endamoeba Histolytica infections....	\$2,000.00	
Study of Amino Acid Analysis of Proteins in Department of Biochemistry.	2,200.00	4,200.00
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Siegel (Henry I.), to be expended under the direction of the President.....	1,000.00	
Sigma Chi Foundation, for a scholarship to a member of Nu Nu Chapter of the Sigma Chi Fraternity.....		100.00
Sinclair (Charles), for Columbia College Student Assistance.....		100.00
Sindelka (Mrs. Jeanne Erwin), for a memorial to the late Professor Robert E. MacAlarney.....		3.00
Sokolsky (George E.), for a memorial to the late Professor Robert E. MacAlarney.....		100.00
Speidel Newspapers, Inc., for the establishment of an American Press Institute.....	1,000.00	
Spencer (Charles B.), for aid to students, Columbia College.....		300.00
Spiro (G. B.), for a memorial to the late Professor Robert E. MacAlarney.....		50.00
Spokesman-Review, toward the establishment of an American Press Institute.....		200.00
Squibb (E. R.) & Sons, for research in Endocrinology, Department of Pharmacology.....	15,000.00	
Squibbs Institute for Medical Research, for study of Antibiotic derived from Plant A Pulsatilla.....		600.00
Stevens (Miss Helen K.), toward the salary of a Lecturer in Physiology.....		2,000.00
Stern (Donald MacG.), for a memorial to the late Professor Robert E. MacAlarney.....		100.00
Stiefel (Carl F.), for the Germanic Review of the Columbia University Press.....		100.00
Stiefel (Walter A.), for the Germanic Review of the Columbia University Press.....		100.00
St. Louis Post-Dispatch, for the establishment of an American Press Institute.....	10,000.00	
Straus (Mrs. Jesse), for the Cardiology Research Gift, Department of Medicine.....		1,000.00
Straus (Jack I.), for the Cardiology Research Gift, Department of Medicine.....		500.00
Stricker (Mrs. Adam K.), for the College of Physicians and Surgeons Scholarship Gift.....		100.00

Swift and Company, for the following purposes:		
Protein enrichment of the Dietary as related to phosphorus and riboflavin requirements.....	\$4,000.00	
The "Henry C. Sherman Testimonial Volume".....	3,000.00	\$7,000.00
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Tacoma News Tribune, for the establishment of an American Press Institute.....		1,000.00
Takamine Laboratory, Inc., for support of enzyme research, Department of Chemistry.....		3,000.00
Teagle Foundation, Inc., for study of diseases of the nervous system.....		3,000.00
Telegram & Gazette, Worcester, Mass., for the establishment of an American Press Institute.....		5,000.00
Texas Company, for research on thin film lubrication, Department of Mechanical Engineering.....		3,500.00
Threlkeld (Aubrey M.), for a memorial to the late Professor Robert E. MacAlarney.....		2.00
Times-Mirror Company, for the establishment of an American Press Institute.....		10,000.00
Tjomsland (Dr. Anna), for the purchase of books for the Libraries.....		100.00
Toledo Blade, for the establishment of an American Press Institute.....		5,000.00
Tolischus (Otto D.), for a memorial to the late Professor Robert E. MacAlarney.....		100.00
United Engineering Trustees, Inc., for welding research.		1,300.00
United States Public Health Service for the following purposes:		
Blood group studies in Department of Neurology.....	\$6,475.00	
Investigation on preparation and immunizing properties of protamine precipitated bacterial toxoids in Department of Biochemistry.....	3,100.00	9,575.00
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Van de Water (F. F.), for a memorial to the late Professor Robert E. MacAlarney.....		100.00
Various donors, for the Dean's Fund for the School of Journalism.....		100.00
Viking Fund, Inc., for the following purposes:		
Department of Anatomy.....	\$2,000.00	
Research in the Department of Anthropology.....	1,500.00	
Summer Session in Physical Anthropology, Department of Anatomy.....	4,000.00	7,500.00
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Vincent (Craig S.), for the Student Loan Fund.....		10.00
Wallace & Tiernan Company, Inc., for study of the corrosion of metals and alloys by chlorine, Department of Chemical Engineering.....		4,000.00
Watumull Foundation, for the following purposes:		
A fellowship in the Department of Sociology.....	\$650.00	
Special scholarship for the study of statistics.....	750.00	1,400.00
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Webster (Miss Helen), for a memorial to the late Professor Robert E. MacAlarney.....		\$2.00	
Weiner (J. E.), for the Surgical Bacteriology Research Gift No. 2, Department of Surgery.....		100.00	
Weld (Mrs. Francis M.), for the following purposes:			
For the Mycology Gift.....	\$1,000.00		
Research in Department of Dermatology	1,000.00		
Special Research Gift, Department of Pathology.....	1,200.00	3,200.00	
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Wendover (Sanford H.), for a memorial to the late Professor Robert E. MacAlarney.....		10.00	
Westbury Chemical Company, Inc., for the study of acid-ester preparation in Laboratory animals, Department of Surgery.....		2,985.00	
Williams (Maynard Owen), for a memorial to the late Professor Robert E. MacAlarney.....		100.00	
Williams-Waterman Fund of Research Corporation, for the following purposes:			
Research in Department of Botany . . .	\$2,500.00		
Research in use of glutamic acid in diseases of the nervous system, particularly in Epilepsy.....	5,000.00	7,500.00	
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Winthrop Chemical Co., Inc., for the following purposes:			
Studies in Enzyme Chemistry.....	\$3,000.00		
Study of Filariasis to be used in support of investigations on the treatment of filariasis with organic antimony compounds, Department of Bacteriology	2,250.00	5,250.00	
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Winthrop Products, Inc., for study of filariasis to be used in support of investigations on the treatment of filariasis with organic antimony compounds, Department of Bacteriology.....		2,250.00	
Woodworth (Prof. Robert S.), for purchasing from the Archives of Psychology furniture for the use of Psychology Library.....		135.00	
Zabriskie (Christian A.), for the purchase of law books for the libraries.....		1,000.00	\$887,211.41
			<hr/>
			<u>\$1,876,796.10</u>

