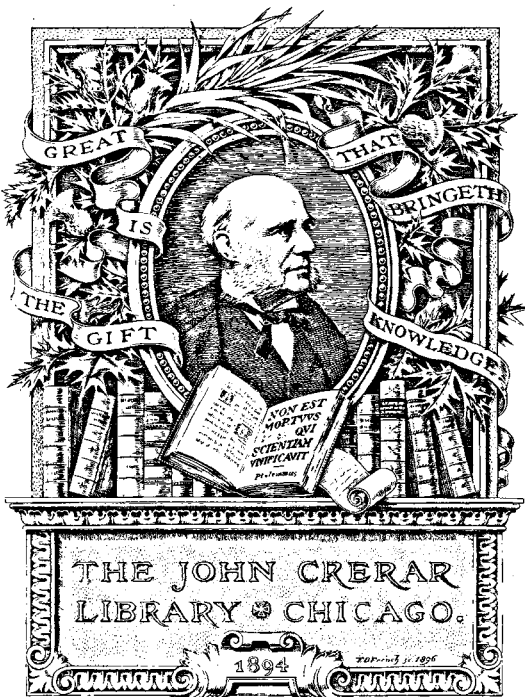


1899

ELECTRIC LIGHT  
SUPPLY  
CATALOG

AMERICAN ELECTRIC  
COMPANY  
ST. PAUL, MINN.



PRESENTED BY

*American Electric Company*





THE  
JOHN  
LIBBY

**Electric Light Supplies.**



**American Electric Company**

**56 East Sixth Street,**

**St. Paul, Minn.**



**Copyright, 1899 by  
American Electric Company.**



## INTRODUCTORY.

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We are pleased to present to the Electrical Trade of the Northwest our Catalogue of Electric Supplies. It contains a very complete list of all material used in electric light work, and we trust it will prove of service to our customers in making their selections.

We wish it understood that we are prepared to furnish promptly anything in the electrical line, though it may not be listed herein.

All supplies that we furnish are of the highest quality, and every article is fully guaranteed.

American Electric Company.

1899

537,085 58092  
P500

# TERMS.

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OUR terms to people of established credit are 30 days net.

Unless your standing is known to us, or you have a rating with the Agencies, please have statement of your financial condition and satisfactory references accompany your order; if this is not done, there will necessarily be delay while we look up your credit.

All accounts will be due on the fifteenth of the month following shipment, and if not paid by that time will be subject to sight draft without notice.

We do not allow cash discounts

Goods will be sent C. O. D. if a remittance sufficient to pay express charges both ways accompanies the order.

If 25 per cent. of the bill is remitted with the order, the goods will be forwarded by freight, and draft for the balance, with bill of lading attached thereto, will be sent to any designated bank, so that the goods can be delivered at destination on payment of draft.

Payment may be made by Draft, Post Office or Express Money Order, or Registered Letter: we will not be responsible for remittances lost in transit.

## Prices.

All former prices are hereby annulled.

All prices are subject to change without notice.

Boxing, cartage and postage will be charged at cost.

We will cheerfully and promptly answer all inquiries for prices and discounts. In writing us for quotations kindly refer to the page of our catalogue on which the articles are described, and state the quantity desired.

## Shipments.

We request our customers to give us shipping directions with their orders, but in their absence we will use our best judgment in making selections of routes. As we employ experienced packers, we cannot be responsible for breakage after having obtained "in good order" receipts from a transportation company. All claims for breakage and damage should be made to the carriers.

Goods ordered to be shipped by mail will only be sent at purchaser's risk of loss or damage.



## Telegraph Code.



CUSTOMERS are requested to make use of our code words as far as possible in ordering goods, requesting quotations or requesting information relative to shipment of orders, by telegraph, as it saves considerable expense, making it possible to send a long message for the price of a short one, and experience has also shown that it reduces the liability to errors. By a little ingenuity in arranging such

a message, from thirty to fifty words can be transmitted for the price of a ten word message. Telegraph inquiries received by us in code will be replied to in the same manner, not otherwise. We give below a number of code words, representing business phrases and sentences which are to be used in connection with code words given on the following pages:

