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THE EGYPTIAN UNIVERSITY

THE FACULTY OF MEDICINE

PUBLICATION No. 4

THE ABRIDGED VERSION OF "THE BOOK OF SIMPLE DRUGS"

OF

AHMAD IBN MUHAMMAD AL-GHÂFIQÎ.

BY

GREGORIUS ABU'L-FARAG (BARL BRAEUS).

Edited from the only two known Manuscripts with an English Translation,

Commentary and Indices

BY

M. MEYERHOF M.D., Ph.D. Hon. Caus. G. P. SOBHY

CAIRO 1932

7-

Unto Him who has revived the Cultures of the PHARAOHS & ARABS

after their Extinction: to Him who protects

SCIENCES & ARTS;

The GUARDIAN

of the Actual Renaissance in Egypt;

Unto our

KING & LIEGE

H. M. FUAD THE FIRST

We humbly dedicate this our Book as a Sign

of LOYALTY & SUBMISSION to

His AUGUST MAJESTY

MAX MEYERHOF

GEORGY SOBHY

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ERRATA

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N.B.— The division of words into syllables at the end of lines has been wrongly done in many cases. We leave it to the indulgence of the reader to correct them while reading.

PART I INTRODUCTION

INTRODUCTION.

Pharmacology is one of the glories of Arabic Science, that is of the science of Arabic writing scholars of the Islamic World during the Middle Ages. The source of Arabic pharmacology is to be found in Greek pharmacology, especially the *Materia Medica* of Dioscurides and the book on Simple Drugs by Galenos. In the centuries following his death the closer connection of the Byzantine Empire with the Orient favoured the importation of many Persian and Indian drugs which had been unknown to the Greeks. Byzantine and Syrian Christian physician sincorporated those into the fundamental stock of their remedies. But is was only after the rise of Islam that the "Materia Medica" of the Occident and Orient were collected in a systematic way, and that Botany and Mineralogy were enriched by new knowledge.

We give in the following pages a chronological list of the authors of important treatises on simple drugs from Greek times down to the XVIIth. century A. D., particularly those who are mentioned in the text of al-Ghâfiqî's book.

I. List of Authors of Botanical

and

Pharmacological Treatises.

A. Greek Period.

- 1. Theophrastus of Eresos (Island of Lesbos), born in 370 B.C., died about 285 B.C. A pupil of Plato and a fellow-pupil of Aristotle. Wrote a famous "Enquiry into Plants," now accessible in a good Greek edition with English translation (see Bibliography). His book was never translated into Arabic.
- 2. Pedanios Dioskurides of Anazarba (Asia Minor). Visited, as military surgeon to the Roman Army, many lands and composed, about 78 A. D., his celebrated "Materia Medica" in five books. We quote it after the newest and best edition, that of Wellmann (see Bibliography), adding to al-Ghâfiqî's quotation of the Book (after the name of Dioscurides) the number of each chapter in brackets. This book must have been early translated into Syriac. A bad Arabic translation was made in the first half of the IXth. century A. D. by the Christian translator Stephen son of Basil اصطفان بن باسحق Very soon after, his translation was repeated and improved upon by Hunain ibn Is-hâq

877 A. D. in Baghdad). He composed at the same time a Syriac version of the book. In 948, the Emperor Romanos of Byzantium sent a fine illustrated Greek copy of the work as a present to the Ruler of Cordova, the great Abd-ar-Rahman III عبد الرحمن, and three years later the same Emperor sent the monk Nicholas to read and explain the book to the scholars at the Moorish court; he verified the names of the plants given in the Arabic translation and created a better edition, under the supervision of the Jewish physician and minister Hasdaï ben Shaprût. Several of the Hispano-Moorish physicians mentioned hereafter wrote commentaries on the Arabic version of the "Materia Medica" of Dioscurides. A few fine copies of Hunain's Arabic version of the book exist in European libraries: one, with numerous glosses, in Paris at the National Library, another, with fine illustrations including a miniature painting of a drug store, in Constantinople. (No. 3704 Aya Sofia Library). No printed edition of Dioscurides' Arabic "Drug-Book" is in existence.

Omitting the Roman Latin pharmacologies which remained unknown to the Arabs, we pass on immediately to.

3. Galenos of Pergamos (Asia Minor; lived from about 129-200 A. D.). Well-known to Syrian and Arab sholars. His enormous literary output was translated into Syriac as far back as the VIth., and into Arabic mainly during the IXth. century A. D. Galen's book on Simple Drugs

^{1.} For other MSS. in Bologna, Leyden, Oxford etc. see H. Diels Handschriften der antiken Aerzte II, p. 31 (Berlin 1906).

(De Simplicium Medicamentorum Temperamentis et Facultatibus) is published in the Greek text in Kuehn's great edition of Galen's Works (vol. XI, p. 379-vol. XII, p. 377, Leipzig 1826). We quote in our translation the volume and page of this edition in brackets after the name of Galen. The "Simble Drugs" of Galen was translated into Syriac by Yûsuf al-Khûrî and by Ayyûb, two minor Christian translators of the IXth. century A. D. Hunain translated it again about 840 A. D. into Syriac, and later on into Arabic for his protector 'Ali b. Yahyâ and later on into Ar

4. **Oribasius** was the physician in ordinary to the Roman Emperor Julianus Apostata (361-3 A. D.). He wrote in Greek a medical encyclopedia in 70 books and (about 390 A. D.) an extract (synopsis for his son Eustathius) of this too bulky work.³ This book contains also section on simple

^{1.} According to a recent publication of Hunain's own "Treatise on the Translations of Galen." See Bergstraesser, Hunain ibn Is-hàq neber die syrischen und arabischen Galen-Uebersetzungen (Leipzig 1925), and Max Meyerhof, New Light on Hunain ibn Ishâq'and his Period (Isis vol. VIII 1926, pp. 685-724).

^{2.} Diels I. c. I. p. 96.

^{3.} All that remains of his literary output was published by Bussemaker and Daremberg (Oeuvres d'Oribase, 6 vols. Paris 1856-1876). A recent edition of the text of the *Collectanea* (by Joh. Raeder) is now appearing in Berlin and Leipzig 1928-9.

- 5. **Paul of Aegina** (Paulus Aegineta) was a Greek physician in Alexandria shortly before the conquest of Egypt by the Arabs, 640 2 A. D.). He left a compendium of medicine in seven books, compiled from the works of Galen and others. The last of the seven books comprised simple drugs and was frequently quoted by Arabic writers on the knowledge of drugs. This work, too, was translated into Syriac and Arabic by the indefatigable Hunain, but only a fragment of the part on Poisons is left in Arabic MSS. which are extant in several libraries. ²
- 6. Ahrun al-Qiss اهرن الفس (i. e. "Aaron the Priest") is the last Alexandrian physician of the Pre-islamic period. He must have been a contemporary of Paul of Aegina. He wrote a great "Medical Pandect" (kunnâsh ³ fi't-tibb كناش في الطب) in 30 books. It is possible that he wrote it originally in Greek.

^{1.} There exists no modern edition of Paul's original text but an excellent translation with commentary by Francis Adams (The Seven Books of Paulus Aegineta, 3 vols. London 1845-7). See Bibliography.

^{2.} Diels I. c. 11. p. 78.

^{3.} This word is derived from Syriac kenâshâ אים i. e. Collection.

Anyhow, it was translated from Syriac into Arabic by Mâ-sargawaih (see the following no. 8) and formed one of the fundamental sources of Arabian Medicine.

B. Islamic Period

We mention here a series of physicians who wrote on remedies and who were mostly quoted by al-Ghâfiqî. The less important names occurring in his text are explained in the notes.

- 7. Thiyâdûq الادوق (probably a misspelling for Thâûdût i. e. Theodotu's) was one of the first Christian physicians under Islamic rule. He was, according to Arabic historians, the physician of Haggâg b. Yûsuf جائے بن یوسف the capable but cruel general of the Umayyad Calif 'Abd al-Malik. Thiyâdûq died 708 A. D. and left several books, a medical Kunnâsh and a book on remedies and their substitutes (both of them lost). It was probably from the last-mentioned work that al-Ghâfiqî extracted his occasional quotations.
- 8. Mâsargawaih or Mâsargîs ماسرجويه أو ماسرجويه , a Persian Jew; seemed to have lived in Basra ('Irâq) during the first half of the VIIIth cent. A. D., viz. under the Umayyad Caliphs. His works, now lost, were frequently quoted by later Arabic physicians; besides the translation of Ahron's "Pandect", he left a book on aliments and simple drugs. It is this latter book which is quoted by al-Ghâfiqî. Rhazes and Ibn al Baitâr call Mâsargawaih "The Jew".
- 9. 'Isâ b. Hakam جیسی بن of Damascus; lived in the second half of the VIIIth. cent. A. D. He is quoted by al-

Ghâfiqî under the name of *Masîh* (i.e. "Christ"), and the Mediaeval Latin translators sometimes call him "Christianellus". The main work which he left was a *Kunnâsh* on medicine containing a section on drugs. It is lost.

10. **Bakhtîshû' b. Gûrgîs** من جورجيس was one of the first members of a celebrated family of Christian physicians who were in favour under the Abbassid Caliphs during three centuries. He lived at the end of the VIIIth cent A.D. and was one of the court-physicians to Hârûn ar-Rashîd. His Kunnâsh is quoted by Rhazes, al-Ghâfiqî and others.

We come now to the lXth cent. A.D. during which flourished physicians of great repute.

- 11. Yûhannâ b. Mâsawaih يوحنا بن ماحويه (d. 857 A.D.; called in Latin translations Joannes filius Mesue or Janus Damascenus. A Christian physician, lived at the Persian Academy of Gondê-Shâpûr and in Baghdad as head of the Translation School (Bait al-Hikma (المحتاب)) in the first half of the IXth cent. A. D. He left several capable pupils among whom was Hunain ibn Is-hâq, and wrote many books, some of which are still extant in libraries. Among them were works on Aliments and on Poisons quoted by later authors.
- 12. 'Alî b. Rabban at-Tabarî على بن ربن الطبرى, a Christian Persian converted to Islam; flourished under the Califate of al Mutawakkil to whom he dedicated, in 850 A.D., his most important work, a medical compendium called *Firdaws al*-

Hikma أفردوس الحسكة . The quotations from his book by Rhazes and al-Ghâfiqî go under the names of 'Alî b. Zain على بن زين or at-Tabari الطبرى.

Was a Christian contemporary of the above mentioned; a prominent physician and at the same time the most celebrated translator of Greek medical works into Syriac and Arabic². He certainly produced more that 150 translations and wrote more than 100 original books; the bulk of this enormous output is now lost. Arabic Pharmacology is indebted to Hunain for the translations of Dioscurides' "Materia Medica" and Galen's "Simple Drugs", as we stated above. He created many of the Arabic scientific terms and identified the Greek drug-names with the Arabic, Persian and Syriac ones of his time. These names passed immediately into the medical works of his contemporaries³. Moreover, Hunain made extracts from and commentaries on the pharmacological treatises which he had translated. Ibn Abî Usaibi'a خيرة أصيمة (809-877 A. D.).

^{1.} The Arabic text of this book has recently been edited by M. Z. Siddiqî (Firdausu'l-Hikmat or "Paradise of Wisdom," of Ali b. Rabban at-Tabarî. Berlin 1928) See the analysis of the work by M. Meyerhof in *Isis* vol. XV(1931) pp. 6-54.

^{2.} See his biography given by M. Meyerhof in the Introduction to "The Ten Treatises on the Eye ascribed to Hunain b. Is-hâq", Cairo 1928.

^{3.} See, e. g. the afore-mentioned Firdaws al-Hikma and "The Book of al-Dakhîra" (edited by G. Sobhy, Cairo 1928) ascribed to the great mathematician and physician Thâbit b. Qurra المثانية بن قرة (825-900 A.D.).

historian of Arabian physicians¹, enumerates seven such tracts. None of them has reached us, but Hunain's name is frequently to be found in al-Ghâfiqî's pharmacology.

The following authors were all Christians:

- 14. **Hubaish b. al-Hasan** جيش بن الحسن, Hunain's nephew and most prominent pupil, translated many medical works mostly of Galen, from his master's Syriac version into Arabic. He also left several books of his own, among them a work on simple drugs. This latter is now lost, but known by the quotations in Rhazes' and al-Ghâfiqî's writings.
- 15. **Is-hâq b. Hunain** استحق بن حنين, Hunain's talented son and second-best pupil. Left, besides many translations of mediçal and philosophical works by Galen, Aristotle and Plato, several original books; and among others a treatise on simple drugs, equally lost.
- 16. 'Isâ b. 'Alî عيسى بن على, another pupil of Hunain; seems to have left a pharmacological treatise, which is only known by quotations.
- 17. 'Isâ b. Mâsa عيسى بن ماسة about whom Ibn Abî Usaibi'a (vol. 1 p. 184) gives but a very short account. He wrote a book on the virtues of aliments, which is lost.
- 18. Yûhannâ b. Sarâbiyûn يوحناين سراييون (Joannes filius Serapionis) of Damascus (?) was a Christian practitioner of the IXth. cent A. D. He composed a Kunnâsh on medicine which was well-known and often quoted on account of

عيون الانباء في طبقات الاطباء: مصر ١٨٨٢ الجزء الاول ص ١٩٨ - ٢٠٠

Latin and printed for the first time in Venice 1479; eight more printed editions are known. But the Arabic original was lost a long time before, and the only copy seems to be one in the Aya Sofia Library at Constantinople (Istanbul).

- 19. **Is-haq b. 'Imran** المحقى بن عمران was a Muslim physician of Baghdad who emigrated to North Africa and entered the service of Ziyâdat-allâh b. al-Aghlab زيادة الله بي الاخلب, ruler of Qairawân (now Tunisia) who reigned 816-837 A.D. Later on Is-haq lost the favour of the prince and was cruelly put to death. He left about a dozen books, among them one on simple drugs repeatedly quoted by al-Ghâfiqî.
- a celebrated Jewish physician in Qairawân, and pupil of the last mentioned. Was the author of several medical and philosophical books, some of which were translated into Latin and were famous in Europe down to the XVIIth cent. Ishâq's book "On Simple Remedies and Aliments" is quoted by al-Ghâfiqî under the name of al-Isrâ'îlî.
- 21. Qustâ b. Lûqâ المطابق of Ba'lbakk بعلبك of Ba'lbakk بعلبك (in Syria) was a Christian physician of the end of the IXth cent. and a prominent translator of Greek medical and philosophical works. Among his own works, a book on aliments is to be cited, some quotations of which were made by later authors.

Before we leave the IXth cent. A. D., we have to cite four authors of works which are not strictly pharmacological.

- 22. Abû Yûsuf Ya'qûb b. Is-hâq al-Kindî بعقوب بن المحتى المحتى المحتدى (d. after 870 A. D. in Baghdad), called "the Philosopher of the Arabs", was the first great Muslim scholar of universal erudition. He wrote on philosophical, theological, medical, musical, mathematical, astronomical and physical questions. He was quoted by al-Ghâfiqî on account of his writings on stones, metals and plants. It is not known whether his "Summary of Galen's Simple Drugs" survived him long.
- i. e. "The Greek Agriculture", is frequently quoted in al-Ghâfiqî's text. This is nothing else than an Arabic translation of one of the Hellenistic compilations on Agriculture and Husbandry. Several of them were translated at the end of the VIIIth cent. The work which is mentioned above seems to be that which was ascribed to a certain Qustûs شعاوس who was frequently mistaken for the translator Qustâ b. Lûqâ. Finally it was proved by Ruska¹ that this is a book by Cassianus Bassus, the Greek original of which is extant².
- أبو بكر احمد بن 24. Abû Bakr Ahmad ibn Wahshiyya وحشية (about 820 A. D.) was the ill-famed author of several writings which he alleged to be translations from very old Babylonian sources. Among them is "The Nabataean Agri-

^{1.} J Ruska, "Cassianus Bassus Scholastikus und die arabischen Versionen der griechischen Landwirtschaft". In *Der Islam* V (1924) pp. 174—198.

^{2.} Cassiani Bassi Scholastici Geoponica, ed. H. Becker Leipzig 1895.

culture" (Al-Filâha an-Nabatiyya) الفلاحة النبطية, sometimes quoted by al-Ghâfiqî. Apart from fantastical etymological explanations, it contains many useful remarks on animals and plants.

25. **Abû Hanîfa al-Dînawarî** أبو حنيفة الدينورى (d. 895 A. D.), an Arabic philologist and scientist of Persian extraction. Was the author of a famous "Book on Plants" (*Kitâb an-Nabât حاب النبات*). This book, unhappily lost but known by numerous quotations and by al-Ghâfiqî, became the main authority on plant-names for all the Arabic lexicographers. It was criticised by another philologist, 'Alî b. Hamza على بن حزه who is equally quoted in al-Ghâfiqî's text under the name of al-Basri . البصرى

We now come to the Xth cent. A. D. in which the predominance of Christian physicians and translators ended in favour of Muslim scholars. The most prominent of them was;

26. Abû Bakr Muhammad b. Zakariyyâ ar-Râzî known in Europe mostly under the latinized name of Rhazes. He was a Persian Muslim, lived in Rayy (Persia) from 865-925¹ and produced a most incredible number of works on Medicine, Natural Science, Logic, Metaphysics, Mathematics, Alchemy, Theology and Ethics. Ibn

^{1.} Although al-Bîrûnî gave an exact biography and chronology of ar-Ràzî in the famous Leyden MS. Or. 133 (translated by J. Ruska, "Al-Bîrûnî als Quelle fur das Leben und die Schriften al-Râzî's, in *Isis* V, 1922, p.p. 27-50), scholars always follow the dates given by later and less trustworthy Arabic authors. Thus, e.g., the millennium of Rhazes' death was unjustly commemorated in Paris. in 1930.

Abî Usaibi 'a (I pp. 315-21) enumerates about 250 books of his writings. Among them are works as bulky as his great "Continens" (al Hâwî fi't-Tibb المالية والعابية) in 20 volumes on Therapeutics. Most of them are lost. This "Continens", as well as his great Pharmacology (Aqrâbâdhîn الفراباذين) ألم أنه "Drug-book" and "Book on Substitutes for Drugs" were quoted by al-Ghâfiqî. It is probable that he sometimes copied from the many literary extracts given by ar - Râzî who was acquainted with the entire Arabic medical literature created until the end of the IXth cent. A.D. Most of the abovementioned works are lost.

Was also a Persian Muhammadan physician (d. 994 A. D.). He wrote a fine encyclopedia on the whole domain of medicine Kâmil as-Sinâ 'a كامل الصناعة (i. e. "A Complete Treatise on the Art") called later by medical men al - Malakî (i. e. "The Royal Book"). It is indeed an excellent, perhaps the best work on Medicine in Arabic. Happily it survived and has been published in print (in Cairo-Bûlâq 1294 A. H.); Al-Ghâfiqî sometimes quotes this work. Constantine the African translated the book into Latin, about 1070 A. D., under the name of Pantegni, ascribing it audaciously to himself. A later and better translation was completed by Stephen of Antioch in 1127, under the title "Liber Regius" (printed in Venice and Lyons 1523).

^{1.} Derived from Greek γραφίδιον (graphidion) i. e. a small register.

- 28. Abû Mansûr Muwaffaq b. 'Alî ميرو من الله منصور موفق الله (North Persia). About 970 A.D.; wrote, for the Samanid Sultan Mansûr I., a pharmacological treatise in Persian; it is one of the first monuments of modern Persian in prose. It was never translated into Arabic and had no influence on Arabic medicine; but it was very useful to us for the identification of Persian drug-names. Unhappily the original text was not at our disposal, but only Achundow's translation.
- 29. Nastâs (i.e. Anastasius) ibn Guraig نسطاس بن جريخ was a Christian physician in Egypt, living in the first half of the Xth. cent. A.D. He is little known; the quotations under his name, Abû Guraig the Monk or Ibn Guraig, are probably from his main work, a now lost Kunnâsh on Medicine.
- 30. Muhammad',b. Ahmad at-Tamîmî على التحد التميين التحد التميين التحد التميين التحد التميين التحد التميين التحد التميين التحد التحديد والتحديد وا

^{1. &}quot;Liber fundamentarum pharmacologiae", auctore Abû Mansûr Mowaffak ben 'Alî Harawî. Ed. Romeo Seligmann, 2 vols, Vienna 1830-33. For the translation see Bibliography (Abû Mansûr).

^{2.} Histoire de la médecine Arabe, (Paris 1876) pp. 389-91.

- who lived in Egypt. He wrote a book at-Takmîl fi'l-Adwiya al-Mufrada كتاب التكيل في الادوية الفردة ("The Perfection on Simple Remedies") for Kâfûr كتاب التكيل في الادوية الفردة the Vizier of the Ikhshîd Dynasty in Egypt (about 940 A.D.) 1. It was sometimes quoted by al-Ghâfiqî concerning Indian drugs.
- 32. **Abû Bakr Ahmad b. Ibrâhîm** أبو بكر احمد بن ابراهيم commonly called *Ibn al-Gazzâr* ابن الجزار (d. about 1000 A.D.) A Tunisian Muslim, was the most prominent pupil of Is-hâq al-Isrâ'îlî (see supra no. 20). He wrote about 25 books on Medicine, one of which, treating of simple remedies, *K. al-I'timâd* بالاعتاد, which was lost, and one on Substitutes. Both were sometimes quoted by al-Ghâfiqî.
- 33. Abû Dâwûd Sulaimân b. Hassân ابن جلجل better known under the name of Ibn Gulgul ابن جلجل. Was a distinguished Hispano Moorish physician at the court of the Caliph Hishâm II. in Cordoba. There he wrote, in 982 A. D., an "Explanation of the Names of Remedies in the Book of Dioscurides" تفسير أسماء الادوية المؤردة من كتاب ذيوسةريذس and a "Discourse on those Remedies Used in Medicine which were Omitted by Dioscurides in his Book"2. These books are now lost, but were frequently quoted by al-Ghâfiqî. Moreover, he wrote a short "History of Physicians and Philosophers" from which Ibn Abî Usaibi'a copied many passages.

^{1.} Ibn Abî Usaibi'a II p. 86.

^{2.} See Ibn Abî Usajbi'a II p. 48, line 10 foll

- 34. Abû Bakr Hâmid ibn Samgûn أبو بكر عامد بن سمجون (d. 1001 A.D.). A Muslim and Hispano-Moorish physician in the service of a Hâgib عاجب (vizier) at Cordoba. His treatise on simple drugs is lost, but was quoted by al-Ghâfiqî.
- 34. Abu'l-Qâsim Khalaf b. al-'Abbâs az-Zahrâwi lived, like the two last - mentioned أبو القاسم خلف بن العباس الزهراوى physicians, at Cordoba in the second half of the Xth cent. A.D. He is famous for his book at-Tasrîf التعمريف on Medicine, in 30 sections. It was early translated into Latin under the title "Liber Theoricae nec non Practicae Alzaharavii"; the surgical section (section XXX) is particularly famous as "Chirurgia Abulcasis" and was translated into Hebrew, Latin and French. The XXVIIth. section of the Tasrîf contains an alphabetical list of simple drugs, the XXVIIIth (known in Latin as "Liber Servitoris") their preparation, and the XXIXth their synonyms and substitutes. 2 It was these three chapters which were quoted by al-Ghâfiqî and others. There exists no known complete MS. of the Arabic text of the Tasrîf; but we may hope that in the future a copy may be brought to light from the treasures in the libraries of Constrantinople.
- 30. Abû 'Alî al-Husain b. 'Abdallâh known as Ibn Sîna ابن صينا (in Latin Avicenna) was a Persian Muslim and lived from 980 1036 A.D. He is considered as "the

^{1.} Ibid. II p. 51-52.

^{2.} A short analysis is given by L. Leclerc in his "Histoire de la médecine arabe", vol. I. pp. 447-87 and 451-3.

Prince of all Learning" (Ash-Shaikh ar-Ra'is الشيخ الرئيس) and is, with Rhazes, the greatest physician and, with Averroes, the greatest philosopher of the Islamic world. We only mention here, among his enormous scientific output, the "Canon of Medicine" (al-Qânûn fi't-Tibb مناب القانون في العلب) because it contains a section on simple drugs which is frequently quoted by al-Ghâfiqî. It forms in the Cairo printed edition of 1294 A. H. the second half of the first volume (vol. I, pp. 243-470). A fairly good Latin translation is to be found in the last of all the many printed Latin editions of the Canon 1. We have used both these editions. The descriptions of the drugs are very short; Avicenna mainly laid stress on the enumeration of their healing properties.

37. Abu'r-Raihân Muhammad Ibn Ahmad al-Bîrûnî أبو الريحان محد بن احد البيروني (973-1048) a Muslim from Transoxania, contemporary with Avicenna, lived at the court of the Sultans of Ghazna (now Afghanistan). He was the most original and perhaps the greatest of all the Islamic scientists. He specialized in Mathematics, Chronology, Physics and Indian History; but was also a remarkable theologian and linguist. His Materia Medica Kitâb as-Saidana كتاب الصيدية (Book of Drugs) was only known in a Persian version 2, until recently when Dr. Zeki Welidi, professor at the Uni-

^{1. &}quot;Abuali ibn Tsina (Avicenna) Canon Medicinae" interprete et scholiaste V. F. Plempio. Louvain 1658, vol. II. pp. 1-311.

^{2.} See H. Beveridge in *Journal of the Royal Asiatic Society* 1902 pp. 333-5.

versity of Istanbul (Constantinople) discovered an old and defective Arabic copy of this invaluable book in the Government Library at Brussa (Asia Minor.). At the request of Dr. Helmut Ritter, both the discoverer and the Turkish Minister of Education gave us permission to have the MS. copied, although Z. W. himself intended publishing a part of it. We wish to offer here our hearty thanks for this generosity. This MS. allowed us to identify several Persian and Indian drugs; for al-Bîrûnî never omitted to give the synonyms of drugs in many languages, e.g. Syriac, Persian, Greek, Baluchi, Afghan, Sindi and Indian dialects. That is perhaps the reason why the text of his book early became corrupted and why it remained unknown to nearly all the writers on Pharmacology in the more Western parts of the Islamic world. It is doubtless one of the most original books on the subject, and was most useful for our commentary.

38. Abû 'Alî Yahyâ b. 'Isâ ibn Gazla ابن عيسى (d. 1100 A. D.). Was a Christians physician converted to Islam. He composed a book on Medicine arranged in tables and a Pharmacology Minhâg al-Bayân أمياح البيان (see Bibliography). Both works were very well known in the Islamic world and numerous copies exist in public and private libraries. The Minhâg is sometimes quoted by al-Ghâfiqî. We used it occasionally for our commentary.

39. Abu'l Hasan 'Alî ibn Ridwân أبو الحسن على بن رضوان

(about 980-1060 A. D.) was a distinguished Muslim medical practitioner in Cairo, a keen student of Greek medicine and philosophy, and known by numerous writings as well as by his long scientific controversy with Ibn Butlân ابن بطلان of Baghdad. He left an alphabetical treatise "On Simple Drugs" which is lost to us, but quoted by al-Ghâfiqî and others.

- 40. Abu'l-Mutarrif 'Abd ar-Rahmân... ibn Wâfid al-Lakhmî أبو الطرف عبد بن وافد اللخمي (known in the Occident as Abenguefith was a Spanish Muslim who lived in Toledo about 998-1074 A.D. as a statesman and physician. He wrote, besides other medical books, a "Materia Medica" of which a Latin translation exists in MSS. under the title "De Medicamentis simplicibus" 1. This book was frequently quoted by later authors and sometimes severely criticised by al-Ghâfiqî.
- 41. Abû 'Ubaidallâh b. 'Abd al-Azîz al-Bakrî أبو عبيد البرى البكرى (d. 1004), a famous Hispano-Arab geographer and philologist. Lived mostly in Cordoba. He described many plants in his great geographical work K. al-Masâlik wa'l-Mamâlik المناب والمالك والمالك (Book of the Routes and Kingdoms). The quotations by al-Ghâfiqî, however, seem to have been extracted from his work "On Plants and Trees of Andalusia" which has not survived.

^{1.} On fragments of the Arabic text see C. Brockelman, Arabische Literaturgeschichte (Weimar 1898) vol. II p. 485.

^{2.} Ibn Abî Usaibi'a II. p. 52 line 9.

Here ends the list of the XIth cent. A. D. The following century was that of our author al-Ghâfiqî and his contemporaries. Naturally they are not mentioned by him, but they are nearly all quoted by Ibn al-Baitâr.

- 42. **Mechithar** of Her (Armenia) wrote, in 1187, a medical treatise "Consolation in Fevers" compiled from Arabic, Persian and Armenian sources. It was unknown to the Arabs, but was useful in our investigations on the names of plants and remedies.
- known as Maimonides (1135-1204 A. D.) was the celebrated Jewish philosopher, theologian and physician who lived from 1166 onwards in Cairo. Among his numerous writings, we mention here only his book "On Poisons and the Protection from Deadly Drugs". The intended edition of the Arabic text was delayed by the sudden death of the editor Dr. Hermann Kroner (d. 1930). An old Latin translation by Blasius of Montpellier exists in MSS. only; a modern French and a German version are both out of print 2 and are extracts rather than translations.

^{1.} The Armenian text was printed in Venice in 1832; an excellent German translation with commentary was published by E. Seidel, In 1908 (see Bibliography sub: Mechithar).

^{2.} J. M. Rabbinovicz. Traité des poisons etc. Paris 1865. M. Steinschneider, Gifte und ihre Heilung, von Moses Maimonides (In Virchow's Archiv vol. 52, pp. 66-120).

- 44. Abû'Abdallâh Muhammad... b. Idrîs الشريف الادريسي known as ash-Sharîf al-Idrisî الشريف الادريسي (1100-1166 A. D.) was a Muslim prince and a famous geographer who lived, during the last years of his life, as a refugee at the court of the Norman kings of Sicily. Besides his great geographical works, he wrote a pharmacology Kitâb al-Gâmi' كتاب الجاري "The Universal Collection" which was often quoted by Ibn al-Baitâr. The original was lost, but half of it has recently been discovered by Dr. Helmut Ritter in a precious MS. at Constantinople (Fâtih no. 3610) 1. The discoverer was kind enough to procure for us a photographical copy which was utilized by us in the preparation of the commentary.
- 45. Abû Ga'far Ahmad b. Muhammad al-Ghâfiqî (d. about 1160 A. D.). His work forms the subject-matter of the present publication We devote a special paragraph to him; see below.
- 46. Abû Zakariyyâ' Yahyâ ... ibn al-'Awwâm الن العوام, a Spanish Muslim of Sevilla (d. about 1200 A. D.) He wrote a book on agriculture (K. al-Filâha کتاب الفلاحه) which was quoted by Ibn al-Baitâr and other. It was edited in Arabic and translated into French: 2.

^{1.} See M. Meyerhof, in Archiv f. Geschichte der Naturwissenschaften XII (1929 pp. 45-53 und 225-236.

^{2.} J. A. Banqueri, "Libro de Agricultura . . . Ebn el Awam. Madrid 1802. 2 vols, and Clement-Mullet, "Le livre de l'agriculture d'Ibn - el - Awam". Paris 1864 - 6, 3 vols.

47. Amîn ad-Dawla Hibatallâh ... ibn at-Talmîdh من المناه المناه

During the XIII th cent A.D. there was a regular revival of pharmacology by quite a number of medical men some of whom were very original in their conceptions while others were mere compilers. Among the former we have to mention in the first place:

48. Abu'l-'Abbâs Ahmad ابو العباس العالمية Hispano-Moorish scholar with the surnames of Ibn ar-Rûmiyya المنافرة ألم and an-Nabâti الناقى i. e. "The Botanist". He was born at Sevilla (ab. 1170 A. D.) made, on the occasion of his pilgrimage, a long journey through North Africa, Arabia Syria and Mesopotamia and died in 1239 after his return to his birth-place. He left a description of his journey ar-Rihla الرحل which is unhappily lost, but known by numerous quotations from it by Ibn al-Baitâr, his pupil. In this work he described many plants in the most lucid manner, and spoke rationally about their species and varieties, so that he well deserved his surname. He also wrote on the names of simple drugs of Dioscurides and on the composition of remedies, But all his literary output is lost.

Another most original botanist of the XIIIth cent. was 49. Rashîd ad-Dîn Mansûr... ibn as-Sûrî رشيد who lived in Syria about 1177—1243 A.D. He travelled in the Near East accompanied by a painter, and not only described many unknown plants, but had them painted as fresh plants and as dry drugs. Unhappily, his book which must have been besides the old edition of Dioscurides' "Materia Medica" the first illustrated drug-book of the Arabs, is lost; and Ibn al-Baitâr does not even mention it.

Diyâ' ad-Dîn Abû Muhammad 'Abdallâh 50. ibn Ahmad Ibn al-Baitar ضياء الدين ابو مجمد عبد الله بن احمد بن البيطار born at Malaga (Spain) at the end of the XIIth cent. A.D. travelled, like his master Abu'l - 'Abbâs in North Africa and the near East and died in 1248 A.D. at Damascus. Leclerc 1 calls him 'the greatest botanist of the East". This is somewhat exaggerated, but he was the greatest and the most intelligent compiler of pharmacological works in the Arabic-writing world. We shall prove in the next chapter and by our edition itself, that he took al-Ghâfiqî's book as a basis for his work and added quotations from later authors with some remarks of his own. Anyhow, the editions af his great Gâmi' جامح "Collection" on Remedies is invaluable, and hundreds of scholars have based their studies of Arabic botany and pharmacology on the printed edition of that book and on the

^{1.} Histoire de la médecine arabe, vol. II, p. 225.

learned translation of the same by Lucien Leclerc ¹ He also wrote a book on the uses of remedies, *al-Mughnî* and another one on the errors of Ibn Gazla (see no. 38) in his *Minhâg* with.

- 52. Abu'l-Fadl Hasan b. Ibrâhîm at-Tiflîsî أبو الفضل حسن بن ابراهيم التفليسى is of uncertain period, but was probably a contemporary of Ibn al-Baitâr. He wrote a book Taqwîm al-Adwiya al-Mufrada تقويم الادوية المفردة. It exists in the Bodleian Library at Oxford. (no. 535). It has not, until now, been published in print.²
- 53 Abu'l-Muna Dawûd b. Abî Nasr known as Kôhen al-'Attar أبو المنى داود بن ابى نصر المعروف بكوهين العطار lived in

1. See Bibliography under IB and Lecl.

^{2.} Hâggî Khalîfa in his bibliography (Lexicon bibliographicum et encyclopaedicum ... ed G. Fluegel, vol II, Leipzig 1837 p. 392 no. 3489) misspells the name (*Hobaish* instead of *Hasan*).

Cairo in the XIIIth cent. A.D. and composed in 1295 a book on the composition of remedies divided into 25 chapters. This Book *Minhâg ad-Dukkân* (i.e. "the Management of the Shop") had a wide-spread reputation and is still used by all the native bazaar druggists of the Near East. It survived in many MSS. and was printed five times since 1287 A. H. (1870 A. D.) in Cairo alone.

54. Abu'l-Farag Gregorius. called Barhebraeus. (ابن العبرى) (d. 1286). We shall speak about him and his work in chapter III of this Introduction.

Of the later centuries four authors only are to be mentioned, because their works survived; two of which works exist to-day in printed editions:

- 55. Dâwûd b. 'Umar al-Antâki الانطاك (d. 1599) lived in Cairo and left an alphabetical list of drugs and medical terms known as Tadkhirat Ulî al Albâb تذكرة "Memorandum for Intelligent People". It was published in print for the first time in Cairo in 1254 A.H. (1838 A.D.) and again nine times since. It is, like the Minhâg ad-Dukkân, much in favour with the Oriental druggists. We used the book frequently for our commentary.
- 56. Madyan b. 'Abd ar Rahmân al Qawsûnî مدين بن عبد الرحن القوسوني (XVIIth. cent. A. D.) Muslim physician in Cairo, published, in 1628 A.D., a medical dictionary Qàmus al-Atibbà' قاموس الاطباء compiled from Ibn al-Baitâr and general Arabic dictionaries. A manuscript copy of this book exists

in the Egyptian Library in Cairo (طب عم) and we occasionally consulted it for our commentary.

- 57. 'Abd ar-Razzâq b. Muhammad al Gazâirî كيد الزاق بن محد الجزائرى (XVIIIth. cent.) was a Muslim physician of Algiers. He travelled through North Africa and wrote a book on drugs and plants which was edited and translated by L. Leclerc (see 'Abd ar-Razzâq, Kashf ar-Rumûz كشف in our Bibliography). It is not very original, but provided in some very rare cases useful information for our commentary.
- 58. Qâsim b. Muhammad al Wazîr al Ghassânî المنافي was physician in orderly to the Moroccan Sultan Ahmad al-Mansûr and composed, in 1586, a book on herbs and drugs which contained 379 articles on simple drugs each of which was methodically described; it contained moreover, a remarkable attempt to classify the plants which is unique in Arabic literature. See H. P. J. Renaud, Un essai de classification botanique dans l'œuvre d'un médecin Marocain du XVIe siècle (Mémorial Henri Basset, Paris 1928, pp. 197 206).

II. Ahmad al-Ghâfiqî

and

his Book on Simple Drugs.

The author of the book which forms the subject of the present publication is very little known. Ibn Abî Usaibi'a (vol. II p. 52) devotes to him a short paragraph which reads as follows:

"He is Abû Ga'far Ahmad b. Muhammad b. as-Sayyid al-Ghâfiqî أبو جعفر أحد بن محمد بن السيد الغافقي, an excellent leader and a learned doctor who was counted among the prominent men of Andalusia. He was the most experienced of his contemporaries about the faculties, uses, properties and essential qualities of simple remedies, and in the knowledge of their names. His book on Simple Drugs is not equalled in excellence or in sense; he abridged the writings of Dioscurides and the great Galenos in succinct language yet (preserving nevertheless) their full meanings. After their text, he mentioned all that was new in the sayings of later scholars concerning simple drugs, and what everyone of them had collected and known afterwards; thus his book became a collection of the sayings of those who excelled in (the knowledge of) simple drugs, and an encyclopedia to which one had to refer in case of necessity for verification. Books written by al-Ghâfiqî; Book of Simple Drugs (كتاب الأدوية المفردة)".

Usaibi'a places him in the VIth cent. A.H. (XIIth cent. A.D.) and Wüstenfeld I makes him die in 1164 A.D. We do not know the sources from which he extracted his information. As to his surname (nisba with it is probably derived from his birthplace Ghâfiq with which was, according to Yâqût's Geographical Dictionary 2, a small fortress (hisn Cordoba. Professor Miguel Asìn Palacios, the eminent Arabicist of Madrid was kind enough to inform us that he thought the name of Ghâfiq was still etant in the village of Guijo near Pedroche in the district of Cordoba.

Another scholar of the same place seems to have been a contemporary and perhaps a relative of our author. This was Muhammad b. Qassûm b. Aslam al - Ghâfiqî خدين قسوم بن أسلم الغافقي who wrote a great treatise on eye diseases called al-Murshid fi'l Kuhl الرشد في السكحل "The Guide to Ophthal-mology"3.

Ahmad al-Ghâfiqî's book is lost, but large parts of it are preserved in more than 200 quotations given by Ibn al-Baitâr. Therefore, Leclerc (II 79) was able to recognise the originality and the great value of the former's work. At the moment

^{1.} Geschichte der arabishen Aerzte, Göttingen 1840 p. 98.

^{2.} Ed. Wüstenfeld, vol. III. p. 769.

^{3.} See Hirschberg, "Geschichte der Augenheilkunde im Mittelalter" (Leipzig 1905) p. 68-9. A photocopy of the unique Escorial MS, is in the possession of Mr. J. Cusi who charged Dr. Meyerhof to translate the important parts of the book for the next International Congress of Ophthalmology (Madrid 1933).

when the abridged edition of al-Ghâfiqî's pharmacology came in our hands we stated that Ibn al-Baitar copied not only the above-mentioned quotations from it, but that he had copied the whole book, and that his sole merit was to have added many quotations from later authors (e.g. al-Idrîsî and Abu'l-'Abbâs an Nabâtî) and, only occasionally, his own experiences or opinions. This was so evident that we were able to make use of Ibn al-Baitâr's text as a third witness in places where our two MSS. of al-Ghâfiqî were doubtful or corrupted. It is now certain that Ibn al-Baitâr's pharmacology is nothing more that al-Ghâfiqî's book with some enlargements and commentaries. This would be still more evident if we had the original book of the latter. Consequently, Leclerc's judgment (II, p. 225) on Ibn al-Baitâr that he was "the greatest botanist in the Orient", has to be revised. Indeed he was nothing more than a very diligent and learned compiler. Ibn Abî Usaibi 'a wrote moreover, (vol. II, p. 133 line 14) that Ibn al-Baitâr always took with him, on his voyages the "Materia Medica" of Dioscurides and Galen and the drugbook of Ahmed al-Ghâfiqî.

Moritz Steinshneider, the famous bibliographer of the Arabic scientists, had extracted from a Latin translation of al-Ghâfiqî's abridged Pharmacology (existing in three different MSS. in Munich, Bâle and Berne) all the names of simple drugs (see Bibliography sub *Steinschn.*), and identified them as far as he could. We have sometimes referred to this publication

We have no need to insist on the merits of al-Ghâfiqî's book. They are well-known by Leclerc's French translation of Ibn al-Baitâr's text and will become still more evident, we hope, by our English translation and commentary. Unfortunately, as we have already said, the original text is lost, and only an abridged copy is extant; this was made by a prominent scholar, Barhebraeus ¹.

^{1.} Wüstenfeld, (p. 98) and Brockelmann "Geschichte der arabishen Literatur," 1898, vol. I, p. 488), relate that in the Bodleian Library at Oxford (no. 632) there is another abridged MS. of the book, ascribed to a certain Ahmed b. 'Alî al-Gumhurî ما المعالية المعالية . We ordered a photographic copy of the first pages of this work and can state that it is an anonymous medical treatise which has nothing whatever to do with al-Ghâfiqî's Pharmacology.

III. Barhebraeus and the Abridged Edition of the Treatise on Pharmacology.

أبو الفرج بن المبرى Gregorius, called Abu'l-Farag Ibn al-'Ibrî أبو الفرج بن المبرى "Son of the Hebrew", latinized Barhebraeus, a Christian, was born in Malâtiya للطية (Asia Minor) and lived from 1226 to 1286 A. D. At first he studied Medecine, but later became a priest and reached the second highest dignity in the Jacobite Church, that of *Mafrayân* مفريان or Metropolitan, i.e.Vicar of the Patriarch himself. His district was "the East" viz. the formerly Persian lands between the Mediterranean and the Caspian sea. Continuously travelling, and that during the dangerous period of the great Mongol invasions, he was nevertheless able to produce an incredibly rich literary output. A great many of his productions were compilations. He wrote about History, Theology, Philosophy, Grammar, Chronology and Medecine, and also composed poems and narratives. The best known of his works is the *Chronicon Syriacum*, the first part of which he translated into Arabic²; the second and third parts contain a valuable ecclesiastical history. He translated into Syriac several philosophic and medical works by Ibn Sînâ, and commented on the medical treatises of

^{1.} From Syriac Maphreyânâ, אנא i. e. "the frugiferous" because he was a kind of superior mission-bishop.

^{2.} Mukhtusar Ta'rîkh ad-Duwal عتصر تاريخ الدول ed Sâlihânî, Beyrouth 1890.

Hunain b. Is-hâq and others; also on some Greek works of Hippocrates and Galen.

He was undoubtedly particularly interested in pharmacology; for he condensed the Materia Medica of Dioscurides and the drug - book of our Ahmed al-Ghâfiqî 1. It was known that a copy of this latter work existed in the Grand-Ducal Library at Gotha (Germany) under the no. Halep 177. Meyerhof was able to see this MS. in 1928, and found that its text was so corrupt that it would have been useless for publication. But in 'the same year he was informed by the Egyptologist Dr. Keimer, that Ahmed Taimûr Pacha, the greatly lamented Writer, beloved friend of scholars and great collector of Arabic manuscripts², had acquired for his library an old MS. on simple drugs. We very soon saw that this was a fine old copy of the pharmacology of al-Ghâfiqî in its abridged form by Barhebraeus. With his habitual generosity, Taimûr Pacha gave us permission to procure a photocopy of it. It is an excellent. MS. copied by the hand of a scribe in 1285 A.D. one year before the death of Barhebraeus. It is quite possible that it was transcribed directly from the original MS. of BH himself. The text of this MS. is very good, and the many Greek terms are well transliterated into Arabic.

^{1.} Brockelmann. "Geschichte der arabischen Literatur" (Weimar 1898) vol I, p. 339; Leclerc vol. II, p. 149.

^{2.} He died on the 26th of April, 1930, in Cairo. His sons presented, in 1932, the invaluable Taimûr Library to the Nation

As to the character of the "Selection" (muntakhab made by Barhebraeus out of the pharmacology of al-Ghâfiqî, we find that it was judiciously done as might be expected from a trained scholar like BH. He left out from the Greek quotations many names which were useless to Arabic physicians, and suppressed several passages concerning Spanish or Latin names of drugs of no interest to Eastern scholars. He also left out the numerous repetitions found in the carefully collected quotations of old authors. However, Barhebraeus, as he stated in his fore-word, did not altogether suppress the parts about the therapeutic action of the drugs, and, according to his own words, the book became more readable and very instructive.

IV. The Manuscripts.

The Cairo MS., 'T' = (Taimûr Pacha), is a papermanuscript in an excellent state of preservation. It measures 23×15.5 cm, and the written part of the pages measures 19.5×11.6 cm. There are 140 pages of 28 lines each written in compressed Naskhî - hand, doubtless that of a scholar. Diacritical points are frequently missing, but the MS. is nevertheless very legible. The date of the copy given at the end of the MS. is "end of Rabî 'Akhar 684 A. H.", i. e. beginning of July 1285 A. D. The name of the copyist is unfortunately missing; he was probably a Muslim as otherwise he would have added a Christian date. Although this MS. was copied during the life-time of the author Barhebraeus, it already shows a certain number of copyists' blunders, and, in several places, serious disorder. In one case the half of a paragraph concerning a plant has been transferred several pages backwards and added to another paragraph with which it has no connection. The printed Bulâq edition of Ibn al-Baitâr and an old MS. of the same in the possession of Dr Meyerhof sometimes helped us to restore the original text. On the contrary, very frequently the MS. 'T' gave a better reading than the edition of Ibn al-Baitar and helped to improve on the original text of the latter.

The Gotha MS. (G $\stackrel{\cdot}{=}$) measures 21.5 \times 15.5 cm, has 358 folios or 715 pages of 15 lines each and is written in a

clear and beautiful *Naskhî*-hand of modern type, probably by a professional copyist. He gives the date and his name at the end of his MS. thus: "Month of Shubât شباط (February) 1694 A.D., written by Gibrâ'îl ibn Ya'qûb جبرائيل بن يعقوب known by the name of al-Munîr المنير. Another hand added the Muhammadan date 1138 A.H., corresponding to about 1735 A.D.

This MS. gives a text which is absolutely dependent on the text of 'T'; it repeats all the errors, misspellings and omissions thereof, and must have been copied directly from it or from another copy based upon it. It is, moreover. the work of a very ignorant scribe, the number of errors being enormous. This copy helped us on rare occasions to elucidate the reading of a faintly written word or to correct an error in 'T'.

Both MSS., 'T' and 'G', must have existed for centuries in Egypt. 'G' was written probably by a Syrian Christian, 'T' belonged to a Coptic religious Institution long before it was sold to Taimûr Pasha.

V. Some Remarks on Text,

Translation and Commentary.

We have based our edition of the Arabic text entirely on the good MS. 'T'. The MS. 'G' is so full of errors that their enumeration would have filled half of every page of the printed text. In order to show how great is the difference between 'T' and 'G', we inserted in the textnotes of the authors' foreword all the divergences existing between the two texts. Further on we did not take any notice of the numerous and often stupid errors in 'G' and followed only the text of 'T' of which we gave the pagination. 'G' was only used for comparison, particularly in the spelling of Greek names. Sometimes our text was corrected by a better reading from the edition of Ibn al-Baitâr.

In the translation, we took pains to translate as literally as possible. This resulted in a not very elegant English phraseology. We have to apologize to English-speaking readers for such a result; for in scientific works the beauty of the language has to be sacrificed to the precision of the facts and any attempt to make our English of a higher standard might have affected the exactitude of the translation.

We tried, however to give the commentary in the way adopted by Leclerc and Berendes (see Bibliography), benefiting from the more modern publications which were not at their disposal, and particularly from the studies of Oriental plants by Schweinfurth, Sickenberger, Ascherson and others. Moreover, we collated copies of unique MSS. of al-Idrîsî and al-Birûnî recently discovered (see Bibliography) as well as E. Seidel's learned notes in his edition of Mechithar. For the knowledge of names of animals and minerals the new dictionary by Dr. Mohammed Sharaf (Cairo 1929) was very useful to us, and for plants that of Ahmed Issa Bey which was published when we had nearly finished the first par of our edition. It is by far the best record of Arabic plant-names which has ever been written, and will be of invaluable help in our further investigations. The Synonyms in eight ancient and modern languages will, we hope, be welcome to linguists.

An edition like the present one requires an enormous amount of time. The text and translation are not difficult, but to produce a good commentary several hours and even days are sometimes necessary for a single paragraph: the literature is so vast. Our professional duties occupying us both during the day time, we find that we shall need at least two years or more for the present publication, at the end of which we hope to add several carefully prepared indices in different languages. The reader may be reminded that all the great editions of pharmacological works recorded in the Bibliography required several years before their appearance.

We hope that the present edition will not only give a historical text of great importance, and at the same time the first English translation with commentary of an Arabic pharmacology, but will also help to fix actual botanical and pharmacological terms in Arabic and to revise old ones.

Last, but not least, we wish to thank from the depth of our heart the members of the Comittee of Publications of the University with H. E. Aly Pasha Ibrahim at their head for their combined authority in allowing the publication of the book at the expense of the University. We also thank Mrs. Devonshire and Mr. Walt. Taylor, lecturer at the Egyptian University, for many suggestions and corrections and for the interest they took in the work. May they earn the gratitude of scientific scholars all over the world.