C. OTHER GIFTS:

- Burke (Mrs. Stephen P.). Books, periodicals, pamphlets, charts and other materials from the Library of the late Professor Burke, to be placed in the Chemistry Library.
- Gildersleeve (Dean Virginia C.). Facsimile of the United Nations Charter given to her as a member of the delegation of the United States to the San Francisco Conference.
- Kebler (Leonard). The Last of the Mohicans, Precaution, and the autographed poem signed by Emerson together with a poem signed by Arnold. A Collection of first editions of Cooper's works.
- Moore (Prof. John Bassett). Collection of books, the John Bassett Moore Library.
- Rockwell (W. S.) & Company. Equipment to be used in the Department of Mechanical Engineering.

Sperry Gyroscope Company, Inc. A Model (desk type) Gyroscope for the Department of Mechanical Engineering.

Various donors. Material for the University Library.

Zabriskie (Christian A.). Copy of The Statutes of the Archbishopric of Mentz which was printed by John Gutenberg about 1460.

New York, June 30, 1946

FREDERICK A. GOETZE,
Treasurer.

FINANCIAL REPORT
OF
BARNARD COLLEGE
1945-46

BARNARD COLLEGE

BALANCE SHEET, JUNE 30, 1946

ASSETS

CURRENT FUND ASSETS

Cash in banks		\$ 210,822.12
Accounts Receivable		
Students	\$ 5,991.00	
Other	3,772.55	9,763.55
Accrued Interest on Securities When Purchased		192.41
Deferred Charges—Provisions—Prepaid Insurance, etc.		7,158.36

	\$ 227,936.44	
	15,593.83	\$ 243,530.27

CURRENT FUND DEFICIT

ENDOWMENT AND OTHER SIMILAR FUND ASSETS

Cash in banks		\$ 3,574.00
Investments at book value (Market \$5,775,239.00)		
Bonds	\$2,652,655.72	
Preferred Stocks	1,767,723.36	
Common Stocks	755,488.42	
Real Estate Mortgage and Certificates	2,202.00	5,178,069.50
Notes Receivable (see <i>contra</i>)		239.50
		5,181,883.00

SPECIAL FUND ASSETS SUBJECT TO ANNUITY AGREEMENT

Deposited with United States Trust Company:		
Cash in bank		\$ 211.89
Bonds (Market \$137,799.00)		127,293.75
		127,505.64

GIFT SECURITIES AT BOOK VALUE		7,186.79
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PLANT FUND ASSETS AT BOOK VALUE

Grounds		\$1,686,089.84
Educational Plant		
Buildings	\$1,154,368.13	
Equipment	65,519.43	1,219,887.56