### CODE IN GENERAL:

<b>Lapwing</b>	Answer by mail.
<b>Larboard</b>	Referring to our letter of.
<b>Larceny</b>	Referring to your letter of.
<b>Larch</b>	We write you fully to-day.
<b>Largeness</b>	We have no letter from you.
<b>Largess</b>	Will write you fully in a day or so.
<b>Lariat</b>	Write giving full particulars.
<b>Lark</b>	Answer by telegraph—day message.
<b>Larva</b>	Answer by telegraph—night message.
<b>Larynx</b>	Referring to our telegram of.
<b>Lascar</b>	Referring to your telegram of.
<b>Lash</b>	Telegraph immediately.
<b>Lashed</b>	Telegraph reply soon as possible.
<b>Lashing</b>	We have no telegram from you.
<b>Lass</b>	Why do you not telegraph?
<b>Lasting</b>	Shall we?
<b>Latch</b>	Will you?
<b>Lateen</b>	Will you accept?
<b>Lateness</b>	Wire at once if accepted or not.

### CODE IN GENERAL—(Continued):

<b>Latent</b>	Will greatly accommodate us if you will.
<b>Latently</b>	According to contract.
<b>Lateral</b>	Not according to contract.
<b>Lather</b>	To which add the cost of.
<b>Lathered</b>	In addition to.
<b>Lathering</b>	How did you address?
<b>Latin</b>	Was addressed to.
<b>Latinize</b>	Please note an advance of.
<b>Latitude</b>	Would you advise?
<b>Latterally</b>	Would advise you to.
<b>Latterly</b>	Would not advise you to.
<b>Lattice</b>	Unless otherwise advised will assume that.
<b>Laud</b>	Will you agree to?
<b>Laudable</b>	Will agree to.
<b>Laudably</b>	Must have answer by.
<b>Laudation</b>	Will be in.
<b>Laudative</b>	Will be here.

## CODE IN GENERAL—(Continued):

<b>Laugh</b>	Utmost care must be used.
<b>Laughable</b>	Cash on delivery.
<b>Laughed</b>	Cash in 30 days
<b>Laughter</b>	Will not allow any commission.
<b>Laughing</b>	Commission will be allowed.
<b>Launch</b>	Your financial standing being unknown, we will send goods C. O. D. unless otherwise instructed.
<b>Launched</b>	Kindly send us references as to your financial standing, or shall we ship via freight with draft attached to bill of lading?
<b>Laundress</b>	Will you agree to the conditions?
<b>Laundry</b>	Contract awarded.
<b>Laura</b>	Contract will be awarded.
<b>Laurate</b>	Will you extend credit?
<b>Laurel</b>	Have you decided?
<b>Lava</b>	Have not decided.
<b>Lavation</b>	Have decided.
<b>Lavatory</b>	Will guarantee delivery by the.
<b>Lavender</b>	Cannot guarantee delivery before the.
<b>Lawfully</b>	The diameter is.
<b>Lawfulness</b>	Will do the best we possibly can.
<b>Lawgiver</b>	Do the best you possibly can.
<b>Lawgiving</b>	Shall we do so?
<b>Lawless</b>	Do so.
<b>Lawn</b>	Can do nothing until.
<b>Lawrence</b>	What have you done about?
<b>Lax</b>	Will deposit sight draft on you to-day, unless advised to the contrary, for ..... dollars.
<b>Laxative</b>	Please accept our draft for..... dollars.
<b>Laxity</b>	Send duplicate copy of invoice dated.
<b>Laxness</b>	Have examined very carefully and find.
<b>Laymen</b>	Expenses to be paid by.
<b>Lazily</b>	Do not fail to.
<b>Laziness</b>	Have figured as close as possible.
<b>Lazy</b>	Freight must be prepaid.
<b>Leach</b>	Freight rate per hundred pounds to destination.
<b>Leaden</b>	What is freight rate per hundred pounds?
<b>Leader</b>	Guarantee the account.
<b>Leading</b>	Hold subject to your order.
<b>Leafage</b>	Does not include.
<b>Leafing</b>	Must be included.
<b>Leafless</b>	Will keep you fully informed.
<b>Leafy</b>	Insist upon.
<b>League</b>	Await instructions.
<b>Leagued</b>	Letter in transit with full particulars

## CODE IN GENERAL—(Continued):

<b>Leak</b>	Shall we deliver goods on verbal order of your Mr. ....?
<b>Leakage</b>	Advisable for you to place order at once, prices tending to an advance.