VI. List of Abbreviations

and Bibliography

'ABD AR-RAZZÂQ

Kachef er - Roumoûz (Révélation des énigmes) d'Abd er-Rezzaq ed-Djezaïry . . . trad. par Lucien Leclerc. Paris 1874.

ABÛ MANSÛR

Die pharmakologischen Grundsätze des Abu Mansur Muwaffak bin Ali Harawi . . . Übersetzt von Abdul - Chalig Achundow (Histor. Studien aus dem Pharmakolog. Inst. d. Kaiserl. Universitât Dorpat) Halle 1893 pp. 137-414.

ADAMS

The seven Books of Paulus Aegineta Transl. from the Greek etc. by Francis Adams. 3 vols London 1844 - 7.

'AVNI

Dictionnaire des sciences médicales français - turc لغات طبية par Hasan 'Avnî محسن عونى , Constantinople 1290 A. H.

BERENDES

Des Pedanios Dioskurides Arzneimittellehre in 5 Büchern. Uebersetzt von Prof. Dr. J. Berendes. Stuttgart 1902.

BERGGREN

Guide français - arabe vulgaire . . . par J. Berggren. Upsal 1844.

BH

Barhebraeus (Gregorius Abu'l - Farag b. al-'Ibrî).

BÎRÛNÎ

The book on Drugs (كتاب الصيدنة) by Abu'r-Raihân al - Bîrûnî; MS. in the Government Library at Brussa (Turkey).

BLATTER

Flora Arabica (in *Records of the Botanical Survey of India*, Vol. VIII nos. 1-3) by Ethelbert Blatter. Calcutta 1919 - 21.

BOTICA

La oficina de farmacia (Dorvault)
. . . por J. de Pontes y Rosales y
R. Casas Batista. Madrid 1872-78.
Lexicon Syriacum auctore Carolo

BROCKELMANN

Brockelmann; editio secunda. Halis Saxonum 1928.

BUDGE

Syrian Anatomy, Pathology and Therapeutics or "The Book of Medicines"...ed. by E. A. Wallis Budge. 2 vols Oxford etc. 1913

COPT. MED. PAP.

Un papyrus médical copte publ. et trad. par Emile Chassinat (Mém. de l'Inst.Fr. d'Arch. Or. du Caire t. XXXII) Le Caire 1921.

DAMÎRÎ

Zoology عياة الحيوان الكبرى الدويري 2 vols, Bûlâq 1275 A. H.

DÂWÛD

ri كرة أولى الالباب والجامع للعجب Pharmacology

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Aegypten, von Dr. Aly Ibrahim Ramis.

Jena 1929.

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édition) par Ch. Samy-Bey Fraschery.

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ten, Algerien und Jemen, von G.

Schweinfurth. Berlin 1912.

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PART II TRANSLATION & COMMENTARY

[Fol. 1 r.] Selection 1 from (the Book of) al - Ghâfiqî on Simple Remedies,

Selected by the Unique in (his) Time, the Most Learned Man of the Period, the Holy Father, the Pious, the Exponent of Truth and the Revealer of the Minute (mysteries),

Gregorius, Vicar (*Mafrayân*) of the Patriarch of the East,may God augment his Grace and prolong (the days of) his Jurisdiction!²

^{1.} G: "Beginning" of (the book of) al-Ghâfiqî.

^{2.} So in T; G reads instead of this: "May God the Very-High have mercy on him and multiply his rewards".

[Fol. 1 v.] In the Name of God the Merciful the Compassionate!

The following is a resumé of the meaning of what Abû Ga'far Ahmad ibn Muhammad ibn Ahmad ibn Khulaid al-Ghâfiqî, may God have mercy on him, said.

The book which I had begun to prepare was originally intended as a memorandum for myself. I did not wish to publish it for two reasons: firstly, because I knew of the public's imperfect knowledge of the difference between the authentic and the non-authentic works; secondly in order not to expose myself to the censure of critics, covetous of those who possess intelligence and perspicacity. When one of my friends, however, encouraged me in its copying, I wrote a preface to express its purpose 1 and the method of its production, and this was also in two parts: first a collation of the sayings of the Ancients with that of the Moderns on this subject, and second a commentary on the unknown names.

Various people had tried to work on these two lines; but I did not find among them anyone who attempted to verify the exactitude of his own work; on the contrary, most of them repeated the mistakes of their predecessors. Thus, some of them made faults in collating the sayings of others, as did Ibn Wâfid when he collated the text of Dioscurides with that of Galen on two different remedies and thought

^{1.} G: my purpose.

they were the same; and others did not say the truth, as was the case with Ibn Sîna when he ascribed to them words which they never said. Generally speaking, there was not one of all those who wrote on these two lines who did not commit great mistakes, from ar-Râzi (Rhazes), who was the first of them, down to our time. ¹

With the help of the Almighty I took up the questio as carefully as possible, trying to avoid mistakes and without seeking self - glory. I made a complete record of all the remedies that were mentioned by Dioscurides and Galen and added to their sayings those of their successors, as correctly as possible. I drew attention to faulty readings of the names occurring, and I did not include the authority of those who could not verify what they mentioned but had it merely copied. Moreover, I added to it some herbs which are employed by my countrymen at present ² and which were not mentioned by any of our predecessors.

The discussion on aliments, perfumes and the divisions of the faculties of remedies, I intentionally omitted, as previous authors had already treated it lengthily enough. My intention was to discuss what was missing and had not been studied by anyone before me, viz. the plants among the remedies, their selection and the distinction between the good

^{1.} This is not correct; at least ten other authors composed books on simple remedies during the IXth. cent. A. D., long before Rhazes who lived from 865-925 A. D. See Introduction.

^{2.} See Introduction p.

and the bad. If our physicians thought that this ought to interest the druggist rather than the physician, their idea would have been right if they did not prepare the medicines themselves. How shameful it was for any of them to ask for simple remedies and to get such as he did not know were the required drugs or not, and to administer them to his patients, blindly following the opinion of botanists and herborists, people who neither read books nor knew about remedies except very little!

Sayeth the slave who is in need of the mercy of God the Very High ¹ Gregorius the Vicar:

Therefore I restricted myself in this abridged edition to the enumeration of the remedies, their selection, and only the better known of their names and faculties, omitting whatever may be prepared therefrom of potions, oils, etc. Thus it came out easily in its vocabulary, and though small in (fol. 2r.) size, yet useful in its subject and perfect in its discussion.

Let us now begin with the task we have set for ourselves. The first is the letter $Alit^2$.

^{1.} G. Who fears his Lord the Almighty.

^{2.} In G only.

LETTER ALIF.

1. ASÂRÛN أسار, Cabaret (Asarum europaeum L) (Lecl. no. 61).

Diosc. I. (10): It is called wild-nard; its leaves resemble ivy-leaves, but are smaller and more round. Its flowers, situated between the leaves near the root, are purple-coloured and resemble the flowers of the henbane (*Hyos-cyamus*). Its seeds are like those of the cartham. It has many roots bearing thin knots and curved like the roots of dog's grass (*agrostis*), but much thinner; they are fragrant, heat and prick the tongue. It grows on richly wooded mountains. ¹

Galen VI (ed. Kuehn XI, 840): Its useful part is the root, and its strength is like that of sweet flag (*acorus*), even stronger.

Ibn Samgûn: The best kinds are the Chinese and the Spanish, while the best kind of the Spanish one is that which is brought from Algeciras.

The Author: The original asarum is that which comes from Greece. That which is used in Spain is not the

^{1.} Here follow in Dioscurides' original work the names of the lands (Pontus, Phrygia, Illyria etc.) in which the asarum-plant grows. As IB I, 23 (Lecl. I, 56) gives these names, it was probably Barhebraeus who omitted them in his abridged edition of al-Ghâfiqî's Pharmacology.

real asarum although it looks like it-especially that from Algeciras - and though it is believed that its faculties are the same. It is a plant which has a slender and round stem, about a cubit high and with knots wide spread, remote one from another. Its leaves are like those of the small centaury, green with a shade of black. At its upper part is a tuft of twigs touching one another, on whose ends are small buds of the size of grains of wheat; their interior contains white downy hairs. From its roots - smaller than the little finger - thin twigs of the length of the tip of a finger, branch off, of fragrant smell and flavour. ¹

There is another kind of asarum which is of bitter taste and disagreable odour. Many people take it for one kind of the long birth-wort (zarāwand which, aristolochia). It is a plant which has smaller and harder leaves than those of the ivy, is blackish or greyish, and has thin shoots by means of which it holds fast to near objects and climbs up trees. It has purple - coloured flowers like those of aristolochia, and produces fruits like those of the caper tree (capparis) from which come seeds resembling those of the marshmallow (atthaea). It has many knotty roots creeping under the earth, of grey or yellow-blackish colour, strong odour and bitter taste, burning the tongue and mouth a little. It is particularly

^{1.} Here follows in al-Ghâfiqî's text as quoted by IB (I, 23) an explanatory note: "This is the asarum which comes from Algerias and which resembles the real asarum more than any other Spanish asarum, although it is different from the description given (scil. by Diosc.)".

this kind which is a useful antidote for poisons and bites of all kinds of snakes, its fruit, seeds and roots being used.

Another kind has leaves smaller than those of aristolochia and small shoots which spread on the ground. Its flower and fruit are like those which we have described above, only somewhat smaller, while its roots are soft, without knots, of yellow colour and spring up from a single root like the black hellebore. It is of bitter taste and fragrant smell, like that of (the real) asarum. It grows mostly in white earth on the mountains. Some believe it to be a kind of swallow - wort mâmîrân alaçulo (celandine, chelidonium).

Diosc. I: It is diuretic and an emmanagogue; seven drachms ¹ of it with honey-water purge like white hellebore. It is used in aromatic mixtures.

COMMENTARY.

IB quotes this chapter of Diosc. in its entirety (I, 23 - 24; Lecl. I p. 56 - 58), adding short extracts from Ibn Sînâ, ar-Râzî, al-Idrîsî, and some unknown authors. Ibn Samgûn the Hispano-Moorish physician's statement that the best asarum comes from China is very interesting, and is confirmed by Idrîsî (MS. Fâtih Mosque no. 3610, p. 23, line 7): وأنشاه ماجلب من بلاد . There exist, indeed, two great Japanese kinds, Asarum Sieboldii Miq. and A. albivenium Rieg., while there are still others in the Far East.

^{1.} In Arabic mithqâl المنتفال; the Greek text (Diosc. I. Well. I, 15) reads: "7 ounces". A mithqâl has about 4.7 grams.

Ibn Sînâ (ed. Bulâq I, p. 248) attributes to asarum a diversity of medical actions in dropsy, sciatica, lumbago, scars of the cornea, diseases of the liver, jaundice etc. It is the aristolochiacea Asarum europaeum L. The Rhizoma asari is still official in several pharmacopoeas. Its active principle is asarin, an emetic; it also contains an essential oil.

Asarum was a much esteemed emetic before the introduction of Ipeca. According to *Achundow* (Abû Mansûr p. 340), in Persia it is always adulterated with a kind of Valeriana which has no emetic action.

Synonyms: Gr.: مرهوه (asaron); Arabic: âsârun أسارون , nârdîn barrî الليطى (Dâwûd), aqlîtî الليطى (Dâwûd), nukhail (or nakhîl) al - Hind غيل الهند (Dâwûd); Turk.: tshobân dudugî خيل الهند (i. e. shepherd's flute) ('Avni); Pers.: esârûn shâmî اسارون شاى; Enge.: asarabacca, cabaret; Fr.: asaret cabaret; Germ.: Haselwurz. See Loew I, p. 223.

2. IDHKHIR إِذْ خَر , Aromatic Rush (Andropogon Schoenanthus L.) (Lecl. no. 29).

Abû Hanîfa: It has a root buried in the ground, thin twigs and a pungent odour. It is like the rush (asl בון) 1, the squinanch rush (asl al-kawlân בעלי), Juncus arabicus Post), but wider and of smaller internodal spaces; and has a fruit like the blossoms (brushes?) of the reed except that they are thinner and smaller. It is said that when you fix an

^{1.} Here in both MSS, erroneously athl Ji, i. e. tamarisk.

that there are others and that sometimes the whole ground is covered with them. It grows in sandy places and river-beds, and when it dries it becomes white.

Ibn 'Imrân¹: That which grows in the Higâz (Western Arabia) is called *haramî* , and is of superior quality, and that which grows in Qafsa² and on the coast of Africa is inferior.

Diosc. I (17): $\Sigma_{\chi o \bar{\iota} ros}$ (schoinos) or aromatic rush. That which comes from Nabataea is the best, and after it comes the so-called Babylonian which some people call (Fol. 2 v.) $\iota \epsilon v \chi \bar{\iota} \iota \iota s$ (teuchitis). The variety from Libya is inferior, and the best of all is the fresh one with many red flowers, of a roseal fragrance and the colour of which, when split up, is purple.

Galen VIII (XI, 136): Its flower is a little heating, a little astringent and diuretic. When applied in compresses it is an emmenagogue and useful for the swellings (tumours) of the liver and the stomach. Its root is more astringent and its flower more heating.

COMMENTARY.

IB quotes the same authors and others. He criticizes ar-Râzî and Ibn Sînâ. *Idhkhir* is the graminea *Andropogon*

^{1.} It is Is-hâq b. 'Imrân; see Introduction.

^{2.} Qafsa ففص is an oasis in Southern Tunisia. The name is mutilated in both MSS.

(Cymbopogon) schoenanthus L. and A. laniger Desf. Many oriental names of the plant are mentioned by Dymock (III, 562-4) Herba Schoenanthi or Junci odorati provided by Andropogon laniger was not long ago a medicinal drug. The root was known under the name of Iwarancusa. In Arabia the powdered plant is known under the name ghasûl drug and is still in use as a perfume for the bath. In Egypt to-day, it is a well-known bazaar drug (Ducros no. 1).

Synonyms: Gr: مروته (schoinos); Lat; juncus odoratus (Scribonius Largus); Ar.: idhkhir الفخر , khilâl ma'munî الماء وفي , i. e. Meccan straw (Idrîsî p. 19, 1. 18), hâlfâ' Makka الماء (Meccan grass) Dâwûd, for the flowers fuqqâh al-idhkhir الماء (ibidem); Pers.: gôr-giyâh أَوْمَا وَالْمَا اللهُ اللهُ اللهُ اللهُ إِلهُ اللهُ الله

It is known as "Old Woman's Gray Hair" (شيب العجوز) (shaib al - 'agûz) and grows on oaks and other kinds of trees.

Diosc. I: Bovor (Bryon) or tree-moss. It grows on the

^{1.} I. e. toothpicks of (the caliph) al-Ma'mûn; it may have been popular a name in Baghdad during and after his reign (S13-S33 A D.). Ancient Egyptian: knn cited by Kamal, (no proof).

larch - 1, walnut -, oak - and olive - trees. The best is that which grows on larch - trees on mountains; after it comes that which is found on walnut - trees. The best kind is the one which has a fragrant smell and is white; the blackish in colour is inferior.

Galen VI. (XI, 855): It is moderately astringent and possesses resolvent and remollient properties, especially the kind which grows on pine - trees.

COMMENTARY.

The name ushna is applied in the Orient to many kinds of odoriferous lichens, mostly of the species of the Usneeae (which name is derived from the Arabic one). In the Cairo drug-bazaars there still exist many kinds of lichens which are used as ingredients in baking native bread. J. Müller (Revue mycologique, 27th. Dec. 1881) enumerates the following species, all named in Arabic shêba: Ramalina calycaris (two varieties); R. gracca Müll Arg.; Parmelia sulcata Tayl.; P. physodes; Physcia ciliaris. Georg Schweinfurth (Über Brotbacken unter Zusatz von Flechten, Archiv f. Wirtschaftsforschung im Orient 1918, 1-2) found, moreover, Ochrolechia, Lecanora esculenta and Usnea florida Hoffm. This latter and Alectoria (Parmelia) usneoides Ach. are the kinds which are called to-day ushna. According to Sickenberger this Arabic term designates all kinds of moss growing on trees.

^{1.} Shirbîn તે, larch-tree or a kind of cypress, is here and elsewhere the translation of Dioscurides κέδρος cedar-tree.

Synonyms: Gr: 6ονον (bryon); Lat.: muscus arboreus, modern Lichen odoriferum; Ar. (Egypt): shaiba (Dâwûd); Turk.: eyî kokân yosûn أَى كَوْ كَانْ يُو صُونُ (Honigberger); Pers.: dewâle, dewâleh לפש (Abû Mansûr), (Schlimmer p.272, Evernia Prunastri); Eng.: fragrant moss; Fr.: mousse odoriférante; Germ.: wohlriechende Bartflechte. Issa (pp. 121 and 186) gives the name ushna to Muscus arboreus, sheba to Usnea barbata.

4. ARMÂL أرمال Cortex Culilawan (?) (Lecl. no. 46).

Ibn Masawaih: It resembles the clove-bark (cinnamon).

Ibn Masa al-Basrî: A wood like that of cinnamon, of fragrant smell; it is imported from the Yemen.

At-Tabarî: A plant whose rods are like those of the dill².

Ar-Râzî: I heard that al-armâl is a light wrinkled wood from which were made web-beams (or yarn beams). Physicians unanimously agree that it is good for diseases of the mouth.

COMMENTARY.

It is written armâl أرماك, armâk أرماك (Ibn Sînâ and Abû Mansûr), armâlik (Dâwûd) or armalî and armalîk (Idrîsî p. 29, 1. 3) wich

^{1.} For many Arabic synonyms for lichens in general, see Sharaf p. 440.

^{2.} This can refer only to the size or diameter of the rods. We were not able to find the quoted phrase in at-Tabarî's original work which was recently published (Firdawsu'l-Hikmat or Paradise of Wisdom of Alî b. Rabban at-Tabarî, ed. by M. Z Siddîqî. Berlin 1928).

is probably the same word changed by copyists of MSS. *Ibn* $Sin\hat{a}$ (I,260) and $Ab\hat{u}$ $Mans\hat{u}r$ (152) were the first to describe it. According to $Bir\hat{u}n\hat{i}$, $arm\hat{a}k$ is the more correct reading. *Sickenb*. (Arzn. p. 7) who found it in the Cairo bazaars declares that it is the *Cortex Culilawan*, the bark of a cinnamon tree from the Moluccas. Dragendorff (239—40) designates five other cinnamon varieties as producers of the Culilawan-bark. It was un known to the Greeks. The Yemen, which is considered by the Arabic authors as the land of origin, was only the place of transit-trade of this drug as well as of many others. 'Issa (p. 176) identifies it with the styracea *Symplocos racemosa Roxb*. (lotur-bark). See *Dymock* III, 373 and *Loew* I, 24—26.

5. ABHUL Jet Savin (Juniperus Sabina L.) (Lecl. no. 7).

(The Book of) Agriculture¹: There are four kinds. The first is the Indian and is called Dîbadâr². It is a tree that reaches a considerable height and its branches grow long; its fruit is like the hazel-nut. The second has leaves like the tamarisc, the third is like the cypress, and both of them have many thorns and a disagreeable aud pungent smell. They bear fruits smaller than cypress-nuts. The fourth spreads out (grows) in breadth but not in height and does not bear any fruit at all.

^{1.} Probably the Nabataean Agriculture (Kitâb al-Filâha an-Nabatiyya كتاب الفلاحة النبطية of Jbn Wahshiyya, an author who lived about 800 A. D. See Introduction I, no. 24.

^{2.} Dîbadâr ديدار or Dêbdâr is the Persian transliteration of the Sanscrit Dêvadâru. See commentary.

Ibn 'Imrân': The savin is a kind of juniper with large leaves like those of the tamarisc. It has red, oily fruits like those of the nabk-tree as to colour and size; they are woolly in the interior and have kernels whose colour is red. When they are ripe they are of sweet flavour and taste like the dripping liquid during the vintage of grapes.

Diosc. I (75): The savin is of two kinds; one has thorny leaves like those of the cypress and a disagreeable smell. It is round and grows more in width than in length. The other has leaves like those of the tamarisc. This is a plant of strong desiccative qualities, cleansing dirty ulcers and is an emmenagogue. It removes unhealthy granulations and is useful to the living ones.

Ibn Sina²: The savin-fruit resembles the medlar, save that it is blacker. It has a pungent odour. Ad - dibadar is one of its kinds called "the Indian pine tree"; its rods are like those of the zedoary. (Fol. 3 v.). $Shir - dibadar^3$, i. e. its milk, is hot, burning, thirstgiving and astringent. There is nothing more excellent for the relaxation of the nerves, hemiplegia, facial paralysis and epileptic convulsions. It crushes stones of the kidneys and bladder and constipates the bowels.

^{1.} Is-hâq b. 'Imrân was .. ceiebrated physician who lived in the first half of the INth. cent. A. D. at the court of the Aghlabite prince Ziyâdat-Allâh I. in Qairawân (now Tunisia). He wrote a book on simple drugs. See Introduction I, no. 19.

^{2.} This paragraph is not to be found in the printed editions of Ibn Sinà's Canon in the chapter abhul - savin.

^{3.} Shir غُر is the Persian word for "milk'.

Masîh¹: It relaxes the bowels and kills worms, ascaries and tape - worms.

COMMENTARY.

It is the conifera Juniperus Sabina L. with its two varieties war. cupressina and tamariscifolia All. In this, Dioscurides is right, and so is the "Book of Agriculture" when it describes a third variety, a creeping one, forma prostrata. But the dîbadâr has nothing to do with juniperus; it is the beautiful Himalayan cedar-tree Cedrus Deodara Loud., deva-daru, i. e. "tree of the gods". The Arabs were better acquainted with a variety of the Cedrus Libani Barr. under the name of sanawbar hindî عنوبر هندي أ. e. "Indian pine-tree". Savin oil is a strong poison. The abortive qualities of this drug were well-known to the Arabs. For Deodar see Hobson-Jobson p. 305-6.

Synonyms: Gr.: βράθυ (bràthy); Ar.: sarw gabalî

קייל (Honigb., Avni 536); Pers.: arw-i-kûhî התפ לפים, (Abû Mansûr); Eng.: barren savin; Fr.: sabine, savinier; Germ.: Sadebaum, Sevenbaum. For the nany other Arabic names see *Issa* p. 102.

6. ATHL أثل, Oriental Tamarisk (Tamarix articulata Vahl) (Lecl. no. 17).

^{1.} His real name was 'Isâ b. Hakam عيسى بن حج He lived in the IXth. cent. A. D. as a physician in Damascus and Baghdad. See Introduction I, no. 9.

Ibn 'Imrân: It is a large shady tree, has green wood and branches with red tints, and green leaves resembling those of the (European) tamarisk; its flavour is acrid. It has no flowers, but bears fruits at the knots of its twigs in the form of grains like chick-peas and which are yellowish-grey. In their interior are small grains clogged together, which are called the palatable grains of tamarisk. They are collected at the end of July.

Diosc. I (89): 'Ακακαλλὺς (akakallis), i. e. Oriental tamarisk (Athl), is the fruit of a tree in Egypt, resembling the tamarisk fruit. Its infusion is used for eye-salves that fortify the sight.

COMMENTARY.

The Oriental tamarisk, Tamazix articulata Vohl., is of very frequent occurence in North Africa, particularly in Egypt. Its Arabic name athl אשר is an old Semitic one: Hebrew êshel אשר Assyrian ashlu, Ancient Egyptian איין 'sr, and Coptic OCI. The supposed fruits are in reality galls provoked by the sting of a small wasp of the kind of Cynips. The galls are still to be found in the Cairo bazaars under the name of tamr el-atl בי ועינ (Ducros no. 56.).

Synonyms: Gr.: מָצמצמאלוֹה (akakallis); Pers.: (the gall) kazmâzaj אנה, Abu Mansûr, Schlimmer 1; Turk.: tarfa

^{1.} Abu Mansûr confounds this name with that of jashmîzaj or gazmîzag جنمين which designates the grains of Cassia absus L. See M. Meyerhof, Histoire du Chichm, remède opthalmique des Egyptiens. In Janus (Leyde XIX. 1914, p 246 note 1).

المانين أغاجى ilghin âghâji طرفا , 'Avni (p. 590); Berber : tâkût على ,' Idrîsî (p. 20); Engl. : Oriental tamarisk; Fr. : tamarisc oriental. According to Leclerc (I, 27 note 1), another Arabic name for the galls of this tamarisk is 'uāhba عذبه . See Issa p. 177.

7. ÂRAK أراك , Salvadora Persica L. Gaertn. (Lecl. no. 50).

Abû Hanîfa 1: Its root is most excellent for rubbing the teeth, and it is the most perfumed pasture-food for cattle. It is a thorny, high and lofty tree; its fruits grow in clusters. There is a wild kind that has bigger grains and smaller clusters. It has small, round and hard kernels, and its fruits are a little larger than chick - peas. The largest of its clusters fills the hand, while the big kind is bigger than coriander-fruit. Both of them begin by being green, then become red and sweet with some acridity; afterwards they become black and their sweetness increases, but there is some burning in it. They are sold like bunches of grapes. It grows in valleys and sometimes, but rarely, on mountains. Its thorns are few and scattered.

Ibn Gulgul: Its decoction, drunk, stirs the urine (i. e. is diuretic).

Ibn Ridwan²: Its fruit, inspissated, fortifies the stomach.

^{1.} See Introduction I, no. 25.

^{2.} Ibn Ridwân ابن رضوان was a famous medical practitioner in Cairo during the middle of the XIth. cent. A. D. See Introduction I, no. 39.

COMMENTARY.

It is Salvadora persica Gärtn. - Garcin, a tree that grows in Arabia, Persia and India; it was unknown the Greeks; it is to be found in Upper Egypt and the Egyptian desert (Ramis p. 149). Its fruit was still in use at the time of Forskål (p. 32), and known by the name of kabâth []. Short pieces of the branches and roots are generally in use, in the Near East, as tooth - brushes under the name of miswâk. The best kind is said to come from the Holy places of the Higâz (Arabia) (Mohammedan tradition). Dymock (II, p. 380-2) gives a record of the botany and history of the plant which fully confirms the sayings of Ibn 'Imran as quoted by al-Ghâfiqî. It is missing from Idrîsî's book. The use of the footh-stick is a pious duty to Muhammedans, as the Prophet himself practised it. See numerous references in Wensinck's Handbook of Muhammedan Tradition (Leiden 1927) p. 230.

Synonyms: Ar.: siwâk سواك , Dâwûd; Pers. : dirakht -i-miswâk درخت واك ; English: tooth-brush-tree; Fr.: arac. Germ.: Zahnbürstenbaum. For other Arabic names see Issa (p. 161).

Its fruit bears the Arabic name kibath باث , IB.

8. ABÂNÛS آبنوس , Ebony (Dalbergia Melanoxylon and Diospyros sp.). (Lecl. no. 9).

Diosc. I (98): The strongest is the Ethiopian. It is black without stripes (veins), resembling polished horn in its smoothness., If broken it is compact. It stings when tasted by the

tongue, and is, if burnt as incense, of fragrant smell. If fresh it is, on account of its oil, easily inflammable when brought near to fire. If rubbed on a whetstone, its colour becomes ruby-red. There is a variety in India in which are white and ruby-reddish veins. Some kinds of a thorny tree 1 and the kind of wood which is called ovaápuva (sykámina) are sold instead of ebony. But the latter is loose in texture (porous) and easily breaks into splinters of purple colour which do not burn the tongue; and when put on fire they do not exhale any smell.

Galen VI (XI, 867): This wood is one of the objects which, when rubbed with water, are dissolved like certain stones. Its juice strongly clears dimness of sight.

COMMENTARY.

Âbânûs are the different kinds of the ebenacea Diospyros, especially D. Ebenum Kon. from India. The Ethiopian ebony is probably the wood of the leguminosa Dalbergia Melanoxylon G.D.R. The false ebony of Diocurides may be, amongst other kinds of wood, that of the leguminosa Ebenus creticus L., the "red ebony" from Greece.

Synonyms: Gr. ἔβενος (ébenos); Lat.: hebenus (Pliny); Near Oriental languages: âbanûs Γ; Eng.: ebony; Fr.: ébène; Germ.: Ebenholz.

This is the translation of Dioscurides' ἀκάνθινα ξύλα
 (âkánthina xyla); ουκάμινος (sykâminos) is the mulberry-tree.

As to the etymology see Loew I, 588 - 9.

The word probably comes from Ancient Egyptian hbn which is the name of the tree and the wood (Loret).

9. ÂS JT, Myrtle (Myrtus communis L.). (Lecl. no. 69).

Abû Hanîfa: It is very common in the West (i. e. North Africa and Spain) , on the coast as well as in the mountains; it is evergreen and grows until it becomes a tree. It has a white flower of fragrant smell and a black fruit which, when ripe, becomes sweet; but there is in it at the same time (fol. 3v.) some bitterness. It is called *qatmîr*

Diosc. I (112): Miveoirn huseos (Myrsine hêmeros), i. e. the (cultivated) myrtle, is deep green inclining to black and more useful than the white, particularly the mountain variety; but the fruit of the black kind is weaker (less efficient) than the fruit of the white one.

Galen VII (XII, 81): It is composed of opposite faculties, the earthy and cold substance being predominant in it.

Diosc.: The μυριίδανον (myrtidanon) is something that grows on the stem of the myrtle-tree and is rugged like the

^{1.} IB (I,37) and Lecl. (I,66) read بأرض العرب "in Arabia", our two MSS. في الغرب "in the West". The latter is the correct reading, and, moreover, Meyerhof's hand-written copy of IB reads بأرض الغرب, confirming al-Ghâfiqî's text.

bark of the Egyptian thorn ¹. Its colour is like that of the trunk of the myrtle. In its form it resembles a hand and is of stronger astringency than the myrtle itself.

Ar-Râzî in the "Book of the Specific Properties": When you take a ring of fresh myrtle wood and put it on the little finger of a man who is suffering from a swelling in his groin it soothes the pain.

COMMENTARY.

It is *Myrtus communis L.* The *Myrtidanon* is probably an excrescence of the bark. IB who generally copies al-Ghâfiqî's text carefully omits the superstitious belief recorded by *ar-Râzî* in his book of the Specific Properties. This book is lost and the authorship of ar-Râzî may be doubtful, although it is recorded in al-Bîrûnî's catalogue of ar-Râzî's works ². Ar-Râzî was, as far as we know, not at all inclined to superstition although he cultivated, in his early years, alchemy and astrology.

Synonyms: Gr.: μυοσίνη (myrsine); Lat.: myrtus (Pliny);

Turk.: mersîn יכני ; Pers.: mûrd יכני (Abû Mansûr, Schlimmer);

Eng.: myrtle; Fr.: myrte; Germ.: Myrthe.

Idrîsî (p. 10-11), whose paragraph on âs is much

^{1.} The word bunk 4: is missing from most of the Arabic dictionaries. According to the Persian dictionaries (Vullers and Steingass) it is the bark of the Acacia nilotica. The same sense is found in Issa p. 2, no. 12. See below no. 119.

^{2.} Julius Ruska, Al-Bîrûnî als Quelle für das Leben und die Schriften al-Râzî's, In *Isis* V (1922) p. 48 no. 183.

longer, gives three lines of synonyms. He gives as an Arabic name raihân برياني-which is the ordinary name for basil-royal, as the Persian name for the plant marziyânaj مرزيانج , and for the fruit mûrd; moreover, the Berber name ajmâm الجام . See also Loew's etymological explanations (II, 257-60) and Issa (p. 122-3) who adds some more Arabic names.

10. IGGÂS (Ijjâs) إجاس (Prunus domestica L.) (Lecl. no. 21).

It is known amongst us as " cow's eye " عين البقر .

Diosc. I (12): Κοχχυζιηλέα (Kokkymeléa) is a wellknown tree. Its fruit is bad for the Stomach, but laxative to the bowels. The fruit of the Syrian plum-tree, particularly that of Damascus, is, on the contrary, when dried, good for the stomach, but constipating.

Galen VII (XII, 32): The plum, particularly when fresh, is laxative to the bowels; when dry it is less laxative. As to Dioscurides, I do not know how he pretends that the Damascus plum constipates the bowels when we find that it is manifestly laxative, though less laxative than that coming from Inner Armenia¹.

Ibn Mâsawaih²: It empties the yellow gall and lowers the temperature (of the feverish body). The black kind is stronger in this action than the white one; and the small kind has a weaker laxative effect.

^{1.} Galen's original text reads Iberia and not Armenia.

^{2.} See Introduction I, no. 11,

The Israelite¹: The white (plum) is slow of digestion, bad for the stomach and slightly laxative. The best of it are the fully ripe ones.

The Nabataean Agriculture²: The wild plum is a small tree with round leaves smaller than those of the cultivated plum-tree. Its fruit is frankly sour and it does not grow well in gardens.

Galen: The fruit of the wild small plum is very astringent and constipates the bowels.

Diosc: When the leaves of the plum-tree are boiled and the decoction is used as a gargle, it checks the flow of matter to the uvula, the tonsils and the gums.

COMMENTARY.

This is *Prunus domestica L.* and its varieties, e. g. *Damascena*, *Prunus Italica*, *divaricata* etc. *Idrîsî* mentions a red variety and the names given hereafter.

Synonyms: Gr. ποούμνη, (proumne, Theophrastus), κοκκυμηλέα (Diosc); Lat.: prunus, Pliny; Ar. iggâs âsh-shâhlûj (half Persian name), Idrîsî; barqûq תַפּֿע (modern Egyptian), already given by Dâwûd.

ا خوخ idb (Loret, ancient Egyptian), khôkh خوخ (modern Syrian), (khôkh ad-dibb خوخ الدب , a wild kind), 'ain al-baqar

^{1.} He is *Is-hâq b. Sulaimân* (see Introduction I, no. 20); the quoted passage is probably from his book "On Simple Remedies and Aliments".

^{2.} Of Ibn Wahshiyvya (see Introduction I, no. 24).

الباغر , Dâwûd (Algerian); Turk : erik أريك , Pers. alû بابغر ; Pers. alû بابغر or alû - yi - berqânî الوى برقانى Schlimmer; Eng. : plum; Fr. : prune (prunier); Germ. : Pflaume, Zwetsche.

See Loew II, 163-9, and Issa p. 149.

11. UTRUG تنا, Citron (Citrus medica Risso var. Limonum). (Lecl. no. 16).

Abû Hanîfa: It is a cultivated plant and does not occur wild. Its tree produces fruit once a year, for twenty years. Its leaves resemble (in shape) those of the walnut; it is of a fragrant smell. Its blossoms are like narcissus-flowers, only thinner; its tree has thorns as hard as iron.

Diosc. I (115) Kεδρόμηλα (kedrómela): its fruit remains on it during the whole year ¹, and is long shaped, of golden colour and fragrant with but a little disgusting smell ². Its seeds are like those of pears.

The Israelite: That kind the interior (pulp) of which is tasteless, is cold and moist in the second degree; and that kind the pulp of which is sour and stinging, is cold and dry in the third degree.

Galen XII (77) (fol. 4r.): Its bark is difficult to digest.

^{1.} This is an erroneous translation from Diosc. I (115) who reads: φυτὸν γάρ ἐστι καρποφωροῦν δι' ὅλου τοῦ ἔτους ἐπαλλήλως, "for it is a plant which produces fruit during the whole year in rapid succession".

^{2.} Diosc.: εὐῶδες μετὰ δάρους, i. e. fragrant with some oppressiveness.

A small dose of it strengthens the stomach and promotes digestion on account of its hot and acid qualities.

Another (author 1: The confection of the pulp with honey is better and more convenient to the digestion.

Ibn Masawaih: Its bark perfumes foul breath.

Diosc.: It is said that, when put into clothes, it preserves them from being eaten (by moths).

COMMENTARY.

The word strug, utruj is Persian and now designates the orange. The citron or lemon is the fruit of *Citrus Limonum Risso* with its variations.

Synonyms: Gr.: Μηδικὰ μῆλα, Περσικὰ μῆλα, κεδρόμηλα; (Mêdika, Persika mêla); Lat.: citrea (Pliny); Ar.: laimûn לבל ; Pers.: lêmû לבל; Turk.: limôn לבל; Eng.: citron, lemon; Fr.: citron; Germ.: Zitrone; Copt.: **κοπωεπ** (Scala Magna).

12. ANBAG (Anbaj), J., Mango. (Lecl. no. 173).

Agriculture²: The mango-tree is frequent in the regions of 'Omân, and grows as a cultivated plant. It is of two colours: one has almond-shaped fruits and is always sweet from the beginning of its growth; the other, plum-shaped, is

^{1.} This author is, according to IB (10), Ibn Sînâ.

^{2.} According to IB (65) this passage is extracted from Abû Hanîfa ad-Dînawarî's "Book of Plants".

sour in the beginning and becomes sweet when it ripens. Both have in common a specific odour and a fragrant smell. The sour kind grows in court-yards until it reaches the size of a walnut-tree. Its leaves are like the walnut leaves. When it reaches maturity the sweet is yellow and the bitter red. When it is unripe it should be cooked in earthen pots.

COMMENTARY.

It is the fruit of *Mangifera indica L.*, very well-known in all tropical and sub-tropical countries, but unknown in antiquity. For Indian names see *Dymock I*, 393.

Synonyms: Ar.: anbag النبي or anbâ ابنا; Pers.: same names; Turk.: hind kerâzi هند کرازی (Samy); Eng. and Germ.: mango; Fr.: mangue.

For other names see *Issa* p. 114.

13. AMLAG (Amlaj), أملح , Emblic Myrobalan (Phyllanthus emblica Willd.). (Lecl. no. 145).

Ibn 'Imrân: Its fruit is black resembling plums and has round stones, sharp-pointed at both ends. If the bark is removed the stones are split into three parts.

Hubaish¹: When macerated in milk it loses some of its astringency; that is the *shîr amlag*; it is the sovereign of remedies ².

^{1.} He was the nephew of the famous translator Hunain (XIth, cent). See Introduction I no. 14.

^{2.} Shîr is the Persian word for milk. The following sentence is attributed by IB (56,2) not to Hubaish, but to the Indian physician Charaka.

Badigoras¹: It strengthens the stomach and is useful for black-bile affections.

Mâsargawaih 2: It strengthens the roots of the hair.

COMMENTARY.

It is the fruit of *Phyllanthus emblica Willd.*, an euphorbiacea which has nothing to do with the different kinds of myrobalan (Terminaliae). It was introduced into the pharmacopoea by the Arabs as an astringent and anti-diarrhoeic remedy. Its Persian name is doubtless of an Indian origin âmâlaka (see *Dymock* III, 263).

Synonyms: Ar. (Egypt): as-sanânîr الملح, amlag الملح, amlag الملح, Samy; Eng.: emblic الملح, Samy; Eng.: emblic myrobalan or myrobolan; Fr.: emblic officinal; Germ.: Myrobalanus emblica, Purgierpflaume.

14. ÂZÂD - DIRAKHT أزاد درخت , Persian Lilac (Melia azedarach L.).

(Lecl. no. 60).

Ibn Gulgul: A Persian name the meaning of which is "the free tree". Some people pretend that it is the Persea (البخ).

Ibn al-Gazzâr³: Its tree is large and grows in Khurâsân

^{1.} An unknown Byzantine or Syriac physician.

^{2.} See Introduction I, no. 8.

^{3.} See Introduction I, no. 32.

and Syria. It has fruits like those of the medlar in shape and colour, growing in scattered bunches. In their interior are stones like those of the medlar. It has a big stem and is very lofty.

Mâsargawaih: Its fruit which resembles that of the lotus-tree (Zizyphus Lotus Lam.) if eaten, kills. Women apply its leaves to their heads to make their hair grow. The expressed juice of the ends of its branches, mixed with honey and boiled grape-juice, is useful against deadly poisons.

Ibn Mâsa¹: Its flower is a reconstituent for old and cold-tempered people. Its bark, when boiled with black myrobalans and fumitory (fumaria), is useful for mucous fever and black-bile affections; it is to be taken in spring and autumn only.

COMMENTARY.

Melia azedarach L. is, like the two preceding ones, a plant which was first made known in the West by the Arabs. It is a native tree of Persia, and is not to be confused with the Indian lilac (Melia azadirachta L.). Its toxic qualities were known for a long time in India (see Dymock I, 330 foll.). Abû Mansûr (152) ascribes to it the same effects given in the orginal documents of our author. Al-Idrîsî (p. 24, no. 39) furnishes a very exact description of the tree. The bark of the roots (Cortex azedarach) is a vermifuge.

^{1.} See Introduction I, no. 17.

Synonyms: Ar.: shîshiyân غيرة, (?Abû Mansûr), tâhak (Dâwûd), garûd جرود (Syria, Dâwûd); Mod. Egypt: zinzilakht زوات (Dâwûd), zenzalacht زوات (Schweinf.), zilzalakht زوات (Sharaf) - all mutilations of the Persian name. Pers.: âzâd-dirakht زوات درخت , tâq طاق and other names; (see Schlimmer); Turk.: tesbih âghâji تسايح أعاجي (i. e. tree for making Moslem beads); Eng.: Persian lilac, bead tree, pride of India; Fr.: azédarac, margousier, lilas des Indes; Germ.: chinesischer Holunder, Paternosterbaum, Paradiesbaum.

The names given by *Issa* (p. 116) refer partly to the Indian lilac.

15. AMBARBÂRÎS امبرباريس, Barberry (Berberis vulgaris L.) (Lecl. no. 146).

Most people erroneously write, instead of the first $b\hat{a} - a$ $y\hat{a}$; but the correct reading is a $b\hat{a}$ with one point only, a $suk\hat{u}n$ on the $m\hat{u}m$ and a kasra under the $b\hat{a}^1$; the $m\hat{u}m$ can just as well be written a $n\hat{u}n$ \dot{o} .

(Agriculture): Some people thought it was the red box-thorn (lycium), 'awsag; but it is not.

Of both of them come the box-thorn-berries, and both have iron-hard thorns similar to those of lycium. The Khorassanian kind is better than the Greek and the Yemenite.

Ar-Râzî (Rhazes): It confines the bowels and is good for the inflamed stomach and liver.

^{1.} The name is written, indeed, in most of the pharmacological MSS., and even in the printed edition of [B (p. 55) amîrbarîs أمير باريس which is a mistake.

COMMENTARY.

Berberis vulgaris L. and other kinds were unknown in the Greek pharmacopoeia. In former times the roots, leaves and fruit were official drugs (Radix, Folia, Fructus Berberidis).

Synonyms: Ar.: ambarbârîs امبر باريس and barbârîs برباريس and barbârîs المبر باريس (Dâwûd), 'ûd ar-rîh عود الريخ (Egypt, Dâwûd) Pers.: zirishk زرشك (Abû Mansûr and Dâwûd); Turk.: qadyn tuzlughy قادين طزاني (Samy); Eng.: barberry, pepperidge; Fr.: épine-vinette; Germ.: Berberitzé, Sauerdorn.

The bark of the roots is called by the Berber name *ârghîs* (IB no. 4). For more names see *Issa* p. 30.

16. AKHARSÂG آخرساج, (Undetermined). (Lecl. no. 26).

Nabataean Agriculture: It is a tree which (fol. 4 v.) grows in hot and arid places; it reaches the height of a tall man. Its wood and leaves are like those of the fig-tree, only a little larger, of palatable flavour; its fruit has no stones and, if eaten, is carminative and cleanses the orifice of the stomach. From this tree and its roots small, short spiders generate. They are veiled by a white membrane beneath which they creep when it is lifted up; and this is the reason why it disgusts people and makes them abstain from eating it. The decoction of the fruit and leaves, when poured on a gouty swelling, soothes the throbbing pain.

COMMENTARY.

Nobody has been able, until now, to identify this plant. According to Meyer (III, p. 61) and Lecl. (I, p. 34) it must be a kind of fig-tree. The Persian dictionaries do not help us. Vullers (I, p. 636-7) gives the names of khârsak or khârsa عارسه وخارسك as that of a triangular spine called in the West himmis al-amîr عص الأمير; but this plant is the calthrop (Tribulus terrestris L.)

17. ARUZ أرز , Rice (Oryza sativa L.) . (Lecl. no. 42).

Diose II (95): " $O\varrho v \zeta \alpha$ ($Oryz\alpha$); it is a kind of a commonly used grain; it grows in swamps and wet places. It is a little nourishing and confines the bowels.

Galen VIII (XII, 92): It confines the bowels moderately and is more difficult to digest and less nourishing than the $\chi \delta v \delta \varrho \sigma s$ (khondros, i. e. groats of wheat or spelt) 1.

Ibn Mâsawaih: Its grains are the most nourishing next to wheat. and the best tempered. They strengthen and tone the stomach.

Ibn Masa: The Indians allege that it is the best and most useful of all the aliments if taken with fresh milk; and they pretend that a strict diet of rice prolongs life and does

^{1.} The last words are missing from the Kuehn edition of Galen's De Simpl. Medicam Virt.

not form in the body yellow gall or any other by-products.

The Israelite: When boiled with bran-water or whey, it considerably increases the spermatic fluid.

COMMENTARY.

Rice (*Oryza sativa L*.), as is evident from the quotations by *al-Ghâfiqî*, was not greatly valued by the Greeks. An interesting passage in the Persian *Abû Mansûr's* book (p.141) informs us that the Greeks preferred wheat as an aliment, but that the Indians recognised, from an early period, the nutritive and dietetic value of rice. It was from India that the medical knowledge about rice came to Moslem physicians.

Synonmys : Ar. : aruz المرز ; Pers. : birinj برنج ; Turk. : pirinj برنج ; East-Turk. (Tshagatai) : tuturghân تترغان , (Idrîsî p. 11, no. 6); Eng. : rice; Fr. : riz; Germ. : Reis.

18. ÂNÂGHALLÎS أناغليس , Pimpernel (Anagallis arvensis L.).

(Lecl. no. 167).

Diosc. II (178): Some people call it κιζόριον (kikhórion, chicory). It is of two kinds: one has an azure-blue flower;

^{1.} As to the names of the varieties of rice in Modern Egypt see Sharaf (p. 579), and Îssa (p. 131).

this is the female, and the other an intensely red flower; this is the male. Both are plants which spread out on the ground, have small round leaves like those of the plant called $\epsilon\lambda\xi$ (helxine, probably Parietaria) on quadrangular stalks; also round fruits. Both are used against the spread of malignant ulcers. It is said that the blue kind reduces the prolapsed anus, but that the red one increases the prolapse, when used as cataplasms.

Galen VI (XI, 829): Both of them extract arrowheads (from wounds).

Oribasios: Its expressed juice, with headed thyme (hâshâ اعلی , Thymus capitatus Lk.) and black mustard (khardal غردل , Brassica sinapioides Roth.), extracts leeches from the throat 1.

COMMENTARY.

Anagallis arvensis L. is a wide-spread primulacea. Its active principle is saponin. Al-Idrîsî (p. 16 no. 20) gives a more detailed botanical description of the plant, with many synonyms (Berber, "Latin" i. e. Spanish etc.). Sickenb. (Arzn. p. 24) identifies it with Anagallis arvensis L. and A. coerulea Schreb.

Synonyms: Gr. : ἀναγαλλίς; Lat. : macia (Marcellus

^{1.} This is not a rare accident in Oriental lands where stagnant waters are infected with leeches.

Empiricus); Ar.: qâtil al-'alaq قاتل العلق (i. e. that which kills leeches) or hashîshat al-'alaq (in Spain, Idrîsî)¹; Pers.: ânâghâlis باغرساق أوتى (Honigb. p. 11); Turk.: bagirsâq otu باغرساق أوتى ('Avni p. 33); Eng.: pimpernel; Fr.: mouron; Germ.: Gauchheil, Hühnerdarm.

For more Arabic names see Issa p. 14.

19. ADHÂN AL-FÂR AL-BUSTÂNÎ آذان الفار, Domesticated Myosotis (Parietaria cretica L.) (uncertain). (Lecl no. 31).

Diosc. II (II, 183)²: Its leaves are like the ears of mice. It is called in Greek $\partial \lambda \sigma i v \eta$ (alsinê)³ i. e. growing in gardens, because it grows in shadowy places and in gardens. It resembles the $\partial \lambda \xi i v \eta$ (helxinê, Parietaria?), but has smaller leaves without downy hairs. When rubbed in the hands it exhales a smell of cucumber. Its faculty is cooling and astringent.

Galen VI (XI, 874): It resembles in its faculty the herb which melts glass 4 for it is cooling and moistening and generally acts like $\hat{\epsilon}\lambda\hat{\xi}\ell\eta$ (helxinê).

^{1.} Modern Egyptian names : lubbên أَمْ لِينَ , umm laban لِين , umfud عَنْهُ (Schweinf. 6); the latter name is used in the Western Oases of the Egyptian desert.

^{2.} The text reads Diosc. IV, an error which has been copied by Ibn al-Baitâr.

^{3.} This word is derived from aloos (álsos), grove.

^{4.} Not so in Galen's original text.

COMMENTARY.

This plant cannot be determined with certainty. It might be *Parietaria cretica L.* (pellitory). Ibn Sînâ, Abû Mansûr, al-Bîrûnî and al-Idrîsî do not help us, as they only know one kind of myosotis, evidently that described by al-Ghâfiqî in the following chapter.

Synonyms: Gr.: μνὸς ὧτα, ἀλοίνη, Lat.: vitraria; Ar.: hashîshat az - zugâg حشيشة الزجاج, hashîshat al-qazâz حشيشة الرمل, hashîshat ar-raml مشيشة الرمل (Sharaf, 605), hashîshat ar-rîh (Algeria, Schweinf., 222); Turk.: yapishqân otu; عليشة الريخ (Avni 448); Eng.: wall pellitory, Fr.: pariétaire; Germ.: Glaskraut. For other names see Issa p. 134.

In Coptic it is called "ears of the mouse" wasze whin (Crum, Dictionary, infra verbum).

20. ÂDHÂN AL-FÂR AL-BARRÎ اذان الفار البرى Wild Myosotis (Myosotis palustris L.).

(Lecl. no. 32).