Auxiliary Enterprises

Residence Halls		
Buildings		\$1,254,332.49
Equipment	129,333.38	
Barnard Camp	\$1,383,665.87	
	13,106.26	1,396,772.13

		4,302,749.53
		\$9,862,855.23

LIABILITIES

CURRENT LIABILITIES AND FUNDS

Accounts Payable		\$	2,849.22	
Employees' Savings Bond Deductions			328.75	
Students' Credit Balances			113,557.00	
Deferred Income Credits				
Summer Session 1946	\$17,013.00			
Replanting of Grounds, etc.	300.00		17,313.00	
Reserve for Maintenance of Buildings			50,000.00	
Restricted Funds				
Unexpended Income for Designated Purposes	\$28,340.64			
Unexpended Funds for Designated Purposes	31,141.66		59,482.30	\$ 243,530.27

ENDOWMENT AND OTHER SIMILAR FUNDS

Income Not Restricted		\$3,274,644.82		
Income Restricted		1,872,888.29		
		\$5,147,533.11		
Net Gain on Sales of Consolidated Investments to June 30, 1946		34,110.39		
		\$5,181,643.50		
Due to Principal of Endowment Fund Restricted (see <i>contra</i>)		239.50		5,181,883.00
Special Fund Subject to Annuity Agreement	\$	127,505.64		127,505.64

GIFT SECURITIES SEGREGATED PENDING MATURITY OR SALE 7,186.79

PLANT FUNDS

College Grounds Funds	\$1,686,089.84			
College Buildings Funds	1,565,301.35			
Special Funds Invested in Hewitt Hall	843,399.27			
College Equipment Fund	194,852.81			
Barnard Camp Fund	13,106.26		4,302,749.53	
				\$9,862,855.23

STATEMENT OF INCOME AND EXPENDITURE

FOR THE YEAR ENDING JUNE 30, 1946

INCOME

EDUCATIONAL AND GENERAL

Student Fees		\$569,827.85		
Endowment and Other Similar Fund Income				
Unrestricted Funds	\$121,438.97			
Restricted Funds	30,324.53		151,763.50	
Gifts		17,216.92		
Income, etc., Reserved		1,039.27		
Sundry Income		2,473.98		\$ 742,321.52

AUXILIARY ENTERPRISES AND ACTIVITIES

Residence Halls	\$253,079.80			
Lunchroom—Regular Session	26,568.21			
Summer Session—Board and Lunchroom	10,935.53			
Summer Session Institute—Gift	3,407.98			
Gifts	112.20			
Income from Funds	431.77			
Sundry Income	986.79		295,522.28	

NONEDUCATIONAL

Scholarships, Fellowships, and Other Student Aid, etc.		
Endowment Income—Restricted Funds	\$ 29,338.00	
Gifts	10,292.50	
Income, etc., Reserved	2,165.00	
Income—Special Fund	3,326.73	45,122.23
		<hr/>
TOTAL INCOME		\$1,082,966.03
EXCESS OF EXPENDITURE OVER INCOME		13,519.05
		<hr/>
		<u>\$1,096,485.08</u>

EXPENDITURE

EDUCATIONAL AND GENERAL

Instruction		
Salaries of Columbia University Appointees	\$356,969.99	
Assistance and Expense	35,056.87	
Instruction in English	4,950.00	
Radio Workshop	1,677.44	
Additional Instruction—Emergency	9,574.00	
Other Instruction	21,625.00	
Summer Session	725.57	\$430,578.87
		<hr/>
Administrative and General Expense		153,157.97
LIBRARY		
Salaries	\$ 19,026.87	
Books, etc.	6,311.31	25,338.18
		<hr/>
HEALTH DEPARTMENT		
Salaries	\$ 9,946.00	
Assistance and Expense	1,908.69	
Infirmary	6,536.00	18,390.69
		<hr/>
OPERATION AND MAINTENANCE OF PHYSICAL PLANT AND OTHER SERVICES		
		111,893.58
AUXILIARY ENTERPRISES AND ACTIVITIES		
Residence Halls	\$235,442.06	
Lunchroom—Regular Session	31,338.20	
Summer Session—Board and Lunchroom	12,790.60	
Summer Session Institute	3,407.98	
Barnard Camp	744.22	283,723.06
		<hr/>
NONEDUCATIONAL		
Scholarships, Fellowships, and Other Student Aid	\$ 59,776.00	
Annuity	4,000.00	
Public Relations and Alumnae Activities	9,587.26	
Miscellaneous	39.47	73,402.73
		<hr/>
TOTAL EXPENDITURE		<u>\$1,096,485.08</u>