## ORDERS:

<b>Leaking</b>	Add to our order of.
<b>Leaky</b>	Cancel our order of.
<b>Lean</b>	Change our order of.
<b>Leaned</b>	Hurry forward goods on our order of.
<b>Leaning</b>	Have you shipped goods on our order? If not, when will you?
<b>Leanness</b>	Enter order if you can ship in.
<b>Leaped</b>	Hold for instructions our order of.
<b>Leaping</b>	If you cannot ship in time named advise by telegraph.
<b>Learn</b>	Instructions by mail.
<b>Learned</b>	Prepay freight.
<b>Learning</b>	Shipping instructions will be sent you.
<b>Lease</b>	Ship immediately.
<b>Leased</b>	Ship as soon as possible.
<b>Leasehold</b>	Ship by express.
<b>Leaseholder</b>	Ship by fast freight.
<b>Leash</b>	Ship quickest route.
<b>Leaven</b>	Ship cheapest route.
<b>Leavened</b>	Send tracer immediately for shipment of.
<b>Leavening</b>	Wait receipt of letter before proceeding with order.
<b>Lecture</b>	Change order for.
<b>Lectured</b>	Send C. O. D. by express.
<b>Lecturing</b>	What quantity can you ship per day?
<b>Ledge</b>	Do not delay.
<b>Leeward</b>	Duplicate our order.
<b>Leeway</b>	Can you furnish?
<b>Legacy</b>	Hold subject to our order.
<b>Legal</b>	Hold until further orders.
<b>Legalize</b>	Send us immediately.
<b>Legally</b>	This is very important.
<b>Legate</b>	Send tracer on shipment—goods not here.

## QUESTIONS:

<b>Legatee</b>	At what price could you furnish?
<b>Legation</b>	Quote us by telegraph.
<b>Legend</b>	Quote us by next mail.
<b>Legendary</b>	Quote lowest price by telegraph, F. O. B. New York.
<b>Legging</b>	Quote lowest prices by mail, F. O. B. New York.

QUESTIONS—(Continued):

<b>Legible</b>	Telegraph lowest price, F. O. B. New York, and how soon can ship.
<b>Legibly</b>	Can you ship immediately?
<b>Legion</b>	Can you ship in?
<b>Legislate</b>	Have you in stock?
<b>Legislated</b>	Have you in stock? If not, how soon can ship?
<b>Legislating</b>	How soon can you ship?
<b>Legislative</b>	How soon can you make first shipment, and how fast remainder?
<b>Legislator</b>	What substitution can you make?

ANSWERS:

<b>Legislature</b>	Please specify quantities and trade number.
<b>Legitimate</b>	Unable to give better price.
<b>Legitimately</b>	We quote.
<b>Legitimist</b>	We quote for immediate acceptance.
<b>Legless</b>	We quote in reply to your inquiry of.
<b>Leisure</b>	We quote shipment from stock.
<b>Leisurely</b>	We quote shipment in.
<b>Leming</b>	We cannot accept at the price.
<b>Lemon</b>	We will accept your order.
<b>Lemonade</b>	We do not make the article.
<b>Lender</b>	Can ship at once from stock, if advised immediately.
<b>Lending</b>	Can ship at once on receipt of order.
<b>Lengthen</b>	Can ship in.

ANSWERS—(Continued):

<b>Lengthened</b>	Can begin shipping at once, and complete in. . . . .
<b>Lengthening</b>	Can ship within one week from receipt of order if advised at once.
<b>Lengthily</b>	Can ship within two weeks from receipt of order if advised at once.
<b>Leniency</b>	Have none in stock.
<b>Lenient</b>	First shipment will be made.
<b>Lent</b>	Have entered order and will ship.
<b>Leonard</b>	Have sent tracer as requested.
<b>Leonine</b>	Have suspended work as requested.
<b>Leonora</b>	Too late to cancel order.
<b>Leopard</b>	Unable to ship goods at time promised.
<b>Leopolds</b>	We ship you to-day.
<b>Leper</b>	We expect to ship.
<b>Leprosy</b>	We will complete your order.
<b>Leprous</b>	We will ship.
<b>Lessen</b>	We have shipped.
<b>Lessened</b>	We have completed your order and shipped same.
<b>Lessening</b>	We have entered order.
<b>Lethargy</b>	Telegraph shipping instructions for your order of.
<b>Lettuce</b>	Can deliver part of your order at once. Shall we ship portion or hold till we can make one complete shipment?
<b>Levant</b>	Do not understand your order. Send duplicate with full details.
<b>Levelness</b>	Send us official order confirming your telegram.