Diosc. II (183): μυός ἀτὶς (myόs otis) has many stalks growing from one root which is of the size of a finger, (fol. 5r). Their lower part is reddish and hollow, and they have long yellow-blackish leaves with pointed ends standing in twos (zygophyllous) with a space between them. From the knots, small twigs branch off on which are small azure-blue flowers. It resembles, in general, the σχολοπένδοιον (skolo-

pendrion, hart's tongue), except that it is less rougher and smaller.

Galen VII (XII, 80): It dries in the second degree, but has no perceptible heating power.

COMMENTARY.

It is probably *Myosotis palustris With.*, but might be Asperugo procumbens L., according to Sickenb. (Arzn. p. 6).

Synonyms: Gr.: بالمنافر (myós otís): Lat.: myosotis; Ar. and Pers.: ádhân (âzân) al-fâr خان الفار (Morocco): 'ain al-hudhud عين الهدهد (IB); Turk.: sichân qûlâghi صيچان قولاغي (four other names are given by Samy 1509-10); Eng.: mouse ear, forget-me-not; Fr.: myosotis, pensez-à-moi, ne m'oubliez pas; Germ.: Vergissmeinnicht.

21. ADHÂN AL-FÂR BARRÎ ÂKHAR آذان الفار Another Wild Myosotis (Heliotropium undulatum Vahl.).

(Lecl. no. 33).

Anonymous Author¹: A plant which grows in the sand, spreading out its twigs on the ground. It has small leaves resembling those of the domesticated myosotis. Its

^{1.} IB (p. 171.16) ascribes this chapter to al-Ghâfiqî, but the above quotation shows that the latter copied it from the work of an anonymous author who probably was a Medieval Egyptian Arab. This chapter has been much abridged by BH.

expressed juice, smeared on the penis and soft parts of the abdomen, restores potency to old men and those incapable of coitus; it grows very commonly near Cairo and Alexandria.

COMMENTARY.

Dragendorff (p. 563) thinks that this plant is *Myosotis* stricta *Lk*. But we believe it to be one of the numerous desert plants, and think that *Sickenb*. (Plantes p. 20) is right in identifying it with the borraginacea *Heliotropium undulatum Vahl*., which agrees well with the description.

22. ÂDHÂN AL-FÂR ÂKHAR أذان الفار آخر, Another Myosotis (unknown).

(Lecl. no. 34).

Ar-Râzî (Rhazes, in his "Book for Those Who Have no Physician at Hand") 1: It is one of the *euphorbias* (tithymals) with leaves like those of myosotis, and downy white hairs on them; it has thin thorns also, covered with white downy hairs. When it is plucked, milk flows from it. It is a powerful purgative and emetic.

^{1.} This book also called *Tibb al-Fuqarâ'*, de (a The Medicine of the Poor) is the 38th in the long list of Râzî's works given by IAU (I. p. 316 1. 18 foll.). It was printed at Lucknow in 1886, but that edition is very rare, and we are not able to verify the above-mentioned quotation.

Hubaish: Its strength is less than that of the raper-spurge (Euphorbia lathyris, mâhûdâna ماهردانه), and the wild kind, growing far from water, is sharper and thinner.

COMMENTARY.

Identification of this plant has hitherto been impossible.

23. AWTHÛNÂ (Uthûnâ) , 'Οθόννα Othonna (unknown).

(Lecl. no. 208).

Diosc. II (182): It is said that it is the expressed juice of the black χελιδότιον (chelidonion, celandine), or of the horned poppy (glaucium); it is also said that it is the juice of the poppy called χερατίτις (keratitis) or the horned (Glaucium corniculatum), or that it is the juice of the blue anagallis. Others say that it is a plant growing in that part of Arabia contiguous to the frontier of Egypt (i. e. the Sinai Peninsula), with leaves like those of the water-cress, full of holes as if eaten by moth-worms, sapless and brittle. The flower is saffron-coloured and its petals are large. Some people therefore take it for a kind of anemone. Its juice cures dullness of the sight. Others say that Othonna is a copper-coloured small stone in Upper Egypt, burning when touched with the tongue.

COMMENTARY.

It has not been possible, so far, to identify with certainty the plant *Othonna*. *Dâwûd* mutilates the name to *Uwwaina* , but gives the same description. *Sickenb*. (Plantes p. 25) observes that Sprengel, Fée and others did not pay attention to the fact that all their identifications (*Tagetes, Argemone* etc.) were with plants of American habitats. Sickenberger himself proposes *Glaucium corniculatum Curtis*, the horned poppy. To this, however, we object, because there exists another Greek name (μήκων κεραιῖτις, mêkôn keratitis Diosc. IV, 65) and an Arabic one (mâmîthâ habitatis) for this plant which has always been well-known. According to *Loew* (II, 374-5) it is not possible to identify the plant; the name is neither Syriac nor Arabic. *Issa* (p. 131) identifies it with a kind of ragwort-composita to which modern botanists gave the name *Othonna L*.

24. ÂGHÂRÎQÛN اغاريةون, Fungus of the larch, Purging agaric (Polyporus officinalis Fries).

(Lecl. no. 1622 Gharîqûn غاريقون).

Diosc. III (1): It is a root similar to that of *silphium* (see no. 34), though not dense from outside like its root but quite loose. It is of two kinds, male and female. The female is the better one; it has in its interior flat

layers; but the male has no such layers at all. Both of them are alike as to flavour, giving, when first tasted, a flavour of sweetness that changes to bitterness. Some people allege that it is the root of a plant; while others believe that it is generated from putrefaction in trees when worm-eaten, like those on which mushrooms are generated. That which is generated on larch-trees in Cilicia is easily crushed and of weak strength.

Galen VI (XI, 813): It is a compound of two substances, airy and earthy. (fol. 5 v.) It opens obstructions of the liver and repels thick mixtures (of the humours).

Another Author: The dose of it is one *mithqâl*. It is said that he who carries it about is never stung by scorpions. The hard and black specimens, which are the old ones, are very bad.

COMMENTARY.

This is *Polyporus officinalis Fries*. IB who gives a much longer chapter on it, calls it *ghârîqûn* a name still in use in most of the Mohammedan lands, (IB II, 146; Lecl. III, 4-6). This fungus grows on larch trees and in antiquity came from Russia (Sarmatia). The officinal *Fungus Laricis* was, in the XIXth cent., a well-known laxative, mostly from the Siberian larch-tree, (*Achundow, Abû Mansûr* p. 339), The active principles of the drug are agaricine and a resin.

Synonyms: Gr: ἀγαρικόν; Lat.: agaricum; Ar. and Pers.: ghârîqûn غاريةون; Turk.: qatrân kopüyi قطران کو پوک (Avni 19); Eng.: purging agaric, fungus of the larch; Fr.: polypore du mélèze, agaric blanc; Germ.: Lärchenschwamm.

25. ISHKHÎS اشخیص, Pine-Thistle etc. (Atractylis, Echinops and others).

(Lecl. no. 86).

This is the resin-thorn and in Greek χαμαιλέων or chamaeleon; it is called χαμαιλέων on account of the difference (in colour) of its leaves, which occur in bright green, white, sky-blue, or blood-red, according to the place in which the plant is growing. Χαμαιλέων λευκὸς (khamailéon leukôs) 2 or the white χαμαιλέων (chamaeleon), is also called ἐξία (ixia) because the plant produces at its root in some places ἐξός (ixôs) i. e. a viscous matter; from ἐξός is derived ἔξία, the meaning of which is "the viscous". Its leaves resemble those of the thistle called in Syria 'akkûb

- Στ (the globe-thistle, Echinops οἰλλυβος Diosc.) or that which is called σκόλυμος (Scolymus hisp., golden thistle). In its middle grow thorns like the prickles of the sea-urchin or

^{1.} This name (shawkat al-'ilk شوكة الدلك) was. according to IB (I, 36), a Spanish - Moorish name.

^{2.} This name of the plant is given by Theophrastus (IX, 12, 1) and Dioscurides (III, 8). The quotation of the latter is missing from our MSS.

the thorns of the zwága (kinára, artichoke). It has purple flowers like hairs, and fruits like those of the cartham. The root in earthy soil is thick, and in rocky soil thin and white inside. It is of a somewhat disagreeable odour; its taste is sweet. Its root, when taken in a drink, expels tape-worms and stirs 1. When kneaded with water and oil it kills dogs, pigs and mice, and the drinking of it is useful against the bite of venomous reptiles.

Diose. III (9); χαμαιλέων μέλας, (khamailéon mélas) or the black, has leaves also like the thistle called ακόλυμος (skólymos), except that they are smaller, thinner and bloodred in colour. Its stalk is as thick as a finger and of a span in length, its colour is almost blood-red, and there is on it an umbel (corymb) with thorny and thin flowers, the colour of which resembles that of the flower called δάκινθος (hyákinthos, hyacinth) on which there are spots. Its root is thick and solid, burning the tongue when chewed. It grows in dry deserts, on hills and sea-shores.

Galen VIII (XII, 154): Its root possesses a deadly poison, and is, therefore, useful for scabs, eczema and white leprosy (vitiligo).

COMMENTARY.

The white chamaeleon is Atractylis gummifera L., the

^{1.} Viz. urine, menses etc. The word could be a copyist's error for $(w'al-d\hat{u}d)$, i. e. "and ascarides".

black Cardopatium corymbosum Pers. (Dragend. p. 685); 'akkûb is Echinops viscosus D. C.; σκόλυμος Scolymus hispanicus L.; κινάρα Cynara Cardunculus L. They are all thistle plants, most of them were mentioned by Theophrastus. The artichoke-gum (kankarzad) is a product of these plants.

Synonyms: Gr.: χαμαιλέων, ἄκανθα, ἄκανος, ἱξία, ἰξίνη (ἄκανθος); Lat.; chamaeleon; Ar.: ishkhîs הُوك الملك; shawk al-'ilk (Maghrib: Dâwûd); Eng.: pine-thistle, spindle wort, Fr.: caméléon blanc; Germ.: Mastixdistel, Gummidistel.

Issa (pp. 27 and 64) gives many other Arabic synonyms.

26. AQANTHIYÛN (Akanthion) أفناتيون Cotton
Thistle (Onopordon Acanthium L.).

(Lecl. no. 122).

This is the thistle which is known by the name of tawb

Diosc. III (16): It is a thistle-plant with leaves like those of the thistle called ἄκανθα λευκή (άκαπτhα leuké) i. e. the bâdhaward 2 ! It has thorny heads, and it is said

^{1.} IB II, 419 (Lecl. no. 1480 bis) says-probably from al-Ghâfiqî's unabridged work-that tawba خربه was the foreign name which the Christians in Spain gave to the acanthion-thistle. It is still the name used in Spain.

^{2.} Persian bâdhaward باذورد, i. e. the thistle Cnicus Acarna L. (Picnomon Acarna Coss.).

that it has downy hairs which, when gathered, resemble cotton. Its roots and leaves, in drinks, are useful for plegias.

Galen VI (XI, 818): Its root and seeds ¹ are useful to sufferers from spasms.

COMMENTARY.

It is *Onopordon Acanthium L.* (*Dragend.* p. 688), a thistle growing in Central and Southern Europe, and in Asia Minor.

Synonyms: Gr.: هي هي المعربية (Lat.: acanthium, Pliny; Ar.: râs ash-shaikh راس الشيخ (IB, 1335), shôk al-homâr شوك الحار (Loew I, 448); Pers.: kangar المنابعة (Piny) الشاك ديني (Handjéri); Eng.: cotton-thistle; Fr.: charbon aux ânes, fausse acanthe; Gerni.: Eselsdistel, Krebsdistel, Wegdistel; Span.: cardo borriquero, toba (Botica 398).

27. **AFSINTIN** أفسنتين, Wormwood (Artemisia Absinthium L.) and others.

(Lecl. no. 113).

The leaves of the wormwood resemble greatly those of the carrot; its flower is yellow and it is this part which is used².

^{1.} In Galen's original text "leaves" instead of "seeds".

^{2.} This sentence is ascribed by IB (I, 41) to Abû 'Ubaid al-Bakrî.

Diosc. III (23): It is a well-known plant and is found in Cappadocia, on Mount Taurus.

Ibn Guraig¹: It is of many kinds. It is brought from Persia and the Eastern regions, as well as from the Lukam (Amanus) Mountain. The best is that from Tyrus and Tarsus; it is covered with downy hairs and has nodosities like the seeds (fol. 6 r) of the Persian marjoram (Origanum). That (kind) is strongly bitter, and, when pounded, tiny particles splinter away from it like the splinters of Socotrine aloe; they are yellow like the down of young pigeons.

Galen (in the Methodus Medendi): All kinds of wormwood are possessed of two qualities and two faculties², but that which is imported from Pontus is most astringent.

Diosc.: It purges the galls (bilious humours) from the stomach, is laxative and diuretic.

COMMENTARY.

This is mostly Artemisia Absinthium L., and other kinds of Mediterranean Artemisia, A. arborescens L., A. pontica L. etc. The active principle is absinthine.

^{1.} Nastâs b. Guraig نسطاس بن جريج, with the surname "the monk" الراهب, was a Christian physician in Egypt in the Xth cent. See Introduction I, no. 29.

^{2.} Viz. astringency and bitterness.

Bîrûnî says that, according to Ibn Mâsawaih and ar-Rasâ'ilî, there are many kinds of wormwood, - Nabataean, Persian, Khorassanian, Syrian and North-African (maghribî مغربی). The best is the Syrian, particularly that of Tarsus (Tarsûs طرسوس) "which resembles the down of chicken in its yellow colour". He adds that some physicians call it "Greek wormwood" (shîh rûmî شيح روى). In Egypt Artemisia Absinthium L. is lacking (Ramis p. 193); Sickenb. (Plantes p. 21) thinks that the afsintîn of Egypt is Ambrosia maritima L.. But this plant bears, according to Forskâl (p. 161) the name of damsîsa

Synonyms: Gr.: ἀψίνθιον; Lat.: absinthium, santonica herba (Scrib. Largus): Ar.: shîh جيرة , shih ar-rabî (شيخ , shih ar-rabî (قال أله) , daqn ash-shaikh دقن الشيخ (i.e. "the old man's beard"), shaiba شيبه ("white hair"), shagarat Maryam شجرة مريم (Algeria) Lecl. I, 105; Berber: tâshtalt شجرة مريم (Idrîsî I, no. 1); Pers.: afsintîn (Abû Mansûr); qûrtaûdî أنسنتين (Abû Mansûr); qûrtaûdî أنسنتين (Schlimmer); Turk.: pelin قور تاو دى بُلين , âq pelin آق بلين (Avni); Eng.: common wormwood; Fr.: grande absinthe, armoise amère, aluyne; Germ.: Wermut, bitterer Beifuss; It.: assenzio; Span.: yenjo.

as the Egyptian name of the wormwood, in the XIIIth. century. On the other hand, Ascherson and Schwein-furth stated that none of the above-mentioned kinds of Artemisia grows in Egypt. So the Egyptian damsîsa must have been the name of one of the other species of this

composita. Sickenberger proposes *Ambrosia maritima L.*, *Sick*. (Plantes p. 21). *Vide suprâ*.

28. USTÛKHÛDHÛS اصطوخوذوس, Lavender (Lavandula Stoechas L.).

(Lecl. no. 62).

Diosc. III (26): It grows on the islands $\Sigma_{101\chi\acute{a}\delta\varepsilon\varsigma}^{1}$ (Stoichades) which are in the Land of $\Gamma_{a\lambda\alpha\imath\iota\acute{a}}$ (Galatia, i. e. Gallia) opposite $M_{a\sigma\sigma\alpha\lambda\iota\acute{a}}$ (Massalia, i. e. Marseilles). This drug herb was designated by the name of one of those islands. It has a main part (i. e. foliage) like that of the thyme (origan), except that its leaves are longer and of pungent and slightly bitter taste. It is good for diseases of the chest, like hyssop.

Galen VIII (XII, 136): It fortifies all the inner organs.

Ibn Mâsa: Its virtue is to clear the brain, and it is useful against black - bile diseases.

Diosc. V (42 and 43): Its wine reduces thick swellings and inflations; a vinegar is prepared from it in the same manner as the wine².

^{1.} Called do-day "Isles d'Hyères".

^{2.} The description of the preparation of this wine of lavender has probably been deleted by BH, but is to be found in IB (I, 24).

COMMENTARY.

Lavandula Stoechas L., the "French lavender" is to-day common on the whole Mediterranean coast; it forms, moreover, in some parts of Western and Southern Anatolia the most important part of the vegetation. On the other hand the lavender varieties which are to-day so frequent in Southern France are Lavandula spica D. C. (spike) L. and vera D.C. or L. latifolia Vill.. Therefore Dragend. (571) thinks that these latter are the kinds corresponding to the stoichás of Dioscurides and the Arabs. Curiously enough this drug, though existing everywhere in Southern Europe, was much appreciated until a century ago, where it was collected and dried in Northern Arabia, whence it was exported to Venice via Cairo and Alexandria, under the name of Flores Stoechados arabicae (note by Achundow in Abû Mansûr 339).

Bîrûnî says that it was brought to his town (Ghazna in Afganistan) from the Mountains of Lengistân الكستان.

Synonyms: Gr.: متورزه (stoikhâs); Lat.: stoechas; Ar.: lihlâh المحلى (Maghrib, Dâwûd); the fruit: kammûn hindî (Dâwûd). Many other names in Issa p. 106. Ar. and Pers.: ustûkhûdhûs اصطو خوزوس (derived from the genitive of the Greek word); Turk.: husâme المعاملة , lavanda otu وره المعاملة , qarabash otu قره المثل أوتى , (Honigb.); Eng.: French lavender; Fr.: lavande stoechas; Germ.: Schopflavendel.

Lecl. (I, 60) gives several modern Arabic and Berber names of the plant.

There seems to be no other Persian name than ustû-khûdhûs, (Mu'tamad p. 389). Bîrûnî mentions the name dahâr is as known in Sind (lower valley of the Indus); indeed the name dhâru is still vulgarily used in India (Dymock III, 93). Naficy (II, 21) gives Arabic names used in Persia.

29. ÂLÂLÎSFÂQÛN ألاليسفاقون Sage (Salvia officinalis L.)

(Lecl. no. 140).

Eλελίσφακον (Elelísfakon) is the sage (as-sâlima السالة).

Diosc. III (33): It is also called σφάγνον (sfágnon), and is a long θάμνος (thámnos) i. e. shrub or bush, with many branches the shoots of which are quadrangular and of whitish colour. Its leaves are like those of the quince tree; only they are longer, narrower and a little rougher. At the end of the twigs is a fruit like that of the will δομινον (horminon) i. e. al-qilqil العام 1; it grows in rough, uneven places. The decoction of its leaves and branches is diuretic, emmenagogue and abortive and is useful for the sting of the marine τρυγων (trygôn) 2.

^{1.} This is an erroneous translation: $\delta\varrho\mu\nu\nu\nu\nu$ of the Greeks is a kind of sage (Salvia viridis L.) whereas al-qilqil is very probably Cassia Tora L.

^{2.} A kind of sting-ray, perhaps Raja clavata.

Galen VI (XI, 873): It is manifestly hot and slightly astringent.

Ibn Gulgul: It is useful for numbness of the tongue and for aphasia.

COMMENTARY.

It is Salvia officinalis L. and its variants (see Dragend. 576). The medicinal parts used in the pharmacopoeias are the leaves, Folia Salviae. Dâwûd gives the mutilated Greek name alfâfis

30. IKLÎL-AL-MALIK الكيل اللك , Melilot . (Lecl. no. 128).

Is-hâq b. 'Imrân: This plant possesses leaves which are round like a dirham (piece of money)1; it is green, sappy,

^{1.} This comparison of the leaves with a dirham ورق درهمية is to be found also in Idrîsî's book (I, p. 17 l. 20).

with very thin twigs and scarce leaves. It has small yellow flowers followed by thin and curved hucks (mazâwid resembling children's bracelets; they contain small round grains, smaller than the grains of mustard. The part used is this ring-shaped pod (iklîl اکلیل) with its contents.

Author: There are so many differences of opinion that I have no precise knowledge of the question, except that for me, the kind mentioned by Is-hâq is the best. It is a plant of a bitter flavour and fragrant smell. But that which is commonly used in our land (i.e. Spain) is another plant known under the name of *Trefolia* ¹ which has broad leaves nearer to those of the larger plantain, also coloured, bent and thick pods variegated with white, green and purple. The seeds are smaller than those of the fenugreek; they are viscous and devoid of flavour and smell.

Some people use another plant which has thin twigs. It spreads out on the soil with leaves like those of the water-calthrop (Tribulus terrestris). Its fruits are horns curved like swords, resembling the horns of oxen. They grow together in sixes or sevens (fol. 6 v.), having inside them fruits like fenugreek seeds.

Some people allege that the melilot which is used in Alexandria is a plant of a fragrant smell, high-grown, and whose leaves resemble those of the trefoil; its smell is like

In the text of T and G furfûliya فرفولیه in that of IB (I, 50 1.16) qurnûliya قرنولیه.

that of the fig-tree, somewhat aromatic; its flowers are yellow and thin, and at the end of its twigs there are sleek pods like those small and yellow larvae which are found under the ground in the spring¹.

Ibn Sînâ: It is a plant with a flower of straw colour, semilunar in shape and hard though of light consistency; some kinds of it are yellow and some are white, the latter being the best, particularly when they are very hard.

Diosc. III (40): Μελίλωτος (melilôtos). The best kind is that which grows in Attica, Kyzicus², Karchedon³ and Chalcedon⁴. It is yellowish-white and of fragrant smell. A little of it grows in Campania near Nola⁵; it has seeds resembling those of fenugreek and is of a fragrant smell.

Galen VII (XII, 70): Its faculty is astringent, combined with dissolving and maturing power.

COMMENTARY.

It is the leguminosa Melilotus officinalis Lam.; Dra-

^{1.} Ibn al-Baitâr (1,50, 1.25 foll.) writing-about a century after al-Ghâfiqì-says that at his time this variety of melilot was unknown in Alexandria.

^{2.} A sea-port of Mysia on the Marmara.

^{3,} The Greek name of Carthage. It is an interpolation by an early copyist.

^{4.} A sea-port of Bithynia (Asia Minor).

^{5.} In Italy near Rome.

gend. (p. 315). however, knows 16 medicinally used kinds of melilot. Abû Mansûr (p. 150) speaks of seven kinds of melilot in Persia. In Egypt there exist, in our days, four kinds (Ramis p. 109). But the officinal melilot is not extant in Egypt, and so IB's assertion is right. The Egyptian kind mentioned by Gh is, according to Sickenb. (Plantes p. 23), Trigonella hamosa L.. The officinal drug Herba Meliloti is still used in many countries for plasters and compresses against rheumatic affections.

Synonyms: Gr.: μελίλωνος (melilôtos); Lat.: melilotus (Pliny XXI); Ar.: iklîl al-malik على , nafal من , hantam , (Dâwûd); more names in Issa p. 116. Pers.: iklîl al-malik; Turk.: guzel (Samy), or nefîs qoqulu sari yonja كوزل أو نفيس قو قولى (i. e. "sweet-smelling yellow trefoil"), Avni 375, pira otu عبرا اوتى (Honigb.); Fr.: melilot officinal; Germ.: Steinklee, Honigklee; Span.: trebol oloroso, corona del rey (litteral translation of the Arabic iklîl al-malik i. e. "the king's crown").

31. IKLÎL NABÂT GABALÎ أكليل نبات جبلي, *Rose-mary* (Rosmarinus officinalis L.)

(Lecl. no. 129).

It is a well-known plant reaching more than a cubit in height with long and thin leaves like fringes, coarse and blackish. Its wood is rough and hard. It has, at the origin of the leaves, a tender whitish - blue flower. Its fruit is hard and opens itself when dry to let out thin seeds, thinner than those of the mustard-plant. In its leaves is a sharp, bitter and astringent flavour, with an aromatic smell. It is diuretic, dissolvent and aperient 1. In our country (Spain) hunters put it in the interior of venison to prevent its rapid putrefaction.

COMMENTARY.

Rosmarinus officinalis L. is also a well-known labiatae-plant. The leaves and flowers are medicinal drugs (Folia, Flores Rosmarini). It is curious that al-Ghâfiqî does not quote Dioscurides who describes the rosemary under the name of λιβανωτίς (libanotís) in book III chap. 75. IB, who always follows al-Ghâfiqî, rebukes there al-Idrîsî who quotes this chapter from Dioscurides (Idrîsî p. 18, 1. 5); but IB is wrong, as already stated by Lecl. (I, 120). The Arabic name iklîl al-gabal الكيل جيل جيل الجيل الجيل على الجيل على الجيل على الجيل على المعلى ا

Synonyms: Gr.: كالله المحالية; Lat.: rosmarinus (Scrib. Larg.); Ar.: iklîl al-gabal المحيل الجبل المجلل المحلل (Mod. Egypt. Sickenb., Schweinf.); qardmâtâ (?) (Egypt, Dâwûd). For more Arabic names see Issa p. 175. Pers.: like Arabic, and ghushtâr عشتار (Idrîsî p. 18, 1. 5); Turk. biberiyé المحلل المحلل المحلل المحللة (Avni); Eng.: rosemary; Fr.: romarin; Germ.: Rosmarin; Span.: romero.

^{1.} Here BH cuts off some lines on other medicinal properties of the drug. They are to be found in IB (Lecl. I, p. 120).

32. ÂNÎSÛN آنيسون آ, Anise (Pimpinella Anisum L.). (Lecl. no. 159).

Diosc. III (56): The best is that which is bitter, fresh, with numerous seeds and of which no scales falls off like bran (rubbish in the sieve), which is of a strong smell, particularly that from Crete; after it comes the Egyptian.

Galen VI (X, 833): The most useful part of it is the seeds; they are sharp, bitter, diuretic, dissolvant confining (the bowels), aphrodisiac and a theriac (antidote) against the poisons of reptiles ¹.

COMMENTARY.

The umbellifera *Pimpinella Anisum L.* s'original home was probably the Orient (Asia Minor, Egypt). It provides fruits as a drug (*Fructus Anisi vulgaris*) and oil (*Oleum Anisi*). As a spice it was already in use in Ancient Egypt.

Synonyms: Cr.: ἄνησσον (áneson), Diosc. and Theophr., ἄνισον, Galen; Lat.: anisum (Scrib., Larg., Pliny); Ar.: ânîsûn نيسون, jansûn ينسون (Mod. Egypt, Schweinf. and Syria, Bergg.), al-habba al-hilwa الحبة الحلوة (Algeria, Lecl. I, 146); râziyânag rûmî رازيانج شاى (Ibn Al-Gazzâr, Bîrûnî, Dawûd); râziyânag shâmî رازيانج شاى, (Vullers). Other Arabic names in Issa p. 140. Pers. and Turk.: ânîsûn انيسون; Pers. bâdiyân rûmî باديان روى

^{1.} The last words are not Galen's but Dioscurides'.

(Schlimmer, 463), raghûn khâmîn رغون خامين (Idrîsî); Eng.: sweet cumin, anise; Fr.; anis vert; Germ. and Span.: anis.

33. ANDRÂSIYÛN أندراسيون Sulphur-Wort (Peucedanum officinale L.).

(Lecl. no. 176).

Diosc. III (78): Πευκέδανον (peukédanon) is a plant with a thin stalk like that of the plant which is called μάραθον (márathon, fennel). It has near its root an abundant thick tuft; its flower is yellow and its root black and of an offensive smell, thick and full of moisture (sappy). It grows on mountains that are shaded by trees. The root is incised, while fresh, with a knife, its juice flows out and is put in the shade because its faculty grows weaker in the sunshine. He who collects this juice suffers from headache and dimness of sight if he does not (previously) anoint his nose with attar of roses and put some of it also on his head. The best of the sap of this plant comes from Sardonia (now Sardinia) and Samothrake; it is of an offensive smell, red, and stings the tongue. If rubbed into the head with vinegar it is helpful to λήθαργος (lêthargos), φρενῖτις (phrenîtis), obstructions¹, epileptic fits, chronic headache and plegia.

^{1.} Meaning obstructions of the vessels of the brain causing dizziness (σκοιώματα skotômata, Diosc. III, 78).

Galen VIII (XII, 99): The milk is more active than the root. (fol. 7 r); the juice heats powerfully and is useful for diseases of the chest and lungs, and for induration of the spleen.

COMMENTARY.

This plant is *Peucedanum officinale L.*, an umbellifera containing a resinous gum. The root was in former centuries an officinal drug throughout Europe. The Arabic name *andrâsiyûn* is doubtless derived from a Greek name, perhaps from *årδρόσαιμον* (*andrósaimon*) which, however, designates another drug (St. John's wort). *IB* gives a much longer chapter on this drug, doubtless extracted from al-Ghâfiqî's original work, as he puts the drug under the letter *ya* \mathcal{L} according to its Spanish-Latin name *Yerba Tora* (*IB IV*, 208-9; *Lecl. III*, no. 2310).

Synonyms: Gr.: πευκέδανον; Lat.: peucedanum; Ar., Pers. and Turk.: andrāsiyûn اندر اسلون, bakhûr al-akrād بنام بوية, Pers. (moreover) siyāh bûya خور الاكراد; Turk. (moreover): khinzîr rāziyānasi خنزبر رازیانه سی, (Avni 463); Eng.: sulphur-wort, hog's fennel, maiden-weed; Fr.: peucédane, fenouil de porc; Germ.: gemeiner Haarstrang, Saufenchel.

34. ANGUDÂN أنجدان, Silphium (kind of Ferula).

(Lecl. no. 158).

Ibn 'Imrân: This is a plant the gum of which is the asafoetida (hiltît عليت), and the root the mahrûth والمعادية; some of it is white and aromatic, and some black and stinking; it (the white) is called that of Sarakhs².

Al-Bakrî³: The black is stronger than the white and unfit as an aliment. It has a thick root from which leaves spread out on the ground and are contracted like a fist. They are composed of small leaves like those of the carrot resembling the pierced metallic sheets which are (fixed) under the rings of doors. From the leaves shoots out a tender stalk on the end of which is an umbel like that of the aneth (garden dill), except that it is larger. It is then succeded by grains enclosed in thin, wide and lengthy sheaths of a disgusting smell.

Abû Hanîfa: It grows in the sands between Bust and the land of Qîqân⁴, and the inhabitants of those regions cook the grains of the asafoetida and eat it.

^{1.} This word may designate a root having the form of a plough or a poker for stirring the fire (milirâth خرات Bîrûnî, however, denies energetically that mahrûth is identical with angudân. He gives also several interesting quotations from old authors which are too long for repetition here.

^{2.} A town in Khorâsân (Eastern Persia).

^{3.} See our Introduction chap. I. no. 41.

^{4.} In the text of G these names are totally mutilated, when T writes Sibta (Ceuta) and Qi'ân (Qairawân?) so that the coast of North Africa might be meant. But as the author of

Ibn 'Abdûn 1: It is a plant like the lovage (kâsham Ligusticum levisticum L.), growing in Babylonia. The greengrocer sells it amongst spices.

Diosc. III (80): Σίλφιον (sílphion, i. e. the asafoetida plant) grows in Syria, Armenia and Media (Mâh). Its stalk is called μάσπετον (máspeton), and resembles in shape the galbanum-plant². Its leaves are like those of the celery (karafs) and its seeds like those of μαγύδαρις (magydaris)³.

Galen VIII (XII, 123): The milk-juice of this plant

this quotation, Abù Hanîfa ad-Dînawarî, was a Persian, it is more likely that he referred to places near his country; we have therefore adopted the names which are transmitted by IB (I. 59, 1. 2). Bust was a town near Herât, and al-Qîqân a region near the western frontier of India (now Balûchistân).

^{1.} Muhammad b. 'Abdûn was, according to Ibn Abî Usajbi'a (II. p. 46) a Hispano-Moorish physician who travelled in the Near East from 958 to 971 A.D. He lived for some time in Fustât فسطاط (Old Cairo), and in Baghdad where he became the disciple of the celebrated Muslim philosopher Abû Sulaimân as-Sigistânî أبو سلمان السجستان. His literary production is nearly unknown, and it is therefore not possible to state wherefrom Gh. abstracted the quotation,

^{2.} The names are mutilated in both MSS. It is to be read: "The qinna-plant, i.e. the kalakh الفى وهو السكاح or الفى وهو السكاح or الفى وهو السكاح or الفى وهو السكاح. This is the translation of Diosc. III (80) 's $v\acute{a}\varrho\vartheta\eta\xi$ (nárthêx), an undetermined kind of ferula. The Arabic names probably designate Ferula galbaniflua Boiss.

^{3.} This is an erroneous translation from Diosc. III (80) who says that the seeds of the silphium are called $\mu \alpha \gamma \psi \delta \alpha \varrho \iota \varsigma$ magydaris.

is of very hot faculty and so are its leaves and twigs; its roots are violently heating.

He says, moreover, in the second book: Asafoetida is useful for swelling of the uvula, just as the $\pi\alpha\iota\sigma\iota\dot{}\iota\alpha$ (paionia, peony) is useful for epileptic fits.

He (says) in the Kata $\Gamma iv\eta$ (Kata Gene, i. e. Galen's work De Compositione Medicamentorum per Genera): The heating faculty of the opoponax (gawshir) is near to that of the asafoetida.

Diosc.: Its root is softening, drying, difficult of digestion and noxious to the bladder. Its gum is collected by making incisions into the root and the lower part of the stalk.

Ar-Râzî: The mahrût \leq (see above) is hot, dry, fortifying the liver and stomach and helpful to the digestion.

He says, moreover, in his book *On Aliments*: When macerated in vinegar it makes aliments more palatable and more digestive, and some of its (the drug's) acridity diminishes.

Diosc.: The best kind of asafoetida is that which is reddish, clear, resembling myrrh, of a strong and not disgusting flavour and a smell not unlike that of the leek, and which, when macerated, turns whitish. The asafoetida known as $Kv\varrho\eta r \alpha i \varkappa \delta \varsigma$ or that from Cyrene, when tasted, cools the body at once.

That known as Μηδικός (Medikós) meaning "the Med-

ian" i. e. that from Media, and that known as Συριακός (Syriakós or from Syria) both are of weaker strength than the Cyrenaic, and of worse smell. It is often adulterated before it is dried with sagapenum (gum of Ferula persica), flour of beans and gum-ammoniac. The stalk of this plant is called σίλφιον (súlphion), its root μαγύδαρις (magydaris) (fol. 7 v.) and its leaves μάσπετα (máspeta). The strongest of all is the gum, next to it come the leaves and then the stalk.

Ar-Râzî: I found asafoetida efficient in the phlegmatic diseases of the nerves.

Hubaish ¹: It is hot in the first class of the fourth degree, noxious to the liver and stomach, and, as to smell and heat, near to the marking-nut (fruit of Semecarpus Anacardium L.). Some people pretend that their habitants of Sind throw it into their rivers so that its smell may kill beavers and insects, thus saving their crops. The Armenians use it as a treatment for wounds from poisoned missiles thrown on them in times of war.

COMMENTARY.

The Cyrenaic *silphium* of Dioscurides is until now undetermined; some scholars have thought it might be the gum of *Ferula tingitana L.* (North Africa); but others have contradicted this identification. Viviani (*Sickenb.* Arzn. p. 21) thinks it to be his *Thapsia Silphium Viv.*

^{1.} See our Introduction chap. I. no. 14.

The "Median silphium" corresponds without any doubt to the asafoetida, the gum of different Persian and Afghan species of Ferula, viz. Ferula scorodosma Benth. et Hook (F. Asa foetida L.), F. Narthex Boiss.; F. alliacea Boiss.; F. persica Willd. etc. For literature and history see Flückiger 281, Dymock II (147 foll.), Loew III (452 foll). The pretended use made by the inhabitants of Sind (now Panjâb) of the assafoetida for killing animals as recorded by Hubaish, is not mentioned by any modern author and may be legendary. The medicinal drug Asafoetida is still to-day in use as an antispasmodic. See also Schlimmer's long article on this drug (p. 56-8).

Synonyms: Gr.: οίλφιον (silphion); Lat.: laserpitium, laser, Pliny; Ar.: angudân בּלֵנִי (the plant), mahrûth בּלֵנִי (the root), hiltît, haltît בּבִּי (the gum), hantît יוּבּ or abû kabîr (Mod. Egypt, Schweinf.), al-kabîr ווּבְּבִי (Egypt, Dâwûd); Pers.: anjudân, anjudhân וֹבְּבִּוֹ (Abû Mansûr), anghûza-i-herâtî (Idrîsî) angûja וֹבֹּכֵנִة حِرَاتِي (Schlimmer); angûdan انحَدَان (Steingass); Turk.: hiltît انحَدَان (Steingass); Turk.: hiltît انحَدِان بوق (Avni); Many other names are given by Issa p. 82. Eng. asafoetida, foetid assa; Fr.: ase fétide; Germ.: Stinkasant; Teufelsdreck.

عند 35. USHSHAQ أتشنى, Gum-Ammoniac (from Dorema ammoniacum Don.).

(Lecl. no. 83).

Ushshaq أشب is called also ushshag أشب , washshag وشبع, washshaq وشبع

Diose. III (84): 'Αμμωνισκόν (Ammôniakón) is the gum of a plant resembling in shape the galban-ferula (kalakh κ, i.e. νάοθηξ nárthêx). It grows in the land of Libya, further inland than Cyrene. The shrub is called ἀγαουλλίς (agasyllís). The choicest is that which has a beautiful colour, free from stones and wood, whose particles resemble a lump of frankincense as to purity and density, the odour of which is that of castor and the flower of which is bitter. The kind containing dust and stones is called "mixed". 1

It is brought from a place called Ammon, and is the juice of a shrub resembling the galban-ferula.

Galen VI (XI, 828): Its gum flows out of a straight stem². Its faculty is laxative; it heals induration of the spleen and resolves scrofulous glands.

COMMENTARY.

Gum-ammoniac (medicinal drug Gummi-resina Ammoniacum) is the resin of the umbellifera Dorema Ammoniacum Baill. or Don.. This drug probably came to the Greeks from the Persians, as the plant grows only in their land and in the neighbouring regions. Dr. Polak who lived a long time

^{1.} Translation of Diosc.' φύφαμα (phyrama) i. e. mixed and kneaded.

^{2.} This passage is missing in the Kuehn edition of Galen's Simplicia.

in Persia asserts that it is the produce of *Dorema Aucheri Boiss*. (Persien, vol. II, p. 280), and this is confirmed by *Schlimmer* (p. 30). But the drug as described by Dioscurides seems to be *Ferula tingitana L*. (Flückiger p. 289), The Doremagum was mostly used for plasters.

According to Birini the first Arabic-writing authors gave the name of ushshaq to the produce of different plants (poppy and others).

36. USHTURGHÂZ الشترغاز, Other Ferula-Root. (Lecl. no. 84).

Ibn 'Abdûn 1: A root growing in Khorassân. It is cooked with meat as a condiment; its faculty is like that of ferula asafoetida (angudân انجدان; see no. 34).

Diosc. III (80, p. 97); Another asafoetida (angudân which is said to grow in Libya. Its root resembles that of asafoetida save that it is thinner. It is sharp, soft and devoid of gum, and as active as σίλφιον (silphion).

Ar-Râzî: The ushturgaz اشترغاز even when macerated (in vinegar) is not free from heat (ing faculty), particularly when macerated for a long time; it is carminative and stimulates the appetite.

COMMENTARY.

Ushturghâz اشترغاز, also written shuturghâz شرغاز, also written shuturghâz شرغار (wrongly) shuturghâr شترغار, is a Persian word the meaning of which is "camel's food". Curiously enough the Persian medical and pharmacological dictionaries of Abû Mansûr and Schlimmer do not know this Persian name. But it is probably identical with Schlimmer's Ferula asa dulcis (p. 55-56) which he calls also angudân at-tibb انجدان الطب The learned Vullers in his great dictionary identifies ushturghâz with the above-mentioned laserpitium, a kind of asafoetida, and with another plant the roots of which are used as pickles in

^{1.} See note 1 on p. 113.

vinegar. Freytag identifies this latter plant with horminum or Salvia silvestris, which is probably wrong. Bîrûnî and Harawî, who were Persians, say: ushturghâz is the root of the Khorassanian ferula المشرعار هو أصل الانجدان الخراساني. Ibn Sîna (ed. Bulâq I, 253) names the plant but does not give its description. The Latin translator, Plempius (II, 45) translates it by Magydaris libyca, evidently based on Dioscurides. IB (no.84), and other Arabic authors translate the Persian name with "camel-thorn", confounding shutur-ghâz نام with shutur-khâr ختر خار (i. e. Alhagi Maurorum, Camel's thorn). Any how it must be one of the numerous Persian kinds of Ferula. See Loew III, 455.

Synonyms: Gr.: ἔτερα μαγύδαιρις; Lat.: laserpitium; Ar.: kâsham אוֹב , (Idrîsî p. 41); Pers.: ushturghâz וויית فاز, shuturghâz . شرفاز.

37. ANZARÛT انزروت, Persian Gum (Sarcocolla). (Lecl. no. 171).

Ibn Sînâ: It is the gum of a thorny shrub.

Diosc. III Σαρκοκόλλον (sarkokóllon) is the gum of a shrub in Persia, resembling frankincense, with small lumps; its gum is bitter.

Galen VIII (XII, 118): It heals and cicatrizes wounds.

^{1.} The text of Diosc. reads σαρχοχόλλα (sarkokólla).

Another Author: When drunk without any corrective, it is deadly. It causes baldness particularly to people of mature age, according to the dose in which it is drunk.

COMMENTARY.

The anzarût, sarcocolla, still largely used and sold in the East, e.g., in the drug bazaars of Cairo, is a drug which is hardly known in Europe at the present time. It has not been possible to state in a definite manner, the plant from which this gum is extracted. Schlimmer (425) names Penaea mucronata L., Dragend. (343), moreover, P. Sarcocolla L. and P. squamosa L., when Dymock proves in Pharm. Journ. and Transactions 1879 that the Indian drug at least, is the product of an Astragalus (leguminosa) which he calls Astragalus Sarcocolla Dym. (see also Dymock I, 476 foll.). There is also a "false sarcocolla" produced by the composita Microrhynchus spinosus Benth. (Dragend. 692), of Afghanistan. The drug is still much in use in the Orient for eye-diseases (see Ducros p. 11).

Synonyms: Gr.: σαρκοκόλλα (sarkokólla); Lat.: sarco-colla, Pliny; Ar.: anzarût וֹלֵנפָם, וֹלֵנפָם, kuhl fârisî κuhl fârisî (Idrîsî); Pers. and Σως (Idrîsî); Pers. and Γυτκ.: anzarût کی زوت (Idrîsî); Pers. (moreover): tashm تشم (Idrîsî p. 8) 1,

^{1.} It is derived from Persian tshashm نشي i. e. eye or eye-salve; it is still in use in the Near East to day as shishm (a name for the seeds of Cassia Absus L. or any eye-remedy).

kanjubâ المجيدة (Idrîsî), kanjudha المجيدة (Bîrûnî and Idrîsî) or kanjudak المجيدة (Steingass), and zahr tshashm وهر چشم (Dâwûd), which must read pâzahr-i-tshashm بازهر چشم, i.e. antidote for the eye, as Dâwûd gives the Arabic translation: ترياق العين .

38. ÂLÛSUN آلوسن, Alysson.

(Lecl. no. 1).

Diosc. III (91): It is a coarse plant used as fuel¹, with a single stem. It has fruits at the origin of the leaves, of the form of lupin (turmus رحمي) composed of two layers with seeds not inclined to be wide (somewhat narrow). It grows in mountainous places and rugged regions. It is believed that it heals the bite of rabid dogs and that, when suspended in houses, it preserves the health of their inmates. Drinking of its decoction soothes the afebrile cold, and it acts in the same manner when held in the hand and looked at².

Galen VI (XI, 823): It is called by this name because it is useful against the bite of the rabid dog by a specific property of its whole substance. Its faculty is moderately drying, resolvant and cleansing.

^{1.} Translation of the Greek φουγάνιον (phrygánion).

^{2.} This is an addition to Dioscurides' Greek text.

Author: These qualities do not correspond to the description given by Dioscurides. We saw this plant as described by Galen according to Damocrates. On the other hand that which is mentioned by Dioscurides is a plant called at home (in Spain) al-hâra and also al-qâra and also al-qâra list description does not correspond in all parts to that given by Dioscurides. It is a plant the branches of which are big, and spread out from one root. They have leaves which are a little larger than those of the marjoram They

^{1.} The Arabic text reads Demokrates ديو قراطيس. Damocrates was a Greek physician who described many compound remedies and antidotes in verse. The above quotation is to be found in De Antidotis II under the name of Antoninus of Cos (Lecl. I, 7).

^{2.} It is written in both MSS with a fâ i, but IB says (I, 4, 1.8) expressly that it is written with the letter qâf i, i e. al-qâra identifies qâra with the Greek stachys (στάχυς, woundwort).

grow in thick tufts on the twigs that curve backwards, and incline downwards with a hidden slit. Their colour, and that of the branches is whitish, and at every leaf, there are grains of the size of coriander-seeds, white with downy hairs on them and containing black grains of the size of grapes. This plant discharges the black bile, strengthens the heart and is useful for the bite of rabid dogs.

There is still another plant very much resembling the aneth as to stem, leaves and smell. It grows in thin and stony soil and has a long root like a long turnip or a carrot. Its taste is sweet with much acridity. A dose of two drachms of the bark-fibres ($lih\hat{a}^i \leftrightarrow b$) of this plant mixed with fresh milk causes a person, who is bitten by a rabid dog, to vomit, and cures him 1, even if he be already hydrophobic and dying.

There is another plant with branches resembling those of Daphne Gnidium L. (al-mathnân like). Its leaves are long, narrow with sharp edges, thick, green, very smooth and with thickened ends. Its flower is bell-shaped, of reddish-grey colour, hanging downwards and strongly bitter. The nomads of our deserts take a little of the juice of the leaves and drink it with oil, which makes them vomit very violently.

^{1.} According to IB (p. 4), who has the unabridged text, al-Ghàfiqì advised the use of the expressed juice of the inner bark of the root.

It is useful for the bite of rabid dogs and for leprosy; it is a strong remedy and unreliable if one is not careful in using it. I believe this plant to be the karâth (Daphne Tartonraira L.) of Abû Hanîfa¹.

COMMENTARY.

Botanists have found great difficulty in identifying the above-described plants. It is uncertain what may have been the alysson of Dioscurides. Its name has been given to the crucifera Alyssum saxatile L., a mountain plant of Southern Europe. The description, however, better suits Farsetia clypeata R. Br., another crucifera (Dodonaeus, Historia Stirpium 1550); see Loew I, 474. Idrîsî (no. 67) only repeats the description of Dioscurides. As to the plants described by al-Ghâfiqî it is not possible to have them identified except by a professional botanist particularly acquainted with the flora of the Spanish mountains. One of the plants may be Thymelaea Tartonraira All., the other – as suggested by IB – one of the kinds of Stachys (Stachys germanica L. or St. recta L.), Issa (p. 174). Sickenb. suggests (Arzn. p. 8) Marrubium Alysson L.

Synonyms: From the Greek ἄλυσσον (álysson) the meaning of which is "protecting against canine madness"

^{1.} This name karâth ان is not to be confounded with the similarly spelt kurrâth or leek. Al-Ghâfiqî speaks, later on, more about this plant to which he gives also the name of 'ushbat as-sibâ' (i. e. "lions' herb").

is derived an Arabic name shagarat al-kalb شجرة الماب "dog's herb" Dragend. (p. 259, last line), hashîshat al-lagât حشيشة اللجاة (Dâwûd; doubtful, as not confirmed by our Persian sources); Eng.: madwort; Fr.: alysse.

39. ASQLIBIYAS أسقلياس, Asclepias.

(Lecl. X, no 66).

Hunain called it in the book of Galen al-qanâbir 2.

Diosc. III: A plant with long branches on which are oblong leaves like those of $\varkappa \iota \sigma \sigma \delta \varsigma$ ($kiss \delta s$, ivy) as to form, with many thin roots and flowers which are heavy in odour; its seeds are like those of $\pi \epsilon \lambda \epsilon \varkappa \tilde{\iota} r \sigma \varsigma$ ($pelek \hat{\iota} n \sigma s$, vetch)³ and it grows on the mountains. Its roots, drunk in wine, are useful against colic and the bites of venomous reptiles.

Galen VI (XI, 840): I have no knowledge of this herb and have never experimented with it.

COMMENTARY.

This plant was identified with Asclepias Vincetoxicum L.,

^{1.} Issa (p. II) identifies the plant with Alysson saxatile L. and gives several other Arabic names. This plant is called in English: gold-basket or yellow alison, in French: alysse jaune, corbeille d'or.

^{2.} This book is Galen's treatise On Simple Drugs translated by Hunain. The latter rendered ἀσκληπιάς by qanâbir, a translation against which IB writes in strong terms (I, p. 26 last lines; Lecl. I. p. 64). It is very probable that this passage is due to al-Ghâfiqî and only omitted by BH.

^{3.} Coronilla securidaca L. (Berendes 327).

but has no fragrant roots. So Fraas identified it with a kind called by him *Asclepias Dioscuridis* which he found on the mountains of Euboea (Greece). See *Loew* I, 281 foll.

Al-Idrîsî (I p. 31), however, says that the Latin name of the plant is qanâbarî si reminiscent of Greek κιννάβαρι). He gives a more detailed description of the plant, not in accordance with that of Dioscurides. He may be speaking about another plant as he finds asclepias in Diosc. IV instead of III.

Synonyms: Gr.: ἀσκληπιάς (asklepiás); Ar.: qâmi' assimm المعنى (i. e. checker of poison), Sharaf; Pers.: no name ¹ Turk.: qâhir-i-sumûm שׁבּע משׁבּע (i. e. conquering poisons), quduz otu פֿענ פֿע וֹפּע ('Avni and Samy); Eng.: asclepias; Fr.: asclepiade; Germ.: Schwalbenwurz.

40. AMBRÛSIYÂ امبروسيا, Sea-Ambrosia (Ambrosia maritima L.).

It is the bilinjasf في المنجاسف 2.