FINANCIAL REPORT
OF THE
COLLEGE OF PHARMACY
OF THE
CITY OF NEW YORK

1945-46

COLLEGE OF PHARMACY

BALANCE SHEET, JUNE 30, 1946

ASSETS

REAL ESTATE		
Land	\$ 80,000.00	
Buildings	308,772.69	\$388,772.69
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EQUIPMENT		
Library	\$ 50,000.00	
Museum and Herbarium	20,000.00	
Furniture and Fixtures	67,879.72	137,879.72
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APPARATUS AND SUPPLIES		
Materia Medica	\$ 23,273.44	
Pharmacy	28,376.86	
Chemistry	30,754.77	
Stores	729.17	
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Less Reserve for Reduction	\$ 83,134.24	
	3,370.21	79,764.03
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ENDOWMENT FUNDS		
Stocks and Bonds	\$ 96,799.93	
Savings Bank Accounts	9,236.36	106,036.29
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GENERAL FUNDS		
Chase National Bank	\$ 14,952.99	
Petty Cash Fund	100.00	15,052.99
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ACCOUNTS AND NOTES RECEIVABLE		
Students' Accounts	\$ 13,327.37	
Less Reserve for Doubtful Accounts	1,500.00	11,827.37
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DEFERRED CHARGES		
Prepaid Insurance	\$ 863.61	863.61
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TOTAL ASSETS		<u><u>\$740,196.70</u></u>

LIABILITIES

General Fund

CURRENT LIABILITIES

First Mortgage Bonds Payable	\$ 29,400.00	
Accounts Payable—Trade	2,006.47	
Due to Students—Students' Activity Fund	1,761.55	
Due to Students—Breakage and Locker Deposits	59.00	
Unexpended Research Grants	5,180.00	
Unexpended Scholarship Grants	1,867.67	
Employees—United States Savings Bond Subscriptions	21.92	
Employees—Federal Tax Withheld	949.15	
Accrued Bond Interest	367.50	
Accrued Salaries	1,144.00	\$ 42,757.26
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DEFERRED INCOME

General Fund Surplus		64,750.74
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Endowment Funds

College of Pharmacy Endowment Fund	\$ 16,367.10	
Bigelow Fellowship	28,900.47	
Henry Pfeiffer Scholarship	18,000.00	
Isaac Plaut Fellowship	17,997.37	
George J. Seabury Scholarship	5,348.31	
Max J. Breitenbach Prize	4,821.59	
Prize Fund	4,952.19	
Student Loan Fund	1,945.88	98,332.91
		<hr/>
Reserve for Deferred Awards	\$ 1,942.25	
Unexpended Income	5,761.13	7,703.38
		<hr/>
Net Investment in Plant		526,652.41
		<hr/>
TOTAL LIABILITIES		\$740,196.70

INCOME AND EXPENSE ACCOUNT

FOR THE YEAR ENDING JUNE 30, 1946

INCOME

OPERATING INCOME

Tuition, Registration, and Graduation Fees	\$ 70,310.87
Evening Course Fees	12,428.50
Examination Fees	120.00
Transcripts	103.00
Interest on Students' Accounts	180.00
Endowment Income for General Purposes	700.00
Endowment Income for Specific Purposes	896.49
Membership Dues	900.00
Miscellaneous Income	4,560.16
	<hr/>
TOTAL INCOME	\$ 90,199.02

EXPENSES

EXPENSES

General Administration		
Salaries	\$ 10,968.34	
Expense	2,552.55	
Advertising	1,199.16	
Insurance	857.83	
Graduation Expense	89.09	
Instruction		
Salaries	43,977.96	
Extra Compensation—Evening Courses	6,660.87	
Laboratory Attendants' Salaries	9,383.75	
Supplies and Expense	4,614.37	
Library		
Expense	286.59	
Pension and Annuity Premium	1,637.04	
Student Aid	896.49	
Operation and Maintenance of Plant		
Salaries	6,028.76	
Supplies and Expense	8,169.76	
Noneducational Expenses		
Auditing and Special Services	600.00	
Interest on Indebtedness	1,470.00	
Dues and Contributions	74.00	99,466.56
		<hr/>
Excess of Expense over Income, before Gifts	\$ 9,267.54	
Gifts for General Purposes	20,275.14	
		<hr/>
Excess of Income over Expense	\$ 11,007.60	