# SWITCHES.



Nos. 802 and 827.



Nos. 803 to 813.



Nos. 828 to 838.

## Paiste Single Pole Switch.

	Metal Top.		List Price.
Code Word.	List No.		
<i>Mange</i>	802	5 Amperes, each.....	\$0.25
<i>Manger</i>	827	10 " " .....	.60
<i>Radeliff</i>	20001	5 " with grooved base each .....	.25
<i>Rago</i>	20002	10 " " " " " " .....	.60

## Paiste Single Pole China Switch.

### Five Amperes.

<i>Mangle</i>	803	White, each.....	.72
<i>Mangled</i>	804	Ivory, " .....	.72
<i>Mangler</i>	805	Black, " .....	.80
<i>Mangling</i>	806	" Roman Gold " Flaked, each.....	1.00
<i>Mango</i>	807	Band Gold, each .....	1.00
<i>Mangrove</i>	808	Red, each .....	.80
<i>Manhood</i>	809	Blue, " .....	.80
<i>Maniac</i>	810	Oak, " .....	.80
<i>Manifest</i>	811	Antique Oak, each.....	.80
<i>Manifested</i>	812	Mahogany, " .....	.80
<i>Manipulate</i>	813	Walnut, " .....	.80

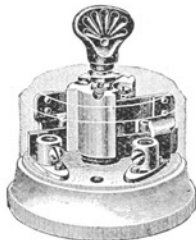
## Paiste Single Pole China Switch.

### Ten Amperes.

<i>Mankind</i>	828	White, each.....	.96
<i>Mantiness</i>	829	Ivory, " .....	.96
<i>Manty</i>	830	Black, " .....	.96
<i>Manna</i>	831	" Roman Gold " Flaked, each.....	1.40
<i>Mannerism</i>	832	Band Gold, each .....	1.40
<i>Mannerly</i>	833	Red, each .....	1.12
<i>Manning</i>	834	Blue, " .....	1.12
<i>Manor</i>	835	Oak, " .....	1.12
<i>Mansion</i>	836	Antique Oak, each.....	1.12
<i>Mantle</i>	837	Mahogany, each.....	1.12
<i>Mantled</i>	838	Walnut, each. ....	1.12



Nos. 917 and 918.



No. 936.



No. 845.



No. 33.

### The "Bryant" S. P. Switch.

Code Word.	List No.	Capacity, 15 Amperes, each.....	List Price.
<i>Apter</i>	917	.....	\$1.00
<i>Avotitued</i>	918	.....	1.20
<i>Raleigh</i>	999	..... with grooved base each	1.00
<i>Robston</i>	1000	.....	1.20

### Double Pole Ratchet Switch.

<i>Marooned</i>	936	5 Amperes, Bryant D. P. Ratchet Switch, each,	.75
<i>Marquis</i>	937	10 " " " " " " " "	1.00

### Ratchet Double Pole China Switch.

#### Ten Amperes.

<i>Memorize</i>	845	White, each.....	1.75
<i>Memory</i>	1845	Ivory " ".....	1.75
<i>Menace</i>	2845	Roman Gold, each.....	2.25
<i>Mend</i>	846	Band " ".....	2.25
<i>Mender</i>	1846	Red, each.....	2.00
<i>Mending</i>	2846	Blue, ".....	2.00
<i>Mental</i>	847	Oak, ".....	2.00
<i>Mental</i>	1847	Antique Oak, each.....	2.00
<i>Mentally</i>	2847	Mahogany, ".....	2.00
<i>Mention</i>	1848	Walnut, ".....	2.00
<i>Mentioned</i>	848	Black, ".....	1.75

### "P. & S." Single Pole Switch.

This Switch is all china. The china cover operates the Switch, and there is no key or handle projecting. It is small and very neat in appearance. It has an absolutely quick double make and break, with rubbing contacts, and has an exceedingly long break.

<i>Matins</i>	33	5 Amperes, all china, each.....	.25
<i>Mattress</i>	33½	5 " " decorated china, each.....	.45
<i>Matrix</i>	34	10 " " all china, each.....	.35
<i>Matrimony</i>	34½	10 " " decorated china, each.....	.55
<i>Matron</i>	35	5 " " flush, all china, ".....	.25
<i>Matronhood</i>	35½	5 " " " decorated china, each.....	.45
<i>Matted</i>	36	10 " " " all china, each.....	.35
<i>Matter</i>	36½	10 " " " decorated china, each.....	.55

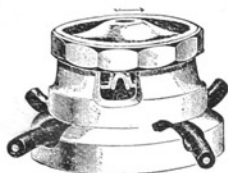


Fig. 1.