^{1.} Al-Idrîsî gives in the article Asclepias the name barghasht رغفت; Steingass's Dictionary knows a plant barghast رغفت, a certain wild pot-herb resembling spinach and growing on the banks of rivers. This description does not correspond with that of Dioscurides' asclepias.

^{2.} The text of T and G reads bilinjâshq بانجاشق, a copyist's error. Bilingasf or Biringasf is the southern-wood, a kind of artemisia (Artemisia vulgaris L.). The above statement is erroneous, as ambrosia and artemisia are two different kinds of plants; it may be a copyist's interpolation.

Diosc. III (114): It is a θάμνος (thámnos, shrub) with many branches, about three spans high. Its leaves grow from the origin of the stem and from the root; its twigs are full of seeds resembling bunches of grapes before they ripen. Its smell is like that of the rue (sadhâb سناب) and its roots are thin and about two spans long. The inhabitants of Cappadocia use it for making wreaths.

Galen VI (XI, 824): When used for cataplasms it is astringent and prevents excretions from curdling.

COMMENTARY.

The $\partial_{\mu} \theta_{QOO} i\alpha$ of Diosc. is generally identified with Ambrosia maritima L., a composita.

Synonyms: Gr.: ﴿مُرِدُونِهِ لَهُ Lat.: ambrosia (*Pliny*, who confounds it with several other plants); Ar.: damsîs دمسيسة, (IB), damsîsa دمسيسة, ambrûsiya امبروسيا (IB); Pers.: amrûsira Steingass; Turk.: 'anbariye عنبريه , yaila (yailé) chicheyi ماروسرة; Eng.: sea-ambrosia; Fr.: ambroisie, absinthe batarde; Germ.: Ambrosia.

41. AWNÂNTHÎ أونانى, Oenanthe 2 (Spiraea filipendula L.).

^{1.} Thus reads the text of Dioscurides. He understands by "seeds" the small blossom-buds.

^{2.} Gh. and his compilator BH here show their better knowledge of the language by exactly transliterating in Arabic the Greek word οἰνάνθη (oinanthe), whilst IB (no 136) disfigures the name to allini المادين The same false reading alaini is found in Idrîsî (p. 26, nn. 42), so that it must be an early copyist's blunder.

(Lecl. no. 136).

Diosc. III (120): It is a plant with leaves like those of the carrot, white flowers and a thick stem about one span high. Its fruit is like that of orach (sarmaq , ἀνδράφαξις, ἀνδράφαξις, ἀνδράφαξις, Αtriplex hortensis). Its root is enormous with many round bulbs. It grows amongst rocks. Its fruit, stem and leaves are drunk with the wine called οἰνόμελι (οἰπόπελι (οὶπόπελι (οἰπόπελι (οἰπόπελι

COMMENTARY.

Theophrastus knows two kinds of oenanthe, one of which seems to be identical with that of Dioscurides. It is identified by most of the botanists with Pedicularis tuberosa L., a scrophulariacea, but by Fraas and Littré with Spiraea filipendula L. (drop-wort), a rosacea.

Synonyms of the latter plant: Gr.: والمستمثن (oinánthê); Lat. oenanthe, (vitis labruscae uva), Pliny; Ar.: al-qandûl , Berggr., Persian 1: rîsh-baz ريش بز (Naficy); Turk.: qandûl , Avni, erketsh saqali أركي صقالى; Eng.: drop-wort; Fr.: filipen-قندول

^{2.} Al-Idrîsî gives the Persian name ardasht or azdasht اردشت which does not exist in any dictionary - the Syriac term matrâ-batrâ مترابترا and the Berber term mâkashfâl مترابترا . Issa (p. 127) calls the plant Oenanthe L. and gives the Algerian-Arabic name mashfîl مشفيل.

dule; Germ.: knollige Spierstaude, roter Steinbrechwurz, Erdeichel.

42. ÎMÂRUQÂLÎS أعاروقالس, Yellow Day-Lily (Hemerocallis fulva and flava L.).

(Lecl. no. 209).

Diosc. III (122): It is also called ἡμεροκατάλλακτον (hemerokatállakton). Its leaves and stem are like those of the lily, but they are leek-coloured. It has three or four blossoms of an intense yellow colour and a root like that of the onion called βολβὸς (bolbós, Pancratium maritimum?) though it is bigger.

Galen VI (XI, 884): Its root is like that of the lily as to appearance and faculty. Its use is to cause hot swellings of the eye and breast (mamma) to subside. It is also used for burns in the form of applications ¹.

COMMENTARY.

The lily described by Theophrastus as hucgoralles (hemerokalles) is the Martagon-lily and differs from the hucgorallis (hemerokallis) of Diosc. The latter plant may be Lilium bulb-iferum (according to Mathiolus) or Hemerocallis fulva L. The description of the latter is well in accordance with that

^{1.} This latter passage has been abstracted from Dioscurides; it is not found in Galen's text. Probably a copyist's blunder corrected by IB.

given by Diosc. IB (no. 290) says that the yellow lily was shown to him by a notable of Cairo who had brought it from Syria. Sickenb. (Plantes p. 11; Arz. o. 25) says that Schweinfurth discovered plants of the Hemerocallis fulva in the old Wakf-Gardens of Cairo though they had disappeared from the modern Egyptian gardens. He thinks that they may date from the time of the successors of Saladin when the Qâdi al-Fâdil introduced them into Egypt from Syria (beginning of the XIIIth. cent. A. D.).

Synonyms for Hemerocallis fulva and flava L.: Ar.: sawsan asfar سوسن أصفر, sawsan khatâ'i سوسن أصفر, Issa; Pers.: and Turk.: same names; Eng.: yellow day-lily, lemon-lily; Fr.: hemerocalle, lys jaune; Germ.: gelbe Taglilie.

43. AIDHUSÂRÛN أيذسارون , Hedysgron, Axe-Weed (Securigera Coronilla D.C.). م

(Lecl. no. 136).

Diosc. III (130): It is called by the druggists πελεκῖνος (pelekinos). It is a θάμνος (thamnos, shrub) with small leaves like those of the chick-pea, and husks, (ghuluf غلف, capsules λοβοί) resembling in form those of the Syrian carob. There are red seeds in them resembling two-edged axes, of bitter

^{1.} Here again Gh. gives the correct reading where IB (no. 163) disfigures the name to andûsârûn اندوصارون adopting an early copyist's error.

taste. They are good for the stomach as a drink.

Galen VI (XI, 883): It grows amongst wheat and barley. It is useful for obstructions of the viscera and, when used in the form of pessaries, prevents pregnancy ¹.

COMMENTARY.

This plant was also known to Theophrastus under the name πελεκῖνος (pelekinos). It is probably the South-European legumiosa Securigera Coronilla D. C., axe-weed, an emetic. (Berendes p. 349), and not one of the kinds of Hedysarum for which Issa (p. 91) gives Arabic names.

Synonyms: Gr.: ἡδύσαρον (hêdysaron), πελεκῖνος (pelekînos); Lat.: pelecinus, *Pliny*; Ar.; Pers. and Turk.: no term; ² Eng.: axe weed; Germ.: schwertförmige Kronwicke.

44. AWNÛSMÂ أونوسا , Onosma.

(Lecl. no. 193).

Diosc. III (131): It is also called δομάς (osmás), φλονῖτις (phlonîtis) and ὄνωνις (ónônis). Its leaves are like those of

^{1.} These last assertions are equally given by Dioscurides, and are not found in Galen's text.

^{2.} Issa (p. 91) gives, as terms in Arabic, al-fâ's الفأس and 'adas murr عدس مر (i. e. "bitter lentils").

^{3.} Misspelt in T, G and IB into onoma legion.

ἀγχονοα (ánchusa i.e. alkanet, Alkanna tinctoria Tausch.), oblong, soft, four fingers long, and about one finger wide. They spread out on the ground. It has neither stem, fruit nor flowers, and the root is thin, weak, long and blood - red in colour. It grows in rugged places. It expels the foetus during labour.

Galen VIII (XII, 89): Its substance is hot, sharp and bitter. Taken with wine it kills embryos.

COMMENTARY.

Most of the botanists follow now *Fraas* who identifies the ὄνοσμα of Diosc. with the boraginacea *Onosma echioides L*. In India it is used as a substitute for borage (*Dymock* II 524). *Issa* (p. 128) gives some Arabic synonyms.

45. IMIYÛNÎTÎS أيميونيطيس, Milt-Waste, (Hemionitis). (Lecl. no. 210).

Diosc. III: Some people call it spleen-wort (at-tuhâlî שלבול, סתלוֹעִינסי, splenion). Its leaves resemble those of the aracea (lûf לעי $\delta \varrho$ מממסיינוסי (drakôntion, dragon's wort, Arum Dracunculus L.). and are semi-lunar in shape. It has many roots but neither stem, seeds nor flowers. It grows amongst rocks.

^{1.} In the text of T and G lauz is (almond); this is a copyist's blunder that we have corrected.

The taste is astringent and, when drunk with vinegar, it resolves the spleen (i.e. the excessive growth of the spleen).

COMMENTARY.

Most of the botanists agree to see in Diosc.'s $\eta_{\mu\nu\sigma\nu\bar{\nu}\nu\varsigma}$ the polypodiacea Scolopendrium Hemionitis Sw. (milt-waste, eckiger Zungenfarn). The $\eta_{\mu\nu\delta\nu\nu\sigma\nu}$ ($h\hat{e}mi\delta nion$) of Theophr. seems to be identical.

46. ANDRÛSÂQÂS أندروساقاس, Androsakes 1.

(Lecl. no. 165).

Diosc. III (133): It is a plant that grows on the shores of Syria, renewing its growth every year. It is white, has thin twigs, is of bitter and sharp flavour and has no leaves; on its tips there is a sheath (ghilâf غلاف) containing seeds. Two drachms of it, drunk with wine, are strongly diuretic to ascitic people. It is useful in gout in the form of a cataplasm

Galen VI (XI, 830): Like the sayings of Dioscurides 2.

COMMENTARY.

The European botanists early recognised that the and-

^{1.} In IB (I, p 62), disfigured to anarûtâfîs اندروطافیس, $D\hat{a}w\hat{u}d$: andrûtâlîs اندروطالیس.

^{2.} Probably abridged by BH.

rosakes of Diosc. is not a plant, but a marine zoophyte, probably the Tubularia Acetabulum (according to Sprengel), a kind of hydroid polype. IB (I, 62, 1, 16) gives it the Arabic names of mallâh Assmâ Assmâ Assmâ Assma (Steingass: "a kind of herb"). Dâwûd gives the Persian name kulkh (Steingass: "a kind of herb"). Dâwûd gives the Persian name kânih Androsaces Tourn. has been transferred, however, to a group of plants belonging to the species of the primulaceae. For this group the above-mentioned Arabic names are in use; some others are given by Issa (p. 16-17).

47. ANTHÛLÎS أنثوليس , Anthyllis (uncertain).

(Lecl. no. 157).

Diosc. III (136): There are two kinds of this plant: one has soft leaves like those of lentils, perpendicular branches about one span in length and a thin small root. It grows in swampy and in sunny places, and is of salty taste.

The other kind (fol. 9 r) has the leaves and branches of the $\chi a\mu a\mu in invs$ (chamaipitys, ground-pine), save that they are more downy and shorter, in length. Its blossom is purple-red and of a very heavy smell. It cures, when drunk, epilepsy, dysuria and pains in the kidneys.

Galen VI (XI, 833): Both of them heal ulcers.

COMMENTARY.

The first kind of Diosc.'s ardvllis (anthyllis) had been

already determined by Prosper Alpinus (*De Plantis Exoticis*, Venice 1629) as the convolvulacea *Cressa cretica L.* See *Loew* I, 452 ("Salzwinde").

As to the second kind, it is not determined with certainty. The old botanists (e. g. Clusius) took it for Ajuga Iva Schreb. (see Loew II, 71 72), whilst Fraas proposed to identify it with Frankenia hirsuta (Berendes 352). Idrîsî (no. 52 p. 28) gives anthillishun الأهرة as the Modern Greek name and as the Arabic one az-zahra الأهرة, which simply means "the flower". His description absolutely corresponds to Dioscurides. These names probably refer to the leguminosa Ebenus creticus L. which provides a kind of red ebony. Issa (p. 73) gives the name of zahra to this plant.

48. UQHUWÂN أقحران, Fever-Few (Chrysanthemun Parthenium Pers.) 1.

(Lecl. no. 121).

Diosc. III (138): Παρθένιον (parthénion)—some people call it ἀμάραπον (amárakon)—has leaves resembling those of coriander and a white flower with a yellow centre, of heavy odour and bitter flavour. When drunk — mixed with oxymel (sikangabîn — κ. i. e. honey with vinegar) or

^{1.} This paragraph is more detailed and full of personal remarks in IB (Lecl. no. 121) Idrisi also gives a longer section on this plant.

with salt in the manner in which ¿πίθυμον (flax-weed, Cuscuta Epithymum) is taken, it causes the discharge of phlegm and black bile, and becomes useful against asthma.

Galen IV (XI, 823): It is hot in the third, and dry in the second degree.

Ibn Mâsa¹: It is soporific and lethargic when inhaled. It is also diuretic: and when used as a pessary (farzaga فرزجة عدم) is emmenagogue.

COMMENTARY.

It is one of the kinds of Matricaria, very propably M. Parthenium L. (i. e. Crysanthemum Parthenium Pers. or Pyrethrum Parthenium Smith). The different kinds of camomile were not clearly distinguished by ancient and medieval botanists. See the very detailed paragraph of Loew (III, 375-8) on Anthemis. Idrîsî distinguishes three kinds; bâbûnag kire, white and yellow uqhuwân view.

Synonyms: Gr.: παρθένιον (parthénion), ἀμάραπον (amárakon), λευπάνθεμον (leukânthemon), Diosc.; Lat.: parthenium,
perdicium, linozostis etc., Pliny; Ar.: uqhuwân انحوان, al-aqâhî
(Idrîsî), bâbûnag בי אוני (IB), karkâsh לכליל (MedievalEgypt, erroneously acc. to IB), shagarat Maryam

^{1.} See our Introduction chap. I. no 17.

(Andalusia, IB), kâfûriyya الأنورية (North Africa, IB), shagarat al-kâfûr اشجرة السكافور (Pacc. to Schweinf. p. 13, in Modern Egypt), ahdâq al-maradâ احداق الرضى (Vullers I, 116), khubz al-ghurâb اخبر الغراب (ibid.), rigl ad-dugâga (ibid.), rigl ad-dugâga (Dâwûd); kâfûriyya خبر (Dâwûd), shagarat Maryam (Maghrib, Dâwûd); Pers.: uqhuwân المتجرة مريم (Nullers I, 116); bâbûne أقحوان (Vullers 777); kâfûr-isparam (Abû Mansûr, Achundow p. 168), kâfûr-buy كافور اسپرم (Idrîsî p. 22); Turk. 'âdî papatiye عادى باباتية ('Avni 371); Eng.: fever-few, bachelor's buttons; Fr.: matricaire, espargoutte; Germ: Mutterkraut, Mutterkamille.

Bîrûnî's paragraph on uqhuwân is too long to be reproduced here; he quotes abstracts from early Arabic poems in which the name of the plant is mentioned.

Idrîsî (p. 22) who gave many synonyms for each plant, cites the Modern Greek word hamamîdî καμομήλι (chamoméli); and the Berber name âlûshan Τhe Indian and Syriac names are mutilated.

Dâwûd says that the kind known in Egypt by the name urbiyân أريان is the subject of an old Coptic superstition: if it is cut with a golden knife on the nineteenth day of the Aries and carried by a person, it is believed he shall not lose his gold.

Issa gives the name of uqhuwân to three different compositae: Anthemis cotula L. (p. 18), Chrysanthemum Parthenium (p. 48) and Matricaria chamomilla L. (p. 115) for each of which exist numerous other Arabic names.

49. ÂNÂGHÛRÛN أناغورون, Bean-Trefoil (Anagy-ris foetida L.). (Lecl. no. 156: Ânâghûris أناغورس).

'Aνάγυρον is the "carob of pigs" (kharnûb al-khinzîr الماغيران); it is called ayâghîrân اياغيران, but this is a false reading, and must be spelt هم (anágyris or anágyros).

Diosc. III (150): It is a θάμνος (thámnos, shrub) the leaves and branches of which resemble the plant called ἄγνος ágnos (Vitex Agnus castus, chaste-tree). It has a very heavy smell, blossoms like those of the cabbage and fruits in oblong sheaths. The form of the fruit is that of a kidney, and its colour is variegated: it becomes hard about the season when grapes ripen. The juice of its root is dissolvant and maturing, and its fruit is violently emetic.

Galen VI (XI, 829): This is a plant of the shrub kind, fetid in smell, hot and resolvant. It atrophies soft swellings, and its seeds stop vomiting.

COMMENTARY.

The &váyvoos or &váyvoos (anágyros or anágyris) of the Greeks corresponds to the papilionacea Anagyris foetida L. It is a shrub with large yellow flowers, common in the Mediterranean region.

^{1.} So spelt in the text of T and G; but the reading of this name is uncertain also in the original Greek text of Dioscurides (see ed. Wellmann I. p. 158).

Synonyms: Gr.: ἀνάγυξος, ἀνάγυξος, ἀνοπος (άκορος), Diosc.; Lat.: same names, Pliny; Ar.: kharnûb al-khinzîr (Medieval Egypt, IB), κharnûb al-kilâb جب الكلي (i. e. "dogs' carob", IB). For many other Modern Arabic names see Loew (II, 418-19), and Issa (p. 14-15). Pers. and Turk.: kharnûb-i-khanâzîr خرنوب خنازیر ('Avni); Eng.: bean trefoil, bean-clover; Fr.: anagyre, bois puant; Germ.; gemeiner Stinkstrauch.

50. AMLÎLÛS ما Barren Privet (Rhamnus alaternus L.).

(Lecl. no. 5).

Amlîlûs is a Berber name¹. It is a tree, taller than a man and spread out. Its leaves are like those of green myrtle; it is smooth and has red fruits of the size of the grains of Pistacia lentiscus (dirw فرو). When ripe they become black and smooth to the touch. The wood is hard inside, whitishyellow and shining, with a slight reddishness. Some people know it by the name of as-sufairâ' العناداء. The maceration (naqî' مرو) of the fibres of its root is laxative, strengthens the liver and spleen and removes their obstructions. It causes jaundice, when cooked with meat and the broth thereof is drunk.

^{1.} IB (I, p. 6) reads aamlilis المليلس,

COMMENTARY.

Lecl. (I, p. 12) has found out that this plant is *Rhamnus* alaternus L.. It bears, indeed to this day, the Berber name mlîlis مليلس (Schweinf. 223), the Arabic one is sfêrâ', sofîrâ' and others similar (Loew III, 141). IB adds to the above given description of Gh. another given by his teacher Abu'l 'Abbâs an-Nabâtî.

Synonyms: Berber: âmlîlis مرايلس , âmlîlûs مفيراء; Ar.: sufairâ' مفيراء, 'ûd al-qîsa عود الفيسة (Issa p. 155); zafrîn زفرين (Syria, Issa), 'ûd al-khair عود الخير (Issa); Eng.: alaternus, barren privet; Fr.: alaterne, nerprun, bourg-épine; Germ.: immergrüner Kreuzdorn.

51. AWNÛBRÛKHÎS أونو بروخيس, Esparcet (Onobrychis).

(Lecl. no. 192).

Diosc. III (153): It is a plant the leaves of which are like those of small lentils, but a little longer. It has a stem one span high. The flowers are bright red, and the root is small. It grows in uninhabited places.

Galen VIII (XII, 89): Applied fresh as a cataplasm it dries abcesses. When dried and drunk in wine it is good for dysuria, and when triturated with oil and smeared over the body, it acts as a diaphoretic.

COMMENTARY.

It is, according to *Sprengel*, the papilionacea *Onobrychis* sativa Lam., and according to Fraas, *Onobrychis caput galli* L. (crista galli Lam.). Anyhow it is a kind of esparcet. Its seeds are still used as a diuretic.

and gulbân al-hayya جليان الحية (Lecl. no. 192, according to Hunain's Arabic Diosc.), sinnat al-'agûz שنة العجوز (Loew II, 520); Pers.: no proper name, (see Schlimmer p. 309, Hedysarum onobrychis); Turk.: hashîshât-î-mu'azziza בינים, 'Avni (p. 538); Eng.: esparcet, honeysuckle, French grass; Fr.: esparcette, sainfoin; Germ.: Wickenklee, türkischer Klee, Esparsette.

52. AFÎMÎDIYÛN أفيميديون, Epimedium.

(Lecl. no. 117).

Diosc. IV (19): Its stem is small and its leaves are like those of κισσός (kissós, ivy); they number about ten or twelve. It has no fruit (or flower)¹, but has thin black roots of a heavy smell and no taste. It grows in watery places. Its leaves, mixed with oil, and applied to the breasts prevent their over-

^{1.} These words are missing in T and G, but are restored by us according to the texts of Diosc. and IB.

growth. Five drachms of it, if drunk by a woman after her menses, prevent her conception.

Galen VI (XI, 876): It is slightly cooling, and is said to promote sterility when drunk.

COMMENTARY.

The old European botanists agreed to see in the ἐπιμήδιον of Diosc. the berberidea Epimedium alpinum L. Berendes (p. 376) remarks that this identification does not agree with the habitat of the plant. A note in the Arabic translation of Diosc. confirms, the fact that the plant afîmîdiûn grows in water (Lecl. no. 117). Other botanists proposed the ophioglossacea Botrychium Lunaria Sw. or Marsilea quadrifolia (Littré); but their character is again not in accordance with Diosc.'s description. Thus the question remains unsettled.

The Greek name ἐπιμήδιον is rendered in Latin, by *Pliny*, as *epimedion*. The Epimedium alpinum bears the English names barren-wort and bishop's hat; Fr.: épimède des Alpes, chapeau d'évêque; Germ : Sockenblume, Bischofsmütze.

Issa gives (p. 76) the Arabic name hurfat al-barriyya حرفة البرية.

53. AKHIYUN أخيون, Viper's Bugloss (Echium rub-rum Jacq.).

(Lecl. no. 24).

This is the Greek name of the af'awân افعوان 1.

Diosc. IV (27): Some people call it δωρλς (dôris), others ἀλικιδιάδειον (alkibiádeion). It is a plant with rough leaves, oblong and thin like those of ἄγχονσα (ánchusa, Anchusa tinctoria L.), but smaller. They ooze a certain fluid which sticks to the hand. On the leaves there are small thorns like downy hairs. The plant has small thin branches on either side of the stalk (and small leaves) 2. One of the branches has smaller leaves than the others. Near the leaves there are purple blossoms carrying fruits which resemble, as to their shape heads of serpents. Its root is thinner than a finger and of a blackish colour. Its root when taken with wine soothes backache and is a galactagogue.

COMMENTARY.

It is *Echium rubrum Jacq.*, a borraginacea of Southeastern Europe, or *Echium plantagineum L.* and *vulgare L.* The latter furnishes the officinal drugs *Herba Echii* and *Rádix Echii* or *Buglossi agrestis* (Luerssen II, p. 972).

Synonyms: Gr.: ¿zior (échion); Lat.: echios, Pliny;

^{1.} This Arabic name has probably the same meaning as that given by IB (I, 14), \hat{ras} al- $af\hat{a}$ ' \hat{i} al- $af\hat{a}$ ' \hat{i} , i. e, "serpents' head".

^{2.} Missing in the texts of Gh. and IB, probably an early copyist's blunder.

Ar.: âkhiyûn افعوان, af'awân افعوان (Gh.), râs al-afâ'î رأس الافاعی (IB), af'awâniyya افعوانیة (Idrîsî p. 21); Pers. and Turk.: akhiyûn افعوانیة Eng.: echium, snake's head, viper's bugloss; Fr.: herbe aux vipères; Germ.: roter Natternkopf.

54. ÂLÂTÎNÎ ألاطيني, Cancerwort (Linaria Elatine Mill.).

(Lecl. no. 138).

Diosc. IV (40): A plant, the leaves of which resemble those of the bindweed (Convulvulus arvensis, lablab (Like)). only smaller, rounder and covered with down. Its branches are thin, about one span long, and each five or six grow from one root. They are densely covered with leaves which are acrid. It grows among the stalks of wheat and in cultivated land. Its leaves applied with barley-gruel as a cataplasm, are useful for hot swelling of the eyes, and its decoction controls diarrhoea caused by intestinal ulcers.

Galen VI (XI, 873): It is moderately detersive and astringent.

COMMENTARY.

All authors agree that the *elatine* of Diosc. is a climbing kind of *Linaria* (scrophulariaceae); but it is uncertain whether it is *L. Elatine Mill.* (according to Mathiolus), *L. spuria Willd.* (Sibthorp) or *L. graeca Bory* (Fraas). A variety of

Linaria spuria Mill. is often confused with L. Elatine (Luerssen, II, p. 997).

Synonyms: Gr: ἐλατίνη (elatíne); Lat.: same name, Pliny; Ar.: lablâb بلاب (IB), al-lablâb al-ahrash البلاب الاحرش, (Abu'l 'Abbâs al Magûsî), shahîmiyya شحيمية (Medieval Spain, Gh.? IB), sarâwîl al-takûk شحيمية (IB), mukhallasa خلصة الحارة (IB), sarâwîl al-takûk مراويل التكوك (IB), mukhallasa براسلان اغزى (Turk.: arslan aghzi), ارسلان اغزى Turk.: arslan aghzi; راسلان اغزى , Avni; Eng.: cancerwort; Fr.: linaire auriculaire; Germ.: Leinkraut.

55. ADHARIYÛN آخريون, *Marigold* (Calendula officinalis L.).

(Lecl. no. 30).

Ibn 'Imrân: It is a kind of camomile (uqhuwân انحوان) see no. 40), sometimes yellow, and sometimes red.

Ibn Ganâh 1: Its blossom (nuwwâr زوّار) is golden and has in its centre a small black capitulum.

Ibn Gulgul: A plant growing to the height of one cubit. It has longish leaves of the length of one finger, whitish in colour covered with down It has numerous twigs like (wild) camomile (tâbûnag ¿).

The Nabataean Agriculture: Its flower (ward ورد) is

^{1.} A famous Spanish-Jewish philosopher; lived ab. 985-1040 A.D.

yellow and without odour; if there is any odour in it at all, it is fetid. It is a plant which turns round with the sun and closes its blossoms by night. It is said that if a pregnant woman carries it continually in her hand she aborts, and that mice flee from its smoke and flies from its blossom. If pounded and applied as a cataplasm on the lower part of the back, it provokes erection.

Another Author: Its root is useful for scrofula when suspended (at the neck of the sufferer), and if carried by a sterile woman, it cures her.

COMMENTARY.

The name آذريون âdhariyûn is Persian (pronounced to-day âzariyûn). Vullers reads also âdhar-gûn اذركون, i.e. "flame-coloured, fiery red", a name given as well for a red anemone as for a kind of camomile, doubtless our plant. It is probably Calendula officinalis L., a composita of Southern Europe, or another Calendula variety.

Bîrûnî, in his short paragraph on âdhariyûn, confirms the Persian name of âdharkûn اذرجون (Issa p. 36 reads الخروف), and gives the name of al-hanwa الخرو as an Arabic name which is found in early Arabic poems alternatively with âdhariyûn.

Al-Idrîsî (p. 25 foll.) gives a description of this plant which is independent of that of Gh. We quote here the translation of the first part of his the paragraph:

"Âdhariyûn اذريون: Diosc. did not mention it. Its name

in Latin is adhriûz اخرور, in Persian malhâral المحارك, in Syriac hîrtâma المحارك. It is counted among the variegated plants it grows a multitude of branches rather high over the soil springing from one stem. It has leaves like those of the broad basil (habaq 'arîd المحارية) which is called mountain-balm (bâdrangbûya بادر نجروية, Melissa officinalis). Its blossom is blackish-yellow, and in its centre there is a black spot from which come the seeds. It is of two kinds, domesticated and wild..."

Then follows a paragraph on its medical qualities.

Synonyms: Ar.: hanwa جنوب , Birûnî, kahlâ المربي , sahlâbî (Modern Egypt, Schweinf.), bakhûr Maryam جهلابی , بخور همریم (Medieval Egypt, Dawûd); Pers.: âdhariyûn افریون , Abû Mansûr, âzargûn افر کون, ardam افریون , hamîsha bahâr اردم (Vullers; Turk.: nergis نرکس ; Eng.: marigold; Fr.: souci, calendule; Germ.: Ringelblume, Totenblume.

56. ÂRADYÂBÎ آرديابي, Uncertain.

(Lecl. no. 1).

Hubaish: A shrub the leaves of which are like those

^{1.} Not found in dictionaries; may be mutilated by missing diacritical points. $D\hat{a}w\hat{u}d$ spells it $malgal\hat{u}l$

^{2.} Equally missing from the dictionaries. Hartâmetâ is the chickpea. $D\hat{a}w\hat{u}d$ spells it $hart\hat{a}m\hat{a}$.

^{3.} In the text nabât an-namsh نبات الخش; probably a copyist's blunder for thamnus غنس (θάμνος) shrub.

of the caper-plant (kabar بركر), of a strong smell. It has seeds inside sheaths with appendices like tongues. It is near to coldness and dryness (in its qualities), resolves external hot swellings, mixed with nightshade (inab ath-tha'lab عنب الثماب and winter-cherry (kâkang کا کتج Physalis Alkekengi) and, when applied locally, soothes the pain provoked by the sting of a hornet.

COMMENTARY.

The name âradyâbî آردیابی is missing from all the dictionaries and from most of the Arabic pharmacologies, e.g. from IB and Dâwûd. We found in Ibn Sîna (1, 262) the same drug under the name of ardqiyani اردقیانی. Ibn Gazla gives the same description under the name of ardqiyâqî اردقياقى, undoubtedly abstracted from Hubaish's lost "Simple Drugs". Idrîsî (p. 26) copies his paragraph under the title of ardganâyî اردقناى. Freytag (I, 25) thinks that, according to Sprengel, it is Zygophyllum Fabago (not Tabago) L.. More important are the notes abstracted by Vullers (I, 77 foll.) from Persian authors. He spells the drug âridfanânî قثاء الحار and identifies it with the Arabic qitha' al-himar اردفنانی ("asses' cucumber", Greek σίκυς ἄγριος, síkys ágrios, i. e. Ecballium Elaterium Rich.). This is not probable, but the plant may be another kind of wild cucurbitacea. Persian authors say that the name is of Greek origin. We think that it could possibly be a mutilation of ὄνου κολοκύνθη (όπου kolokynthê, i. e. asses' vegetable marrow) or some other similar name. In Bîrûnî and IB the name is missing.

57. AMSÛKH أسرخ, Horse-tail (Equisetum arvense L.).

(Lecl. no. 149).

It is of two kinds; one is small with thin, knotty and contiguous branches like the leaves of the Spanish broom (esparto-plant, ratam , Spartium junceum S.); these leaves, when pulled out, separate at the knots. They are large, compact and have a thick wooden stem as thick as the little finger. It grows to the height of about one span. It has no flower, but a flame-red fruit which is astringent and mildly bitter. If this plant is taken with wine it checks diarrhoea and if applied as a cataplasm causes a hydrocele to disappear.

(The other kind is) bigger, has a thicker stem and shorter branches; its fruit is red, but becomes black when ripe. Its uses are similar to those of the first kind. Some people count both as different kinds of horse-tail (equisetum).

COMMENTARY.

There is no doubt that this plant is *Equisetum*, a cryptogam which has no real fruit but an archegonium (ovary). The two kinds described by Gh. may be *Equisetum arvense* L. and the greater *E. maximum*, or *giganteum Thunb.*, or

^{1.} Foll. p. note no. 1.

E. Telmateja Ehrh.. They were used officinally as diuretics under the names of Herba equiseti minoris and majoris (Luerssen).

Synonyms: Gr.: المصورة (húppuris); Ar.: amsûkh أمصوخ (probably a Berber name), dhanab al-khail أمسوخ , hash-ishat at-tawkh خنا الحور (Modern Syria, Berggr.); for other Arabic and Syriac names see Loew (I, pp. 1-5), and Issa (p. 76): Pers.: same names; Turk.: hashîshet et-tûgh عشيشة Avni; Eng.: horse-pipe, horse-tail; Fr.: prêle, queue de cheval; Germ.: Schachtelhalm, Rosschwanz.

58. UDHN AL-ARNAB أذن الأرنب, Hound's ton-gue (Cynoglossum cheirifolium L.).

(Lecl. no. 35, آذان الارتب).

Udhn al-arnab (i.e. rabbit's ear) is called **(fol. 10 r)**udhn al-ghazâl أذن النزال (gazelle's ear), and the Berbers call

it udhn ash-shâh أذن الشاه (sheep's ear³). It is a plant with

^{1.} IB and Dâwûd spell it amsûh المسوح, and give as the Spanish name inishtella المسوح We suppose that this is a mutilation of the Spanish asprilla, Italian asperella (French presle, prêle)

^{2.} tugh غوغ or خوغ (Turk.) for horse-tail.

^{3.} IB (p. 17-18) who copies the whole of this chapter in a quotation from Gh., spells these names âdhân أذان, i. e. the plural of udhn أذن (ear). He gives, moreover, the name of lasîqî which seems to mean: "sticky".

i.e. Plantago major L.), except that they are thinner and rougher. It is of a blackish colour and on it are soft hairs like white dust, in which character it also resembles the borage (lisân aththawr الناور, Borrago officinalis L.). It has a stem, as thick as a thumb, growing to the height of more than a cubit. (It carries) a blue and slightly white blossom like the flower of flax (kittân المنافر). It is funnel-shaped with calyces containing four grains (nutlets); it is rough, shiny and sticks to clothes. The root has (long) branches like the hellebore (kharbaq خريق), black outside and white inside. If it is extracted and rubbed on the face, when fresh, it makes it rosy and beautiful. Its decoction is drunk for dryness of the chest.

There is a second kind, smaller than the first one as to height and leaves; its blossoms are crimson-red.

COMMENTARY.

Probably *Cynoglossum cheirifolium L.* The smaller kind may have been the *C. officinale L.*, the root of which (radix Cynoglossi) was not long ago an official drug. Idrîsi (p. 18) gives, under the name âdhân ash-shâh مقطة, a less circumstantial description of the plant mentioning, however, that it grows in Sicily. Dâwûd says that the Egyptian peasants call the plant khudnî ma'ak خذني معك , i. e. "take me with you" on account of the burdock-like stickiness of the fruit. According to Schweinfurth and Aly Ibrahim Ramiz the plant does not grow in Egypt to-day.

Synonyms: Lat. (modern): cynoglossum; Ar.: udhn (âdhân) al-arnab أذن الارنب, udhn ash-shâh أذن الشاء, udhn al-ghazâl أذن النزال, al-lasîqî اللصيق, (IB), lisân al-kalb إلى إلى المحلك, (Vullers I. 680); Pers. and Turk.: النان الحكلب ين الحكال إلى المحلك بنان الحكال إلى العالم الحكال إلى العالم الحكال العالم ال

59. ÂTARMÂLA آطرماله (Undetermined).

(Lecl. no. 99).

A plant, the stem of which reaches the height of about a cubit; it has no branches and its leaves are like those of hemp (shahdânag شاه حاله) except that they are much smaller and arranged in four parallel rows. It has an ear about a span long, very regular and lined with super-imposed sheaths which are round with open orifices, in the shape of the sheaths of hazel-nuts (bunduq المناف), except that they are much smaller. Inside are fruits shaped like hazel-nuts and of the size of chick-peas, containing thin red-blackish seeds. On this plant there is an exudation, which is viscid like honey. It (the plant) has thin white flowers which may sometimes be yellow. It grows in barren soil and wild lands qafr قدر). The seeds are applied as an eye-salve for trachoma (garab جربه) and early stages of ophthalmia (ramad جربه).

COMMENTARY.

In spite of al-Ghâfiqî's minute description no old or

modern botanist has been able to identify this plant âtarmâla Ale II. IB simply copies Gh.'s whole chapter, Ed. Meyer in his "History of Botany" (III, 213) thinks that it may be Scrophularia sambucifolia L.; but Dragend. (p. 604) vigorously attacks this hypothesis. The name might be Berber or Spanish.

A plant known to the botanists as "the hand of 'Aisha" or "the hand of Mary". Its leaves are like those of *khusâ adh-dhîb* ("wolf's testicles"); the stem is tall, thin and carries purple flowers from below upwards. Its root is as big as a suckling's hand, which it resembles in shape, with five fingers. It is very humid and grows in the sand and near the sea.

Ibn Ridwân: Some kinds resemble the palm of the hand with five or six fingers, and others are like a lion's paw. Its colour is yellow and it is hot and resolvent.

Ibn Sînâ: Its shape is like the palm of the hand, greyish-yellow to white, hard and slightly sweet. Some are greyish-yellow without whiteness, hot and dry in the second (degree). It clarifies the skin and the nervous organs. It is used against insanity.

Al-Magûsî: It is useful against poisons and (poisonous) insects and against abortion.

COMMENTARY.

It is not possible to determine which plant is meant by the foregoing description. The name of asâbi' sufr اصابع صفر ("yellow roots") عروق صفر "yellow roots") is applied to-day in the Cairo bazaars to the roots of Curcuma longa L. (turmeric) (Ducros no. 158). The name of kaff Maryam کف مریم (" palm of Mary") and the like is reserved to the Jericho-rose (Anastatica hierochuntica L.) (Ducros no. 201). But the description of the plant does not agree with either of them, nor with any of the other plants to which, according to Issa (p. 63 no. 3), the name of asâbi' sufr is given, viz. Vitex agnus castus L. and Memecylon tinctorium L.. Another mention of the Arabic name will follow in the chapter kurkum $\zeta \zeta$ (turmeric). Idrîsî (p. 26 no. 43) calls the same drug asâbî' al-barsâ' اصابيع البرصاء or usâbî' al-'adhrâ اصابيع العذراء, the first meaning, "fingers of the leprous woman", the second, "the Virgin's fingers"; he adds that there exist several kinds of this plant. Bîrûnî, on the contrary, treats of asâbi' sufr and asâbi' al-'âdhârâ in two separate chapters, treating them as different plants.

61. ALANG Alangium Lamarckii Thwaites.

(Lecl. no. 135, al-bugg البح).

Ibn Ridwan: Roots brought from India, with black spots, bitter taste and a hot quality. I have had experience

with it against urticaria (sharâ عرى), and it was wonderfully effective. I gave it to be drunk on the first day, in the dose of half a drachm with two ounces of oxymel of malobathrum; on the second day I gave half a mithqâl and on the third day one drachm, and it caused the urticaria to disappear entirely. It has the same action when it is smeared on the body with oil of roses.

COMMENTARY.

The name of this drug is misspelt in our MSS. and Leclerc's French edition of Ibn al-Baitar (albang, albîg, albugg etc.). The Cairo edition gives the correct reading, and Dymock (II, 164 foll.) records the Indian names of the plant. It is Alangium Lamarckii Thwaites, a cornacea of India. The root contains a very bitter alcaloid which is provisionally called by Dymock alangine.

62. ISFÂNÂKH إسفاناخ, Spinach (Spinacia oleracea L.).

(Lecl. no. 210).

Agriculture ¹: It is a known vegetable; the wild kind is like the domestic one, only of thinner and finer roots and does not grow so high above the ground.

^{1.} Here the "Nabataean Agriculture" is meant.

Ar-Râzî: Temperate, soothing (fol. 10 v) to the chest and laxative to the abdomen. It is suitable, by virtue of its temperate quality, to cold and hot temperaments. It does not cause any flatulence like other vegetables, nor does it increase the phlegm in the blood.

Ibn Sînâ: Cold and moist in the last stage of the first degree. It is a better diet than orach (sarmaq orach). It clears, washes and controls the bile, and is useful against congestive backache.

COMMENTARY.

This now universally known vegetable is not mentioned by Greek and Roman authors, except in Byzantine times as σπινάχιον (spinákion). It seems to have its origin in the Orient and to have been imported into the Occident by the Arabs.

Synonyms: Ar.: ra'îs al-buqûl رئيس البقول, ar-rahâ النفاناخ, ar-r

63. ÂRÂQÛS آرانوس , Vicia cracca L. (?).

^{1.} The MS. G. and IB spell arâqûa ارانوا, which may be an old copyst's fault, or be derived from the Greek genetive of arakos.

(Lecl. no. 43, اراقوا).

Galen, in the Book on Aliments (VI, 552): Small, hard, round grains growing amongst lentils 1.

Agriculture: A similar herb growing also amongst lentils. It carries black grains within sheaths which, when dried, are round. If powdered and mixed with vinegar and water and left in the sunshine for six hours, then thrown into fresh water and made into a paste and painted on hot and very hard swellings, it softens them and relieves the pain.

COMMENTARY.

The identification of this plant with the leguminosa Vicia cracca L. is not certain, but very probable See below the article 131 Bîqa 👼.

Synonyms: Gr.: مرومه (árakos), Galen; Lat.: aracos, Pliny; Ar.: arâqû اراقو (IB), dandarân دندران (Issa p. 188); Pers.: girgiru ارورچاق (Loew II, 491); Turk.: burchâq بورچاق; Eng.: tufted vetch, cracca; Fr.: vesce craque; pois à crapaud; Germ.: Vogelwicke. For more names see below art no. 131.

64. ISLÎKH إسليخ, Dyers' Weed (Reseda luteola L.). (Lecl. no. 67).

^{1.} Galen writes on agazos also in book I chap. 27 of the same work (ed. Kuehn VI. 541),

F. (Abû Hanîfa): An herb with long branches, yellowish in colour, growing in sand and resembling watercress (gargîr جرجير).

Author: A known plant used by dyers. The decoction of its leaves resolves phlegmatic swellings, and with barley-flour is useful against erysipelas. There is a wild kind with much smaller leaves than the first one; its stem possesses many branches spreading on the ground and of greyish colour. At the ends of the branches are many sheaths one above the other; though resembling the sheaths of hyoscyamus (bang they are smaller and softer. Inside them are very minute black grains. The roots are as thick as a finger, between yellow and red and very acrid in taste. It grows in sandy places and in white (chalky?) sites on the mountains. It is called in foreign (Spanish) language rîbât cule. It is useful, when drunk, against flatulent colic and against poison.

COMMENTARY.

The Spanish name *rîbâl* may be misspelt from *rîsâd*, reseda?

Synonyms: Lat: reseda; Ar.: îslikh اسليخ, blîhâ الميخ, blîhâ الميخ, (Modern Egypt, Forsk., Schweinf.), waiba وية (idem); other names in Issa (p. 154). Pers.: isparak ورث, warth اسپرك,

(Schlimmer); Turk: muhabbet chichcyi جيب چيچ (Samy); Eng.: dyers' weed; Fr.: gaude, herbe à jaunir; Germ.: Färber-Wau.

65. ÎDHÂYÂ RÎZÂ إِذَايَا رِيزَا , 'Iδαῖα Ῥίζα Idaia Rhiza.

(Lecl. no. 213).

Diosc. IV (44): A plant with leaves like those of wild myrtle. Near the leaves grow long filaments like those that creep round vines. On them the flowers of this plant grow. The root is astringent, and is drunk against diarrhoea; it is also hemostatic.

Galen VI (XI, 888): There is a strong astringency in its taste. It stops hemorrhages when drunk or applied locally, and is useful against intestinal ulcerations.

COMMENTARY.

This name has not yet been identified. Some botanists thought it to be $Ruscus\ hypophyllus\ L.$; others took it for $Streptopus\ amplexifolius\ D.\ C.$; both species are liliaceae.

66. ANGIBAR أنجبار, Snake - Weed (Polygonum bistorta L.).

(Lecl. no. 155).

A plant which commonly grows on the banks of rivers

and amongst brambles ('ullaiq عليق). Its leaves are like those of trefoil (ratba رطبه), and covered with down like dust. It has small twigs thicker than those of trefoil, reddish in colour, weak, rising up to a man's height or higher, bending and getting entangled with the brambles on which its branches grow. It has a blackish-red flower. All the parts of this plant are powerfully astringent. It exudes gum, and the juice of its roots, when squeezed, becomes red like mulberry-juice. If mixed with sugar and boiled wine (maibukhtag ميبختج) it is useful against hæmorrhage from any part, and against abrasions of the intestines and chronic diarrhoea. It heals fractures and cicatrizes wounds. I heard from a reliable person that he cured an ulcer of the lung of three years' duration by its means though the sufferer had become very emaciated. He also cured another of hæmaturia and gastric hæmorrhage after ten years.

COMMENTARY.

This is the polygonacea *Polygonum bistorta L*. The root is used in many lands as a remedy for the bite of snakes. That drug which is sold to-day in the Cairo bazaars under the name of 'irq el-ingibâr عرف الانجار is, however, *Potentilla tormentilla Sibth*. (*Ducros* p. 88). The Polygonum is still in use in some lands as a medicinal drug known under the name of *Rhizoma Bistortae* (Luerssen).

Synonyms: Ar.: angibâr انجبار; for other names, e.g. sultân al-ghâba سلطان الغابة, see Issa (p. 142). Pers.: anjibâr

قورد پنچهسی Schlimmer; Turk .: liflâfe انجلانه, qurd panchasi انجبار, 'Avni; Eng.: snakeweed, bistort; Fr.: bistorte; Germ.: Natternwurz, Schlangenwurzel.

67. ASAL أسل, Rush (Juneus).

(Lecl. no. 65).

Abû Hanîfa: It is the kawlân It grows in tiny stalks with no (fol. 11 r) leaves or thorns, but with sharp edges; they do not branch, and possess no wood. Mats are prepared from it; it is beaten and ropes are made from it. In sieves are made from it. It grows only near water.

Diosc. IV (52): σχοῖνος (schoinos) of the marshes. It is of two kinds: one is called δξύσχουνος (oxyschoinos), with sharp edges, and it, also, is of two kinds; the first has no fruit and the second bears round, black fruits and twigs thicker and more fleshy than those of the other kind. There is yet a third kind with still thicker and more fleshy twigs than the last two, and this is called δλόσχουνος (holóschoinos). It bears a fruit on its extremity which resembles that of one of the two above mentioned kinds. The fruit of this kind and the fruits of one of the first two kinds, when grilled and drunk with mixed wine, constipate the abdomen, stop uterine hemorrhage, and are diuretic, but cause headache. The fruit of the third kind acts as a soporific when drunk, and when abused causes lethargy.

Galen VIII (XII, 136): This plant is of two kinds, one thin and strong and the other thick and soft. The fruit of this kind is soporific. The first kind is also of two sorts: one is fruitless and the other has a soporific fruit which is less so than the fruit of the first kind. The faculty of these two kinds is a compound of slight earthy and aerial substances. Consequently it produces sleep with a slight cold vapour.

COMMENTARY.

It is evident that Diosc.'s description comprises several kinds of rush. The $\partial \xi \delta \sigma \chi \sigma \iota \nu \sigma s$ must be Juncus acutus L., the second kind with black fruits called by Theophr. (IV, 12) $\mu \epsilon \lambda \alpha \gamma \nu \epsilon \rho \alpha \nu \epsilon s$ ($melankran \epsilon s$) — Schoen us nigricans L., the $\delta \lambda \delta \sigma \chi \sigma \iota \nu \sigma s$ Scirpus Holoschoen us L. The fruitless and the fruit-bearing kinds are probably one species only (Juncus maritimus L.?).

Synonyms: Gr.: σχοῖνος (schoinos), ἐξύσχοινος (oxyschoinos), ὁλόσχοινος (holóschoinos) (Diosc.), μελαγχρανίς (melankranís), (Theophr.); Lat.: juncus, schoenus, Pliny; Ar.: asal של, kawlân אלי, samâr של, al-bût לעל, (Egypt, Dâwûd), and many other names (see Issa); Pers. asal של, kawlân של לעל (Schlimmer); Turk.: same names and sazliq otu של לעל (Schlimmer); Turk.: same names and sazliq otu של לעל (Avni); sâz של לעל (Samy); Eng.: rush (bulrush, bag-rush); Fr.: jonc (jonc aigu, piquant etc.); Germ.: Binse (Strandbinse, Sumpfbinse, grosse Simse).

68. ÂMÂRANTÛN أمارنطون, Golden Sunflower, Helichrysum stoechas D. Ç.).

(Lecl. no. 150).

Called by Hunain حنيت Indian cumin (kammûn hindî مندى). He also called it camomile uqhuwân اقحوان, I do not know for what reason.

Diosc. IV (IV, 57): Some people call it ελίχουσον helichryson, and others call it χουσάνθεμον chrysánthemon. It is a plant used in the crowns of statues. It has a straight white stem and tiny leaves like the leaves of southernwood (qaisûm Artemisia abrotanum); they are separate. It has a round umbel (gumma) containing a round body of a golden colour like the heads of thyme when dried. It has a tiny root which grows in rugged places in the depth of the ground. The umbel, with wine, is used against dysuria, insect bites and sciatica. It is also emmenagogue. This plant is also placed between the clothes in order to prevent their being eaten (by moths).

Galen IV (XI, 824): Its faculty is to refine and dilute theblood coagulating in the stomach and bladder; this blood is bad to the cardiac orifice of the stomach ¹.

COMMENTARY.

Helichrysum (Gnaphalium) Stoechas D. C., a compos-

^{1.} In both MSS, a slight error is present: the remedy is bad, instead of the blood.

ita, bears to this day in Greece the name of *amáranton*. Crowns and garlands of this plant were found in Egyptian tombs at Hawâra (II to III. cent. A. D.) according to *Keimer* (I p. 12). It was formerly an officinal drug under the name of *Stoechas citrina*.

Synonyms: Gr.: ἀμάραντον (amáranton), ελίχουσον (helíchryson),χουσάνθεμον (chrysánthemon); Lat.: amarantus, Pliny; Ar.: kammûn hindî είνες (Hunain b. Ishâq); Pers. and Turk.: no name; Eng.: cassidony: Fr.: gnaphale, helichryse; Germ.: Immortelle, Strohblume.

69. AGHÎRÂTUN أغيراطن, Sweet Maudlin, (Achillea Ageratum L.).

(Lecl. no. 106).