FINANCIAL REPORT
OF
TEACHERS COLLEGE
1945-46

TEACHERS COLLEGE

BALANCE SHEET, JUNE 30, 1946

ASSETS

I. CURRENT FUNDS ASSETS

Cash	\$	127,354.24
Accounts and Notes Receivable, less Reserve		512,752.88
Investments at Cost, less Amortization of Premiums		672,912.12
Inventories of Foods and Supplies		68,638.81
Inventories of Bureau of Publications		52,870.08
Inventories of Book Store		70,640.97
Deferred Charges		34,054.77
		34,054.77
Total Current Assets		\$ 1,539,223.87

II. LOAN FUNDS ASSETS

Cash	\$	124,725.62
Student Loan Notes Receivable Estimated Collectible		87,102.15
Welfare Fund Notes Receivable		2,310.00
		2,310.00
Total Loan Funds Assets		214,137.77

III. ENDOWMENT FUNDS ASSETS

Cash	\$	26,988.76
Securities at Cost, less Amortization of Premiums		5,619,296.54
Real Estate—College Residence Halls		1,434,279.81
		1,434,279.81
Total Endowment Funds Assets		7,080,565.11

IV. PLANT FUNDS ASSETS

Cash	\$	3,834.99
Book Value of Plant:		
Educational Activities		8,275,005.67
Auxiliary Activities		2,470,464.08
		2,470,464.08
Total Plant Funds Assets		10,749,304.74

V. AGENCY FUNDS ASSETS

Cash		20,930.02
		20,930.02
TOTAL ASSETS		\$19,604,161.51

BALANCE SHEET, JUNE 30, 1946

LIABILITIES

I. CURRENT LIABILITIES AND FUNDS			
A. General			
Current Liabilities	\$245,868.35		
Deferred Credits to Income	95,964.32		
Surplus of Current Funds	<u>338,761.29</u>		\$ 680,593.96
B. Restricted			
Current Funds for Designated Purposes	\$737,685.42		
Unexpended Income from Restricted Endowment	<u>120,944.49</u>	<u>858,629.91</u>	
Total Current Liabilities and Funds			\$ 1,539,223.87
II. LOAN FUNDS			
Loan Funds for Teachers College Students	\$ 201,176.69		
Loan Funds for New College Students	10,497.59		
Welfare Funds	<u>2,463.49</u>		
Total Loan Funds			214,137.77
III. ENDOWMENT FUNDS			
General Endowment Funds	\$1,772,376.24		
Funds Functioning as General Endowment	1,639,521.78		
Restricted Endowment Funds	1,024,766.53		
Funds Functioning as Restricted Endowment	<u>3,103,437.42</u>		
Total	\$7,540,101.97		
Net Losses Arising from Investments		<u>459,536.86</u>	
Total Endowment Funds			7,080,565.11
IV. PLANT FUNDS AND LIABILITIES			
Plant Funds Unexpended	\$ 3,834.99		
Plant Funds Invested in:			
Educational Activities Plant	8,175,005.67		
Auxiliary Activities Plant	1,136,184.27		
Due to Endowment	<u>1,434,279.81</u>		
Total Plant Funds			10,749,304.74
V. AGENCY FUNDS			
			20,930.02
TOTAL LIABILITIES AND FUNDS			<u>\$19,604,161.51</u>

STATEMENT OF CURRENT INCOME

FOR THE YEAR ENDING JUNE 30, 1946

I. EDUCATIONAL AND GENERAL

1. Student Fees from the College and Elementary and Secondary Schools		\$2,510,391.72
2. Endowment and Funds Functioning as Endowment		
General Purposes	\$ 94,653.57	
Restricted Purposes	135,053.91	229,707.48
3. Gifts, Grants, and Reserves		
Gifts and Grants for Designated Purposes	\$130,474.13	
Reserves for Designated Purposes	3,903.15	134,377.28
4. Sales and Services of Educational Departments		2,936.72
5. Rent and Use of Space by Auxiliary Enterprises		43,343.81
6. Other Income		20,071.88
		<hr/>
Total Educational and General Income		\$2,947,728.89

II. AUXILIARY ENTERPRISES AND ACTIVITIES

1. Residence Halls	\$344,805.80	
2. Dining Halls	350,829.48	
3. Supply Room	4,088.83	
4. Bureau of Publications and Book Store	278,962.91	978,687.02