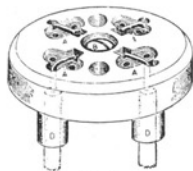


Fig. 2.



Fig. 3.

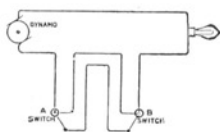


Diagram.

## "P. & S." All China Switches.

### 3-Way Single Pole.

Code Word.	List No.	List Price.
<i>Roofing</i>	No. 135,	3-Way S. P. Switch, all white, each..... \$ .40
<i>Roofless</i>	No. 135½,	3-Way S. P. Switch, decorated, each..... .70

### Double Pole Switch.

Fig. 1 shows the Switch with back plate for open work. Fig. 2 shows the back plate for concealed work. The hollow projections D D are intended to extend through the lathing, thus thoroughly insulating the wires. Fasten the plate to the lathing by the screw B, the plastering being done so as to have the plate flush. To connect wires, remove plates AAAA from Switch, place them in recesses in back plate, bending the wires as shown in Fig. 2. The Switch is held by two screws, in holes C C. Fig. 3 shows under side of Switch with wires held by clamps AAAA

In ordering state whether for concealed or open work.

<i>Ringwell</i>	No. 134,	10 Ampere, D. P., all white, each.....	.40
<i>Roofless</i>	No. 134½,	10 " " decorated, ".....	.70

## "P. & S. Two-Circuit Switch.

This is a modification of No. 134 Switch, which makes it possible to control two circuits by the one switch in such a manner that either a part or all of the lamps may be used as desired by the operator.

In ordering state whether for concealed or open work.

<i>Rook</i>	20182	5 Ampere, all white, each.....	.40
<i>Rookery</i>	20183	5 " decorated, ".....	.70

## Lazyman's Switch.

It is often convenient in residences, as well as in halls and stairways, to be able to light or extinguish a lamp from two points. This can be done as shown in cut. By reference to the diagram of the circuit, it will be seen that at either of the points A or B, the light or cluster of lights controlled by the switch can be turned on or off regardless of the position of the other switch.

In ordering state whether for concealed or open work.

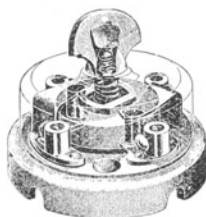
<i>Rooky</i>	20184	S. P. Lazyman's Switch, all white, each.....	.40
<i>Room</i>	20185	" " " decorated ".....	.70



No. 841.



No. 20003.



No. 2213.



No. 20019.

## The "Bryant" Standard Switch.

Code Word.	List No.	Double Pole.	List Price.
<i>Reese</i>	20005	10 Amperes, each.....	\$1.00
<i>Margin</i>	841	15 " " .....	1.50
<i>Marginal</i>	842	25 " " .....	2.00
<i>Margrace</i>	843	40 " " .....	3.00
<i>Margold</i>	844	50 " " .....	3.50

### With Grooved Base.

<i>Renick</i>	20003	10 Amperes .....	1.00
<i>Reno</i>	20004	15 " .....	1.50
<i>Revoia</i>	20005	25 " .....	2.00
<i>Revere</i>	20006	40 " .....	3.00
<i>Renfree</i>	20007	50 " .....	3.50

## Perkins' Switches.

### The Gibbs Switch.

<i>Marine</i>	2213	10 Amperes, double Pole, each .....	1.25
<i>Mariner</i>	2214	15 " " " .....	1.75
<i>Maritime</i>	2215	30 " " " .....	2.25
<i>Mark</i>	2216	10 " for conduit boxes, each .....	1.25
<i>Regina</i>	20009	50 " double pole, each.....	5.00
<i>Market</i>	2217	3 Point, each.....	1.25
<i>Market</i>	2218	4 " " .....	1.25

### The Gibbs Dial Switch.

<i>Ramer</i>	20010	10 Amperes, D. P., each .....	1.75
<i>Rankleigh</i>	20011	15 " " " .....	2.25
<i>Rankinville</i>	20012	30 " " " .....	2.75
<i>Randolph</i>	20013	50 " " " .....	5.50

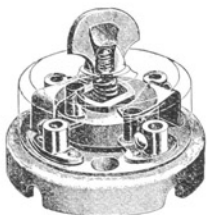
### The Gibbs Dial Switch for 500 Volts.