Diose. IV (58): A θάμνος (thámnos, shrub) used as fuel, about two spans in length, short, and lying on the ground. It very much resembles the plant called $\partial \varrho i \gamma \alpha ros \sigma riganos$ (marjoram). It carries a crown with a flower that resembles water bubbles 1, golden in colour. It is smaller than ελίχουσον (golden sunflower, see no. 68) and is called ἀγέρατον (agératon) from the long duration of its flower on it without changing or falling off. It is diuretic, and when applied locally, resolves induration of the uterus.

^{1.} Translation of Dioscurides' $\pi o\mu\phi o\lambda v\gamma \tilde{\omega}\delta\varepsilon s$, i. e. bubble-shaped.

Galen VI (XI, 814): Its faculty is dissolvent.

COMMENTARY.

It is the composita Achillea Ageratum L. frequent in Southern Europe.

Synonyms: Gr.: هُمِ فُوهِ مَهُ (agératon); Lat.: same name; Ar.: aghîrâtun افْحُوانَ اصْفَر (Idrisi, p. 30,) (Idrisi, p. 30,) اقتحوان اصفر Pers. and Turk.: no name; Eng.: sweet maudlin; Fr.: achille agératoire, eupatoire, de Mesué; Germ.: Garbe.

70. IYÂRÂ BÛTÂNÎ (Ιερὰ Βοτάνη), إيار ابوطاني, Vervain (Verbena officinalis L.).

(Lecl. no. 211).

Diosc. IV (60): It is called περιστερέων (peristéreôn, dovecote).

It is a plant the twigs of which are about one or more cubits long, angular, covered with sparse leaves like the leaves of the oak (ballût by), except that they are smaller and finer, with dentate edges, and of a flavour not exactly sweet. Its root is longish and thin. Both the root and the leaves are good against the bites of insects when drunk with wine, or when applied locally; and against jaundice and chronic phlegmatic

^{1.} Idrisî gives two other Arabic names, following a MS. of Salmawaih (d 840 A D.), viz. halfâ and burdî فيردى; but that is an error.

swellings. When macerated in water and sprinkled about where people are drinking (wine) it makes them very sociable and pleasant, (foll. 11 \mathbf{v}). It is so called because it is used in purifications when hung on the walls. The name means "the sacred" or "the priestly plant".

COMMENTARY.

This is the well-known verbenacea Verbena of ficinalis L. It is an officinal drug under the name of Herba Verbenae. In antiquity it was used for magical purposes. It is still used, particularly in France, for tisane.

Synonyms: Gr.: ἐερὰ βοτάνη (hierá botánê), περιστερέων (peristeréôn), σιδερῖτις (siderîtis); Lat.: verbenaca, Pliny; Ar.; ra' î al-hamâm رجل الحماء, rigl al-hamâm رجل الحماء, sâq al-hamâm رجل (for other names see Issa p. 188); Pers.: akmûn-bazân (Schlimmer p. 560); Turk.: minâ chicheyi عنا حجيك , Avni, minéh chicheyi مينا حجيك , Samy; Eng.: vervain, holy herb, pigeon's grass; Fr.: verveine commune, herbe à tous les maux; Germ.: Eisenhart, Eisenkraut.

71. ASTRÂGHÂLÛS أسطر اغالوس , Tine-Tare (Orobus sessilifolius and tuberosus).

(Lecl. no. 68).

Diosc. IV (61): A small Páuros (thamnos, shrub) with

^{1.} Often erroneously spelt akmûbazân اکمویزان.

The flowers are small and of purple colour, and the root is round like Syrian radish (figla shâmiyya فَجِلَة شَامِية), from which spread black, very hard excrescences, as hard as horns and entertwined together, so that it is difficult to pound them. They are astringent in taste. It grows in windy, shady and snowy places. It is common in Pheneus in Arcadia 1.

Galen VI (XII, 841): It has astringent roots, therefore it is used to dry and heal inveterate ulcers. It constipates the abdomen and stops hæmorrhage.

COMMENTARY.

This is not, as supposed by the majority of translators, one of the numerous kinds of the leguminosa Astragalus Tourn. of to-day. This latter plant-group is high, wood-shaped, thorny and provides the tragacanth. The ἀστράγαλος astrágalos of Diosc. and Galen is, according to Fraas, another leguminosa or a kind of vetch, either Lathyrus (Orobus) tuberosus L. or L. (O.) sessilifolius Sibth. (according to Berendes p. 396). Moreover, in Modern Greek the name of Cicer and Lathyrus is still ἀστραγάλιον (astragálion) (Loew II, p. 442) after Fraas.

Synonyms: Gr,: בּמִסוּמַמְמַמְמַנּסְ (astrágalos); Lat.: astragalus, Pliny; Ar.: astrâghâlûs أسطراغالوس; Eng.: axe-vetch?; Fr. gesse tubéreuse. Germ.: Knollige Platterbse.

^{1.} The Greek name of this town is Φενεός (Pheneós).

72. AWÂQINTHÛS أواقشوس, Oriental Hyacinth (Hyacinthus orientalis L.).

(Lecl. no. 191).

Diosc. IV (62): A plant the leaves and stem of which are like those of bulbûs المرابع (purse-tassel). The height of its stalk is about a span, smooth, and thinner than the little finger. It has a (curved) umbel filled with purple flowers. Its root when drunk with white wine or when children are anointed with it stops night-pollutions. It arrests chronic diarrhoea when drunk, and is useful against (jaundice).

Galen VIII (XII, 146): Its root is bulbous, drying in the first degree, cooling in the second. When applied to the pubis it retards for a long time the growth of hairs thereon. Its fruit is drying in the third degree, of moderate heat and cold.

COMMENTARY.

It is the liliacea Hyacinthus orientalis L.

Synonyms: Gr.: هنين المري (hyakinthos); Lat.: hyacinthus, Pliny; Ar.: awâqinthûs أواقنثوس, sunbul barrî سنبل برى, andmany other names (see ISSA p. 95); Pers.: sunbul منبل , khîrî barrî منبل المنبل برى, Schlimmer; Turk.: sunbul غيرى برى بنفشى, jâqût banafshî منبل المعانى بنفشى Avni; Eng.: oriental hyacinth; Fr.: jacinthe orientale; Germ.: gemeine Hyazinthe.

^{1.} See below no. 135.

73. AFÎQÛ'ÛN أفيقو أون, (Hypecoum procumbens L.) (Lecl. no. 113).

Diosc. IV (67): It grows in fields of wheat and in ploughed grounds. Its leaves are like those of rue (sadhâb سذاب) its branches are small, and its faculty is like that of opium which is the resin of poppy.

Galen VIII (XII, 48): It is cooling in the third, (degree) so that it does not differ much from poppy.

COMMENTARY.

This plant is generally identified with *Hypecoum pro*cumbens L., a papaveracea of Southern Europe, containing a narcotic alcaloid (fumarine)?

Synonyms: Gr.: ὑπήκοον (hypêkoon); Lat.: hypecoon, Pliny: Ar.: afiqû ûn العيشة البيضاء, al-'ushba al-baidâ, العيشة البيضاء, (ISSA p. 96), al gahîra الجهيره (Algeria); Pers. and Turk.: no name; Eng.: horned cumin; Fr.: cumin cornu; Germ.: Lappenblume.

74. ANGURA أنجرة, Roman Nettle (Urtica pilulifera L.).

(Lecl. no. 165).

الحريق and known as al-hurraiq قريس ("the burner").

Ibn Hassân: It has rough leaves, yellow flowers and minute thorns which are not easily visible. When touched by any part of the body, it burns, pains and reddens it. It is of two kinds, a small and a large one with many yellow leaves. Its seeds are like lentils, and are used in medicine.

mentioned, the seeds of which are like lentils in their size and shape. It is shiny green and hard, in round rough buds from which hang long thin filaments. The second is the bigger of the two kinds mentioned by Dioscurides. Its leaves are like those of wild thyme (sinsibîr , Sisymbrium), except that it is blacker and rougher and the stem reddishblack. It carries many more leaves than the other two and it is the roughest of them all. Its seeds are about the size of mustard-seeds, except that they are more flattened, white and blue in colour. The third kind is the smallest and weakest and possesses the smallest seeds.

Diosc. IV (93): ἀκαλήφη (akalêphe). It is of two kinds, one is rougher and blacker than the other. Its leaves are wider, its seeds smaller than the seeds of hemp (shahdânag £). The other has very small seeds and softer leaves.

Galen VI: (XI, 817): The faculty of its leaves and fruit is resolvent and aphrodisiac, particularly with syrup of

^{1.} A Spanish muslim physician of the XIIth Cent. A.D. See IAU II p 79.

grapes, and moderately relaxes the bowels and warms them; it is (fol. 12 r) an antidote for poisons.

Galen VI: Its fruits are not used in medicine, and the faculty of the plant is like that of the plant called βουβώνιον (bubônion, Aster tripolium L.), but it is far inferior to it.

COMMENTARY.

The main kind mentioned by Gh. and *Diosc*. is the Roman nettle *Urtica pilulifera L*. and its variety *U. balearica L*. The seeds were formerly a medicinal drug (*Semina urticae Romanae*). The third kind mentioned by Gh. is *Urtica urens L*. and *dioica L*.; *Idrisî* (no. 15, p. 14) gives a somewhat different description.

Synonyms: Gr.: צולאη (knídê), Hippocrates, ἀκαλήφη (akalêphê), Diosc., ἀκαλόφη, Theophr. and Galen; Lat.: urtica (Scribonius Largus); Ar. angura פּנִישׁ, qurrais פּנִישׁ, hurraiq (all these names designate burning, stinging) banât annâr יוֹם (i.e. "daughters of fire"), sha'r al-'agûz בּנִישׁ (Lower Egypt, Schweinf.). For other names see Issa p. 186. Pers.: anjura בּנִישׁ, gazna בּנִישׁ, Turk. isirghân انجرة, Avni; Eng. (Roman) nettle; Fr.: ortie (romaine); Germ.: Pillennessel, Brennessel.

75. ÂKHÎNÛS أخينوس, (Campanula ramosissima Sibth 1).

^{1.} In the old editions of Diosc., the Greek name is always misspelt *ĕquroc* (*érinos*); Wellmann set it right in his new edition of 1907.

(Lecl. no. 25).

Diosc. IV (141): A plant that grows near to rivers and to lakes formed from natural sources. Its leaves are like those of basil (bâdhrûg باذروج, Ocimum Basilicum L.) though it is smaller and higher and is crenated; it has five or six twigs from one cubit to one span in length, a white flower, and a small, black, astringent fruit. Its twigs and leaves are full of moisture.

Galen VI (XI, 880): Its fruit is astringent and checks the matters which are carried to the eye and ear.

COMMENTARY.

This plant has been identified with several kinds of Ocimum and Campanula. Fraas' hypothesis Campanula ramosissima Sibth. seems the most suitable of all, as this plant has its habitat in Greece.

Synonyms: Gr.: ἐχῖνος (ekhînos), ἔοινος (érinos); Lat.: erineon (*Pliny*).

76. USHNAN أشنان, Salt-wort (Salsola kali L.) (Lecl. no. 87).

Abû Hanîfa: It is the hurd حرف, used for washing clothes. It is of many kinds and they all belong to the salty plants.

Ibn Guraig: It is the kali-plant.

Another: It is a plant with no leaves, but with branches and twigs and with something like knots. Its bunches are full of moisture. It grows very big and develops very thick wood, which is used as fuel. It has a salty taste, and (when burnt) causes a very hot fire; the smell of its smoke is disagreeable.

COMMENTARY.

1

It is *Salsola Kali L.*, a well-known chenopodiacea of North African and many other deserts. The other kinds mentioned by Abû Hanîfa may be *Salsola soda L.* and the like.

Bîrûnî gives an extract from a "Book of Poisons" (perhaps that which was ascribed to the alchemist Gâbir b. Hayyân جابر بن حیان) saying that five drachms of the Persian ushnân provoke abortion, and that ten drachms kill an adult person. The best kind resembles sparrow's dung and is called kirmak ما مناه والمناه مناه والمناه والمناء والمناه والمناء والمناه والمناء والمناه والمناه والمناه والمناه والمناه والمناه والمناه والمناء والمناه والمناء

Synonyms: Ar.: ushnân حرض, hurd حرض, qalli عاسول, ghâsûl and others (see Issa p. 161); Pers.: ushnân اشنان, kirmak هاسول, Bîrûnî; Turk.: same names; Eng.: salt-wort, kali; Fr.: soude, kali; Germ.: gemeines Salzkraut.

77. ABÛFÂYIS أبو فايس, Thorny Spurge (Euphorbia spinosa L.).

(Lecl. no. 10).

Diosc. VI (159); Some call it Abûfâûs ابو فاوس. It is a plant with which clothes are washed; it grows on the shores of the sea and in the sand. It is a váuvos (thamnos, shrub) used as fuel, growing very plentifully 1, possessing small leaves like those of olives but thinner and softer than they are. Between the leaves there are hard thorns, whitish, angular, and sparse. (Its flower) resembles the buds of the plant called zicoós (kissós, ivy), as if it were bunches accumulated together except that they are smaller and softer, with some redness and whiteness in their colour. Its root is thick, but soft, full of a sap which is extracted like the sap of $\vartheta \alpha \psi i \alpha$ (Thapsia garganica L.)² and is stored either separately or with flour of bitter vetch (karsana کرسنة, Vicia Ervilia Willd.). If taken in the dose of one obolus it purges the abdomen of bile, phlegm and humidity. Its juice acts in the same manner.

COMMENTARY.

There is no doubt that this is Euphorbia spinosa L. It

^{1.} Translation of Diose.'s ἀμφιλαφής.

^{2.} It is a sharp milky sap used as a caustic.

is frequently confused with the following plant (no. 78).

Synonyms: Gr.: ἐππόφαες (hippóphaes); Lat.; hippophaes, hippofeos, (Pliny XXVI); Ar.: abûfâyis ווּפ שׁנֵשׁ, ghâsûl rûmî (Spain, Gh.), al-'aqrabî رجل الفر خ, rigl al-farkh رجل الفر خ (Spain, Gh.); Eng.: thorny spurge; Fr.: hippophaé des Grecs, euphorbe épineuse; Gerni.: Stachelige Wolfsmilch.

78. ABÛFAISTÛN أبو فيسطون, Hippophaiston.

(Lecl. no. 99).

Diosc. IV (160): It is a plant which grows in company with Hippophaes. It, too, is a kind of thorn-plant with which clothes are washed. It is a plant which grows creeping on the ground, with soft buds and small leaves only but no flower. Three *oboli* of it with μελίπεσατον (melikraton, i.e. honey-mead) purges the phlegmatic humour and is good for orthopnoea, (intisâb an-nafas التصاب النفس), epileptic fits and neuralgia.

Author: It is of very many kinds, and the best known in our land is that kind which is described above 1; it is called rigl al-farkh رجل الفرخ, (chicken's claw) from the form of its leaves; and also al-'agrabî لعقربي because its leaves resemble the tails of scorpions. Our physicians use it instead of gâgal قاقل (Cacalia verbascifolia Sibth.). Another kind is called tardag طردح. Its leaves are like those of hayy al-'âlam

^{1.} This remark refers to Hippophaes (chap. 77).

حى المالم (Sempervivum arboreum L.) except that they are finer. They are bushy and inclined to be purple-coloured. It has fine seeds and its shrub grows horizontally, but it rises to about two cubits in height. Its wood is white and hard and is called ar-rught الرغل (Atriplex, sea-orach) and al-ushnân alfârisî الاشنان الفارسي (Persian salsola, Salsola soda L. ?) 1. One kind called al-ghâsûl الغاسول rises to a span and its branches are as thin as needles: it has fine leaves, so thin that they look like seeds. It has a white flower, very thin indeed, and slightly reddish. Its branches are numerous and spread on the ground. It grows in salty soil in the company of gaizan قيظن (Salsola vermiculata L.?). 2 It melts gum-lac. It is called in foreign language 3 (fol. 12 v.) shirgâla مرحالة. Two drachms of it, when drunk, are diuretic. There are other kinds, the qâqal قاقل being one of them; they all have a saltish taste.

COMMENTARY.

This important paragraph containing al - Ghâfiqî's own botanical knowledge is missing from IB's book. Chapters 76 to 79 are also missing from the Gotha MS... But the Taimûr MS. is better and there is no apparent gap.

^{1.} See commentary of chap. 76.

^{2.} The name in this form is not found. Foureau gives the name of qedhdhan (قطن or قذن) for Salicornia spec. and Salsola vermiculata.

^{3.} Viz. Spanish; perhaps cera de gale?.

The many kinds of *Hippophaiston* which Gh. describes are very different plants. *Rigl al-farkh* رجل الفرح is sea-rocket (*Cacile maritima Scop.*; *ISSA*), a crucifera. *At-tardag* is perhaps a kind of *Atriplex* (*rosea L.*?). The Arabic name *rught* رغل is specially applied to the chenopodiacea *Atriplex halimus L.*, (ISSA p. 27) and *A. dimorphostegium Kar.* (Burton). *Ghàsûl* is a common Arabic name for plants used for washing clothes on account of their containing potash. In the present paragraph the Author probably means the chenopodiacea lead - grass (*Salicornia fruticosa L.*, *Issa* p. 160). *Salsola Kali* L. (see no. 77) is equally used for washing.

79. ÂFIYÛS آنيوس, Pear-Rooted Spurge (Euphorbia apios L.).

(Lecl. no. 118).

shape of a pear, and full of juice; it has a black bark, and a white inside. The upper part of this root causes vomiting of bile and phlegm, and the lower part is laxative. The juice of the root causes vomiting and purgation. It is extracted by pounding the root and putting it into an urn. Water is then poured on it; the whole is stirred up, and what floats of the juice on the surface is removed by means of a feather and dried.

COMMENTARY.

This plant is generally admitted to be *Euphorbia apios L.*, a plant frequent in Greece and in the southern Mediterranean islands.

Synonyms: Gr.: ἀπιος (ápios), ἰσχιάς (iskhás), Diosc., ράφανος ὀρεία (rhaphanos oreia) Theophr.; Lat.: apios ischas, Pliny; Ar.: âfiyûs آفيوس, shalgam barrî شابر , figl barri فيوس, figl barri فيوس, figl barri أفيوس, Issa; Pers.: afiyûs الحدق; Eng.: pear-rooted spurge; Fr.: euphorbe à racine de navet; Germ.: Birnwolfsmilch.

80. ÂFITHÎMÛN أفثيمون, Dodder of Thyme (Cuscuta Epithymum Murr.).

(Lecl. no. 112).

Diosc.: IV (177): It is a flower of the kind of hard plants which resemble thyme (sa'tar). These are fine

buds, light, with filaments like hairs. When drunk in the dose of four drachms mixed with honey and salt and a little vinegar it purges phlegm and black bile. It grows in abundance in Cappadocia and Pamphylia.

Galen VI (XI, 875): Its faculty resembles the faculty of headed thyme ($al-h\hat{a}sh\hat{a}$ الحالث , Thymus capitatus LK), but it is more effective in every sense. It heats and dries in the third degree.

Ibn Guraig: The best kind is the red one with a sharp smell which is imported from Crete.

Hubaish: Its faculty is strong in getting rid of black bile; it does not suit sufferers from yellow bile, and it causes them to vomit.

Bûlus (Paul of Aegina)¹: It is given in the dose of six drachms pounded in nine ounces of milk.

Another²: To be mixed with the decoction when it begins to cool and then crushed and strained, because cooking destroys its faculty.

Paul (VII): As for ἐπίθυμβρον (epíthymbron) it is someithing growing on thyme; it purges almost like epithymum, but is weaker.

^{1.} In the text Yûnus, copsist's mistake.

^{2.} IB takes him erroneously for the author al-Ghâfiqî him-self.

Author 1: This is the epithymum used by all physicians of our time, whereas the real epithymum is not known by them. This plant is imported from the country of the Berbers. It is a kind of cuscuta (kushûth (); most of what grows on the thyme are very fine filaments as red as agate, with no roots nor leaves, but with small heads, whitish and smaller than those of kushûth; it is very soft with a delicate flower that grows in the spring time. It destroys the plant by entertwining with it. Its faculty is like that of epithymum, but slightly weaker.

COMMENTARY.

This parasitic plant is the convolvulacea Cuscuta Epithymum Murr., growing on Thymus Serpyllum etc. The Ancients had probably confused the different kinds of Cuscuta (C. europaea L., growing on nettles and hemp, C. Epilinum Weihe, flax-weed, growing on flax etc.). The kind described by Gh. in his note is probably a North-African variety of C. Epithymum, perhaps var. Trifolii Choisy. IB (Lecl. I, p. 99) says that in his time it came to Egypt (where it does not grow in our time, according to Ramis) from Crete and Jerusalem. Abû Mansûr (p. 150) mentions under the name of aflanja in kushûth zanjî Sanother kind of Cuscuta which is, according to Schlimmer (p. 172)

^{1.} This paragraph by Gh. himself is missing from IB.

foll.) Cuscuta monogyna Vahl which grows also in Egypt and in other hot lands. Its medicinal use is very ancient.

Synonyms: Gr. ἐπίθυμον (epíthymon, Diosc., Galen), ἐπίθυμος (epíthymbron, Paul of Aegina); Lat.: epithymum (Pliny XXVI, 55); Ar.: âfithîmûn نثيون, kushûth سون, kammûn καμιὶ (Birûnî after al-Fazârî). For many other names see the long and learned paragraph of Loew (I, pp, 453-62) and the synonyms by Issa (p. 63); Pers.: aflanja افلنجة (Abû Mansûr); sikâr 'Alî کشون زنجی (i.e. "Ali's bread" (Idrisî p. 24 l. 4), shan شیطان ساچی, (Schlimmer 173); Turk. eftîmûn افنیمون, sheitân sâchî شیطان ساچی, Samy; Eng.: dodder, heelweed; Fr.: cuscute, epithym, cheveux de Venus; Cerm.: Kleeseide, Flachsseide etc.

81. ALUFUN ألوفن, Globularia (Globularia Alypum L.).

(Lecl. no. 139, Alûbun ألوين).

Diosc. IV (178): It is a plant used as fuel, with a reddish colour and fine twigs. It has a soft, light flower and a root like white beet (sitq , Beta vulgaris L), full of acrid juice. It has seeds resembling those of epithymum (dodder). It grows abundantly on shores, particularly those of Lybia. The seeds, with vinegar and salt purge like epithymum and slightly irritate the intestines.

In his translation of Galen's book 2 said that Alypias grows on sands and coasts; it is hot and purgative. The choicest kind of it is that which is (prepared) by pulling out its roots, peeling them and throwing away the pulps. It is to be known by its good bark and its white tubes with a resinous secretion which are easily broken and are not fibrous. He asserts that it is the turpeth (turbid جيد , Ipomoea turpethum R. Br.), and that the foregoing description applies to of it; but this is an error. Paulos mentioned this remedy 3 without mentioning its root, and citing its seeds only, as likewise did Diosc. (Ibn Wâfid thought this latter to be τριπόλιων (tripólion) and connected it with the sayings of) 4 Diosc. on Trifolion which is also called Tripolion 5; this is the turpeth.

COMMENTARY.

The plant is Globularia Alypum L. of the Mediterranean

^{1.} Henceforward the text is in disorder in both MSS. We found most of the missing part two pages further on (fol. 14 r) in the paragraph no. 91, and were able to restore the original text with the help of IB's text.

^{2.} We were not able to find out which book of Galen is meant; in the *De Simpl*. Alypon is not mentioned.

^{3.} Viz. Alypon: see Adams III p. 55.

^{4.} This phrase is missing from both MSS. and has been restored by us according to IB p. 53.

^{5.} The names are very much mutilated in all the three texts. On the top of fol. 13 r follows a phrase belonging hereto.

region, since a long time used as a popular remedy (purge). Al-Bitrîq is mentioned by *Ibn Abi Usaibi'a* (*Uyûn al-Anbâ'* الميون الانياء I, p, 205) as a translator of some works of Galen. He is perhaps identical with Politianos, Patriarch of Alexandria a physician, who died, according to Ibn Abi Usaibi'a (II, p. 83) in 902 A.D.

Synonyms: G.: ἄλυπον (álypon); Lat.: alypon (Pliny XXVII): Ar.: alûfun الوي (Gh.), alûbun الوي (IB), 'ainûn الوي (IB); for other names see Issa p. 88. Turk.: hashishe-i-kürreviye حشيشه (Naficy); Pers.: giyâh-i-kurravî كله كروية (Naficy); Eng. globularia; Fr.: alype, globulaire, thé arabe etc. (see Issa p. 88); Germ.: Dreizähnige Kugelblume.

82. ÎRIGHÂRUN إيرينارن, *Groundsel* (Senecio vulgaris L.).

(Lecl. no. 215).

Diosc. IV (96): A plant, the length of the stem of which is about a cubit; its colour is slightly reddish; its leaves are like those of the rocket (gargîr جرجير, Eruca sativa Mill.), dentate, only much smaller. The smell of its flower is like that of apples; it blossoms and spreads out rapidly and in its centre appears something upright like hair which becomes white in the spring. When drunk it causes suffocation. The meaning of its name is "the old man in the spring" 1. Most

^{1.} The Greek name of the plant is derived from ξαρ (spring) and γέρων (old man), because it grows white hairs in the spring.

of it grows on fences (of walls)¹. and in towns. Its root is not used in medicine.

Galen VI (XI, 884): Its faculty is composite, cooling and resolvant.

COMMENTARY.

This plant is the composita *Senecio vulgaris L.*. It is a weed very common in Europe and Asia, and served in former times as a medicinal drug under the name of *Herba Senecionis* (Luerssen).

Synonyms: Gr.: ἡριγέρων (érigérôn) (Theophr., Diosc. and Galen); Lat.: senecio (Pliny XXV); Ar.: îrîghârûn مريخ الريم etc. For other names see Issa p. 167; Pers.: arîghârûn اريغارون; Turk.: qanariye otu قارية او تى (Avni); Eng.: ragwort, groundsel; Fr.: seneçon commun; Germ.: Gemeines Kreuzkraut, Kreuzwurz.

83. ÎTHIYÛFÎS ايثيوفيس, Aethiopian Sage (Salvia Aethiopis L.).

(Lecl. no. 212).

Diosc. IV (104) A plant the leaves of which are like

^{1.} IB (215 Lecl. I, 176) reads instead of siyâgât سياجات (fences) sîbâkhât سياجات (pools, manures). The first reading is, however, the correct translation of the Greek text.

those of φλόμος (phlómos שליני, mullein, Verbascum), downy, lying on the ground round the root. It has a square rough and thick stem resembling the stem of מובלינית (melittainê שלינילים, balm, Melissa officinalis L.) and ἄρκτιον (árktion לילים, burdock, Arctium tomentosum Schkuhr). Many tufts grow from it issuing from one stem; they are long and thick. When dried they become black and hard like horns. It has a fruit of the size of the bitter - vetch (al-karsana יובלים), Vicia Ervillia Willd.), in each cavity of which are two grains. It grows abundantly in Messenia and on Mount Ida. The decoction of its root is useful for sciatica, intercostal pain and roughness of the throat, in the form of a drink or as a linctus with honey.

COMMENTARY.

This plant is the labiata Salvia Aethiopis L., frequent in Southern Europe as a weed on rubbish heaps.

Synonyms: Gr.: αἰθιοπίς (aithiopís); Lat.: aethiopis (Pliny XXIV, XXV, XXVI); Ar.: îthiyûbîs المثيونيس, îthiyûfîs بالثيونيس; Pers. and Turk.: no names; Eng.: Aethiopian sage; Fr.: (sauge) éthiopienne; Germ.: Filzblättriger Salbei.

84 ÂRAQTIYÛN أرقطيون, Woolly Burdock (Arctium tomentosum Schkuhr).

(Lecl. no. 30).

Diosc. IV (105): It is also called ἀρπιοῦρον (arkiûron.) It is a plant the leaves of which are like those of φλόμος (phlómos, mullein, Verbascum), save that they are more downy and more round. Its root is sweet and white, its stem soft and long and its fruit like small cumin-grains. The decoction of its root and fruit soothes tooth-ache when gargled; with wine it is diuretic. It is useful for sciatica when drunk and for burns when smeared on them.

Galen VI (XI, 837): Its faculty is extremely refining and it cleanses a little.

COMMENTARY.

Most of the modern botanists agree to see in the arktion of Diose. Arctîum tomentosum Schkuhr, a composita growwing as a weed on rubbish, in Europe and Asia. The botanists of older times thought it to be Conyza candida, Verbascum limnense or V. ferrugineum (according to Berendes p. 426 - 7). See Loew I, p. 378 foll.

Synonyms:Gr.: هو (arktion); Lat.: lappa, (Pliny XXI, 104); Ar.: âraqtiyûn ارقطيون; Pers.: same name, and rîsha-i-Bâbâ Adam ريشة بابا آخر (i. e. "fringe of Father Adam,), Turk.: dul 'awret otu طول عورت أوتى (Avni), arâqîtûn اراقيطون (mutilation of arctium, Samy); Eng.: woolly burdock; Fr.: bardane (laineuse); Germ.: Filzige Klette.

85. ANOTHER ARAQTIYÛN أرقطيون آخر أرقطيون آخر Medicinal Burdock (Arctium Lappa L.).

(Lecl. no. 90).

Diosc. IV (106): Some call it προσωπίς (prosopis) and προσώπιον (prosôpion). Its leaves are like those of the pumpkin (qar' ε, Cucurbita pepo L.), but larger, harder, more blackish: They are covered with down. It has no stem, and its root is large and white. The eating of two drachms of it is useful for ulcer (abscess) of the breast.

Galen VI (XI, 837): It is drying, dissolving, astringent; it heals inveterate ulcers.

COMMENTARY.

This second Arctium is doubtlessly the composita Arctium Lappa L. or Lappa officinalis All. The root (Radix Bardanae), the oil from the root, the leaves and extracts from them are still to-day used as medicinal drugs in European pharmacopoeias.

Synonyms: Gr.: ἄρκτιον (árktion), Galen, ἄρκ(ε)μον (árkion), Diosc., προσωπίς (prosopis), Galen, προσώπιον (prosôpion), Diosc.; Lat.: lappa, Pliny; Ar.: araqtiyûn ارقطیون, 'ammi khudnî ma'ak

^{1.} Thus called by Galen (XI, 837), while Diosc. calls it ἄρχιον or ἄρχειον, arkion). This may be an early copyist's blunder in the Greek MSS.

ا عمى خذنى معك (i. e. "uncle, take me with you") (Berggr. 833), râ's al-hamâma رأس الحالمة (Algeria, Issa p. 19); Pers. and Turk.: same names as for the above mentioned (Arctium tomentos-um); Eng.: medicinal burdock; Fr.: bardane officinelle; Germ.: gebräuchliche Klette.

86. AFÎFÂQTIS أفيفاقطس, Rupture-Wort (Cleome arabica L.? or Herniaria glabra?)

(Lecl. no. 114).

Diosc. IV (108): It is also called ελλεβορίνη (hellebo-rínê); it is a small θάμνος (thamnos shrub) with small leaves. It is drunk against toxic drugs and against pain in the liver.

Remedies 1; It is a small vájaros with small leaves like those of the rue (sadhâb سناب , Ruta graveolens L.) with nearly invisible dentations. It has a thin stem on which is white down like that on the stem of the big kind of endive (hindibâ شناب , Cichorium Endivia L.). Its height is about three to four fingers, and it has thin twigs of the height of one finger spreading out from about the middle of the stem to its top. Its grains are like black cumin (shûnîz شناب , Nigella sativa L.), sometimes red and sometimes black, but very rarely white. It is kept in sheaths like the seeds of radish

^{1.} The title of this book is missing from the lists of the literary works of this celebrated physician and translator (lived about 900 A.D., see Introduction). It may be identical with his "Book of Prevention of the Nocivity of Poisons" (IAU I, 245).

(figt انجن). They are not long. The colour of the flower is allways like that of the fruit. It grows in places easily reached by water and in those near to the sea. It often grows amongst beans or lentils (qatânî, plur. of qutniya متال or mixed with barley and wheat. Its smell is like that of lemons (utrug التربي) and its root is aromatic. It has the shape of (fol. 13 v) truffle (kamâ'ah المنابية). It is smooth, with no vessels in it. Some people think that it grows in the sand and in stony soil; it is often found on the coasts of Syria and of 'Alexandria. It is well-known to many people, and they use it against poisonous drugs and pains or obstructions in the liver and spleen, drunk thoroughly pounded in doses of half a mithqât die on three successive days.

COMMENTARY.

The description given by Diosc. is too short and too vague to allow an identification of the plant. The description by Qusta b. Lûqâ gave rise to various interpretations. Sprengel thought it to be *Herniaria glabra L.*, a *Cephalanthera* or a *Spicanthes*. Fraas identified it with *Epipactis grandiflora All*. (Cephalanthera ensifolia Rich.), and Littré with *Neottia spiralis*. But *Sickenb*. (*Plantes* p. 21 foll.) objects that all these plants are orchidaceae which do not grow naturally in Egypt. He proposes to identify *Epipactis* with *Cleome arabica L*. This plant, however, bears several Arabic names (see *Issa* p. 52), and the question is therefore still unsettled.

Synonyms: Gr.: פֿמנתמבענק (epipactis); Lat.: epipactis (Pliny IV); Ar.: afibaqtis וֹבְּיִם (Pliny IV); Ar.: afibaqtis וֹבִיִם (Pliny IV); Ar.: afibaqtis וֹבִים (Pliny IV); Ar.: afibaqtis וֹבִים (Pliny IV); Ar.: afibaqtis וֹבִים (Pliny IV); Ar.: afibaqtis (Pliny

87. AWNAGHRA أونغرا, Onagrade (Epilobium hirsutum L.).

(Lecl. no. 161)

Diosc. IV (117): It is also called ὀνοθήςα (onothêra) and ὀνοῦςος (onoûros, better reading onothouris). It is a tree-like θάμνος (thamnos, shrub) of considerable size; its leaves are like those of the almond-tree (lawz على), Prunus amygdalus Stock.), except that they are broader; they resemble also those of the lily (sawsan عوسية, Lilium candidum L.). The flower is large, like that of the pomegranate. Its root is small 1, white, and exhales, when dried, a smell like wine: it grows on mountains. It prevents the spreading of malignant ulcers.

Galen VII (XII, 89): The smell of its root, when dried, is like that of wine.

Rufus² in the (Book on) *Melancholy*: A plant by means of which the lion is tamed, because it contains a faculty which soothes the spirit.

^{1.} Diosc. calls the root long (μακρά).

^{2.} The famous Greek physician who lived in Alexandria in the first half of the second century A.D.

COMMENTARY.

It is the onagracea (oenotheracea) *Epilobium hirsutum* L.; but the *ŏrayoor* (*ónagron*) of Galen is sometimes identified with E. angustifolium L. The first named plant has been found in the crowns of Egyptian mummies and in tombs of the Greco-Roman period in the Fayyûm (Keimer). The $\eth ro \vartheta \acute{\eta} \varrho as$ (onotheras) of Theophr. (IX, 19, 1) is perhaps the same plant, alhough Sir Arthur Hort renders it by Nerium Oleander.

Synonyms: Gr.: ὄναγρα (όναgra), ὀνοθήρα (onothêra). ὀνοῦρις (ονοῦρις (ονοῦρις (ονοῦρις (ονοῦρις (ονοῦρις (ονοθοῦρις (

88. ÂSTÎR ÂTÎQÛS أسطير أطيقوس, Sea-Staiwort (Aster tripolium L.).

(Lecl. no. 64).

Ihn Wâfid took it for the astringent al-hâliba الحالية 2 i.e.'

^{1.} Theophrastus' Enquiry on Plants, Loeb Class. Library, No. 79. London & New York 1926, vol. II, p. 467.

^{2.} In the text الحائدة قابطة which gives no sense; it is to be corrected الحالة القابطة i. e. the astringent 'inguinal plant'. See Commentary.

the bitter vetch (al-garsa'na الفرصعنة, Vicia Ervillia Willd.), but he was wrong in that, as it is the plant which is called in foreign (i. e. Spanish) language Castila (qastîla قسطيله).

Diosc. VI (119): It is also called 600666100 (bubônion). It is a plant which has a hard and rough stem, on the end of which is a yellow flower resembling that of the camomile (bâbûnag المابين). It is sometimes inclined to a purple colour. It has incised heads and leaves which, in shape, resemble stars. But the leaves issuing from the stem are oblong and covered with down.

Galen VI (XI, 852): This plant is called βουβώντον (bubônion), a name derived from the appellation of the groin, as it heals any swelling in it when applied to or suspended on it (or when its flower is held in the left hand) ¹.

Diosc.: It is useful for gastritis, for hot swellings of the eye and laceration of the pupil². The drinking of (the infusion of) the purple flower is useful for croup and the epileptic fits of boys.

COMMENTARY.

This plant has been identified with Aster Amellus L.,

^{1.} This last phrase is missing from Galen and from IB; it is probably the interpolation of a copyist who took it from Diosc. (p. 269 l. 18).

^{2.} I. e. iris. The text of Diosc. reads "and other prolapses of the anus ($\xi \delta \varrho \alpha$)". It was probably in the origin "of the iris" ($\tilde{\iota}\varrho\iota\delta o\varsigma$), as Ibn Sarapion also reads "iris".

and Aster Tripolium L., a composita mostly European. The root and leaves (Radix, Herba Asteris Attici sive Bubonii) were medicinal drugs not long ago in use for the diseases specified by Diosc. As to the Spanish name, it is given in a note to the Arabic translation of Diosc. as qastâla (castella?, Lecl. I, p. 63).

Synonyms: Gr.: ἀστύρ ᾿Αττικός (astêr Attikòs, Diosc.), δονδώνιον (bubónion, Diosc., Galen), ἀστέρισκος (astériskos Theophr. IV. 12, 2) Lat.: aster, bubonia (Pliny XXVII) Ar.: hâlibî إلى (IB no. 552), khurram إلى (Hunain, accord. to Loew I, p. 368); Pers.: gul-i-minâ المارة (Schlimmer p. 54), gul-i-urba كاريه (Richardson); Eng.: sea-starwort, Michaelmas daisy; Fr.: aster maritime, tripolium; Germ.: Strandaster.

ISÛFÛRÛN إسوفورون Creeping Fumitory (Fumaria capreolata L.)?.

(Lecl. no. 89: إصوفورون).

Diosc. IV (120): It is called φασήλιον (phasêlion) because it is a plant which resembles the φάσηλος (phásêlos), i.e. the white kidney-bean, (lûbiyâ של , Dolichos Lubia Forsk. or Vigna sinensis Endl.). At the origin of the leaves issues something white resembling threads, twisted like the ones issuing from the white kidney-bean plant. At the end of the plant are fine heads filled with seeds the flavour of which is like that of anise (anîsûn النصون, Pimpinella Anisum L.) 1. It is useful with

^{1.} Diosc. (p. 269 l. 13) reads: that the flavour of the seeds is like that of $u\varepsilon\lambda \acute{a}r\vartheta\iota v\varepsilon$ (black cumin), and that of the leaves like $\ddot{a}r\eta\sigma\sigma\sigma\iota$ (anise).

the wine called μελίπρατον (melîkraton, honey-mead) for pains of the liver and chest, and for cough.

Galen VI (XI, 891): A little astringency exists in its seeds. It cleanses, checks the thick chyme and tones the limbs.

COMMENTARY.

This plant has not been identified with certainty. It is more likely to be *Fumaria capreolata L*. or its variety *F*. *Vaillantii Loisl*. (Fraas), which is frequent in Greece in shady valleys and on rocks. *Sprengel* prefers another fumariacea *Corydalis claviculata Pers*. which is equally frequent in Greece.

Synonyms: Gr.: ἀοόπυξον (isópyron), φασήλιον (phasêlion Diosc.), φασίολον (phasíolon, Galen); Lat.: isopyron, phasiolon (Pliny XXVII); Ar.: isûfûrûn إصوفورون, إصوفورون, إصوفورون; Pers. and Turk.: same name; Eng.: (creeping) fumitory; Fr.: fumeterre (rampante); Germ. Rankender Erdrauch.

90. ÂBÛGHLÛSÛN أبوغلوسون, Horse Tongue (Ruscus Hypoglossum L.).

(Lecl. no. 67).

Diosc. IV (129): It is a small dápulos (thamnos, shrub) with leaves like those of that wild myrtle (al-âs al-barri here) which are thin (Ruscus aculeatus L.). It has a thorny tuft, and at its end, near the leaves, excrescences resembling tongues; (the latter) are useful in softening

ointments and are used against headache when carried on the head.

COMMENTARY.

The description agrees with the liliacea Ruscus hypoglossum L. which is frequent in Southern Europe and on the Mediterranean Islands. Its leaves with R. hypophyllum L. were formerly used as a medicinal drug (Herba Uvulariae sive Bonifacii sive Bilinguae) (Luerssen).

Synonyms: Gr.: επόγλωσσον (hypóglôsson); Lat.: hypoglossa (Pliny XXVII), myrtus silvestris (Pliny XV); Ar.: abûghlûsûn (Gh.), awbûghlûsun أو بغلص (IB), lisân alfaras الفرس (Issa p. 159): Eng.: horse-tongue, double tongue; Fr.: hippoglosse, langue de cheval; Germ.: Zungenförmiger Mäusedorn.

91. ANF AL-'IGL أنف العجل, Snapdragon (Antirrhinum majus L.).

(Lecl. no 162).

Diosc. IV (30): 'Arrigguror (antirrhinon), and it is also called ἀνάρουνον (anárrhinon) and λυχνίς ἀγρία (lychnis agría). It belongs to the plants which renew their existence every year ¹. It resembles Anagallis (pimpernel) as to leaves and twigs, and its flower is like the snout of a calf ². Some people

^{1.} An annual plant; translation of Diose's πόσ (póa).

^{2.} From this fact the Arabic name is derived.

pretend that this plant, when kept in lily-oil and used as ointment for the face, makes it acceptable (graceful).

COMMENTARY.

It is the scrophulariacea Antirrhinum majus L., growing in the Mediterranean region, but also cultivated in more northern gardens as a decorative plant. The herb was formerly a medicinal drug with the names of Herba Antirrhini, Herba Orontii majoris sive Capitis vituli. According to Theophr. (IX, 19, 2) the man who wears it wins great fame. Diosc. and other Greek authors copied this information from him.

Synonyms: Gr.: 'Avilogirov (antirrhinon), مُعرِفُوون (anarrhinon, Diosc., Theophr.); Lat.: antirrhinum (Pliny XXV-XXVI); Ar.: anf al-'igl أَنْ الْعَالِمُ (calf's snout), lisân al-'asfûr الله (Loew III, 350), tumm as-samaka الله (Loew ibid). For other names see Issa p. 20. Modern gardeners call it antirîna الترينا; Pers.: gul-i-maimûn كل المعاول (Schlimmer p. 42); Turk.: arslan aghzi dinilen chichek الرسلان آغزى دينان چيچك (Sámy); Eng.: snapdragon, calf's snout; Fr.: gueule de lion, gueule de loup, muflier; Germ. Löwenmaul, Dorant.

92. ANBATRUN أنبطرن, Frankenia? (Frankenia pulverulenta L.?). (fol. 14 r, 1. 5)

^{1.} Put in order by us.

(Lect. no. 100).

Galen VI (XI, 875): It is also called "beak-like" 1.

Diose. IV (179): It is also called consenses (phakocides i.e. "lentil-like"). It grows in mountainous places, amongst the rocks, and on the shores of the sea; it is (then) of salty flavour, and, when growing far from the sea, becomes very bitter. When taken with the drink called cogonetic (hydrometic hydrometic) or with broth, it purges phlegm and bile.

COMMENTARY.

This plant was identified by Sprengel with the umbellifera Critimum maritimum L., whilst Fraas prefers Frankenia pulverulenta L. Gh. himself did not know the plant otherwise he would have surely mentioned it.

Synonyms: Gr.: פֿערפּני (פֿאַרפּניים), (Diose., Galen);
Ar.: מיניסנדער פּער (IB), מיניסנדער (IB), garmat (ובּרָיָּבּי (Seĥweinf. For other names see Issa p. 84.

93. US-HUFAN Out. Uncertain.

Lect. no. 71. ::s-inirità disa.

(Abu Hanifa) 2: It is a plant which creeps on the earth like ropes. Its leaves are like those of colocynth

¹ In Galen's text agovosides (prasocides).

^{2.} So in 13. Oar MSS omit this name.

(hanzal حنظل, Citrullus Colocynthis Schrad.), but smaller. It has horns (husks) smaller than those of tûbiyâ لويا (Dolichos Lubia Forsk.), in which are round red grains useful for sciatica.

COMMENTARY

Nobody, until now, has been able, to identify this plant. The description agrees with a leguminosa of the kind of jequirity (*Abrus precatorius L.*), but it is too vague to allow an exact identification. The name is Arabic, from *sahafa* "to creep".

94. UMM WAGʻAL-KABID أم وجي الكبد , Rupture-wort, (Herniaria Tourn.?).

(Lecl. no. 151).

Abû Hanîfa: It is one of the smallest herbs. Sheep like it. It has a grey flower in a round calyx (bur'uma ***) with a very small horn. It is called by this name, because it is useful for pains of the liver and yellow gall if squeezed on the epigastrium.

COMMENTARY.

The description given by *Abû Hanîfa* is too vague to allow an exact identification of the plant. Botanists agree that it has some characters of the caryophyllacea *Herniaria Tournefort*. *Herniaria glabra L*. was in former times an

official drug (Herba Herniariae) used for pains of hernia; it contains saponin.

Synonyms: Ar.; umm wagʻal-kabid ام وجع الكبد (i.e. "useful for pain of the liver"), nabâṭ ash-shaikh بات الشيخ (Issa p. 93); Eng.: rupture-wort; Fr.: herniaire, turquette; Germ.: Tausendkern, Harnkraut.

95. UMM GHAILÂN أَم غَيلان Acacia (Acacia arabica Willd. var. nilotica Dol.?).

(Lecl. no. 158).

Ar-Râzî (Rhazes) in the Continens (al-Hâwî عتاب الحاوى):
It is the thorn-tree al-qatâd القتاد.

Another Author: It is the thorn-tree al-qaraz القرط.

Abû Hanîfa: It is at-talh الطلح.

Ibn Sînâ: It is a well-known tree of the thorn-trees ('idâh اعنه) of the deserts; it is cooling, desiccating and astringent.

COMMENTARY.

The tree in question is doubtless one of the numerous thorny and gum-producing acacias of the North-African and Arabian deserts. Al-qatâd القتاد is to-day the name of Acacia Senegal Willd. (A. vera), in the Yemen (Southern Arabia); al-qaraz القرط is to-day the name of Acacia Arabica Willd., and the husks sold in the Caire drug bazaars bear the name

of garad طلح is to-day the name of Acacia gummifera Willd., of A. Seyal Del. and of A. tortilis Hayne, the last two being the main producers of gum-arabic. The name umm ghailân ام غيلان is in our days particularly given to Acacia árabica Willd., and to Acacia vera Willd., this latter being considered by some botanists as identical with Acacia arabica. The Egyptian variety nilotica Del. has the Arabic name sant bin, from the Ancient Egyptian 2 ששחד in Coptic, (sittâ נטא of the Bible). To the Arabic authors it is always an Egyptian plant, as it is called e.g. by Mu'tamad (p. 38h 1.22) ash-shagara al-misriyya ("Egyptian tree"), by Idrîsî ash-shawka al-qibtiyya ("Coptic thorn"), by Dâwûd ash-shawka al-misriyya الشوكة القبطية "Egyptian thorn"). It will be of interest to compare with Gh.'s paragraph the descriptions given independantly by two of the most prominent scholars of the Islamic world. The first is Abu'r-Raihân al-Bîrûnî (see Introduction chap. I, no. 37). In the unique MS. (preserved in the Turkish Government Library at Brussa, Asia Minor) we find on p. 29 v - 30 r the following passage: "Umm ghailân أَم غَيلان is said to be the Egyptian thorn-tree. Paulos: Some people call it the Arabian thorn-tree. It is called in the language of Sind jâmâhâ عضاه The acacias ('idâh عضاه) are all thorny,

^{1.} Ducros (no. 29) mentions the seeds only, but not the dry husks *qarad* as being a bazaar drug. See Max Meyerhof, Der Bazar der Drogen und Wohlgerüche in Kairo, *Archiv f. Wirtschaftsf. im Orient* 1918, no. 349 p. 199.

and the samur and the talh are only other kinds; the last being umm ghailân.

Hamza says: It is the wild jujube (as-sidr al-barri السدر Zizyphus Lotus Lam.), and this kind of talh طلح has crooked thorns.

Abû Hanîfa says: It is the biggest and the greenest of the acacias ('idâh ala') and that which produces the greatest quantity of gum. Its thorns are long and thick and it has no heat in its roots (?); it has a calyx (bur'uma ala) of aromatic smell. The husks issue something like common beans or like Syrian carobs. If there are many trees growing together in a valley they are called an-nûta ala's, and the smaller are called al galâdhî ala'. The gum of talh is red; there appears between the "beard" (fibres of the bark) and the pith something resembling gum, but which is not gum; it is sticky, adherent to the fibres, sweet, palatable and of aromatic odour. People suck it as a deodorant to their breath. When the fibres are pulled off, something red like blood is found inside (a part of which) is thrown away, and the other is washed and chewed, and it forms the best and

^{1.} Samur is still to-day the name for Acacia spirocarpa H. in the Yemen.

^{2.} In the text ghidâh غضاه, a copyist's error.

^{3.} I. e. a thicket of thorn-trees.

^{4.} Plur. of guldhâ جلذى; the above meaning is missing from the dictionaries.

whitest chewing gum ('ilk الله عله). As to the talh المعلى mentioned in the Qur'an, all commentators agree that it is the banana (mawz موز) taken metaphorically, and nobody would take it for umm ghailân ام غيلان, except the ignorant of the institution of grace...".