III. OTHER NONEDUCATIONAL INCOME

1. Fellowships and Scholarships		
Restricted Endowment		5,757.34
		<hr/>
TOTAL INCOME		<u>\$3,932,173.25</u>

STATEMENT OF CURRENT EXPENDITURES AND APPROPRIATIONS

FOR THE YEAR ENDING JUNE 30, 1946

I. EDUCATIONAL AND GENERAL

1. General Administrative Offices			
Salaries	\$ 227,401.56		
Supplies and Expense.	90,067.07	\$	317,468.63
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2. General Expense			
Office of Placement Service	\$ 38,626.68		
General Stenographic Office	17,564.09		
Insurance and Retirement of Employees	153,448.55		
Student Welfare and Activities	18,520.72		
Institutional Travel, Entertainment, and Activities	16,295.60		
Other General Expenses	3,462.25		247,917.89
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3. Resident Instruction and Departmental Research			
Collegiate Instruction and Research	\$1,028,220.02		
Elementary and Secondary Schools Instruction and Research	396,492.65	1,424,712.67	
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4. Organized Research			
Institute of Adult Education	\$ 35,961.12		
General Institutional Research	19,190.84		
Institute of Educational Research	53,485.84		
Institute of School Experimentation	64,797.33		
Institute of Studies of Comparative Government and Education	924.87		
Child Welfare Research	3,022.50	177,382.50	
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5. Extension			
Off-Campus Services			12,810.62
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6. Libraries			
			90,724.51
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7. Operation and Maintenance of Plant and Other General Services			
Care of Buildings and Furniture.	\$ 143,262.72		
Repair of Buildings and Furniture	79,428.37		
Equipment and Appropriation for Equipment	52,279.59		
Heat, Light, Power, Water, and Gas	104,068.47		
Insurance	11,725.51		
Rent	20,000.00	410,764.66	
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TOTAL			\$2,681,781.48

II. AUXILIARY ENTERPRISES AND ACTIVITIES

1. Residence Halls	\$ 327,892.98		
2. Dining Halls	340,903.32		
3. Supply Room	11,049.40		
4. Bureau of Publications and Book Store	249,157.11	929,002.81	
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III. OTHER NONEDUCATIONAL EXPENSE

1. Fellowships and Scholarships			15,167.50
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TOTAL CURRENT EXPENDITURES AND APPROPRIATIONS			<u>\$3,625,951.79</u>
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FINANCIAL REPORT
OF THE
NEW YORK SCHOOL
OF
SOCIAL WORK

1945-46

NEW YORK SCHOOL OF SOCIAL WORK

BALANCE SHEET, SEPTEMBER 30, 1945

ASSETS

CAPITAL FUND ASSETS

Equity of Endowment Funds in the Pooled Assets of the Community Service Society of New York		\$1,284,187.96
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OPERATING FUND ASSETS

Cash	\$ 38,638.60	
Loans and Accounts Receivable	10,551.22	49,189.82
TOTAL ASSETS		\$1,333,377.78

LIABILITIES

CAPITAL FUND LIABILITIES

Reserves		\$1,284,187.96
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OPERATING FUND LIABILITIES

Reserves	\$ 35,691.70	
Liabilities	3,870.65	
Deferred Credits	9,627.47	49,189.82
TOTAL LIABILITIES		\$1,333,377.78

INCOME AND EXPENSES

FOR THE YEAR ENDING SEPTEMBER 30, 1945

OPERATING FUNDS

INCOME

Tuition Fees, etc.	\$224,426.80	
Interest and Dividends	78,542.70	
Contributions	27,504.00	\$ 330,473.50

EXPENSES

Salaries	\$285,155.78	
Other Operating Expenses	68,844.90	
Fellowships	25,233.50	379,234.18

OPERATING DEFICIT		\$ 48,760.68
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CONTRIBUTION FROM THE COMMUNITY SERVICE SOCIETY OF NEW YORK		46,246.68

DECREASE IN OPERATING FUNDS FOR THE YEAR		\$ 2,514.00
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BALANCE OF OPERATING FUNDS AT OCTOBER 1, 1944		38,205.70

BALANCE OF OPERATING FUNDS AT SEPTEMBER 30, 1945,

CONSISTING OF:

Current Funds	\$ 26,372.87	
Student Loan Funds	9,318.83	\$ 35,691.70