<i>Rankin</i>	20014	3 Amperes, S. P., each .....	1.20
<i>Rapidan</i>	20015	10 " " " .....	3.75

### The Gibbs 500 Volt Switch, No Dial.

<i>Ravenston</i>	20017	3 Amperes, S. P., each .....	.70
<i>Rowlins</i>	20018	10 " " " .....	3.25





No. 20116.

## Perkins Switches—Continued.

Code Word.	List No.	List Price.
<i>Robust</i>	20116 No. 11, 5 Ampere, 120 Volt, S. P.	each ..... .55
<i>Roche</i>	20117 No. 16, 10 " 120 " " " " " " " " "	..... .70

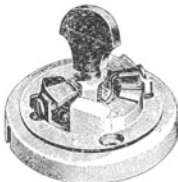


No. 20020.

## Gibbs 3 Wire Switch.

One of the most ingenious applications of the Gibbs principle has been made to produce a switch which breaks simultaneously the three wires (each at two points) when used with the Edison 3 wire system.

<i>Rayburn</i>	20020 For 3 Wire System	each ..... 3.00
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No. 2229.

## Perkins S. P. Switches.

<i>Mute</i>	2229 No. 20, 5 Amperes, composition handle, each..	.50
<i>Muteless</i>	2230 " 21, 10 " " " " " " " " "	.60

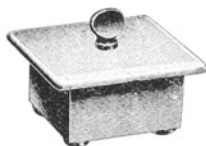


No. 20021.

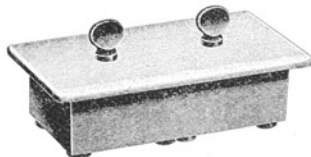
## Perkins Flush Plates.

<i>Raymond</i>	20021 For 1 Switch, Plate	$3\frac{3}{8}$ x $2\frac{1}{2}$ inches.....	1.00
<i>Rector</i>	20022 " 1 " " "	$3\frac{3}{4}$ x 3 " " " " " " " "	1.25
<i>Rebbling</i>	20023 " 1 " " "	$4\frac{1}{2}$ x $3\frac{3}{8}$ " " " " " " " "	1.75
<i>Redfield</i>	20024 " 2 " " "	$5\frac{1}{2}$ x $3\frac{3}{8}$ " " " " " " " "	2.00
<i>Redford</i>	20025 " 3 " " "	$8\frac{1}{2}$ x $3\frac{3}{8}$ " " " " " " " "	3.00
<i>Redman</i>	20026 " 4 " " "	$5\frac{1}{2}$ x $5\frac{1}{2}$ " " " " " " " "	4.00
<i>Redman</i>	20027 " 5 " " "	7 x 7 " " " " " " " "	5.00
<i>Redmond</i>	20028 " 6 " " "	$8\frac{1}{2}$ x $5\frac{1}{2}$ " " " " " " " "	6.00
<i>Redfe</i>	20029 " 8 " " "	10 $\frac{1}{2}$ x $5\frac{1}{2}$ " " " " " " " "	8.00

The above prices are for plates only.  
Standard finish—Polished Brass or Nickel. Special finishes supplied as desired.



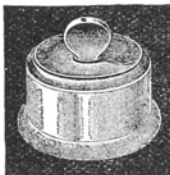
No. 9378.



No. 9379.



No. 814.



No. 815.



No. 904.

## Edison Flush Pocket Switches.

Code Word	List No.	List Price.
<i>Ringwood</i>	9378	Flush Pocket Switch, 10 Amp., 1 Switch ..... 1.75
<i>Rio</i>	9379	" " " 10 " 2 " ..... 3.00
<i>Ripley</i>	9380	" " " 10 " 3 " ..... 4.50
<i>Ripon</i>	9381	" " " 10 " 4 " 1 row ..... 6.00
<i>Ripleyville</i>	9382	" " " 10 " 4 " 2 rows ..... 6.00
<i>Ritchie</i>	9383	" " " 10 " 6 " ..... 8.50
<i>Riverside</i>	9384	" " " 10 " 8 " ..... 11.00

## Paiste Three Point Switches.

## Metal Top.

<i>Counterplot</i>	814	5 Amperes, each.....	.60
<i>Countess</i>	839	10 " " .....	.80

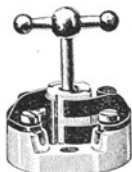
## Paiste Three Point China Switch.