Al-Idrîsî, the famous geographer (see Introduction chap. I, no. 44) and contemporary of al-Ghâfiqî gives in his "Collection of Remedies" (Kitâb al-Gâmi' fi' l-Adwiya בילי וליים) some other interesting remarks (no. 45 on p 27, of the MS. 3610 of the Fâtih Mosque, Istanbul): "Umm ghailân is mentioned by Diosc. in his IlIrd Book. He called it ἄκανθα ᾿Αραβική (ákantha Arabikê), and the meaning of those words is "Arabian thorn-plant"². It is a tree which does not grow high, but is overhanging, with many curved branches. Distributed on it are pointed thorns like canine teeth. It has leaves resembling those of wild jujube ('unnâb عناب , Zizyphus Lotus Lam.) and a red gum of the colour of blood".

After having discussed the faculties of the remedy umm ghailân, Idrîsî (in line 6) gives it the name of "the menstruating tree" (ash-shagara al-hâ'ida الشجرة الحائضة) on account of the very red colour of its gum.

^{1.} We shall see in the chapter talh that this explanation is due to the famous Arabic grammarian al-Khalîl b. Ahmad (d. about 790 A.D.).

^{2.} IB (Lecl. 1335) identifies, however, this plant with shukâ'a is the thistle Onopordium Acanthium L.

The red colour of the gum on which both authors insist favours the identification of the tree with *Acacia arabica var. nilotica Del.* The expressed juice of the husks is called *aqâqiyâ* [1]. For numerous Arabian synonyms of the desert acacias see *Loew II*, pp. 377-391, *Blatter* pp. 682-3 and *Issa* pp. 2-3.

96. AHLAL QUSTÂ اهلال قسطا Balsamic Tansy, (Tanacetum Balsamita L.).

(Lecl. no. 190).

(Author)¹: It is a known species of the sharp smelling aromatics sown in the gardens. Its colour is between white and green and its action is stronger than that of the balm (bâdhrang-bûya باذرنجبوية Melissa officinalis L.)².

COMMENTARY.

Botanists agree in identifying the above description with the composita *Tanacetum* (*Chrysanthemum*) *Balsamita L.*, still cultivated in village gardens. According to *Dragend*. (p. 677) it is used as an antispasmodic, emmenagogue, anthelmintic, antidote and nerve tonic.

Synonyms: ahlâl qustâ اهملال قسطا, hashîshat al-malika حشيشة

^{1.} This word is missing from both MSS, and has been interpolated by us in accordance with the text of IB (I, p. 66).

^{2,} In IB this paragraph is somewhat longer,

اللك (Issa p. 177); Pers. and Turk.: tarkhûn طرخون (Avni p. 590); Eng.: balsamic tansy; Fr.: tanaisie odoriférante: Germ.: Balsamkraut, Frauenminze, Marienwurzel.

97. ILB إلي, (kind of tame poison), Vincetoxicum sarcostemmoides Schwft.?

(Lecl. no. 144).

Abû Hanîfa: A thorny tree looking like the lemontree (utrug التربيح Citrus medica Risso), growing in mountains; it is very scarce. None of the digâg الفجاح is equivalent to it — ad-digâg is every tree with which wild beasts are attracted and poisoned 1 — and the most pernicious of them is al-ilb. Its fresh ends are crushed, meat is mixed with them and cast to wild animals, and they are not long to die when they eat it. If they only smell it without eating it they are rendered blind and deaf. The most pernicious ilb is that of Khafardîd خفر ضيف 2 i.e. a mountain of the Sarât مراحة somewhere in Tihama

COMMENTARY.

As-Sarât is the name of a range of hills which form the limit of the table-land of Arabia and at the same time

^{1.} These latter two words ai tusamm اى تسم have been disfigured in all the MSS. of IB to Ibn Nessim ابن نسيم — a non-existant author!

^{2.} Uncertain reading. Perhaps *Hafîr al-Dabîb* مفير الضبيب of Hamdânî's Geography of Arabia? (Leiden 1891, I. p. 146 l, 20).

the eastern frontier of Tihâma. This latter is the strip of coast-land running from the Sinai Peninsula south-eastward on the shore of the Red Sea to the Yemen and the south coast of Arabia. The name Khafardid is missing from all geographical dictionaries.

Abû Hanîfa's very summary description does not help to an exact identification of the *ilb*-tree. Sontheimer called it *Datura ferox*. *Sickenb*. (Die einfachen Arzneistoffe der Araber Wien 1893 p. 18) believes it to be a kind of *Carissa* (*Acokanthera*). But we find in Schweinfurth's investigations on the flora of South-Arabia (p. 178) the name of *elb* (probably عله, perhaps a mis-hearing for عله) for the asclepiadacea *Vincetoxicum* (*Cynoctonum*) sarcostemmoides *Schwf.*, a plant found and named by himself. It is a scarce plant, 'a strong mountain shrub. Its juice is used in East Africa as a poison for catching fishes. Probably Abû Hanîfa never saw the tree itself, as it was rare. Thus it is uncertain whether his description of a lemon-tree-like plant corresponds to the shrub Vincetoxicum.

Mu'tamid whose author, Sultan Yûsuf b.'Umar originated from the Yemen did not mention ilb at all.

98. ALQÛN ألفون ? (Rosa foetida Bost. ?)

(IB 169 and 227 b, âniqûn آنقون?).

Ar-Râzî: It is the fetid rose; it is hot and dry, and its

root is like that of pellitory of Spain ('âqir qarhâ عاقر قرحا , Anacyclus pyrethrum D. C.).

COMMENTARY.

This may be the yellow rose of Persia ($Rosa\ lutea\ L$.) the flowers of which — sometimes red inside — have a disagreeable smell of bed-bugs. The identification is uncertain.

Synonyms: alqûn (?) âliqûn (?) أَلْقُونَ (Gh.), âniqûn (أَلْقُونَ (B) ward muntin وَدِدْ مِنْتَى (Râzî), murayyaha (?) مريحه (Râzî), murayyaha (?) مريحه (Germ.: Wachsrose, Feuerrose, Kapuzinerrose.

99. ÎDHMÂMÎDH إيذماميذ, Unknown Persian Tree.

(Lecl. no. 164, andâhîmân انداهیان).

Ar-Râzî: A Persian name; it is a tree on the twigs of which is a kind of wool. It is of a very astringent taste and confines the bowels. He called it in another place barmiyûn and he said in a third place îrâmâyî ايراماى, a remedy of Kirman.

Badîghûrûs: It is very useful against diarrhoea by its specific property.

COMMENTARY.

Vullers (I, p. 147) says that îdimâmîd ايدماميد is a tree of the description corresponding to that of Râzî. Harawî

(p. 33) calls it *îdâmîd* ايداويد and describes it as "a forest tree "(*â'ik dirakht*) اآك درخت . Identification of this plant is not possible. Badighurus or Badhighuras با ديغورس is an unknown Hellenistic physician frequently quoted by ar-Râzî.

100. AFQARÂSÛN افقراسون Unknown plant.

(IB, Lecl. missing).

Ibn Sînâ: A Persian remedy, good for the memory.

Ar-Râzî: We use it all for the memory; it is good for the intelligence.

COMMENTARY.

Nobody has been able, until now, to identify this plant. The original article of *Ibn Sînâ* (I, p. 262) is a little longer and reads in the following manner:

" Aqfarâsiqun القفر احقون : a Persian remedy called ad-daíha الديحة and al-hazm الحزم. Organs of the head: good for the memory, and intelligence".

The other names could not be found in any Persian Dictionaries. The first name sounds Greek. Could it be ἀγριοκάρδαμον (agriokárdamon), i.e. the wild cress?

Bîrûnî mentions a drug âfârîqûn של which is, according to Ibn Mâsa, the stone of the wild olive, and according to ad-Dimishqî, mezereum (mâzariyûn ازريون, Daphne Mezereum L.); Bîrûnî does not accept these assertions.

101. AFSUN أفسون, Unknown Persian drug (uncertain reading).

(IB, Lecl., missing).

Ibn Sînâ: A Persian remedy, hot and fine, sharpens the understanding and the intelligence. In another place he says: abraq ابرق, a Persian remedy good for the memory and the intelligence; I think it is the above-mentioned drug.

COMMENTARY.

The original text of *Ibn Sinâ* (I, p. 263) reads aqsûn اقسون, the Persian dictionary of *Vullers* (I, p. 115) aqshûn اقشون. This drug is, according to him, called sa'âdat-i-khabîs by the inhabitants of Shîrâz (in Persia). But no identification of these names has been possible.

102. ATMÛT أطبوط; Bonduc-nut (Caesalpinia bon-duçella Fleming?).

(Lecl. no. 130).

Ibn Sînâ: Hot in the second, moist in the first degree; it strongly clears white lepra (bahaq قرر). In another place he says: Atmât اطماط is an Indian remedy, and its faculty is like that of the orchid (bûzîdân بوزيدان, Orchis Morio L.?); it is (fol. 14 v) aphrodisiac. I think it is the ritta-nut جوز الرته 1.

^{1.} The text of both MSS. reads al-barriyya which must be a copyist's blunder.

COMMENTARY.

The identification of this drug is not quite certain. The most useful to us is the paragraph concerning it by al-Birûni: "Atmût. Some people mentioned that it was a Greek remedy; others said that it was the Indian bean, al-bâqilâ al-hindî المندى, which is dotted with black, and is hard like the stone which is called in their (the Indian) language Akutmakut was a remedy the faculty of which was like that of bûzîdân eçinci.".

We see that Ibn Sînâ copied ar-Râzî.

Ibn Al-Baitâr (I. p. 39) says: «Atmât, atmût and atiût ² is the Indian hazel-nut (al-bunduq al-hindî البتدق الهندى) known as ar-ritta الربية. Some of them (the authors) alleged that it was the betelnut (fawfat فوقل, Areca Catechu L.), but this is not true; it is the ritta-nut, as we have said before. The description of the Indian hazelnut will come under the letter bâ به ».

There IB (I, p. 119) gives a long paragraph beginning

^{1.} See paragraph 108. Dymock (1 p. 497 fol.) confuses the name of the stone with that of the plant.

^{2.} Doubtless a wrong reading.

with a quotation of the well known Arabic historian al-Mas-'ûdî on *ar-ritta*.

The description somewhat agrees with that of the bonduc-nut from the leguminosa Caesalphinia bonducella Fleming (Guilandina bonduc L.). Issa (p. 35) gives to this drug the Indian name qârah which probably reads qâranj is (see Dymock I, p. 496).

Ducros (p. 137) states that the bunduq hindî of the bazaar druggists in Cairo is not the Guilandina bonduc, but simply hazel-nuts.

Synonyms: Ar.: atmût اطاءوط, atmât اطاءوا, gawz ar-ritta, gawz ar-ritta, gawz ar-ritta, اطاءوا, bunduq hindî بندق هندى; Pers.: bunduq hindî, khâya-i-Iblîs (i. e. "Devil's testicles" popular name according to Dymock III, p. 497); Eng.: gray bonduc, bonduc-nut (nicker tree); Fr.: bonduc, oeil de chat, cniquier, guenic; Germ.: Kugelstrauch, zweistachlige Guilandine.

103. AWSÎN أوسين, (better Aw-Sapîd) Indian Water Lily (Nelumbium speciosum Willd.), a White Variety.

(Lecl. no. 198, awsid اوسيد).

Ar-Râzî: A kind of Indian water-lily (nîlûfar hindî نيلوفر هندى); hot and dry.

COMMENTARY.

The Persian name of this drug seems to be disfigured

by both Gh. and IB. The correct reading is probably that of Ibn Sina (I p. 263): "Aw-sabîd أو-بيد is a kind of Indian water-lily. Ibn Mâsargawaih says that it is hot and dry".

It is very probable that this is a white variety of the Indian waterlily, *Nelumbium speciosum Willd*. This plant has mostly pink flowers and is thus described by Theophrastus and Dioscurides. It is a native of India and has been probably introduced in to Egypt by the Persians.

It was first mentioned, as an Egyptian plant by Herodotus; its fruits are edible and are called by *Theophr*. (IV 8) and *Diosc*. (II, 166) *Αἰγύπτιος κύαμος* (Egyptian bean); it bears the corresponding Arabic name¹.

Synonyms for Nelumbium spec.: Ar., Pers. and Turk.: nîlûfâr hindî نيلوفر هندى Pers.: aw-sapîd اوسيد ; Eng.; peltate water lily, "Egyptian" lotus; Fr.: lotus sacré, nélombo; Germ.: Indischer Lotos. For other names see below article no. 128.

104. ARTAD-BURAND أرتد برند Uncertain.

(Lecl. no. 47).

Ar-Râzî: A Persian remedy imported from Sigistân ²; it resembles a split-up onion. It is useful for haemo-rroids.

^{1.} See the article Bâqilâ Qibtî ("Coptic bean") no. 128.

^{2.} The border district between Persia and Afghanistan.

Here is surely a short gap in the Arabic texts of T. and G, as IB (I, p. 19 last line) reads: "Al-Ghâfiqî: I am perfectly convinced that it is ad-dalbûth "لدلبوث". "This latter name, spelt also darbûth "لدلبوث designates, with many others, a gladiole or sword-grass (see Issa p. 87), perhaps the iridacea Gladiolus communis L. As to the Persian name, Ibn Sînâ (I. p. 263) and IB (I, p. 19) give the more correct reading of artad-burrîd lote ve exist which designates in Persian a split up or cut root. Lecl. (no. 47) reads arîd-barîd ارتد بريد Dâwûd (I. p. 58 last line) ârandîrand ارتد بريد and says that it is the root of the white lily (sawsan abyad ارتد بريد Lilium candidum L.). Ibn Gazla calls the drug artad-bartad ارتد برتد برتد برتد برتد المعاونة ال

105. ISFING أسفنح Sponge.

(Lecl. no. 75).

It is called (ghaim and جَة ghâmam ماخ).

Ibn Sînâ: It is a marine substance, porous like felt; it is said to be an animal that moves in the water and that sticks to any object whatever coming in its way, and never releases it.

Diosc. IV (120): $\Sigma \pi \delta \gamma \gamma \sigma s (sp \delta ng \sigma s)$; there is a male kind, thin in its holes, condensed and called $d\lambda i \pi \eta s$ (alipês): and a female kind which is the opposite of the male. Sponges may be burnt in the same manner as Halcyonium (zabad albahr i shell of sepia).

Galen XI (XII, 376): The burnt ones are sharp, resolvent. One of our teachers used it in the treatment of accidental hæmorrhage after incisions, when it was dry and totally devoid of any humidity. Moreover, he dipped it in pissasphalt or in liquid pitch ¹. New sponges are much more effective from the fact that the faculty gained by them from the sea is still intact and active in them.

COMMENTARY.

The "male" sponge of *Diosc*. may be the hard *Euspongia zimocca L*, the "female" the softer *Euspongia officinalis L*., our common sponge (*Berendes* p. 542)

Synonyms: Gr. σπόγγος (spongos), Lat.: spongia, spongea; Ar.: isfing [Pers, and Turk.: same word, pronounced isfanj. The Turkish word sünger is derived from Modern Greek σφουγγάρι (sphungari) Eng.: sponge; Fr.: éponge; Germ.: Schwamm.

106. ITHMID A.J., Stibium.

(Lecl. no. 18).

It is the kuhl Jas.

Diosc. V (84): Stîmîsit 2: The best kind is

^{1.} The following is abridged by BH.

^{2.} Thus in T; G reads stimist This spelling is remarkable because different from the readings of the ordinary editions of Diosc. ($\sigma i \mu \mu \mu$ and $\sigma i \beta \iota$) but very near the Ancient Egyptian reading m s d m t.

the one which is easily crumbled, shiny and brilliant, has layers, is smooth on the inside and clean of any impurities. Its faculty is agglutinating, astringent and cooling. It heals ulcers and removes redundant granulations in them. It stops epistaxis originating from the meninges of the brain. It may be washed in the same manner as cadmia, burnt copper and filings of lead. It is ripened by being kneaded in grease, placed in burning charcoal and left until the grease is burnt, then removed from the charcoal and administered with the milk of a woman who had given birth to a male, or with the urine of young boys mixed with old wine.

Galen: To be replaced by burnt ark ارك 1.

COMMENTARY.

It is *sulphurate of antimony*, still largely in use in the whole Orient as a remedy and a cosmetic for the eyes.

In Ancient Egypt it was equally well known under the name of m s d m t (Coptic CTHO, COHO) and all the modern names in Oriental and European lang-

^{1.} This word is unknown. It might perhaps be a mistake by the copyist for arîkî (see no. 107). Meant is a place in the Pseudo-Galenic De Succedaneis (XIX 743):ἀντὶ στίμμεως κοπτικοῦ λεπίς χαλκοῦ (''instead of Coptic stibium scales of copper''). The common Arabic name for scales of copper is, however, tûbâl an-nahâs το είνοι το είνοι

guages (stibium, antimonium letc.) are derived from the Egyptian.

107. ÂRÎKÂN نلاية 1, Ochre.

(Lecl. no. 51).

It is also called aríkî رَيِي, in Greek مقروه (okhra).

Ibn Al-Gazzâr: Al-arîkî are small yellow stones which, when burned, turn red.

weight in which the yellow colour is deep and pervades all its parts. It is easily crushed and must not be adulterated with other stones of the land of Attica. It is sometimes burned and washed as *cadmia* is washed. Its faculty is astringent and it makes hot swellings disappear. With

^{1.} Thus in T: G spells arîkhân ارتكان, IB (I, p. 20) artakân ارتكان. We could not discover the origin of this name, nor that of ariki. Might it be derived from the Greek island Eretria?

κηρώτη (kêrôtê) ; it fills ulcers with healthy granulations and destroys redundant ones.

COMMENTARY.

Ochre is a combination of hydroxide of iron with clay. It was used in Antiquity for painting (see Pliny XXXV, 35) and still is. It turns red when burnt.

Synonyms: Gr.: ὧχρα(ochra) Lat.: ochra; Ar.: the above mentioned uncertain readings; moreover ukhra اخرا (from Greek) and azankân ازنكان (Berggr. p. 865), tîn asfar طین اصفر ("yellow clay"); Pers.: gil-i-barsh کل (Schlimmer p. 404); Turk.: okhra صاری بویا , sâri bûyâ صاری بویا (Avni p. 416); Eng.: ochre, ocher; Fr.: ocre jaune, ochre; Germ.: Ockererde, Gelberde.

108. AKATHMAKATH فهما أكثم أكثم Eagle-Stone.

(Lecl. no. 130).

It is the "stone of childbirth", the "eagle stone" and the "vulture-stone", because it is found in their nests. It is also called "the stone of facility" because it facilitates childbirth when hung on the left thigh of the woman in labour wrapped up in (a piece of) camel's skin. It is called

^{1.} I. e. wax-plaster.

^{2.} G reads akhtamakht اختمخت; but the above spelling is the correct one.

in Greek deritins (aetités) or belonging to the vulture because vultures carry it to their nests to show it to their fledglings.

Ibn Gulgul: It is a stone inclined to redness, and when shaken there issues a sound from it like that of bells, although when broken nothing is found inside it.

Ar-Râzî in the Book of Substitutes: Akathmakath is an Indian remedy resembling hazel-nuts except that it is flatter; it is greyish in colour. When shaken, there issues a sound from it as if something else was inside it and, if broken, something like the grain of a hazel-nut comes out of it. It is slightly whitish. I found in an Indian book 1 that it facilitates childbirth when hung on the pregnant woman's thigh; I tried it and found it true.

The same Author says in the *Book of Specific Qualities*: It is something like the egg of a sparrow and resembles a stone containing another one inside it, which is loose.

And in the Continens (al-Hâwi على): Akathmakath is an Indian remedy which has the same action as that of the peony (al-fâwâniyâ الفاواتيا, Paeonia officinalis Retz), when triturated with water and anointed on an organ (fol. 15 r) which issues vapours of black bile.

Xenocrates 2: The stone called ἀετίτης is of four kinds;

^{1.} Indian books on drugs and poisons were translated into Arabic, e.g. under the reign of Hârûn ar-Rashîd (786-809 A.D.).

^{2.} Xenocrates of Aphrodisias (ab. Ist. cent. A. D.) wrote on drugs and aliments and their marvellous qualities. He is frequently quoted by Galen.

the first is the Yemenite; it resembles in its size a gall-nut, is black and light, carrying inside it a hard stone. The second is the Cyprian; it is wider and more elongated than the Yemenite, like an acorn. It carries inside it a stone or sand or pebbles. It is smooth and very soft and easily crushed by the fingers. The third comes from Libya. It is small, soft, sand-coloured: it carries inside it a small white stone easily crushed. The fourth is the Italian ¹ found on the coast, resembling sand. It is white and round, facilitates childbirth and cures sterility in the form of a pessary.

COMMENTARY.

Both the origin and vocalization of the word with are unknown. Some spell it *ikthamakth*, others *akthamakth*, *akithmakith* and *akthamukth*. It is missing from the Sanscrit dictionaries. In Hindî and Hindûstânî one could perhaps find an explamation in the adjective *ikathhâ* will "collected together", and *mukt* will pearl. According to *Freytag* (I, p. 46) it is an Indian word, though the Persians thought it to be Syriac (*Vullers* I, p. 116).

Ibn Gazla takes this drug for a plant, confounds it with atmût اطموط (see no. 102) and is rebuked by IB (I, 51, Lecl. l. p. 121).

^{1.} In both MSS. clearly spelt al-îtâlî الايطال, but IB and other sources read al-antâki الانطاك i.e. the Antiochian; this is probably the correct reading.

In the Pseudo-Aristotelian *Book on Stones*, a creation of the Syro-Persian period (about 500 – 600 A.D.) it is said that the eagle puts this stone under his female before she lays eggs¹. The cosmography of al-Qazwînî adds² that the eagle brings this stone from India and throws it to those who approach his nest; it is also met with in the nests of vultures.

Idrîsî (p. 181 1.6) says that "the stone Aktamakt نام الله is found in the mountains of India "between Qîmâs فيماس (to be corrected Qimâr قمار i.e. Khmêr or Kambodja) and Sarandîb سرنديب (Ceylon)."

Bîrûnî however who is best informed about India writes as follows: Akathmakath is an Indian remedy acting in a similar manner as peony. In the Collection of Ibn Mâsawaih it is said that it can be substituted for peoney, and for this reason some people have thought it to be the fruit of the peony-plant; but I think it is far from being so, as peony is a Greek remedy and this is Indian...

Dàwûd (I, p. 78) repeats Gh.'s and IB's sayings and adds: "It is brought from Yemen ³. There is a white kind with something like sand in its interior of which it is

^{1.} J. Ruska, Das Steinbuch des Aristoteles, Heidelberg 1912 p. 165.

^{2.} J. Ruska, Das Steinbuch aus der Kosmographie des Zakariyâ ibn Muhammad ibn Mahmûd al-Qazwîni Kirchhain 1896, p 17.

^{3. &#}x27;Umar b. Yûsuf, Sultan of the Yemen, does not mention it in his Mu'tamad.

said that it comes from our town Antioch ¹; but I never saw it (there). The stone which I saw was of the first kind (i.e. like an acorn) and it was procured for me by a person from Upper Egypt from the region near the emerald-mines ²; but it was as big as a pomegranate, and when we opened it, we found in it something like red sand."

The Indian stone (hagar hindî حجر هندى) or Tanta stone (hagar tuntâwî حجر طنطاى) of the modern Cairo druggists may have been originally the same as the eagle-stone. What is sold under these names to day is a kind of resinous mass (according to Ducros p. 100).

Sickenb. (Arzn. p. 17) thought that the eagle-stone might be a kind of pebble of the Libyan Desert which often carries another one loose inside it. But this latter is heavy and hard, and the ancient authors affirm that the eagle-stone is light and that several kinds are easily crushed.

Wittstein, in his edition of Pliny (*Abû Mansûr* p. 314) thinks that the eagle-stone is a kind of brown iron ore; but it is useless to propound hypotheses on a superstitious remedy of Antiquity. The traces of this superstition are to be found in many lands.

109. ISFÎDHÂG إسفيذاج White Lead.

^{1.} Dâwûd's birthplace

^{2.} This is Wâdi al-Hamâmât وادى الحمامات on the route between Qenâ and Qusair in the Eastern Desert of Upper Egypt.

(Lecl. no. 73).

Diosc. V (88 a): A cover of lead is placed on the mouth of a jar containing concentrated vinegar. This is covered with a cane-mat hermetically closing it to stop any steam coming out ¹. When the lead cover melts and falls into the vinegar the clear part of the latter is separated and the thick residue is collected in a vessel, dried in the sun and ground or pounded; the first method is better.

Galen IX (XII, 243 foll.): White lead is formed when black lead (usrub اسرب) is melted in vinegar, in the same manner as verdigris (zingâr زنجار) is formed when copper is melted in vinegar. White lead is cooling and verdigris is heating and burning.

COMMENTARY.

White lead is basic lead-carbonate; the principle of manufacturing white lead is still nearly the same as in Antiquity. Medically it was used by the Greeks and Arabs for dry collyria, plasters and the like.

Synonyms: Gr.: שְּנְעִלּטׁנּסי (psimythion, Diosc.), שְּנְעְנּטֹטׁנּסי (psimmythion, Galen); Lat.: cerussa; Ar.: isfîdhâg יוּשׁבּּבּוֹב ; the word is Persian (sapîd ייָבּי , white). Pers.: sapîdâ ייָבּי , sapîdâb , ייבָּר , sapîdâj ייבָּר , isfîdâj ייבָּר ; Turk.: same name, and

^{1.} This part of the article is abridged by BH.

white etc.; Fr.: céruse, blanc de plomb; Germ.: Bleiweiss. Greek word transcribed in Demotic) (J. 4) 3 2 London and Leyden Magical Papyrus (G. Sobhy).

110. ISRING E Red Lead (Minium).

(Lecl. no. 74).

It is called siring أسليقون, i.e. as-saliqûn السليقون and az-zarqûn and in Greek σάνδυχος (sándychos) أالزرفون

Ar-Râzî: It is black lead burnt in a strong fire until it turns red; then salt is thrown over it. It may also be prepared by burning white lead.

Diose. V (88 b): White lead is sometimes pounded and placed in a deep sauce-pan on the fire; it is then stirred up until it takes the colour of red arsenic (zarnîkh زرنیخ); this is called σάνδυξ (sándyx).

Galen IX (XII, 235): It is more refined than white lead and yet does not heat in the same way.

COMMENTARY.

Minium is a combination of oxide and peroxide of lead

^{1.} According to IB (I p. 32 l. 10) these are popular names given by the inhabitants of the Maghrib.

^{2.} Our MSS. give the genitive while IB has the correct spelling sandûqs سندوقس i.e.

(Pb₃O₄); it is still obtained in an easy way by heating white lead; and the produce is called "rouge de Paris".

Idrîsî distinguishes in white lead two kinds: ânukî 🕹 🗓 and rasâsî رصاصی 1; « when the ânukî is burned with sulphur it turns red and becomes minium. » This is an error, as the result is cinnabar.

Synonyms: Gr. σάνδυξ (sándyx. Diosc.), σάνδιξ (sándix, Galen); Lat.: minium, sandyx (Pliny XXXV); Ar.: isring اشرنج (Pers. same, name, and saranj سرنج (Schlimmer), shangarf منتجرف (Vullers II, 471); Turk.: qurshûn sôlken قورشون سولسكن (Avni 386); Eng.: minium, red lead; Fr.: minium, oxyde rouge de plomb; Germ.: Mennige, Bleirot, Pariser Rot.

111. ÂZFÂR AT-TÎB أظفار الطب , Sweet Hoof.

(Lecl. no. 104).

Al-Khalîl²: It is a black odoriferous substance resembling nails mixed with incense (for fumigations).

Diosc.: II (8): $\delta rv\chi \epsilon s$ ($\delta nyches$)³ is the cover of a kind of shell-bearing animals; it is like the shell of the purplefish (farfir فر فير). It is found in India in stagnant and foetid waters.

^{1.} Both words designate "of lead" or "of tin".

^{2.} See note 1 to p. 203.

^{3.} Here the plural of $\delta v v \xi$ is used.

Its smell is aromatic because this animal lives on nard (an-nârdin الناردين). A kind is also found in Babylonia which is black and small. Both are aromatic and their smell resembles slightly the smell of castoreum (gund-bâdastar جند بادستر). Both are useful as fumigations for atresia of the uterus (ikhtinâq ar-raham اختناق الرحم). (According to Sharaf p. 384 this expression also designates hysteria).

Masîh: Hot and dry in the second, rarefying thick chyme.

Ar-Râzî: It causes heaviness to the head and head-ache.

Ibn 'Imrân: As fumigations it is emmenagogue.

COMMENTARY.

Unguis odoratus ("odoriferous nail") is the cover of a marine snail, probably Murex inflatus L. Sprengel (Berendes p. 155) thought it to be Strombus lentiginosus, and the strongly odoriferous kind Pleurotoma Babyloniae or Pl. Trapezii. It was in former times a medicinal drug in Europe under the name of Blatta byzantina. It is still sold in the drug bazaars of the Near East and of India. The description of the drug found in the Cairo drugstores is given by Ducros (p. 86 foll.).

Bîrûnî gives a very long and important discussion on this drug. He mentions at first the Greek, Syriac and several Persian names and the sayings of Masih on it (vide

suprâ). He then continues: "It is the shell of an aquatic animal like that which exists in the interior of a shell-fish (shank عنك, Persian name) known as sapîd-muhra (Persian name for Conchula Veneris); it sticks by its glutinous character to any wood in the water; it is a kind of cowry-shells (wada' ودع).

Hamza (al-Isfahânî) said that they were the scales of the skin of mîsh-máhî مناهي الماء.

Ibn Mâsawaih, and al-Hushakî (2): The mîshmâhî is adherent to its flesh and skin, and the scales are detached from the skin. It is found in the Sea of Yemen and sometimes in the estuary of the river 3 in the region of Basra; it is brought fresh to Abbadân 4. Most of which that is exported comes from al-Bahrain 5, and it is the best for fumigations; that which has a stinking smell gives, when grilled, a breath of the perfume of ambergris.

Al-Kindî said: The animal of the (odoriferous) nails is like a piece of gut on the two ends of which are two balls, in each of which is a nail and they are said to be its eyes.....

The shells are of different kinds, and the best are

^{1.} A Persian name of a (shell-?) fish; not in the dictionaries.

^{2.} An unknown author frequently quoted by Bîrûnî.

^{3.} I.e. Shatt al-Arab in the Persian Gulf.

^{4.} A town, formerly island, south of Basra, now an important petrol area.

^{5.} A land at the east coast of Arabia, on the Persian Gulf.

al-qurashiyya الفريثية. The Indians like it and call it tah kurshî or the qurashî-nail. They are brought also from the region between Gudda and 'Adan², and they are small and yellowish like asafoetida or like the hollow of the shell of the pistachio-nut. One druggist pretends that the hâshimî kind is next to it in goodness, that they are bigger than the qurashî and of red colour; but others contest this. Then comes the kind called nails (hoofs) of asses on account of their size and thickness; they are as big as a dirham 4 and blackish (in colour).

Al-Hushakî: The makkî-nails are brought from Gudda and the coast of Mecca; they are inferior to those of Bahrain and not suitable for fumigations. They are like shells and their colour is reddish. When they (the shells) are taken off the animals they are prepared with perfuming substances and then sold.

Ibn Mâsawaih: The lily-wine (maisûsan perfumes them when they are dipped in it and then washed..... (illegible words).

Al-Hushakî said about this: They are macerated in water and salt for three days, then washed with hot water

^{1.} Probably from the tribe of Quraish in Arabia.

^{2.} Djedda and Aden, west coast of Arabia.

^{3.} Perhaps named after the family of the prophet, Hâshim.

^{4.} A silver or copper coin.

until their flavour and foul smell disappear, and are then dried. They are then thoroughly cooked with spices, put into Meccan sand and dried, then grilled, care being taken not to burn them.

A vegetable substance happened to come from India like the barks of pistachio-nuts, resembling human nails, white on one side and yellowish on the other, having a certain odour; it is called $n\hat{a}khuna$ if 1, and the Indians use it in $Dhob \stackrel{2}{\smile} 2$, which is one of their fumigations".

Thus, according to al-Birûnî and his sources, the Ungues odorati came, in former times, mostly from the coasts of Arabia. The Yemenite sultan Yûsuf b. 'Umar does not mention them, however, in his Mu'tamad.

Synonyms: Gr.: ٥٧٠٧٤٤ (٥nyches); Lat.: ungues odorati Ar.: azfâr at-tîb أَظْهَارِ الطّيب ; Pers.: same name and nâkhun-i-pariyân ناخن خوش (fairy's nail); nâkhun-i-khôsh ناخن خوش ("odoriferous nail") Bîrûnî, nâkhun-i-dîv ناخن يويا ("devil's nail"), Vullers II, 1271; Turk.: ezfâr-i-tîb ناخن ديو ; Eng.: sweet hoof; Fr.: blattes de Byzance; Germ.: Räucherklaue.

112. INFAHA anail, Rennet.

^{1.} From Persian *nâkhun* — nail.

^{2.} It may be spelt dhab or dhob; dhûpana is a Sanscrit word for "fumigation".

(Lecl. no 172).

They are the rennets of suckling animals.

Galen X (XII, 274): All rennnets are hot, refining, resolvent and dry. A rabbit's rennet triturated with vinegar is useful against epilepsy. Some people say that rabbits' rennets are useful for retained phlegm in the chest. I, however, did not try it nor dit I know of its action, and I doubted it very much, because that disease needs astringents whereas this drink is strongly irritant and resolving.

Diosc. II (75): Rabbits' rennets: three oboli of it when drunk with wine, are good for insects' bites and chronic diarrhoea; it promotes pregnancy in the form of a pessary. It is useful when drunk with vinegar against epilepsy. (fol. 15 v)

Galen (XII, 274): The rennets of a mare confine loose bowels.

At-Tabarî: If a pregnant woman drinks of a male rabbit's rennet together with his testicles mixed with wine, she gives birth to a male. And when she drinks of a female rennet she gives birth to a female.

Al-Isrâ'îlî: The rennets of donkeys and of he-goats, when drunk with wine, are useful for dropsy. 1

^{1.} This word is mutilated in the editions of IB جبن instead of عبن. Lecl. (I, 158) gives the correct translation.

Diosc. II (75): The rennets of the he-goat, sheep, young and old gazelle, the onager 1 , the antelope and the calf are similar in their faculty and are good when drunk, for the poison called $\frac{\partial \omega}{\partial r}$ (akôniton, Aconitum Napellus L.). The rennets of the sea-animal called $\frac{\partial \omega}{\partial r}$ (phôke, seal) have the same faculty as castoreum: useful when drunk against epilepsy and atresia of the uterus (hysteria). In conclusion all rennets coagulate fluids and dissolve solids.

COMMENTARY.

Some of the kinds of animals enumerated by *Diosc*. were replaced by Hunain in his translation by others which were better known to the Arabs. Rennet was later on prepared as a dry powder (*pulvis seriparus*).

ארבי (Pitya); Lat: coagulum; Ar.: infaha ישֹׁשׁ, anâfih יוֹשׁׁשׁ (Dâwûd, who gives names in many Oriental languages; so does Bîrûni); Turk.: same word and penîr-mâyasi יַשׁׁ (Avni), yaghurt-mâyasi יַשׁׁ (Samy); Pers.: mâya-i-panir אוֹשָּׁ (Schlimmer); panîra יַשׁׁ (Vullers I, 378), panîr-maya יַשׁׁ (Steingass); Eng.: rennet; Fr.: présure, caillette; Germ.: Lab.

113. AF'Â ...i, Viper. (Lecl. no. 120).

In Diose.'s text πλαινκέρως (platykérôs), i. e. dappled buck.

Galen XI (XII, 311): The flesh of vipers dries, heats and resolves when corrected with oil, salt, dill and leek. Experience has shown that when a serpent falls alive in a liquid and dies in it, and a leper drinks of that liquid, his skin becomes thickened and drops off; the rest of his flesh becomes as soft as that of a snail. (We omit here many stories that happened in our times)¹. It (the viper's flesh) resolves a certain matter from the whole body which becomes exuded by the skin. That explains why a great number of lice are generated in the body because of it.

Diosc. II (16): ${}^{n}E_{\chi\nu\delta\nu\alpha}$ (échidna) i.e. the viper. Its flesh, when cooked and eaten strengthens the sight and stops scrofulous glands from growing. It is said that its eating produces lice, which is a wrong statement. It is believed that people who feed on it have their lives prolonged.

Unknown Author: Abuse of feeding on vipers' flesh ulcerates the body and corrupts the temperament. If a viper is pounded and smeared over the place of its bite, it cures it.

COMMENTARY.

It is particularly in Galen that we find the relation of a great number of miraculous cures by vipers' flesh. Andromachus, physicianin ordinary of the Roman Emperor Nero, was the first

^{1.} This is probably a note by BH who abridged the long record of Galen.

to add this remedy to his famous theriacum, which was compounded of more than sixty drugs. The "great theriacum" with vipers' flesh was said to be an efficient remedy against leprosy; it was always the subject of various superstitions.

Idrîsî (p. 36) gives various tales on vipers' flesh. Bîrûnî's paragraph on vipers is short, and Ibn Gazla only repeats Galen's words. But Dâwûd gives a circumstantial record of this drug, and mentions which kinds of vipers are the best for use as remedies, together with legends about the action of vipers' poison, mostly extracted from Greek sources. He mentions the Egyptian horned sand-viper, (cerastes).

Damîrî (translated by Jayakar I, pp. 56 - 64) abounds in legends about vipers and repeats some of the sayings of medical men (Bakhtîshû' and others).

Synonyms: Gr.: ἔχιδνα (échidna); Lat.: vipera; Ar.: af'â النكرك المناه (plur. afâ î النكرك المناه); Turk.: engerek (yilan); النكرك المناه (plur. afâ î الناء); Eng.: viper; Fr.: vipère; الناه (plur. afâ î الناء); Eng.: viper; Fr.: vipère; Coptic. (εqω).

114. IBN 'IRS بإبن عرس , Weasel.

(Lecl. no. 12).

Diosc. II (25): It is $uvya\lambda\tilde{\eta}$ ($mygal\hat{e}$)¹. When its skin is removed and the contents of its abdomen are emptied

^{1.} Thus spelt in our MSS. T and G and in Birûnî and Idrîsî although this word means a field mouse. The quoted paragraph of Diosc. refers to $\gamma a \lambda \tilde{\eta}$ ($g \acute{a} l \acute{e}$), i.e. the weasel,

and the rest salted and dried in the shade and taken in the dose of one *mithqâl* it makes the strongest antidote for (stings of poisonous) insects. Its ashes, when mixed with vinegar, are good as an ointment against gout.

Galen X (XII, 362): I have never tried it 1.

COMMENTARY.

It is the small weasel *Putorius vulgaris Briss*. (Mustelidae) which is very common in the Oriental houses². Many legends are known about this little carnivorous animal, e.g. that it brings forth its young in places where gold is hidden³, or that it brings gold as a ransom for its captive young⁴. *Idrîsî* (p. 35) gives synonyms in many languages, *Dâwûd* a detailed reference to its medicinal faculties.

Synonyms: Gr.: Γαλῆ (gale, Diosc. Galen),
(iktîs, Aristotle); Lat.: mustela (Pliny XXIX); Ar.: ibn 'irs
ابن عرس , 'irsa عرسه (Dâwûd), abu'l-hukm أبو الحسم , abu'l-waththâb
ابن عروس (Syria, Berggr. 103); ابن عروس (Naficy); ابن عروس (Naficy);

^{1.} This is an extract from Galen's longer paragraph.

^{2.} In Egypt and Palestine a variety *Putorius africanus* (Mustela palmata) abounds.

^{3.} Dr. Meyerhof's Egyptian servant once dug up a part of the floor in order to discover such a treasure!

^{4. &#}x27;Abd al-Latîf, according to Damîrî (Jayacar II p. 421

Turk.: gelinjik کینجان; Eng.: weasel; Fr.: belette, fouine; Germ.: Wiesel, Hausmarder.

115. ARNAB أرنب, Rabbit (Hare).

(Lecl. no. 54)¹.

Some physicians say that when it is pounded and placed in a jug it is useful against ulcerations of the intestines (dysentery). Rabbits are sometimes burned whole and used against stones of the kidneys; if the abdomen with the viscera is roasted in a sauce-pan and mixed with attar of roses it causes hair to grow on the head.

COMMENTARY.

All kinds of medicinal properties are still ascribed to the organs of hares and rabbits. $D\hat{a}w\hat{u}d$'s paragraph on this fact is very long.

^{1.} IB's corresponding article refers to al-arnab al-barrî. i.e. the thare (not rabbit) according to Diosc. (II, 19). BH abridged Gh's sayings, the full text of which is preserved by IB (I, p. 21, 1. 20 foll.).

116. ARNAB AL-BAHR أرنب البحر, Marine Hare. (Lecl. no. 55).

Ibn Sînâ: A small marine animal with a solid ¹ reddish shell. Between its parts there is something like the leaves of the salt-wort (ushnân اشنان).

Another Author: A small marine animal with a stone in its head.

Diosc. II (18): Λαγωὸς θαλάσστος (lagôós thalássios); it resembles the young of the animal called τευθίς (teuthîs, cuttlefish). If smeared on a part of the body, alone or with nettle (qarîs قریص) it removes hair.

Galen XI (XII, 344): The oil in which it is cooked is used to remove hair.

Another Author: The ashes of its head are useful against alopecia. It sharpens the sight. This animal is poisonous, and when any quantity of it is taken it kills the person by ulcerating his lung.

COMMENTARY.

The "marine hare" is, according to Sprengel (Berendes

^{1.} The texts of Gh read swhich gives no sense. This word is missing in the Bûlâq text of Ibn Sînâ and in all the texts of IB. The old Rome edition of the Qànûn (1593), however, reads (p. 135) which was possibly transcribed sleep or so by Plempius (II, p. 63)

p. 159) a harmless Mediterranean marine snail, Aplysia depilans L. which was the subject of various superstitions. Italian fishermen of to-day still believe that its mucus causes the hair to fall out.

The Oriental drug-books repeat the Greek legends of the poisonous qualities of this sea-shell, but none of their authors seems to have ever seen or tried this drug.

Birûnî says that the marine hare is a "stony piece".

Ibn Gazla says, that when it is taken it causes dysphoea, injection of the eyes, dry cough, hæmoptysis, violet urine, and other symptoms; also taste of rotten fish in eructations.

Synonyms: Gr.: λαγωὸς θαλάσοιος (lagôós thalássios);
Lat.: lepus marinus; Ar.: arnab al-bahr أرنب بحرى (Gh.), arnab bahrî أرنب بحرى (Ibn Sînâ, Bîrûnî, IB etc.); Pers.: arnab-i-bahrî أرنب بحرى; Turk.: same name; Eng.: marine hare; Fr.: lièvre de mer (Cuvier, Lecl. I, p. 53); Germ.: gemeiner Seehase.



الله العن المحراب الوجفة المربع الوجفة المربع المعرابي خَسْكِيدُ الفَّافِقِ وَحَمُّا مِعْتَ اصْلَحْتُ النَّاكِ النَّاكِ الذِي لَنْ سَمِتُ فَي صَوْفِ الادوبِ فِي المُعرَوْفِ مُرْتُ مَن الْعَلَى الْحِتِ إِذَا عَدُ لَا أَبِدِي النَّا مِن الْحَامَ الْعَرْفَ الْعَرَافِ مَا مَعْ فَيَ عِلْمُ مِن الْحَامَ الْعَرَافِ سرَمَا يُوصِعُلُ مَسَوَابِ وَعِيْرَصَوَابِرِ وَالنَّايِ كَالْاصِيْرَنِيْ عَرَضًا لَا نَاوِمِ لَكِبَّ إِدِ وَدُوو البعنة والاصاداقل مزالقليز فللحنكم انسكاخة يعفرالاختان بقدت وذرت وصد وَعِدُهِ مِن وَهُوَا بِطَاكُمُ الْحُرَا الْحُرَا الْخُرَا الْوَرَا الْفُرْمَا وَوَلِي الْمُرَادِةِ الْحُرَا الفُرِّ وَاللَّا الْفُرِّ وَاللَّالِ الْمُرَادِةِ الْحُرَا الفَرِّ وَاللَّالِ الْمُرَادِةِ اللَّهِ وَاللَّالِ الْمُرَادِةِ اللَّهِ وَاللَّهِ مِنْ اللَّهِ وَاللَّهِ مِنْ اللَّهِ وَاللَّهِ مِنْ اللَّهِ وَاللَّهِ مِنْ اللَّهِ وَاللَّهِ وَاللَّهِ وَاللَّهِ وَاللَّهِ وَاللَّهِ فَي اللَّهِ وَاللَّهِ وَالْمِلْمِ وَاللَّهِ وَالْمِلْمُ وَاللَّهِ وَالْمُعِلَّةِ وَاللْمِلْمُ وَالْمُواللَّذِي وَاللَّهِ وَالْمُواللَّةِ وَاللَّهِ وَالْمُولِي وَاللَّهِ وَالْمُوالِمِي وَاللَّهِ وَالْمُولِمُ وَاللَّلِي وَالْمُولِمُ وَاللَّهِ وَالْمُولِمِ وَاللَّهِ وَالْمُولِمُ وَالْمُولِمُ وَاللَّهِ وَالْمُعِلِمُ وَاللَّهِ وَاللَّهِ وَالْمُواللَّهِ وَاللَّهِ وَاللَّهِ وَالْمُعِلِي وَالْمُولِمِ وَالْمُعِلَّةِ وَالْمُولِمُ وَاللَّهِ وَالْمُعِلِمُ وَالْمُولِمِ وَالْمُولِمُ وَاللْمُولِمِ اللْمُولِمُ وَاللَّهِ وَالْمُولِمُ وَالْمُولِمُ الأنما الجيولة وصبكا والعرضار واركان فدنعة منهاط الأالم المهمنه الحاعز حقيقة ومنعدة لك تمم مقلدا و زيد علطه لافديم منه مَز علط علم سرالا وبلط معله الزوا وحشيج سرك كاي فيوسف وزيدتن وكالتيوس وواين طهاكرا وكجدا وكجدا وكما كذب الم معلدابن يناجب على عنها الم بعب والما المام الحريب العضان الع وَهُ عَلَط الْعَلْط الْعَالِحَ مَن الله وَ الله عَلَى الله وَ الله عَلَى الله الله الله عَلَى الله ف دلكما أسمع عنراً مرَالعَلِطِ حَدى عِبْطاله فيه ألافتحار و أستوبن فيه و (عيم الادوب الت وكادبوسعنور مذيس وجالبنوس وكالعث بغوليها وتركزه بغدتما مصتا وسن على اضع النعين والهما ولم آن بنول على المرت ما ذك في البيد في والمنت على الك أبضًا بعن المنا يتزالج بسنعلا اهل المرما ولم مذكرها المؤمرة ونوتمنا قاما الهم في الطعورة الادابيوب فَوْيَ لَا وَيَهُ مَلَاكُ إِلَا اللَّهِ فَدَا أَتَّكُرُوا فِهَا مِزَالِكُمْ نَرَكَ الْعَوْلَ فِهَا وَأَنَا صَدى الْوَضَ الدياع في القائم الماعي جل أدرك وكالمائد والمائدة والمادمة والمائدة والرحي مراكزة كان الماويارون المكذ الماملزم الميركاي ووالظينف فكالطه ضلاقًا لوا المهنوك بأنفرته على ويذار ويتنار وما أفع بأحرم أن يطلب أد وبيَّ عندودة ويُونى ادويه كم سبت إ هل عالى اداد

بحرى صغير في رأسه حجر . (ق ب) لاغوس ثالاسيس يشبه الصغير من الحيوان المسمى توثيس واذا تضمد به وحده أو مع قريص حلق الشعر . (ج يآ) الزيت الذي يطبخ فيه يستعمل في حلق الشعر . (غيره) رماد رأسه جيد لداء الثعلب ويجلو البصر وهذا الحيوان من السموم اذا شرب منه شيء قتل بتقريحة الرئة .

والخروف والخُسف والظبى واليحمور والكاوميش والعجل متشابهة فى القوة يوافق شرابها السم المسمى اقو نيطون وأنفحة الحيوان البحرى المسمى فوقى قوتها كقوة الجندبادستر تنفع من الصرع واختناق الرحم شربا وبالجلة كل أنفحة فهى تجمد الذايب وتذيب الجامد.

المنت والملح والشبت والكراث وقد صح بالتجربة أن الافعى إذا طيّب بالزيت والملح والشبت والكراث وقد صح بالتجربة أن الافعى إذا سقطت حية فى شراب وماتت فيه وشربه مجذوم غلظ جلده كله وسقط وصار باقى لحمه فى اللين كلحم الحلزون وذكر فى ذلك حكايات وقعت فى زماننا تركناها . وتحلل من جميع البدن شيئاً وتخرجه من الجلد ولذلك يتولد منه فى البدن قل كثير . $(\frac{1}{2}, \frac{1}{2})$ اشيذانا وهى الأفعى لحمها إذا طبخ وأكل يحد البصر ويمنع الخنازير من زيادتها وقد يقال أن أكله يقمل وهو قول باطل ويقال أن آكليه تطول أعمارهم . (مجهول) الاكثار من أكل لحم الأفاعى يقرح البدن ويفسد المزاج وإن دقت أفعى وضمد بها موضع نهشها نفعها .

11٤ — إبن عرس . (﴿ بَ بَ) غالى ؟: إذا سلخ وأُخرج بطنه وطرح وملح وجفف فى الظل وشرب منه وزن مثقال كان أقوى علاجا يكون للهوام ورماده اذا عجن بالخل ينفع النقرس لطخا (جَ يَ) أنا لم أجربه قط.

100 — أرنب: (قال بعض الأطباء) إذا طحن أوغم في قدر نفع من قروح الأمعاء وقد يحرق الأرنب كما هو ويستعمل لحقا الكليتين وإذا أحرق بطنه بأحشائه في مقلاة ينبت شعر الرأس مع دهن ورد.

الى الحمرة ما هو فيما بين أجزائه كأنه ورق الأشـنان. (غيره) حيوان الله الحمرة ما هو فيما بين أجزائه كأنه ورق الأشـنان. (غيره) حيوان

إبن عرس

أر نب

أرنب البحر

۱ ت، غ:ی ۲ ت، غ: اشیدانا

٣ ت: موغالی ، غ: موغانی

يسحق الاسفيداج ويجعل في طنجير عميق على النار ويحرك حتى يتلون لون الزرنيخ الأحمروهذا يسمى سَنْدُخوس . (- ل) وهو ألطف من الاسفيداج ومع هذا ليس يسخن أيضاً .

أظفار الطيب

الطفر الطيب (الخليل) شيء من العطر أسود يشبه بالظفر يحل في الدخن . $(\frac{1}{6}, \frac{1}{1})$ أونيخاس هو غطا صنف من ذوات الصدف وهو كصدف الفرفير يوجد ببلاد الهند في المياه القائمة المنتنة ورائحته عطرة لأن هذا الحيوان يرتعى الناردين وقد يوجد منه في بابل شيء أسود صغير وكلاهما طيب الرائحة تشبه قليلا رائحة الجندبادستر ينفعان من اختناق الرحم تبخيراً . (مسيح) حارة يابسة في الثانية ملطفة للكيموسات الغليظة . (الرازى) يثقل الرأس ويصدع . (ابن عمران) ينزل الحيض تبخيراً .

إنفحة

15 V.

شربا. (ج) إنفحة الفرس تحبس استطلاق البطن. (الطبرى) اذا شربت المرأة من إنفحة الأرنب الذكر وخصيته مع الشراب الممزوج ولدت ذكرا اذا حبلت واذا شربت من انفحة انثى ولدت أنثى. (الاسرائيلي) أنفحة الحمر والظباء والجداء اذا شربت بالخل نفعت من الحبن، (ذَبَ) انفحة الجدى.

الحامل وقد جربته فوجدته صحيحاً. و (قال في كتاب الخواص) هوشي. يشبه بيضة العصفور ويشبه حجراً في جوفه حجر يتحرك و (قال في الحاوى) اكشمكث دواء هندى يعمل عمل الفاوانيا اذا سحق بماء وطلى على العضو 15 R.

الذي يرتفع منه بخار المرة السوداء. (كسانوقراطيس) الحجر المسمى أياطيطس أربعة أنواع أحدها اليماني وهو شبيه في عظمه بالعفصة أسود فيها خفة يحمل في داخله حجراً جاسياً وثانيها القبر صي وهو أعرض من اليماني وأطول كهيئة البلوطة وهو يحمل في داخله حجرا أو رملا أو حصا وهو جيد لين جداً يتفرك بالاصابع وثالثها الذي من لوبياً وهو صغير لين لونه كلون الرمل يحمل في داخله حجراً أبيض لطيفاً يتفتت سريعاً ورابعها الايطالي ويوجد على الساحل ويشبه الرمل وهو أبيض مدور وهو يسهل الولادة ويمنع العقر فرزجة.

١٠٩ — إسفيذاج ($\frac{1}{6}$) يعمل لبنه من رصاص على فم خابئة فيها خل ثقيف و يغطى بباريه مستو ثقة لئلا يتنفس بخار فاذا اذابت اللبنة و تساقطت في الخل أخذ الصافي وعزل في ناحية والثخين يصير في اناء و يحفف في الشمس ثم يطحن أو يدق و الأجود ذلك الأول . ($\frac{1}{5}$) الاسفيداج يكون اذا حلّ الأسرب في الخل كما أن الزنجار يكون اذا حلّ النحاس بالخلّ لكن الاسفيداج مبرد و الزنجار حار لذاع .

۱۱۰ — إسر نج و يقال سر نج و هو السكيقون و هو الز ر قون و باليو نانية يسمى سند خوس . (الرازى) هو أسر ب يحرق و تشتد عليه النار حتى يحمر و يجعل عليه شيء من الملح و قد يكون في الاسفيداج اذا أحرق . (أ ق) و قد

إسفيذاج

إ-برنج

إُعد

۱۰۶ _ إثمر وهو الكحل . ([] سطيميسط أجوده السريع التفتت ذو البريق واللمعان وكان ذا صفائح أملس الداخل النق من الأوساخ وقو ته مغرية قابضة مبردة تدمل القروح و تذهب باللحم الزايد فيها ويقطع الرعاف العارض في حجب الدماغ . وقد يغسل كما تغسل القليميا والنحاس المحرق وخبث الرصاص . وقد تستوى بأن تعجن في شحم و تصير في جمر و تترك الى أن يلتهب الشحم ثم يؤخذ من الجمر ويستى بلبن امرأة ولدت ذكرا أو ببول الصيان و الحمر العتيق . (جالينوس) بدله الآرك المحرق .

أريكان

١٠٧ — أريكان ': ويقال أريكي وباليونانية أوخرًا، (ابن الجزّار): الأريكي حجارة صغار صفر اذا أحرقت احمرت. (أدّ من أجوده أخفه الذي تشمل الصفرة لأجزاءه كلها مشبع اللون السريع التفتت ولم يكن فيه حجارة من بلاد اطبقي وقد يحرق ويغسل كما تغسل القليميا قوته قابضة ويبدد الأورام الحارة ومع قيروطي يملأ القروح لحما ويقلع اللحم الزائد.

ا كشكت

١٠٨ – أكثمكث ٢: هو حجر الولادة وحجر العُقاب وحجر النسر لأنه يوجد في أوكارها ويسمى أيضاً حجر اليُسر لأنه يسهل الولادة تعليقاً على فخذ النفساء اليسرى في جلد إبل ويسمى باليونانية أياطيطيس أى النسرى لأن النسور تحمله الى أوكارها ترقبه فراخها . (ابن جلجل): هو حجر إلى الحمرة كلما حركته سمعت له طنينا كما يسمع للجلجل فاذا كسر لم يوجد في داخله شي . (الرازى في كتاب الأبدال) اكثمكث دواء هندى يشبه البندق إلا أن فيه تفرطحاً قليلا الى الغبرة إذا حركته سمعت له صوتا كأن آخر يتحرك في جوفه واذا كسرته انفلق عن شيء كانه حب البندق يميل الى البياض قليلا ووجدت في كتاب هندى أنه يسرع الولادة تعليقاً على فخذ البياض قليلا ووجدت في كتاب هندى أنه يسرع الولادة تعليقاً على فخذ

انفراسون كانا نستعمله للحفظ جيد للعقل.

افسون 101 — أفسون . (ابن سينا) : دواء فارسى حار لطيف يذكى الذهن والعقل . وقال فى موضع آخر ابرق دواء فارسى جيد للحفظ والعقل وأظنه المذكور قبل .

أطموط بقوة . وقال في موضع آخر أطاط دواء هندي ' قوته كقوة البوزيدان يزيد بقوة . وقال في موضع آخر أطاط دواء هندي ' قوته كقوة البوزيدان يزيد 41 V.

في الباه وأظنه جوز البرته ٢.

إسفنج

أوسبن 1۰۳ – أوسين . (الرازى) : ضرب من النيلوفر الهندى حاريابس . ارتدبرند 1۰۶ – أر تَد بُرند آ . (الرازى) : دواء فارسى يجلب من سجستان يشبه البصل المشقوق نافع من البواسير .

١٠٥ – إسفينج يقال له الغيم والغام (ابنسينا) هو حسم يحرى متخلخل كاللبّد يقال أنه حيوان يتحرك في الماء يلتصق بما يتشبث به ولا يبارحه . ([]) سفو نغوس منه ذكر وهو دقيق الثقب كثيف يسمى اليبس ومنه أنثى حاله خلاف حال الذكر وقد تحرق الاسفنجة ما يحرق مثل زبد البحر . (-]) المحرق منه حار محلل وقد كان رجل من معلمينا يستعمله في مداواة انفجار الدم العارض عند القطع والبط وهو يابس لانداوة فيه البتة ويغمسه أكثر من ذلك في القفر أو في الزفت الرطب والحديثة ابلغ في أدمال الخراجات لأن القوة الني اكتسبها من البحر محفوظة قائمة فيها .

١ ت،غ:سندى ٢ ت،غ:البرية

٣ غ: ارتندندند ٤ غ، ت: ناقصة في الاصل

عه _ أم وجع الكبد: (ق): هي بقله من أدق البقول يحبها الضّان. أم وجم الكبد ولها زهرة غبراء في بُرعمة مدورة لها قرنصغير جداً أغبر وسميت بهذا الأسم لانها تنفع من وجع الكبد والصفراء اذا عصرت على الشرسوف.

ه و م الم عَيْد الرازى) فى (ح)! : هى شوكة القتاد . (غيره) أم عيلان هى شوكة القتاد . (غيره) أم عيلان هى شوكة القَرَظ. (ف) وهى الطلح . (ابن سينا) هى شجرة من عضاه البادية معروفة باردة يابسة قابضة .

٩٦ ـ أهلال قسطا. (لى) : هو صنف معروف من الرياحين أهلال قسطا حاد الرائحة يزرع فى البساتين. لونه بين الحنضرة والبياض أقوى فعلا من الباذر نجبوية.

٩٧ – إلْبُ . (ق) : شجرة شائكة كأنها الأترج ومنابتها الجبال . وهي الله جداً . لا يقوم مقامها شيء من الضجاج والضجاج كل شجرة تقشب بها السباع أي تسمَّ ، وأخبثها الاءلب. تدق أطرافها الرطبة ويقشب بها اللحم ويطرح للسباع فلا يلبثها أن أكلته وأن شمته ولم تأكل منه عميت و صُمت . وأخبث الالب إلب حفرضيض وهو جبل من السَرَاة في شق تهامَه .

۹۸ ــ ألقون. (الرازى): هو الورد المنتن وهو حار يابس وأصله ألفون عرق مثل عاقر قرحا.

وهي شجرة على أغصانها مثل إبداميذ الرازى): اسم فارسي وهي شجرة على أغصانها مثل إبدماميذ الصوف، قابضة الطعم جداً تشد البطن وسماه في موضع آخر برميون وقال في موضع آخر إيراماي دواء كرماني (بديغوروس) ينفع جدا من الاستطلاق بخاصية فيه .

١ يعني في كتابه المسمى الحاوى في الطب ٢ ت، غ: نافس

٣ ت: حهرضض ، غ: ناقص . ابن البيطار : خهرضيض

الفاسيلُس وهو اللوبيا الأبيض. ويخرج منه عند موضع الورق شيء أبيض شبيه بالخيوط ' ملتف كما يخرج نبات اللوبيا الأبيض. وعلى طرف النبات رؤوس دقاق مملوءة بزر طعمه كطعم الأنيسون. ينفع مع الشراب المسمى ما لقراط ُن لأوجاع الكبد والصدر والسعال. (--) في بذره عفوصة يسيرة فهو كذلك يجلو ويقطع الاخلاط الغليظة ويشد الأعضاء.

أبوغلوسون

• ٩ - أبو غلوسون . (- -) : هو ثمنوس صغير ورقه كورق الآس البرى الذى بورقه رقة . وله جُمَّة مشوكة وفى طرفه عند الورق شيء نابت شبيه بالألسن ، قد ينفع فى المراهم الملينة وينفع الصداع تعليقا على الرأس . وما العجل : (- -) : انطيرينون وقد يسمى انارينون و الم

أنف العجل

ولوخنيس اغريا. وهو من النبات المستأنف كونه في كل سنة. ويشبه اناغاليس في ورقه وقضبانه و زهرة كمنتخرك عجل ويزعم بعض الناس ان هذا النبات في ورقه وقضبانه و زهرة كمنتخرك عجل وجه المدهنين به قبول.

14 R

أنبطرن

أسحفان

9p - 1 أسحفان. $(\frac{1}{2})$: [ae نبات يمتد حبالا على الأرض ورقه كورق. الحنظل إلا أنه أدق. وله قرون أصغر من قرون اللوبيا فيها حب مدور أحمر يتداوى به من عرق النسا.

١ غ، ت: الحنوط ٢ ت، غ: حبة ٢ ت، غ: بالآس

[؛] ت ، غ: اناذرينون ٥ غ: نانس ، ت : لى ٦ ت : ناقس في الأصل

الكمأة وأملس لا عروق فيه وقد زعم قوم انه ينبت في رمال وأرض فيها الحجارة ويوجد كثيراً بسواحل الشام والاسكندرية وهو معروف عند كثير من الناس يتعالجون به للادوية القتالة وأوجاع الكبد والطحال وسددهما اذا شرب من هذا النبات بأسره مدقوقا نصف مثقال ثلاثة أيام متوالية.

شبيه بالشجر صالح العظم ورقه كورق اللوز الاأنه أعرض منه وفيه أيضاً شبه بورق السوسن وزهره كالجلنار عظيم وأصله صغير أبيض اذا جقف فاحت منه رائحة كرائحة الشراب وينبت في الجب ل، يمنع انبساط القروح الخبيثة. (- -) رائحة اصله اذا جفف كرائحة الحنر. (روفس في المالنخوليا)

نبات يؤنس به السباع لما فيه من قوة تطييب النفس

٨٨ - أسطير أطيقوس: زعم (ابن وافد) أنَّه الحالبة القابضة ' وهي القرصعنه وأخطأ في ذلك أيما هو النبات المسمى بالعجمية قسطيلة . (ذ د) وقد يسمى بوبونيون وهو نبات له ساق صلبة خشنة على طرفها زهرة صفراء شـــبهة بزهر البابونج. ومنه ما يضرب لونه الى الفرفرية وله رؤوس مشققة وورق شبيه في شكله بالكواكب. فاما الورق الذي على الساق فانه الى الطول مائل عليه زغب . (- -) هذا النبات يسمى بوبونيون وهو اسم مشتق من اسم الحالب لأنه يشغي ورمه ضاداً أو تعليقاً أيضاً عليه وامساكاً لزهره باليد اليسرى . (ق) ينفع من التهاب المعدة وأورام العين الحارة وشق الحدقة. وشرب زهرة الفرفيري ينفع من الخناق وصرع الصبيان.

٨٩ - إسوفورون : (ذ د) : ويسمى فاسيليون الأنه نبات يشبه

أونغرا

أسطير أطيقوس

إسوفورون

ايدى. طبيخ عروقه ينفع من عرق النسأ والشوصة وخشونة الحلق شربا ولعوقاً بالعسل.

أرقطيون

مع المنقطيون: $(\frac{1}{6},\frac{1}{6})$ وقد يسمى أرفطورن. وهو نبات ورقه كورق فلومس إلا أنه أكثر زغبا منه وأشد استدارة. أصله حلو أبيض وساقه رخوة طويلة وثمره كالكمون الصغير الحب. طبيخ أصله وثمرته يسكن وجع الأسنان مضمضة ومع الشراب يدر البول وينفع عرق النسا شرباً وينفع حرق النار صباً. $(\frac{1}{7},\frac{1}{6})$ قو ته فى غاية اللطافة يجلو يسيراً.

أرقطيون آخر

٠٥ – أرْقطيون آخر (- -) وقد يسمى فروسوفيس وفروسوفيون . ورقه كورق القرع وأكبر منه وأصلب وأقرب إلى السواد وعليه زغب . وليس له ساق وأصله كبير أبيض . شرب درخمين منه ينفع من قرحة الصدر . (- -) مجفف محلل قابض يشغى القروح العتيقة .

أفيفا قطيس

ورقه صغار يشرب للأدوية القتالة ووجع الكبد. (قسطا في إصلاحه) ورقه صغار يشرب للأدوية القتالة ووجع الكبد. (قسطا في إصلاحه) هو ثمنس صغير وورقه صغار كورق السذاب فيه تشريف خني وله ساق دقيقة عليها زغب أبيض كزغب ساق الكبير من الهندباء طولها نحو من ثلاثة أصابع أو أربع وله قضبان دقاق طولها أصبع متفرقة من نصف الساق إلى أعلاه وبذره كالشونيز ربما كان أحر وربما كان أسود وقل ما يوجد أبيض وهو في غلف في هيئة غلف بذر الفجل إلى الطول ما هي وزهر هذا النبات يكون على لون ثمره أي الألوان كان وينبت في مواضع يصل اليها الماء وفي مواضع قريبة من البحر وقد ينبت مع كثير مرب القطاني وبين الشعير والحنطة ورائحته كرائحة الاترج وأصله عطر في شكل

حارّ مُسهل. المختار منه الذي إذا قلعت أصوله وقشرت ورمى قلوبها وأخذ القشر الجيد منه والأنابيب المصمغ الأبيض السهل التكسّر الذي لايشبه الليف وزعم أنه التربد وهذه الصفة توهم ذلك. وهو خطأ. وقد ذكر هذا الدواء (بولس)ولم يذكر أصله وإنماذكر بزره كاذكر ديوسقوريذس '. [وأما ابن ذيوسقوريذس في طريفوليون وقد يسمى أيضا طريبوليون وهذا التبريد

ليس بالغاية مجهول قد يتخذ من بزره شياف من عسل ويحتمل فيسهل.

٨٢ - إيريغارن: (و د) نبات طول ساقه نحو من ذراع لونها إلى الحمرة يسيراً ورقه كورق الجرجير مشرف إلا أنه أصغر منه بكثير ورائحة زهره كرائحة القفاّح سريع التفتح والانتثار ويظهر فى وسطه شيء قائم دقيق كالشعر إذا كان الربيع ابيضَّ. يعرض من شربه اختناق. ومعنى اسمه الشيخ في الربيع. وأكثر ماينبت في السياجات وفي المدن وأصله لا ينتفع به في الطب. (- و) قوته مركبة تبرد وتحلل.

٨٣ - إيثيوفيس (ذ د) نبات له ورق كورق فلومس وعليه زغب ايثيو فيس كثير متراصف حوالي الأصل وله ساق مربع خشر. غليظ شبيه بساق ماليطانا أو ساق أرقطيون. وينبت منه شعب كثيرة مخرجها من أصل واحد طوال غلاظ. وإذا جفت اسودت وصلبت كالقرون. وله تمرة في عظم الـكرسنة في كل وعاء حبتان. وقد يكون كبيراً ببلاد ماسينيا وبجبل

١ الجلة الناقصة منقولة من ص ١٥

إيريغارن

۲ ت ، غ : طريفونيون ٣ طريغفوسيون ، غ: طريفويون: ابن البيطار ص ٥٠: اطريفيون.

بالسعتر وهو رؤوس دقاق خفاف لها أذناب شبيهة بالشعر إذا شرب منه أربع دْرَ خميات بعسل وملح وشي. يسير من الخل أسهل بلغماً و مرة سوداء وقد ينبت كثيراً ببلاد قباذوقيا وبمغوليا. (- و) قوته شبيهة بقوة الحاشا إلا أنه أقوى منه في كل شيء وهو يسخن ويخفف في الدرجة الثالثة. (ابن جريج) أجوده ما احمر" لونه واحتدت رائحته وجلب من اقريطش. (حبيش) قوته شديدة في قلع المرة السودا، وهو يكرب الصفر اويين ويقيئهم' (بولس) يعطي منه ستة دراهم مسحوقًا مع تسع أواق من اللبن. (غيره) ليُلقَ في المطبوخ حين يفتر ويمرس ويصني لأن الطبخ يبطل قوته. (بولس) وأما الأفثيمون فهو شيء يكون على الصعتر ويسهل قريباً من الافتيمون إلا أنه أضعف منه. ([] هذا هو الافئيمون الذي يستعمله أطباء أزماننا كلهم وأما الافئيمون الحقيق فلا يعرفونه وهذا النبات يجلب من بلاد البربر وينبت أيضاً عندنا وهو جنس من الـكشوث وأكثر ما يخلق على الصعتر هي خيوط دقاق حمر كلون العقيق لا أصل لها ولا ورق ولها رؤوس صغار الى البياض أصغر من رؤوس الاكشرث رخرة عليها زهر ضديف يظهر في الربيع ويفسد النبات باشتباكه عليه وقوته كقوة الافتيم، ن إلا أنه أضعف قليلا.

رم الوفن ($\frac{1}{2}$) هي حشيشة تستعمل في وقود النار لونها الى الحرة دقيقة العيدان لها زهر لين خفيف وأصل يشبه أصل السلق ملان دمعه حريفه وبزر يشبه الافتيمون وينبت كثيراً في بعض السواحل خاصة في ليبوى وبزره مع الخل والملح يسهل كالافتيمون ويسحج الامعاء سحجاً خفيفاً . [(لى) قال) ألبطريق في ترجمة كتاب جالينوس الوفياس ° .

[v المال والسواحل هو [fol 14 r] ينبت في الرمال والسواحل المال والسواحل المال والسواحل

ألوفن

١ غ، ت يونس ٢ غ، ت العصفر ٣ ت، غ العصقر

ع ت ، غاقص ه ت : الويفون ٦ هنا يلاحظ اضطراب في نص المنسوختين وقد صححناه ضبطا على نص ابن البيطار

تسهل رطوبة بلغمية و توافق انتصاب النفس والصرع وأوجاع الأعصاب.

(ق) أصنافه كثيرة جداً وأشهره عندنا هو الصنف الموصوف أولا ويسمى رجل الفرخ من شكل ورقة ويسمى أيضاً العقربي لأن ورقه شبيه بأذناب العقارب ويستعملة أطباؤنا بدل القاقل وصنف آخر يسمى الطركج ورقه كورقة حي العالم إلا أنها أدق وهي متكاثفة تميل الى الفرفرية في لونها وله بزر دقيق ونباته يأخذ عرضاً ويعلو نحواً من ذراعين وخشبه أببض صلب ويسمى الرغل والاشنان الفارسي وصنف يعرف بالغاسول يعلو نحو من شبر أغصانه في دقة الابر وله ورق دقيق كأنه بزر من دقته وله زهر أبيض دقيق جداً الى الحرة قليل وأغصانه كثيرة تنبسط على الأرض ونباته في الأرض المالحة في زمرة القيظن و به يحل اللك ويسمى بالعجمية

شِر ُجاله و شرب درهمين منه يدر البول ومنه أصناف أخر والقاقل من أصنافه وكلها مالحة الطعم .

والقرمانيون يسمونه الفجلي وهو نبات يخرج من الأرض عودين أو ثلثة والقرمانيون يسمونه الفجلي وهو نبات يخرج من الأرض عودين أو ثلثة شبيهة بعيدان الأذخر دقاقا حمرا، مرتفعة من الأرض يسيراً وورقه كورق السذاب إلا أنه أطول منه أخضر وثمرته صغيرة وله أصل كالحنثي أشد استدارة منه مائل الى شكل الهمشري ملآن من دمعه وله قشر أسود وداخله أبيض والجزؤ الأعلى من هذا الأصل يقى مرة وبلغما والجزؤ الأسفل يسهل البطن ودمعة الأصل تسهل و تقى واستخراجها بأن يدق الأصل و يصب في إجانة و يصب عليه ماء و يحرك فما طفاً من الدمعة يؤخذ بريشة و يحفف .

٨٠ _ أفتيمون: (ذ د) هو زهر من أصناف ' النبات الصلب الشبيه

أفثيمون

أفيوس

21 R

باد زهر للسموم . (ج و) ليس ينتفع بثمره فى الطب وقوة الحشيشة كقوة الحشيشة كقوة الحشيشة المساة بوبونيون ولكنها دونها كثيراً .

أخينوس

 $0 \vee -1$ أخينوس $(\frac{1}{6} - \frac{1}{6})$ نبات ينبت بقرب الإنهار وينابيع الماء المجتمعة من العيون ورقه كالباذروج الإانه اصغر منه واعلا مشقق له عيدان خمسة او ستة طوله انحو من ذراع او نحو من شبر وزهراً ابيض وثمراً اسود صغير قابض وعيدانه وورقه علوءة رطوبة . $(\frac{1}{5})$ وثمرته قابضة تمنع المواد المجلبة الى العين والأذن .

أشنان

٧٦ – أشنان (ق) هو الحرُ صُ يُغسل به الثياب واجناسه كثيرة وكلها من الحَمْض. (ابن جريج) وهي حشيشة القلي. (وغيره) هو نبات لا ورق له وله اغصان وشعب فيها شبه العقد وخصله كثيرة الماء يعظم حتى يكون له خشب غليظ يوقد طعمه مالح وناره حارة جداً ورائحة دخانه كريهة.

أبو فايس

أبوفيطون

٧٨ – وأما أبوفيسطور فهو نبات ينبت مع ابوفائس وهو ايضاً صنف من الشوك يعصر به الثياب وهو نبات مع الارض له رؤوس رخوة وورق صغار فقط وليس له زهر وثلث أبولوسات منه مع ماليقراطن

وطول ساقه نحو من شبر ملسآء ادق «ن الخنصر وجمة منحنية مملوءة زهر فرفيرى اللون وأصله مع الخر الأبيض يبطىء الهميان عن الاحتلام ضادا ويقطع الاسهال المزمن شربا وينفع من اليرقان . (= =) أصله شبيه بالزير مجفف في الأولى مبرد في الثانية إذا ضمد به العانة يحفظ الغلمان مدة طويلة لاينبت لهم الشعر في العانة وثمر ته مجففة في الثالثة معتدلة الحرارة والبرودة .

أفيقواون

أنجرة

٧٧ - أفيقواون (ذ د) نبات ينبت من زرع الحنطة وفي الأرض المحروثة وورقه كورق السذاب وأغصانه صغار وقوته كقوة الأفيون الذى هو صمغ الخشخاش. (- -) مبرد في الثالثة و بعده عن الخشخاش بعداً يسيراً. ٧٤ – أنجرة هو القريص وهو المعروف بالحريق. (ابن حسّان) له ورق خشن وزهرة صفراء وشوك دقيق ينبو عنه البصر فان ماسه عضو من البدن أحرقه وآلمه وحمره وهو نوعان صغير وكبير كثير الورق أصفر بزره كالعدس وهو المستعمل في الطب. (لق) الأنجرة ثلاثة اصناف أحدها المذكور الذي يزره كالعدس في قدره وشكله أخضر براق صلب في رؤوس مدورة خشنة لها مغاليق دقاق طوال والثاني هو الكبير من الصنفين الذين ذكرهما ذبو وورقه كورق السيسبر الآأنه الى السواد اكثر واخشن وساقه حمراء الى السواد وهو اكثر الثلثة ورقا واشدها خشونة وبذره في قدر الخردل الا انه مفرطح ابيض وازرق. والثالث هو الصغير وهو اضعفها قوة وادقها بزراً. (ذ د) اقاليفي وهو صنفان احدهما اخشن من الآخر واشد سوادا واعرض ورقا وبزره اصغر من بزر الشهدانج والآخردقيق البزر وورقه الين. (- -) قوة ورقه وتمره محللة مهيجة لشهوة الجماع خاصة مع عقيد العنب يطلق البطن باعتدال ويسخنها.

أغيراطن

وقوته ملطفة محللة للدم الجامد في المعدة والمثانة ' وهو ردى الفم المعدة. ٦٩ - أغيراطن (ذ د) تمنس يستعمل في وقود النار طوله نحو من شبرين قصير ممتد ويشبه جدا النبات المسمى أوريغانس وعليه اكليل فيه زهر شبيه بنفاخات الماء ذهى اللون وهو أصغر من اليخروسن وسمى أغيراطن لبقاء زهره عليه زمانا طويلا على حال واحد أى لا ينشم يدر البول ويلين حساء الرحم تكميدا. (جو) قوته محللة.

إيارا بوطاني

٧٠ - إيارا بوطاني (ذ د) وتسمى فاريسطاريون نبات طول قضبانه نحو من ذراع أو أكثر قليلا مزواة أي ذات زوايا وعليها ورق متفرق كورق البلوط الا انه أدق وأصغر منه واطرافه مشرفة وطعمه الى الحلاوة ما هو وله اصل انى الطول دقيق واصله وورقه يصلحان لضرر الهوام شربا بالشراب وضماداً وللبرقان وللاورام البلغمية المزمنة ويقال ان هذا النبات اذا نقع بماء ورش في مجلس الشراب طيب عشرة القوم وحسن اخلاقهم

وسمى هذا الاسم لأنه ينتفع به في التطهير اذا علق ومعناه العشبة المقدسة او الكاهنة.

أسطر اغالوس

٧١ - أسطراغالوس (ذ د) أنس صغير على وجه الارض زهره وأغصانه كزهر وأغصان الحمص وزهر صغار لونها فرفيرى واصل مستدير كالفجلة الشامية يتشعب منه شعب سود شديدة الصلابة في صلابة القرون مشتبكة حتى يعسر دقها قابضة المذاق تنبت في أماكن ربحية ظليلة مثلجة وهو كثير في المواضع التي يقال لها فاناؤنس من بلاد ارتقاديا . (ج و) له أصول قابصة ولذلك يخفف ويدمل القروح العتيقة ويحبس البطن ويقطع نزف الدم ٧٢ - أواقنثوس (ذد) نبات ورقه وساقه كورق وساق البلبوس

أواقنثوس

11R.

ورق و لا شوك إلا أن أطرافها محددة وليس لها شعب و لا خشب و يتخذ منه الحصر ويدق فيتخذ منه حبال ويتخذ منه بالعراق غرابيل و لا ينبت إلا قرب الماء. (ق ق) سخونوس الاجامى وهو نبات ذو صنفين أحدهما إلا قرب الماء. (ف ق) سخونوس حاد الاطراف وينقسم أيضاً الى صنفين أحدهما ايس له ثمر والآخر له ثمر اسود مستدير وقضب أغلظ واكثر لحما مر. قضب الصنف الآخر ومنه ثالث أغلظ قضباً والحم من الصنفين المذكورين ويسمى ألوسخونوس وله ثمر على أطرافه يشبه ثمر أحد الصنفين المذكورين ويسمى وثمر أحد الصنفين الاولين اذا شويا وشربا بشراب ممزوج عقلا البطن وقطعا نزف الرحم وادرا البول وصدعا وثمر الصنف الثالث ينوم شاربه والاكثار منه يسبت . (ح ح) هذا النبات نوعان أحدهما أدق وأصلب والآخر أغلظ وارخى وثمرة هذا النوع تجلب النوم والنوع الأول هو أيضاً نوعان احدهما لا يثمر والآخر له ثمر يجلب النوم أقل جلبا من ثمرة ذلك النوع الثانى ومزاج هذين النوعين مركب من جوهر أرضى وهوائى يسيرين ولذلك يحدث النوم بالبخارات الباردة اليسيرة .

أمارنطون

7 مارَ نُطُونُ المهاه حنين كم ونا هنديا وسماه ايضاً أقحوانا و لا أدرى لأى سبب. ($\overline{\epsilon}$ $\overline{\epsilon}$) وقوم يسميه ألحر وسون وآخرون خروسانثيمون وهو نبات يستعمل فى أكاليل الاصلام له قصب قائم ابيض وورق دقاق كورق القيصوم متفرقة وجمة مستديرة فى أطرافها شىء مستدير ذهبى اللون كأنه رؤوس الصعتر اذا يبست وأصل دقيق فى اما كن وعرة فى خزون الارض وهذه الجمة بالشراب تنفع من عسر البول ونهش الهوام وعرق النسا و تدر الطمث وقد يوضع هذا النبات مع الثياب فيحفظها من التآكل. ($\overline{\epsilon}$ $\overline{\epsilon}$)

يشبه الجرجير. (آي) نبات معروف يستعمله الصباغون طبيخ ورقه يفش الأورام البلغمية ومع دقيق الشعير ينفع من الحمرة ومنه برى ورقه أصغر من ورق الأول بكثير وساقه ذات شعب كثيرة ويمتد على الأرض لونها الى الغبرة وفي أطراف الأغصان غلف كثيرة بعضها فوق بعض تشبه غلف البنج إلا أنها أصغر والين داخلها بزر دقيق جداً أسود وعروقه في غلظ الأصبع بين الصفرة والحمرة حريفة الطعم جداً وينبت في أرض رملة وفي البياضات من ألجبال ويسمى بالعجمية الريبال ينفع من القولنج الريحى ومن السموم شربأ ٥٠ - إيذايا ريزا ' (ذ د) نبات ورقه كورق الآس البرى وعند الورق شيء طويل نابت شبيه بخيوط الكرم التي تلتف عليه وفي هذه الخيوط زهر هذا النبات في أصله قبض ويشرب لاسهال البطن ويقطع نزف الدم. (جو) في طعمه قبض شديد يشني انفجار الدم شرباً وضماداً وينفع من قروح الامعاء. 77 - أنجبار: نبات أكثر ما ينبت في شطوط الانهار وبين العليق ورقه كورق الرطبة عليها زغب وزبير كالغبار وله أغصان دقاق أغلظ من أغصان الرطبة مائلة الى الحمرة خوارة وتعلو قامة وأكثر وتتدوح وتتشبك بالعليق وتنتسج أغصانه عليه وله زهر أحمر الى السواد وجميع أجزاء هذه الشجرة يقبض قبضاً شديداً ولها لزوجة وعصارة أصولها إذا قشرت كانت حمراء مثل ماء التوت وهي مع السكر والميبختج ينفع من نزف الدم من حيث كأن وسحج الأمعاء والاختلاف المزمن ويجبر الكسر ويلحم الجراحات وقال من يوثق به أنه أبرأ بها رجلا من قرحة الرئة بعد ثلاثة أعوام وقد وقع في الذبول وأبرأ آخر من بول الدم والمعدة بعد عشرة أعوام.

٧٧ – أسلَ (ف) هو الكولان وقد يخرج قضباناً دقاقاً ليس لها

إبذايا ربزا

أنجبار

أسل

(ابن سينا) شكله كالكف أبلق من صفرة وبياض صلب فيه يسير حلاوة ومنه أصفر مع غبرة بلا بياض حاريابس في م ينتي الجلد والاعضاء العصبية وينفع من الجنون. (المجوسي) ينفع من السموم والهوام واسقاط الاجنة. ٦١ - أَلْنَجَ : (ابن رضوان) عروق يؤتى بها من الهند لونها أبيض ألنج وفيها نكت سود وطعمه مر وقو ته حارة رأيته بالنجرية في الشرى نفعاً عجيباً وذلك أنى أسقيت منه أول يوم نصف درهم بأوقيتين سكنجبين ساذج وثانى يوم مثقال وثالث يوم درهما فاذهب الشرى وأبطله ويفعل مثل ذلك اذا مرخ به البدن مع دهن ورد.

٦٢ _ إسفاناخ: (الفلاحه) بقلة معروفة والبرى منه كالبستاني ألطف عيداناً منه وأدق وأقل ارتفاعا من الأرض. (الرازي) معتدل ملين

للصدر والبطن ملائم لاعتداله المبرودين والمحرورين وليس له ما لأكثر البقول من الانفاخ و كثرة البلغميه في الدم. (ابن سينا) بارد رطب في آخر الاولى أجود غذاء من السرمق بجلو ويغسل ويقمع الصفراء وينفع في اوجاع الظهر الدموية.

٣٣ - أراقوس ": (- في الأغذية) بزر صغير صلب مدور ينبت بين العدس. (الفلاحه) وينبت بين العدس حشيشه تشبهه وحملها عبالغلف بزر أسود إذا جف مدور إذا طحن وخلط به خل وماء ممزوجين وترك في الشمس ست ساعات تم أعيد إلى شيء يسير من ماء قراح وعجن جيداً وضمدت به الأورام الحارة الشديدة الصلابة لينها وأزال أوجاعها.

٦٤ - إساليخ (ف) عشب طوال القصب في لونه صفرة منابته الرمل

إسلمخ

إسفاناخ

أراقوس

١ ت: الأهوام ۲ ت ، غ: انبج

वीकः दं वीकः उ ٣ ت: ارافوا، غ: اراقو

كالأول. وقد يعدهما قوم من أصناف ذنب الخيل. ٥٨ – أذن الأرنب: ويسمى

أذن الارنب

10 R.

أذن الغزال ويسميه البربر أذن الشاة . وهو نبات ورقه كلسان الحمل الآأنه أدق وأخشن لونه الى السواد وعليه وبركالغبار أبيض وفيه أيضاً شبه من لسان الثور . وله ساق فى غلظ الابهام يعلو أكثر من ذراع وزهر أزرق وفيه بياض مثل زهر الكتان مقمع يخلفه فى اقماع أربع حبات خشن ملمع يلتصق بالثياب وأصله ذو شعب كالخربق وظاهره أسود وداخله أبيض . اذا اقتلع وحك به الوجه طرياً حمره وحسنه وطبيخه يشرب لخشونة الصدر ومنه صنف ثان أصغر مقداراً وورقاً من الأول وزهرة حمراء قرمزية .

أطرماله

٥٥ – أطرَ ماله: نبات يعلو ساقه نحو الذراع ليس عليها شعب ورقه كورق الشهدانج إلا أنه أصغر منه بكثير في أربع صفوف متو ازية ، وله سنبلة نحو من شبر منظومة مرصفة بغلف ملتصقة بعضها فوق بعض مر تفعة والغلف مدورة مفتوحة الأفواه في شكل غلف البندق إلا أنها أصغر بكثير في داخلها ثمر كالبندق شكل في قدر الحمص في داخله بزر دقيق أحمر الى السواد . وعلى هذا النبات لزوجة تدبق كالعسل له زهر أبيض دقيق وربما كان أصفر و نباته في الأرض الجدبه والقفر . بزره يكتحل به للجرب وابتداء الرمد .

أصابع صفر

7. – أصابع صفر: نبات يعرفه الشجارون بكف عائشة وبكف مريم ورقه كورق خصى الذئب وساقه مرتفع دقيق عليه زهر فورفيرى من أسفله إلى أعلاه وله أصل فى قدر كف طفل رضيع شكلا ذو خمس أصابع مملوءة رطوبة و نباته فى الرمل وقرب البحر. (ابن رضوان) منه ما يشبه الدف فيه خمسة أو ستة أصابع ومنه ما يشبه مخالب الأسد ولونه أصفر وهو حار محلل.

مخرجها من أصل واحد مملوءة من الورق والورق عفص ينبت بين زروع الحنطة وفى مواضع عامرة. ورقه مع السويق ينفع من ورم العين الحاد ضماداً وطبيخه يمنع الاسهال من قرحة الامعآ. (جَوَ) يجلو باعتدال ويقبض.

٥٥ – أذريون: (ابن عمران) صنف من الاقحوان منه أصفر ومنه أحمر. (ابن جريج) نو اره ذهبي في وسطه رأس صغير أسود. (ابن جلجل) نبات يعلو ذراعاً له ورق الي الطول ما هو قدر الأصبع الى البياض عليه زغب وله أذرع كبيرة وزهر كالبابونج. (الفلاحة النبطية) ورد أصفر لا رائحة له فان سطعت منه رائحة كانت منتنة. وهو نبات يدور مع دوران الشمس وينضم ورده بالليل. ويقال ان ادامت الحامل امساكه باليد أسقطت ويقال ان الفار يهرب من دخانه والذباب من زهره وهو حار ردى الكيفية مق وان دق وضمد به أسفل الظهر انعظ. (غيره) أصله ينفع من الخنازير تعليقاً والمرأة العاقر اذا حملته حملت.

70 — أرديابي: (حبيش) شجرة ورقها كورق الكبر حاد الرائحة وله حب في غلف له مثل السنة وهي تقرب من البرد واليبس وتحلل الأورام الظاهرة الحارة مع عنب الثعلب والكاكنج ويسكن وجع لسع الزنابير ضماداً.

٥٧ – أمصُوخ: يسمى بالعجمية شتيلة وهو صنفان صغير قضبانه دقاق معقدة كورق الرتم متصلة اذا جذبت انفصلت من مواضع العقد وهى كبيرة مجتمعة وله ساق غليظ خشبى فى غلظ الخنصر وأدق يعلو نحواً مر. شبر وليس له زهر وله ثمر أحمر قان فيه قبض مع مرارة يسيرة. وهذا النبات اذا شرب بشراب قابض قطع الاسهال ويضمر القيلة شرباً وضهاداً. وكبير هو أغلظ ساقاً وأكثر أغصاناً وأقصر وثمره أحمر فاذا نضج اسود ومنافعه

أذربون

أرديابي

أمصوخ

الكبد والطحال ويفتح سددهما ويذهب اليرقان اذا طبخ مع اللحم وشرب المرق.

أو نو برو خيس

٥١ – أونوبرو خيس: (ذ ج) نبات ورقه كورق العدس الصغير وأطول منه وله ساق نحو من شبر وزهره أحمر قان وأصله صغير ينبت في اما كن خربة . (ج ح) طرى يحلل الخراجات ضماداً ويابس مع الشراب يشفي من عسر البول شرباً والمذاف بالزيت يدر العرق اذا دهن به البدن .

أفيميديون

٥٢ – أفيميديون (د د و اساقه صغير وورقه كورق قسوس عدده نحو من عشرة او اثنى عشرة ، وليس له ثمر ولا زهر وله عروق دقاق سود ثقيلة الرائحة لا طعم له ينبت في مواضع فيها مياه . ورقه مع الزيت يمنع الثدى أن تعظم ضهاداً ، واذا شربت المرأة خمسة درخمي بعد الطهر لن تحبل . (ج و) يبرد يسيراً ويقال فيه أنه يجعل شاربه عقها .

أخيون

٣٥ - أخيون: هذا اسم الأفعوان باليونانية. (ذ د) قد يسميه قوم ذريوس وآخرون القبياذيون مو نبات ورقه خشن مستطيل رقيق كورق الخُهُنساء

9 V.

وأصغر منه وفيه رطوبة تدبق باليد. على الورق شوك صغار شبيه بالزغب وله قضبان صغار دقاق كثيرة من كل جانب ورق دقاق واحد من القضبان ورقه أصغر يسيراً من سائر الورق وعند الورق زهر فورفيرى فيه ثمره شبيه في خلقته برأس الأفعى وأصله أدق من أصبع لونه الى السواد. أصله بالشراب يسكن وجع الظهر ويدر اللبن.

ألاطيني

عه – ألاطيني: (ذ د) نبات ورقه كورق اللبلاب وأصغر وأشد استدارة وعليه زغب، قضبانه دقاق طولهـــا نحو من شبر خمسة أو ستة

سبخة شامسة وهو مالح الطعم. ومنه صنف آخر 9 R.

ورقه وقضبه كورق وقضب كما فيطوس الأأنها أكثر زغباً وأقصر، زهره فورفيرى ثقيل الرائحة جداً. ببرىء الصرع شرباً وعسر البول ووجع الكلى. (جَوَ) كلاهما يدملان الموضع المقروح.

٩٤ — أناغورون: وهو خرنوب الخنزير ويسمى أياغيران ويصحف ويقال أناغيريس في هو (ق ج) ثمنس شيه بورقه وقضبانه النبات المسمى أغنوس ثقيل الرائحة جداً وله زهر كزهر الكرنب وثمر في مُعلَّف مستطيلة وشكل الثمر كشكل الكلى وفي ثمره اختلاف في لونه وانما يصلب عند نضج العنب وعصارة أصله تحلل و تنضج و ثمره بق قيئاً شديداً . (ج و) هذا نبات من جنس الشجر منتن الرائحة حار محلل يضمر الأورام الرخوة وبزره يصلح للق .

• ٥ - آمنليلوس: اسم بربرى وهو شجر يعلو فوق القامة ويتدوح وله ورق كورق الاس الأخضر ناعم وثمر أحمر فى قدر حب الضرو فاذا نضج اسود لين الملس. له خشب صلب داخله أصفر الى البياض ملمع بحمرة يسيرة ويعرفه بعض النياس بالصنفيراء ونقيع لحاء أصله يسهل ويقوى

أقحوان

أناغورون

آمليلوس

السوسن فى منظره وقوته. ومنفعته يسكن أورام العين والثـدى الحارة ولاحراق النار ضهاداً.

ايذسارون

ع اينسارون: (- ج) يسميه العطارون بالاقينوس وهو ثمنس له ورق صغار كورق الحمص وغلف شبيهة بالخرنوب الشامى شكلا فيها بزر أحمر شبيهة بالفؤوس التي لها رأسان مر الطعم جيد للمعدة شرباً. (- و) ينبت بين الحنطة والشعير ويفتح سدد الاحشاء ويمنع من الحبل حمولا.

أو نسوما

ورقه كورق انخوسا مستطيل لين طوله أربع أصابع وعرضه نحو من أصبع منفرش على الأرض وليس له ساق ولا ثمر ولا زهر وله أصل دقيق ضعيف طويل فيه حمرة يسيرة دموية ، ينبت فى أما كن خشنة . يحدر الجنين وقت الولادة . (-7, -7) جوهره حار حريف مر يقتل الأجنة مع الشراب .

اعدو نيطيس

وق الطحالي ورقه يشبه ورق اللوف المسمى ذراقو بطيون هلالي الشكل وله أصول كثيرة وليس له اللوف المسمى ذراقو بطيون هلالي الشكل وله أصول كثيرة وليس له ساق ولا بزر ولا زهر وينبت في الصخور وطعمه قابض اذا شرب مع الخل ذوب الطحال.

انذروساقاس

انثوليس

من ما ورقه قايلا ويشربه بزيت فيقيئه قيئاً شديداً عنيفا . وينفع من عهنه الكائب الله و همو دوا، قونى غير مأهون النالم يتحفظ منه وأظلن هذا هو الكرات الذي ذكره أبو حنفية .

۳۹ – اسقابیاس: هماه حنین فی کتاب جالینه می القنابی (د ق) نبات استهایی له أغصان طوال ا علیها و رق مستطیل کررق قسم می شکاد دو عروق کثیرة دقاق و زهره ثقیل الرائحة وله بزر کبزر بالاقینوس کیبت فی جبال و عروقه اذا شربت بخمر نفعت من المغص و نهش الهموام . (ق و) لم نجرب هذه الحشیشة ولم نختبرها بعد

• ع - امبروسیا . قد یسمی البلنجاسف ؟ . (د ج) ثمنس کثیر الاغصان أمبروسیا طوله نحو من ثلاثة أشبار وله ورق منتهیا من خرج الساق ومن أصلله و أغصانه ملوءة من بذر شبیه بالعناقید قبل أن تزهر ورانحته كرانحة السداب وأصله دقیق طوله نحو من شبرین . وأهل قباذوقیا یتخذون منه أكالیل . (= و) اذا ضمد به قبض و منع المواد من التحلب .

الله المنالي المنالي

ع: - ايمار وقالس: (قَ عَ) وقاديسمي ايمار وقطالقطن ورقه وساقه كورق ايماروق وساق المروق المروق المراق السوسن او نهما كراتي وله زهر ثلاث أو اربع لونه شديد الصفرة وله أصل كالبصلة المساة عابوس الإأنه أعظم منها. (ق ق) أصله كأصل

التاء غاز صادر المراس المات المراس المات المجاسين

ه د : او و حالی د د : کونوا

جوهره. قوته يحفف باعتدال ويحلل و يجلو وقال في الأدوية المقابلة للادواء عن ديمو قراطس.

8 R

هذا النبت يشبه الفراسيون الاأنه أخشن منه وأكثر شوكا كما يدور ويخرج شوكه مدورة يضرب الى الحرة الكبدية وينبغي أن يلتقط هذا الدواء في وقت طلوع الشعرى العبور وبحفف ويدق وينخل ويخزن، ويسق منه من عضه كلب كلب بمقدار ملعقة بأربع أواق ونصف ماء العسل. (لي) هذه الحلية غير ما ذكره ديونسقوريدس. وقد رأينا هـذا النبات على ما وصفه جالينوس عن ديمقر اطيس فأما الذي ذكره (فيو) فهو نبات يسمى عندنا الهارة ويسمى أيضاً القارة (أنظر ابن البيطار) وليست. صفته على ما ذكره (ذيو) في كلشيء . وهو نبات يخرج قضباناً كبيرة ممدودة من أصل واحدعليها ورق أكبر قليلا من ورق المردنجوش وهي متكاثفة على الأغصان منحنية الى خلف مشروخة متوارية مائلة الى أسفل، ولونها مع الأغصار الى البياض وعند كل ورقة حب في قدر بزر الكزبرة فكأنه من دوح واحد أبيض عليه زغب في جوفه حبة سوداء في قدر بذر العنب. وهذا النبات ينق المرة السوداء ويقوى القلب وينفع من عضه الكلب الكلب. وأيضاً نبات آخر يشبه الشبت كثيراً في ساقه وورقه ورائحته ينبت في أرض رقيقة ذات حجارة وله أصل طويل كالسلجم الطويل أو الجزر وطعمه حلو مع حرافة كثيرة. قدر درهمين من ماء لحاء شجره مع لبن حليب يقيء المعضوض من تشبه قضبان المثنان وورق طويل قليل العرض حديد الأطراف غليظ أخضر ناعم كثير متكاثف في أطرافه. زهره في هيئة النواقيس لونه الى الغبرة والحرة مائل الى أسفل شديد المرارة. ومن أهل البوادي عندنا من يأخذ

نبات يشبه الكاخ فى شكله . ينبت فى بلد ليبوى فيما يلى قورينى ، ويقال لشجرته اغاسوليس . فاختر منه الحسن اللون الخالى من الحجارة والخشب وقطعه تشبه حصى الكندر النقى المتكاثف ورائحته كرائحة الجندبادستر وطعمه مر" . والذى فيه تراب وحجارة يسمى المجبول . ويؤتى به من الموضع المسمى امون اوهو عصارة شجر تشبه الكلخ . (- و) صمغه يخرج من عود يرتفع مستقما وقوته ملينة ويشنى الطحال الصلب ويفش الخنازير .

٣٦ ــ اشترغاز (ابن عبدون) أصل ينبت بخراسان يطبخ مع اللحم اشترغاز بحسب التابل قوته كقوة الإنجدان (- -) أنجدان آخر يقال انه ينبت في ليبوى وأصله يشبه الانجدان الا أنه أدق منه وهو حر يف رخو ليس له صمغ ويفعل ما يفعله سلفيون. (الرازى) الاشترغاز المحلل لا يخلو من اسخان ولن عتق فيه وهو يحشى و يهيج شهوة الطعام.

٣٧ – انزروت (ابن سينا) صمغ شجرة شائكة . (أن ج) سارقوقولون انزروت وهو صمغ شجرة في بلاد الفرس شبيه بالكندر صــغير الحصا في صمغه مرارة . (ج ح) يلحم ويدمل الجراحات (غيره) ان شرب مفرداً دون اصلاح قتل . وهو يورث الصلع كيف ما شرب خصوصاً للكهول والمشايخ .