## 5 Amperes.

<i>Marred</i>	815	Cream White, each.....	.90
<i>Marriage</i>	816	White, each.....	.90
<i>Marrled</i>	817	Ivory, " .....	.90
<i>Marring</i>	818	Black, " .....	.90
<i>Marrow</i>	819	" Roman Gold " Flaked, each.....	1.25
<i>Marry</i>	820	Band Gold, each.....	1.25
<i>Marrying</i>	821	Red, each.....	1.00
<i>Mars</i>	822	Blue, " .....	1.00
<i>Marshal</i>	823	Oak, each.....	1.00
<i>Marshaled</i>	824	Antique Oak, each.....	1.00
<i>Marshaling</i>	825	Mahogany, each.....	1.00
<i>Marshy</i>	826	Walnut, each.....	1.00

## 10 Amperes.

<i>Martyr</i>	904	White, each.....	1.50
<i>Martyrdom</i>	905	Ivory, " .....	1.50
<i>Marcel</i>	906	Black, " .....	1.50
<i>Marcelous</i>	907	" Roman Gold " Flaked, each.....	2.00
<i>Masculine</i>	908	Band Gold, each.....	2.00
<i>Mash</i>	909	Red, each.....	1.75
<i>Mashed</i>	910	Blue, " .....	1.75
<i>Mashing</i>	911	Oak, " .....	1.75
<i>Mashy</i>	912	Antique Oak, each.....	1.75
<i>Mask</i>	913	Mahogany, each.....	1.75
<i>Masked</i>	914	Walnut, each.....	1.75



No. 65097.

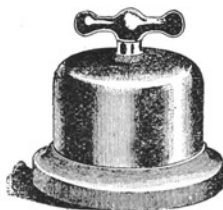
### Edison Snap Switches.

These Switches have been designed to break circuits having a potential of not over 125 volts. Flush Pocket Switches of special designs will be furnished on special orders, to suit the finish of the room.



No. 67421.

<i>Enema</i>	<b>65097</b>	10 Amperes, D. P., for interior conduit, each.....	.85
<i>Enlay</i>	<b>67419</b>	Single Pole Ratchet Switch, capacity 5 amperes, plain, each .....	.50
<i>Entwine</i>	<b>67420</b>	Single Pole Ratchet Switch, capacity 5 amperes, polished, each.....	.40
<i>Entwined</i>	<b>67421</b>	Single Pole Ratchet Switch, capacity 10 amperes, plain, each.....	.70
<i>Entwining</i>	<b>67422</b>	Single Pole Ratchet Switch, capacity 10 amperes, polished, each.....	.60



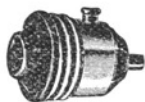
No. 65095.

<i>Epicure</i>	<b>65095</b>	10 Amperes, D. P., polished, each.....	.85
<i>Epidemic</i>	<b>65096</b>	10 " " nickeled, " .....	.85
<i>Epidemical</i>	<b>65100</b>	25 " " polished, " .....	1.40
<i>Epigram</i>	<b>65102</b>	25 " " nickeled, " .....	1.40
<i>Equal</i>	<b>65120</b>	50 " " polished, " .....	1.85
<i>Equality</i>	<b>65122</b>	50 " " nickeled, " .....	1.85



No. 67568.

<i>Equality</i>	<b>57568</b>	10 Amperes, D. P., flush pocket, each .....	1.25
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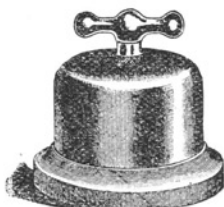
No. 60207.

Code Word	List No.	List Price
<i>Equalizing</i>	<b>60207</b>	Push Button Switch, for flexible cord, 1 light, polished, each.....
<i>Reynolds</i>	<b>9164</b>	Push Button Switch, for flexible cord, 10 light, polished, each.....

.90

1.20

### Edison Three-Way Vertical Snap Switch.

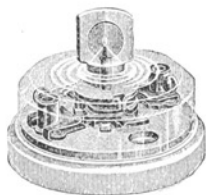


No. 65098.