77 — الوسن: (\overline{c} \overline{c}) نبات خشن يستعمل فى وقود النار ذو ساق واحدة. وله فى أصول الورق ثمر فى شكل الترمس ذو طبقتين فيه بزر الى العرض ما هو وينبت فى مواضع جبلية وأما كن وعرة. يظن أنه يبرى مر. عضة الكلب الكلب واذا علق فى بيت حفظ صحة سا كنيه وشرب طبيخه يسكن البرد اذا كان بلاحمى و كذا اذا أمسك باليد و نظر . (\overline{c} \overline{c}) ويسمى بهذا الاسم لأنه ينفع من نهشة الكاب الكلب نفعاً عجيباً بخاصية جملة ويسمى بهذا الاسم لأنه ينفع من نهشة الكاب الكلب نفعاً عجيباً بخاصية جملة

in: 1: 0 1

حار جداً وكذلك ورقه وقضبانه وأصوله تسخن اسخاناً شديداً. (وقال في الثانية) الحلتيت ينفع من ورم اللهاة ونفعه كنفع الفاوانيا من الصرع. (وفي قاطاجانس) ان حرارة الجاوشير عند حرارة الحلتيت. (\overline{i}) أصله ناعم محفف عسر الانهضام ومضر بالمثانة وقد يجمع صمغه بأن يشرط أصله وأصل نباته (الرازي) المحروث حار يابس مقو للكبد والمعدة معين على المضم . (وقال في الأغذية) ينقع مع الحل فيكسب الأغذية لذاذة وسرعة هضم ويكسر من حدته . (\overline{i}) أجود الحلتيت المائل الى الحمرة الصافى الشبيه بالمر القوى الرائحة الغير كريه المذاق ولا تكون رائحته كرائحة الكراث الذي اذا ذيف كان لونه الى البياض . والحلتيت المعروف بقورينايقس أي من قوريني اذا ذاق انسان منه فانه على المكان تندى بدنه منه . والمعروف بالميذيقوس و تفسيره المائي وهو الذي من ماه والمعروف بالسورياقس أي من سورياهما أضعف قوة من القورينايقوس وأردأ رائحة . وقد يغش قبل أن يجف بسكبينج أي الدقيق الباقلي واشق . وساق هذا النبات قد يسمى شافيون ويسمى أصله ماغيطارس

7 V.

ويسمى ورقه مسفيطا. وأقوى هذه كام الصمغ وبعده الورق وبعده الساق. (الرازى) رأيت الحلتيت بليغاً في علل العصب البلغمية. (حبيش) حار في أول الرابعة مضر بالكبد والمعدة قريب الرائحة والحرارة من البلاذر وزعم قوم أنه لا يسلم أهل السند الا به وذلك أن يلقوه مصروراً في أفواه أنهارهم فتقتل رائحته في مزارعهم من كلاب الماء والدواب. وأهل ارمينيه يتداوون به من الرامية المسمومة التي تصيبهم في الحروب.

٥٥ – آشق. ويقال اشج ووشج ووشق (ذ ج) امونياقن ' هو صمغ

فى البصر فيلطخ منخاريه بدهن الورد ويضع على رأسه أيضاً منه. وأجود ما يكون من دِمعة هذا النبات ما أوتى من بلاد سر دُنيا وسامو ثراقى هى ثقيلة الرائحة حمراء تلذع اللسان اذا طلى بها الرأس بالخل ودهن الورد وافقت ليثرغس وفرانيطس والسدد والصرع والصداع المزمن والفالج (ج ح) لبنه أقوى من أصله

7 R

· يسخن عصارته تسخن اسخاناً عظيما ينفع علل الصدر والرئة وصلابة الطحال.

ورقه كورق الكرفس وبرره كبزر ماغيطارس (ابن عمران) : شجرة صمغها الحلتين وأصلها المحروث أنجدان البيض طيب ومنه أسود منتن ويسمى السرخسى " (البكرى) " الاسود أقوى من الأبيض ولا يدخل فى الأعذية وله أصل غليظ يطلع ورقاً منبسطا على الأرض جعداً كالكف مركباً من ورق صغير كورق الجزر " أشبه شيء بالصفائح المختومة التي تكورت تحت حلق الأبواب يطلع من الورق عسلوج " فى رأسه اكليل كاكليل الشبت الا أنه أعظم ثم خلف حباً فى غلف دقاق مفرطحة الى الطول ما هى كريهة الريح . (ق) نابتة فى الرمل الذي بين سبتة " وبلاد القيقان " وأهل تلك البلاد يطبخون بقلة الحلتيت ويا كلونها . (ابن عبدون) هو نبات كالكاشم " ينبت ببابل يبيعه البقال مع التابل . (ق ج) سافيون وهو شجر الانجدان ينبت في سوريا وارمينيا ومينياوهي ماه " وساقه يسمى مسفيطن " أشبه شكلا بالقي " وهو الكلخ " ورقه كورق الكرفس وبزره كبزر ماغيطارس (ج ح) لبن " هذا النبات

۱ ت: وغ: وفي انيطس ۲ ت: المحروث ۴ غ: السرخس ٤ غ: السكبرى ٥ غ: الجوز ٦ غ: عصلوج ۷ سبتا ۸ غ: الوعان، ت: القبعان ٩ كالسكائم ١٠ غ: وهيماء ١١ ت، غ: مسفسطس ١٢ ت، غ: القثى ١٢ غ: البلخ ١٤ ت، غ: البلخ

صفر ملس كالدود الأصفر الذي يوجد تحت الأرض في الربيع. (ابن سينا) هو زهر نبات تبني اللون هلالي الشكل فيه مع تخلخله صلابة ومنه أصفر ومنه أبيض هو أجوده سيما اذا كان أصاب (خَبَ) مالياوطس أجودها ما ينبت في بلد اطبقي وقوزيقوس وخالقيدون. وهو أصفر الى البياض طيب الرائحة وقد يكون منه قليل ببلاد قامفانيا عند نولاس له بزر شبيه بالحلبة طيب الرائحة. (بَرَ أَ قو ته مركبة فيه قبض مع تحليل وانضاج.

اکلیل جبلی

ورقه طويل دقيق كالهدب متكاثف الى السواد وعوده خشبى صلب وله بين أصعاف الورق زهرة رقيقة بين الزرقة والبياض له ثمر صلب اذا جف تفتح و تناثر منه بزر دقيق أدق من الخردل فى ورقه حرافة ومرارة وقبض وهو طيب الرائحة مدر محلل مفتح. والصيادون عندنا يجعلونه فى جوف الصيد فلا يسرع اليه النتن.

أنيسون

اندراسيون

٣٣ – اندراسيون: (أح ج) فوقا ذا نون نبات ساقه دقيق كساق النبات المسمى مار ثون و و له حمة وافرة متكا ثفة عند الاصل و زهره أصفر وأصله أسود ثقيل الرائحة غليظ مملوء رطوبة ينبت في جبال متظللة بالشحر وقد يشرط الأصل وهو طرى بسكين و تستخرج رطوبته و يوضع في الظل لأن قو ته تضعف في الشمس و جامع هذه الرطوبة يعرض له صداع وظلمة

ثمنس طويل كثير الأغصان له عصى ذوات أربع زوايا الى البياض ورقه كورق السفر جل الا أنه أطول وأقل عرضاً خشن يسيراً. وله على أطراف أغصانه ثمرة كثمرة اورمينون البرى وهو القلقل وينبت فى مواضع خشنة. وطبيخ ورقه وأغصانه يدر البول والطمث ويخرج الجنين وينفع لسعة طريغون البحرى (جو) حار حرارة بينة قابض قليلا. (ابن جلجل) ينفع خدر اللسان وتوقف الكلام.

اكليل الملك

مدرهم أخضر غض وأغصان دقاق جداً مخلخلة الورق. ولها زهرا أصفر مدرهم أخضر غض وأغصان دقاق جداً مخلخلة الورق. ولها زهرا أصفر صغير يخلفه مزاود آ دقاق مدورة كأسورة الصبيان الصغار منها حب صغير مدور أصغر من حب الخردل. والمستعمل منها تلك الأكاليل بما فيها. (لى) فيه اختلاف حتى لم يثبت لى حقيقته الاهذا الذي ذكره اسحق هو عندى أفضل. وهو نبات طعمه الى المرارة وله رائحة طيبة. وأكثر ما يستعمل عندنا نبات آخر يعرف بالفر فوليه عريض الورق قريب من لسان الحمل له أكاليل متلونة منعطفة ضخمة مجزعة ببياض وخضرة وفرفرية فيها بزر أصغر من الحلبة فيه لزوجة وليس له طعم ولا رائحة. ومن الناس مرفقه يستعمل نبات آخر له قضبان دقاق تمتد على الأرض ورقه كورق الحسك يستعمل نبات آخر له قضبان دقاق تمتد على الأرض ورقه كورق الحسك ستاً أو سعاً

6 V

فى داخلها حب كالحلبة . وزعم قوم أن اكليل الملك المستعمل بالاسكندرية نبات طيب الرائحة جليل المقدار ورقه كورق القرط رائحته كرائحة التين مع عطرية وزهره أصفر دقيق وفى أطراف قضبانه أكاليل

كورق الشوكة المسماة اقنثالوقى وهى الباذاورد. وله رؤوس مشوكة ويقال له زغب اذا جمع منه شيء يشه ما نسج من القطن. وأصله وورقه ينفعان من الفالج شرباً. (ج و) وأصله و بزره ينفعان من به تشنج.

افسنتين

٧٧ - افسنتين: ورق الافسنتين أشهب في هيئة ورق الجزر وزهرته صفراء وهي المستعملة. (قَ جَ) نبات معروف وقد يكون منه بقباذوقيا بجبل طورس. (ابن جريج) أنواعه كثيرة يؤتى به من فارس ونحو المشرق ومن جبل اللكام وأجوده الصوري والطرسوسي الذي له زغب وفيه عقد كأنها بزر السعتر.

6 R.

الفارسي الشديد المرارة يطير منه في السحق مثل ما يطير من الصبر السقطري وصفرته كزغب فراخ الحمام (ج في حيلة البرو) أنواع الافسنتين لا تخلو من كيفيتين وقوتين الا أن المجلوب من بنطس القبض منه أكثر. (ف) " يحدر ' من المعدة المرار ويسهله و يدر البول.

أسطوخوذوس

بالاد النطوخوذوس (\overline{c} \overline{c}) ينبت فى جزاير سطوخاذيس التى ببلاد غلاطيا بحذاء مساليا ويسمى هذا العقار باسم الواحدة من هذه الجزائر . له حمة كحمة الصعتر الا أنه أطول ورقاً من الصعتر حريف مع يسير مرارة يصلح لأوجاع الصدر كالزوفاء (\overline{c} \overline{c}) يقوى جميع الأعضاء الباطنة . (ابن ماسة) خاصيته تنقية الدماغ والنفع من المرة السوداء . (\overline{c} \overline{c}) شرابه يحل الغلظ والنفخ وقد يتخذ منه خل أيضاً كما يتخذ منه شراب .

الاليسفاقون

٢٩ - الاليسفاقون: هي السالمة (خ ج) قد يسمى أيضاً سفا جنون و هو

۱ ت: الله کلام ، ع: اله کلام ، ت الله کلام ، ع: اله کلام

وقيل اذا علق على أحد لم يلسعه العقرب. والصلب منه والأسود وهو العتيق رديئان جداً.

٢٥ - إشخيص: هو شوكة العلك وهو باليونانية خامالاون أي حرباء وأنما سمى خامالاون لاختلاف الورق فانهــــا قد توجد خضراء جداً والى البياض والى لون السماء وإلى حمرة الدم على قدر اختـ لاف الأماكن التي تنبت فيها . خمالاون لوقس أى الأبيض وقد يسمى إقسيا لأنه نبات يوجد عند أصله في بعض المواضع إقسوس وهو الدّبق فاشتق من إقسيوس إقسيا ومعناه الدبق. يشبه ورق الشوكة المسهاة بالشام العكوب والشوك المسمى سقولومس وينبت في أوسطه شوكة كشوك القنفذ البحري أو كشوك القينارا ' . وله زهر فرفيري مثل الشعر وتمركالقرطم وأصله في الأرض التربة غليظ وفي الجبلية دقيق ولون داخله أبيض، وفي رائحته شيء من طيب وكراهة ، وهو حلو . اذا شرب أصله أخرج حب القرع والدود. واذا عجن بالماء والزيت قتل الكلاب والخنازير والفار، وشربه ينفع من نهش الهوام. (ذ ج) خمالاون ما كس الي أسود ورقه أيضاً كورق الشوك المسمى سقولومس الاأنه أصغر وأدق منه وفيه حمرة كحمرة الدم، ساقه في غلظ الأصبع طولها شبر لونها الى حمرة الدم عليها اكليل وزهر مشوك دقاق لونه شبيه بزهر النبات المسمى اوقينثوس وفيه نقط، وأصل أسود غليظ كثيف اذا مضغ لذع اللسان. ينبت في الصحاري اليابسة والتلال والسواحل. (- -) أصله فيه شيء قتال ولهـذا ينتفع به من خارج في قلع الجرب والقوابي والبهق.

٢٦ - أقنثيون : هو الشوك المعروف بالطوب . (د ج) شوك ورقه

١ ت : قيفيار ، غ : قيمارا

٢ غ: لاون ماكس

اذان الهارآخر هران الفار آخر (الرازى فى كتابه الى من لا يحضره طبيب) هو أحد اليتوعات ورقه كاذان الفار عليه زغب أبيض وله شوك دقاق عليها أيضاً زغب أبيض ، اذا قطف يسيل منه اللبن ويسهل ويقيء بقوة . (حبيش) قو ته اضعف من قوة الماهودانة ، والبرتى البعيد عن الماء أحد والطف .

٣٣ — أو ثونا: (- ب) قيل انه عصارة آخاليذونيون الاسود وقيل عصارة الماميثا وقيل انه عصارة الخشخاش — المسمى قراطيطس آئى المقرن وقيل انه نبات ببلاد العرب التي تلى مصر وورقه كالجرجير كثير الثقب كأن السوس أكلته قليل المآءهش، زهره زعفر انى اللون وأوراق الزهر كبار ولذلك ظن أنه صنف من شقائق النعان، عصارته بحلى ظلمة البصر. وقيل أو ثنا وجر بالصعيد نحاسى اللون صغير يلذع اللسان. على طاهره بكشف آكاصل الإنجدان لكنه متخاخل كله. وهو صنفان ذكر ظاهره بكشف آكاصل الإنجدان لكنه متخاخل كله. وهو صنفان ذكر وأثى وأجودهما الإنثى. وهو الذي في داخله طبقات مستقيمة والذكر مستدير ليس بذى طبقات، وكلاهما في الطعم متشابهان أول ما يذاقان يوجد في طعمهما حلاوة ثم يتغير الى أن تظهر فيه مرارة، ومن الناس من زعم أنه أصل نبات ومنهم من قال انه يتكون من العفونة في أشجار تتسوس كثل ما يتكون عن العفونة في أشجار تتسوس كشل ما يتكون. الفطر. والمتكون في قيلقيا على شجر الشربين سريع

5 Y.

التفتت ضعيف القوة . (ج و) مركب من جوهرين هوائي وأرضى .

مفتح لسدد الكبد مقطع للاخلاط الغليظة. (غيره) شربته مثقال

أو ثو نا

اغاريقون

١ غ: على ٢ ت وغ: اغدان ٣ ت: قبراطيطس ، غ: قبراطيطوس
 ٢ ت وغ: الغرب ٥ غ: أوتيا ٦ ت: مكسرا ، غ: هذه الـكامة نافصة
 ٧ ت: قبلقيا

زهره لازوردى وهو الانثى والآخر زهره أحمر قان وهو الذكر . وهما شجر تان تنبسطان على الارض ورقه صغير الى الاستداره كورق النبات الذى يقال له القسيني على قضبان مربعة وثمر مستدير . وكلاهما يمسكان انتشار القروح الحبيثة وقيل ان اللازوردي يرد المقعدة الناتئة والاحمر يزيدها نتوا اذا ضمدت بهما . (- و) وكلاهما يخرجان السلى . (اريباسيوس) عصارته مع الحاشا والخردل تخرج العلق من الحلق .

اذان الفار البستاني ورقه كاذان الفار البستاني ($\overline{\epsilon}$ $\overline{\tau}$) ورقه كاذان الفار وسمى السينى باليونانية أى البستاني لأنه ينبت في المواضع الظليلة وفي البساتين وهو شبه الكسيني وأصغر ورقا وليس عليه زغب. واذا دلك فاحت منه رائحة القتاء قو ته مبردة قابضة . ($\overline{\tau}$ $\overline{\epsilon}$) قو ته شبيهة بقوة الحشيشة التي يحل بها الزجاج لانها تبرد و ترطب و بالجملة يفعل ما يفعله القسيني أ

· ٢ - اذان الفار البرى (ذ ب) مو او سوطيس له قضبان كثيرة من أصل اذان الفار البرى واحد غلظه كغلظ الاصبع.

5 R.

لون اسفلها الى الحمرة مجوفة ولها ورق طوال صفار الى السواد واطرافها حادة وهى ازواج بينها فرج ويتشعب من الاغصان قضبان صغار عليها زهر صغار لازوردى . وبالجملة فانه يشبه السقولو فندريون الا انه أقل خشونة وأصغر . (- ; -) يجفف في 7 وليس له حرارة بينة .

اذان الفار بری آخر ١٦ — اذان الفار برى آخر (مجهول) شجرة تنبت في الرمل مفترشة الأغصان على الأرض لها ورق صغار شبيهة باذان الفار البستاني عصارته تنفط تمريخا بها الذكر والمراق صالحة للشيوخ والذين لا يقدرون على الجماع وهي كثيرة عصر والاسكندرية .

أيضاً (ف) فه خطر فوم أنه العوسج الأحمر وليس به وذلك هو الفنا زهره وكلاهما يصنع منهما الحضض ولكليهما شوك حديد ويقربان من العوسج والخراساني أجود من الرومي واليماني . (الرازي) عاقل للبطن جيد للكبد والمعدة الملتهبتين .

اخرساج – اخرساج (الفلاحة النبطية) هي شجرة 4 V.

تنبت فى المواضع الحارة القشفة وهى ترتفع كقامة الرجل الطويل وخشبها وورقها كخشب وورق التين واكبر قليلا عذب الطعم تفه املس ليس له نوى واذا اكل جشّى وطيّب فم المعدة . ويتولد من هذه الشجرة وأصولها عناكب صغار قصار مغشاة بغشاء أبيض اذا ازيل عنها الغشا دبت، فيثق لاجل هذه العناكب نفوس الناس عن اكلها . وطبيخ الثمر والورق اذا صب على النقرس سكن الضربات .

١٧ – أُرُز (أَ بَ) أوريزى . صنف من الحبوب المستعملة ينبت في آجام ومواضع رطبة وهو قليل الغذاء يعقل البطن (جَ حَ) يحبس البطن باعتدال وهو اعسر انهضاما من الخندروس واقل غذاء . (ابن ماسويه) هو اغذا الحبوب بعد الحنطة واحمدها خلطا ويقوى المعدة ويدبغها . (ابن ما سة) زعمت الهند انه احمد الاغذية وانفعها اذا اتخذ بلبن البقر الحليب وزعموا ان من اقتصر على الغذاء به دون سائر الاغذية طال عمره ولم يشبه في بدنه صفرة و لا تغير . (الاسرائيلي) اذا طبخ بماء النخالة أو بماء اللبن زاد في المنى زيادة به .

١٨ - أناغاليس (ذ ب) يسميه قوم قيخوريون، وهو صنفان: احدهما

أناغاليس

أرز

١٢ – أنبج ': (ق) شجر الأنبج كثير بنواحي عمّان وهو يغرس أنبج غرساً. وهو لونان: أحدهما ثمره في هيئة اللوز لا يزال حلواً من أول نباته، والآخر في هيئة الاجاص يبدو حامضاً ثم يحلو اذا أينع. ولهما جميعاً جحفة ورائحة طيبة. ويكبر الحامض منهما في الحباب حتى يصير كشجر الجوز ورقه كورقه فاذا أدرك فالحلو منها أصفر والمر "أحمر واذا كان غضاً طبخت بالقدور.

۱۳ — أملج: (ابن عمران) ثمرة سوداء تشبه عيون البقر. لها نوى أملج مدور حاد الطرفين اذا نزع قشره تشقق النوى على ثلاث قطع. (حبيش) انما ينقع في اللبن ليخرج منه بعض قبضه وهو الشيراملج الاملج يسخن ويلطف، وهو سيد الأدوية. (بذيغورس) يقوى المعدة وينفع من السوداء. (ماسرجويه) يشد أصول الشعر.

۱٤ — ازدرخت: (ابن جلجل) اسم فارسي معناه حر الشجر وزعم ازدرخت قوم أنه اللبخ. (ابن الجزار) شجرة عظيمة تنبت بخراسان والشام ولها ثمر كالزعرور شكلا ولونا في عناقيد متخلخلة داخله نوى كنوى الزعرور، وهو عظيم الخشب كثير الدوح. (ماسرجويه) حبه الذي يشبه النبق اذا كل قتل. ورقه قد يستعمله النساء لتطولن به شعورهن، وعصارة أطراف أغصانه بالعسل وبالطلاء المطبوخ ينفع من السم القاتل (ابن ماسة) فقاحه يصلح المشايخ والمبرودين. وقشره اذا طبخ مع الاهليلج الاسود والشاهترج نفع من الجي البلغمية والمرة السوداء ويؤخذ في الربيع والخريف فقط.

10 — امبرباريس: أكثر الناس يصحفون الباء الأولى بالياء والصواب امبرباريس بالباء منقوطة بنقطة واحدة واسكان الميم وكسر الباء وقد تجعل الميم نوناً

١ ت: الج، غ: النج ٢ ت: ينفع ٣ ت: ابن مجلجل، غ: ماقص

الدمشق المجفف جيد للمعدة عمسك للبطن . (\bar{z}, \bar{z}) الإجاص مطلق للبطن خاصة الطرى فاما اليابس فاطلاقها اقل . وأما ذيو سقو ريدس فلا ادرى من اين قال أن الإجاص الدمشق يحبس البطن و نحن نجد اطلاقه ظاهرا وان كان اقل اطلاقا من المجلوب من ارمينية الداخلة — (ابن ما سويه) — يسهل الصفراء ويطنىء الحرارة . والأسود أقوى فى ذلك من الأبيض ، وما صغر منه اقل اسهالا . (الاسرائيلى) الأبيض بطىء الانهضام ردىء للمعدة قليل الاسهال . وأجوده ما كان فى غاية النضج . (الفلاحة النبطية) الإجاص الجبلى شجيرة ورقها مدور أصغر من ورق الآجاص . وثمرتها صادقة المجوضة وهى لا تفلح فى البساتين (\bar{z}) ثمرة الإجاص الصغار البرى يقبض قبضاً جيداً ويحبس البطن . (\bar{z}) ورق الآجاص اذا طبخ بشراب و تغرغر بطبيخه قطع سيلان المواد الى اللهاة واللوزتين واللثة .

11 — اتر و البوحنيفة) يغرس غرساً ولا يكون برياً ، وشجرته تبقى عشرين سنة تحمل و حملها مرة واحدة فى السنة . ورقها نحو من ورق الجوز ، وهو طيب الرائحة وفقاحها كفقاح النرجس الا أنه ألطف منه ولشجرته شوك حديد . (= 7) قيذروميلا تبقى تمرتها عليه جميع السنة والثمر طويل ذهبى اللون طيب الرائحة مع شىء من كراهة . بزره كبزر الكمشى . (الاسرائيلى) الذي جوفه تفه بارد رطب فى الثانية والذي جوفه حامض قطاع بارد يابس فى الثالثة (-) .

4 R

قشره عسر الانهضام واليسير منه يقوى المعدة ويعين على الاستمرا لكيفيته الحارة الحريفة (غيره) المربى من لحمه بالعسل أسلم وأقبل للهضم (ابن ماسويه) قشره يطيب النكهة (أنه) قيل اذا وضع في الثياب حفظها من التأكل.

إ توج

مسن صار لونه ياقو تيا وفى الهند صنف فيه عروق لونها اييض ياقوتى وقد يباع بعض أصناف الشوك والخشب التي يقال لها السيقامينا اللابنوس وهو رخو يتشظى وشظاياه فرفرية اللون لا تلذع اللسان ، واذا وضع على النار لم تفح منه رائحة (جو) هذه الخشبة من الاشياء التي اذا حكت بالماء انحلت كما ينحل بعض الاحجار . وصار عصارة جالية لظلمة البصر جلاء قويا .

ه _ آس (أبو حنيفة) هو كثير في المغرب سهلاً وجبلاً دائم الخضرة آس يسمو حتى يصير شجرا. وله زهرة بيضاء طيبة الرائحة وثمرة سوداء اذا اينعت تحلو وفيها.

3 V.

مع ذلك علقمة و تسمى قطمير · (\overline{i} آ) مورسيني ايماروس وهوالآس الشديد الخضرة المائل الى السواد انفع مما مال الى البياض خاصة الجبلية . وثمر الاسود اضعف مر ثمر الابيض · (\overline{f} ز) مركب من قوى متضادة والجوهر الارضى البارد فيه الاكثر · (\overline{i}) والمورطيدانون شيء ينبت في ساق شجرة الآس مضرس كانه فيه بُنك ، لو نه كلون ساق الآس . وفي شكله مشابه للكف وهو أشد قبضاً من الآس . – (الرازى في الخواص) – اذا اتخذت حلقة مثل الخاتم وهو طرى وأدخل فيه خنصر الرجل الذي في اربيته ورم سكنه .

١ ت، غ: ناقصه ٢ ت، غ: سيساميا ٣ ت، غ: مور اعادوص

3 R

ديبدار هو لبنه وهو حار حريف محرق معطش، في جوهره قبض. و لا شيء افضل منه لاستر خاء العصب والفالج واللقوة و الصرع، يفتت حصاة الكلى و المثانة و يحبس الطبيعة. (مسيح) و يسهل البطن و يقتل الدود و حب القرع. $7 - \hat{1}$ ثل (ابن عمر ان) شجر عظيم متدوّح و له خشب و قضبان خضر ملمعة بحمرة و رقه أخضر يشبه و رق الطرفا عفص الطعم و ليس له زهر و يشمر على عقد اغصانه حبا كالحمص اغبر الى الصفرة و فى داخله حب صغير ملصق بعضه الى بعض و يسمى حب الاثل العذبة و يجمع فى آخر حزيران. (\hat{i}) اما اقاقليس فهو الاثل هو ثمر شجر يكون بمصر يشبه ثمر الطرفا، و أما نقيعه فى الشيافات يقوى البصر.

٧ — أراك (أبو حنيفة) فهو افضل ما استك باصله واطيب ما رعته الماشية رائحة وهي كبيرة دوحاء شائكة. وثمره في عناقيد ومنه برى هو أعظم حبا واصغر عنقودا وله عجمة صغيرة مدورة صلبة وثمره اكبر من الحمص قليلا وعنقوده ملؤ الكف اكبره، والكبار فوق حب الكزبرة وليس له عجمة وكلاهما يبدو أخضر ثم يحمر ويحلو وفيه حرافة ثم يسود فيزيد حلاوة وفيه بعض حرافة ألى ويباع كما يباع العنب. وينبت في بطون الاودية وربما ينبت في الجبل وذلك قليل الموركة قليل متفرق. (ابن جلجل). شرب طبيخه يدر البول. (ابن رضوان). حبه عاقل يقوى المعدة.

 $\Lambda = 1$ بنوس ($\frac{1}{6}$) أقوى ما يكون الحبشى وهو أسود ليس فيه طبقات يشبه فى ملاسته قرنا محكوكا ، وكان كسره كثيفا . يلذع اللسان واذا بخركان طيب الرائحة . والحديث لدسومته يلتهب اذا قرب من النار واذا حك على

أراك

أثل

أبنوس

والبلوط والزيتون والجيد منها ما كان على الشَر بين وكانت جبلية ، وبعدها ما يوجد على الجوز. وأجوده ما كان طيب الرائحة وكان أبيض وما كان منها لونه إلى السواد فهو أرداً. (ج و) يقبض باعتدال وفيها أيضاً قوة تحليل وتليين خاصة الموجودة على شجر الصنوبر.

ع ــ أرثمال: (ابن ماسويه) يشبه قرفة القرنفل. (ابن ماسه البصرى) خشب كالقرفة طيب الرائحة يجلب من اليمن. (الطبري) نبات عيدانه كعيدان الشبت. (الرازى) سمعت أن الأرمال خشب خفيف متشنج يتخذ منه الحفوف وقد أجمع الأطباء فيه أنه جيد لأوجاع الفم.

> ٥ - أَبْلُ (الفلاحة) اصنافه أربعة أحدها الهندي المسمى ديبدار ، وهو شجرة ترتفع قامات وتنتشر أغصانها ، وثمره كالبندق . والثاني ورقه كورق الطرفا والثالث كورق السرو، وللثاني والثهالث شوك كثير ورائحة كرسة وحادة وحمله أصغر من جوز السرو والرابع ينتشر عرضاً لا بطول ولا يحمل شيئاً البتة. (ابن عمران) الأبهل صنف من العرعر كبير ورقه كورق الطرفا وله تمرة حمراء دسمة كالنبق لوناً وقدراً داخلها مصوف ولها نواة ولونه أحمر اذا نضج كان حلو المذاق وفيه علم القطران يجمع وقت قطاف العنب. (ذ ٦) الأبهل صنفان أحدهما ورقه كورق السرو أكبر الشوك كريه الرائحة وهذه الشجرة مستديرة تذهب في العرض أكثر ا منها في الطول. والآخر ورقه كورق الطرفا. وهذا نبات قوى التجفيف ينتي القروح الوسخة ويدر الطمث ويخرج الأجنة الموتى ويفيد الأحياء. (ابن سينا) ثمرة الإبهل تشبه الزُّعرُ ورالا أنها أشد سوادا حادة الرائحة طبيبها والديدار صنف منه يقال له الصنوبر الهندي عيدانه كعيدان الزرناد. وشمر

> > ١ ت ، غ : وأ كريس

اومال

St.

من السموم ونهش جميع الحيات ثمره وبزره وأصوله . ونوع آخر له ورق أصغر من ورق الزراوند وأغصان صغار تمتد على الأرض وزهره وثمره كالذى ذكرناه قبله الا أنه أصغر منه وأصوله لينة غير معقدة لونها أصفر تخرج من أصل واحد كالخرّ بق الاسود مرة الطعم عطرة الرائحة كرائحة الأسارون . وأكثر نباته في التربة البيضاء في الجبال ، وقوم آخرون يظنون أنه نوع من الماميران . ($\frac{1}{6}$) : يدر ّ البول والطمث وسبعة مثاقيل منه بماء العسل يسهل مثل الخربق الأبيض وقد ينفع في اخلاط الطيب .

 γ — اذخر . (أبو حنيفة) : له أصل مندفن وقضبان دقاق ذفر الرائحة وهو كالأسل أسل الكو لان أعرض منه وأصغر كعوباً وله ثمر كأنه مكاميخ القصب الا أنها أدق وأصغر . وقيل ما ينبت منفرداً متى رأيت واحدة ثم نظرت وجدت غيرها وربما استحلست منه الأرض . وينبت فى السهول والجروف واذاجف ابيض . (ابن عمران) : ماينبت منه فى الحجاز يسمى الحرمى وهو أعلاه وماينبت بقَفْصة وساحل أفريقية أدناه . ($\frac{1}{6}$) : سمخينوس أى الأذخر الذى من ناباطيا ومعده وبعده الذى يسمى البابلى

2 V

و بعض يسميه طو خيطوس. وأما الذي من ليبوى فأدناه وخير منه الحديث الإحمر الكثير الزهر الوردى الرائحة اذا انشق كان فى لونه فرفرية (-7, -7) زهره يسخن يسيراً و يقبض يسيراً مدر " يحدر الطمث تكميداً و ينفع أورام الكبد و المعدة ضهاداً و أصله أشد قبضاً و زهرته أكثر اسخاناً.

٣- أَشْنَةَ: هو المعروف بشيب العجوز ينبت على البلوط وغيره من الشجر. (ذَ آ) بِرْ يُون أَى الأشنة. وهي تتكون على شجر الشربين والجوز

أشنة

اذخر

ا _ أسارون . (ق آ) : يسمى ناردين بريا ، ورقه يشبه ورق قسوس ا غير أنه أصغر وأشد استدارة وله زهر فهابين الورق عند أصله لونه فرفيرى شبيه بزهر البنج فيه بزراً شبيه بالقر طم وله أصول كثيرة ا ذوات عقد دقيقة معوجة كأصول التيل إلا أنه أدق بكثير طيبة الرائحة تسخن وتلذع اللسان وينبت في جبال كثيرة الشجر. (ج و) النافع منه أصله °، وقوته كقوة الوج وأقوى منه. (ابن سمجون) أجوده الصيني والأندلسي وأجوده و الاندلسي عما يؤتى به من الجزيرة الخضراء. (لي) الأسارون الصحيح هو المجلوب من بلاد الروم وأما الذي يستعمل بالأندلس فليس أسارون بالحقيقة وان كان أشبه به في منظره وخصوصاً الجزيري منه ويظن أن قوته كقوته. وهو نبات له ساق خواره مدورة يعلونحو من ذراع متباعد العقد وورق كورق القنطوريون الصغير أخضر يضرب الى السواد. وبأعلاه جملة 7 من شعب بعضها فوق بعض في أطرافها رؤوس صغار في قدر حب الحنطة داخلها زغب أبيض. وله أصل أصغر من الخنصر متشعب منه شعب دقاق طول أنملة طيب الريح والطعم. وأما غيره من الأسارون فهو مر" الطعم كريه الرائحة ، وقوم يجعلونه من أصناف الزراوند الطويل. وهو نبات له ورق أصغر من ورق القسوس وأصلب يضرب الى السواد والغبرة وله أغصان دقاق مزواة تعلق بما قرب منها و تترقى فى الشجر . ولها زهر فرفيرى كثير مثل زهر الزراوند يخلف ثمراً كثمر الكبر، منه بزر كبزر الخطمي. وله أصول كثيرة معقدة تدب تحت الأرض في لونها غيرة وصفرة الى السواد قوية الرائحة مر"ة الطعم لذاعة اللسان والفم "قليلا. وخاصة هذا النبات النفع

١ غ: سوس ، ت : حاشية قدوس بالقاف المثناة اللبلاب الـ كبير

٢ ت، غ: زهر وهذا غلط ، أنظر جامع ابن البيطار ص ٢٣ ٢ ت: كبيرة

٤ ت: التيل ٥ غ: أصوله ٦ ت، غ: خسه ٧ غ: في الفم

(حرف الألف)

كان أولهم إلى زماننا هذا. وأنا بحول الله تعالى قد تقصيت فى ذلك ما أمكننى محترساً من الغلط جهدى غير طالب فيه الافتخار، واستوفيت فيه ذكر جميع الأدوية التى ذكرها ذيو سقوريذيس وجالينوس ولحقت بقوليهما قول من جاء بعدهما مصيباً، ونبهت على مواضع التصحيف فى الأسماء. ولم آت بقول من لم يحرب ما ذكره بل نقله نقلا، وألحقت بذلك أيضاً بعض الحشائش التى يستعملها أهل بلدنا ولم يذكرها أحد ممن تقد منا. فأما الكلام فى الطعوم والأراييح وتقسيم قوى الادوية فلما كان أهل الكتب قد أكثروا فيها من الكلام تركت القول فيها. وأنما قصدى الغرض الذى أغفل ولم "يستوفه أحد أعنى خلى الادوية واختيارها " ومعرفة الجيد منها الكان ظنهم صادقاً لولا انهم يتولون بأنفسهم عمل الادوية المركبة وما أقبح لكان ظنهم صادقاً لولا انهم يتولون بأنفسهم عمل الادوية المركبة وما أقبح بأحدهم أن يطلب أدوية مفردة فيؤتى " بأدوية لا يعلم هلهى التى أرادها أم غيرها، فيركبها ويسقيها عليله " مقلداً فيها الثجارين " ولتعاطى الحشائش فوم لا يقرؤن الكتب ولا يعرفون من الادوية الأأقلها.

قال العبد الفقير إلى رحمة الله تعالى ١٠ غريغوريوس المفريان:

ولذلك جعلت غرضى من هذا اختصارى واقتصادى "على ذكرصفات الادوية واختيارها والمشهور فقط من أسهائها وقواها " دون ما يتخذ من الاشربة " والادهان " فكان مع سهولة عجمه وضآلة [٢٦] حجمه نافعاً فى شأنه بالغاً فى فنه . ولنبتدى الآن بما شرحناه . الأول حرف الألف :

۱ غ: ههنا بیاض عظیم من الکلمة « من الرازی » الی الکلمة « واستوفیت » ۲ غ: ناقصة تا تا علی ذلك ع غناه ه غناه و غنان تا الله و الشیء منها ۱ منها و الله و الله

۱ غ: بدله « ابن مشید » . وا کن فی « عیون الانباء » (الجزء الثانی ص ۲ ه) : « ابن السید » . ۲ غ: عنی الله عنه ۳ غ: فیه من حیث وصف ٤ غ: بدل هذه الکامة بیاض ٥ غ: ثم ٦ غ: بدل هذه الکامة بیاض ۷ غ: لفلة ٨ غ: والفرق ٩ غ: ناقصة ١٠ غ: وفق ١١ غ: ذو ٢١ غ: البصرة ٢١ غ: هذه الجملة ساقطة ٤١ غ: تقدم غرضی ١٥ غ: هذه الکلمات الاربع ساقطة ، و بدلها : وما ٢١ غ: ناقصة ١٧ غ: ناقصة ١١ غ: ناقصة ١١ غ: فیه ٢٠ ع: است ٢١ غ: قد ٢٢ غ: حیث حکی شیئاً ۲۲ غ: وبالجهد

• • منتخب (الغافقي في الادوية المفردة انتخبه وحيد العصر علامة الدهر الاب القديس الورع مظهر الحقائق وكاشف الدقائق عربغوريوس مفرانه بطريق (۱) الشرق كل الله سعادته وايد سيادته (۱) آمين

⁽١) غ: فاتحة (٢) في غ: فقط (٣) كذا في ت، وبدله في غ: رحمه الله تعالى وعظم أجره

ولنا في كرم القراء وطلبة العلم امل واسع في المغفرة عما زات به اقلامنا أو قصرت عنه افهامنا ونستعطفهم بما قاله صاحب المقامات.

سائح أخاك إذا خلط منه الاصابة بالغلط وتجاف عرب تعنيفه ان زاغ يوما أو قسط

وقبل الختام نتقدم بالشكر الى حضرات اعضاء لجنة مطبوعات الجامعة المصرية وعلى رأسهم حضرة صاحب السعادة الجراح الشهير الاستاذ على ابراهيم باشا لتكرمهم بالموافقة على طبع هذا الكتاب على نفقة الجامعة المصرية جزاهم الله عنا وعن العلم خير الجزاء م

مور عی صبحی

ما کسی مایرهوف

ذلك كان جلّ اعتمادنا عليها، وفي الأحوال التي صعبت فيها القراءة اتبعنا طريقة المقلقة المقللة مع طبعة طريقة المقلقة المقللة مع طبعة ديوسقوريدس اليونانية

وقد كانت ترجمتنا الى الانكليزية حرفية بقدر الامكان وبدون اخلال بقواعد اللغة الانجليزية: أما شروحنا على مختلف الأدوية فهى فى غاية من الاهمية لاننا نعتقد أنه اذا طبعت المؤلفات العربية العلمية بدون شروح أدّت الى الوقوع فى خطأ كثير.

وقد كان اعدادنا لهذه الشروح من أصعب الأمور لاننا احتجنا في ذلك الى مؤلفات عديدة ذكرنا أسماءها في مقدمة الكتاب.

وقد اجتهدا أن نضبط فى الأحوال الممكنة الاسماء المصرية القديمة أو الحديثة (القبطية) للأدوية وذكرنا بجانبها الاسم اليوناني واللاتيني والعربى والفارسي والتركي والابجليزي والفرنساوي والألماني.

ولا يخفي على ذهن حضرات العلماء ما لهذا العمل من الفائدة العظمى فى ضبط ووضع اصول الأسماء العلمية باللغة العربية ولا يسعنا هنا الا ذكر المساعدة الحقيقية التى اكتسبناها من مراجعة قاموس الدكتور شرف بكومعجم الدكتور عيسى بك فقد كان كل من هذين المؤلفين عونا لنا فى كثير من النقط والصعوبات التى اعترضتنا.

ومع كل فلا زلنا نقر بعجزنا عن اله كال فاله كال سه وحده جل شأنه كا اننا نعتذر لحضرات القراء الهرام عن الإبطاء في عملنا هذا الذي نأمل أن نكم له في ثلاث سنوات إذا وهبنا الله سبحانه و تعالى العمر والعافية ولنا في ذلك معذرة في من سبقنا فقد أمضى لكلرك ست سنوات قبل أن يتم ترجمته لابن البيطار كما أن معجم الدكتور عيسى بك كلفه سبع سنوات مع العمل المستمر .

العربية يقتضي اعادة طبع هذا الكتاب على ضوء معلوماتنا الحديثة.

أما كتابناهذا المدعو «جامع الأدوية المفردة» لأحمد بن محمد الغافق فيوجد منه نسختان احداهما مغلوطة ومحفوظة في مكتبة الجرانددوك ببلدة غوثا (Gotha) بألمانيا والثانية حصل عليها المرحوم المغفور له احمد باشا تيمور لمكتبته في مصر (وكان أصلهامن مكتبة بطركانة الأقباط الأرثوذكس) وهي صحيحة ومضبوطة وقد تكرم علينا كعادته أكرم الله مثواه فسمح لنا برسمها بالفو توغراف . وبواسطة هاتين النسختين أمكننا أن ننشر هذه الطبعة الكاملة للمنتخبات التي اقتبسها ابن البيطار ما ينوف عن المائتي مرة ، وقد ظهر لنا من دراسة هذا الكتاب أن مؤلف ابن البيطار ما هو إلا نسخة كاملة له زيد عليها بعض ملاحظات من المؤلفين الذين خلفوا الغافق ، ومن النادر جداً أن يعثر الانسان على ملاحظة شخصية لابن البيطار نفسه .

كا أن كتاب الغافق كذلك ما هو إلا شرح للترجمة العربية لذيوسقوريدس زائداً عليها أسهاء نباتات وأدوية أخرى منتخبة نتيجة اتساع المعلومات لأطباء العرب في فن العلاج. ويظهر في كتب العرب الأولية مثل كتاب « فردوس الحكمة » لعلى بن ربّن الطبرى « والذخيرة » المنسوب إلى ثابت بن قرة كثير من الأدوية الفارسية والهندية ومن آسيا الوسطى وكلها كانت مجهولة عند حكاء اليونان وقد شرح الغافق هذه الأدوية الجديدة شرحاً مطولا بقدرة مدهشة وذكاء نادر كما أنه أضاف عليها كثيراً من الأدوية الموجودة في شمال أفريقيا وبلاد الأندلس.

وذكرابن أبى أصيبعة فى الكلام عن حياة الغافقي (فى الجزء الثانى ص٥٥) أنه ولد فى بلدة الغافق بالقرب من قرطبه وقد لخص مؤلفه ابن العبرى وكان الأخير مؤلفاً كبيراً وكاتباً شهيراً ومترجماً نحريراً.

ونسخة تيمور باشا صحيحة ولكنها صعبة القراءة في نقط كثيرة ومع

مقدمة الناشرين

لم يتعمق علماء العرب في علم من علوم الطب مثل ما تعمقوا في علم المادة الطبية بأنواعها المختلفة. ومنشأ هذا التبحر بدأ مباشرة بعد ترجمة كتاب ديوسقوريدس من اليونانية وربما كانت أول ترجمة لهذا الكتاب إلى السريانية فى زمن العباسيين ومنها إلى العربية وأصح ترجمة له هي التي وضعها حنين بن اسحق في القرن الثالث الهجري الموافق للتاسع الميلادي وفي الحقيقة ان كتاب ديوسقوريدس اليوناني هذا مثل لكل مؤلفات العرب في علم الأدوية وكانت هذه المؤلفات كثيرة العدد جداً وقد وصل لنا معظمها إما ناقصاً أو متقطعاً أو في نسخ صعبة المنال وكان أكثر هؤلاء المؤلفين شيوعاً الرازى وابن سينا وابن جزلة وأبو حنيفة الدنياوري وابن السوري في الشرق وابن جلجل وابن الوافد وابن سمجون والشريف الأدريسي والغافق وأبو العباس النباتى وابن البيطار في الغرب ومعظمهم من بلاد الأندلس إلا أن أكثر مؤلفات هؤلاء العلماء قد ضاعت ولم يبق لنا كاملا منها سوى كتاب ابن البيطار وقد كان من علماء الغرب وأحدثهم عهداً ولكنه أو فاهم شرحاً. احتوى على كل ما جاء بكتب الأوائل، وقد طبع هذا الكتاب مرتين، واحدة في بولاق سنة ١٢٩١ ه ولكنها ملأى بالأغلاط الهجائية والمطبعية، والثانية نشرها لكلرك العالم الفرنسي في سنة ١٨٧٧ – ١٨٨٧ في ثلاثة مجلدات وظهرت أصح وضعاً وأصلح نصاً ولكنها نفذت كلها وعلى أي الحالات فان تقدم عصرنا الحالي في علوم النباتات وفي دراسة المخلفات



إلى من أحيا حضارة الفراعنة والعرب بعد مو تهما إلى الآخذ بيد العله والفنون ورافع لوائها إلى باعث النهضة الحديثة في مصر إلى مليكنا المفدى

مولاناصاحب الجلالة

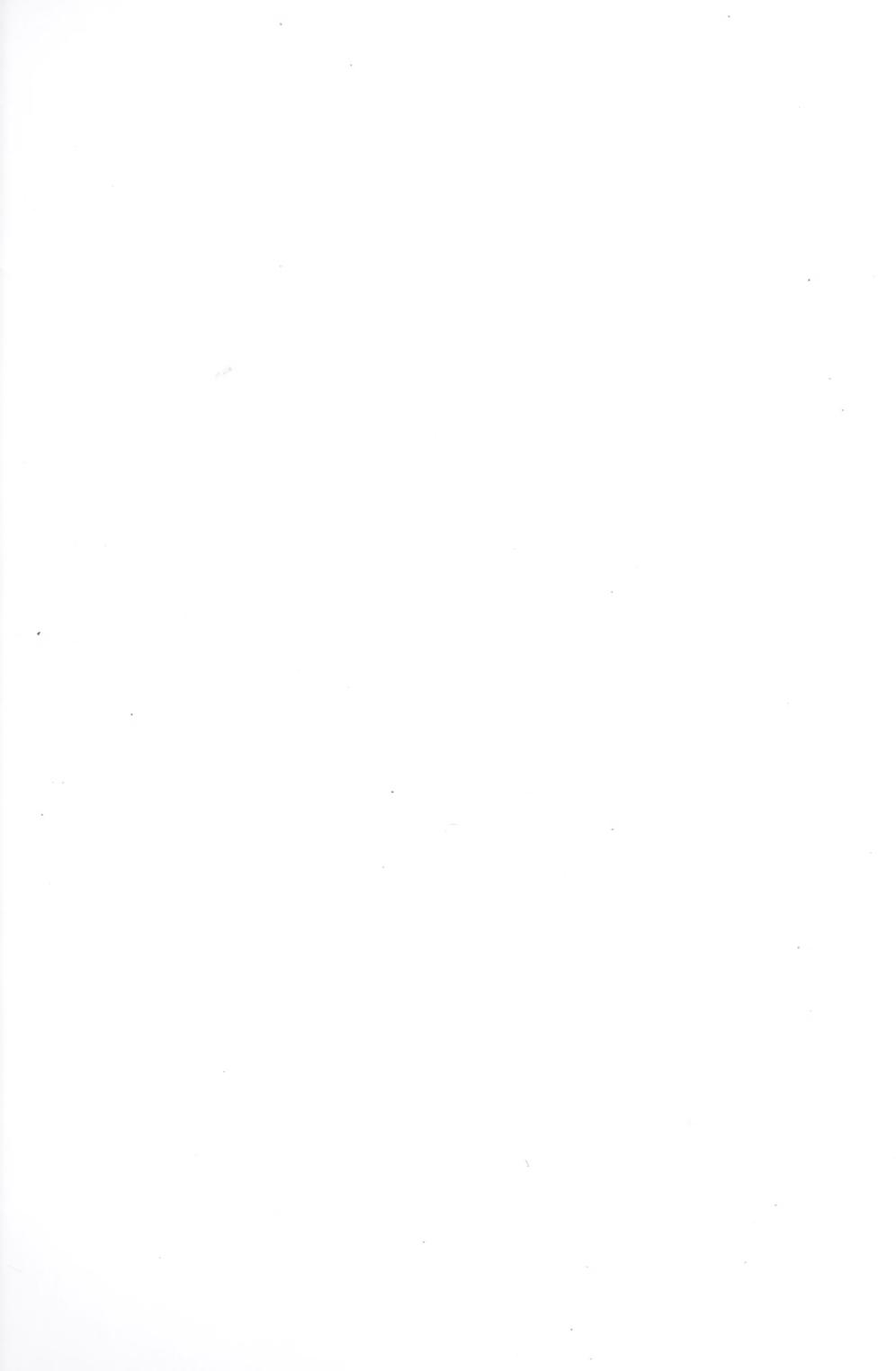
احمد فيؤاد الأول

نتشرف ماهداء كتابنا هذا قياماً بواجب الولاء

والاخلاص لذاته الكرعة

موردى صحى

ما کسی مار هوف



الجامعة المصرية كلية الطب – المؤلف رقم ٤

منتخب

كتاب جامع المفردات

لاحمر بن محمر بن فلير الفافقى المتوفى نحو سينة ٥٦٠ ه

نشره مع ترجمته الانكليزية وشروحات

والبركتور مورجى صبحى الاستاذ بالجامعة المصرية والطبيب عستشفى قصر العيني

الركنورما كسى مايرهوف الرمدى بالقاهرة

مطبعة الاعتماد بشارع حسن الاكبر بمصر