<i>Maneater</i>	<b>65098</b>	Three-way Switch, polished, 10 amperes, each.	1.00
<i>Manful</i>	<b>65099</b>	" " " nickeled, 10 " "	1.00
<i>Manfully</i>	<b>65103</b>	" " " for interior conduit, 10 amperes, each.....	1.00
<i>Manfulness</i>	<b>65104</b>	Three-way Flush Pocket Switch, nickeled, 10 amperes, each.....	1.50

### Hart Standard Switches.

These Switches are mounted on Porcelain only. The movement is rotary in one direction, by quarter turns, keeping contacts bright and free from dust, and giving the maximum length of break. The actuating spring is of the best steel wire, and as it is not in circuit, its temper cannot be affected by the current. The break is double in all sizes, and in the double pole switches the circuit is broken at four points. Although not illustrated in the cuts, all standard and flush switches, with the exception of the 50 ampere D. P., are furnished with the adjustable handle.

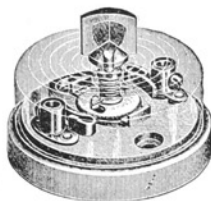


No. 8235.

### Hart 5 Ampere Single Pole Switch.

Diameter of Base,  $2\frac{1}{4}$  inches. Diameter of Cover,  $1\frac{1}{2}$  inches. Height, to Base of Handle,  $\frac{3}{8}$  inch. Total Height,  $1\frac{1}{2}$  inches. Total Break, 1 inch. Binding Posts for Wire to No. 8 B. & S.

<i>Measy</i>	<b>8235</b>	With Nickel Plated Cover, each.....	.60
<i>Massively</i>	<b>8236</b>	" Polished Brass " " .....	.60

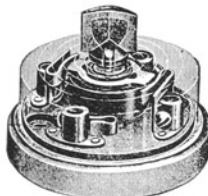


No. 8237.

### Hart 10 Ampere Single Pole Switch.

Diameter of Base,  $2\frac{1}{2}$  inches. Diameter of Cover, 2 inches. Height, to Base of Handle,  $1\frac{1}{4}$  inches. Total Height,  $1\frac{1}{2}$  inches. Total Break,  $\frac{3}{4}$  inch. Binding Posts for Wire to No. 6 B. & S.

	Code Word.	List No.	List Price.
	<i>Excrescent</i>	8237	With Nickel Plated Cover, each..... \$ .75
	<i>Excresmental</i>	8238	" Polished Brass " " ..... .75

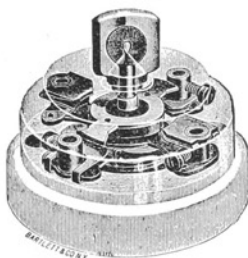


No. 8239.

### Hart 10 Ampere Double Pole Switch.

Diameter of Base,  $2\frac{1}{2}$  inches. Diameter of Cover, 2 inches. Height, to Base of Handle,  $1\frac{1}{4}$  inches. Total Height,  $1\frac{1}{2}$  inches. Total Break,  $1\frac{1}{2}$  inches. Binding Posts for Wire to No. 6 B. & S.

<i>Excrescence</i>	8239	With Nickel Plated Cover, each.....	1.35
<i>Excrescent</i>	8240	" Polished Brass " " .....	1.35

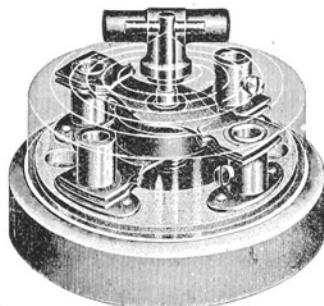


No. 8241 and No. 8242.

### Hart 20 Ampere Double Pole Switch.

Diameter of Base,  $2\frac{1}{2}$  inches. Diameter of Cover,  $2\frac{1}{2}$  inches. Height, to Base of Handle,  $1\frac{1}{2}$  inches. Total Height,  $2\frac{1}{2}$  inches. Total Break, 3 inches. Binding Posts for Wire to No. 5 B. & S.

<i>Excresce</i>	8241	With Nickel Plated Cover, each.....	1.80
<i>Excrescent</i>	8242	" Polished Brass " " .....	1.80



No. 8243,

### Hart 35 Ampere Double Pole Switch.

Diameter of Base,  $2\frac{1}{2}$  inches. Diameter of Cover,  $2\frac{1}{2}$  inches. Height, to Base of Handle,  $1\frac{1}{2}$  inches. Total Height,  $2\frac{1}{2}$  inches. Total Break, 3 inches. Binding Posts for Wire to No. 5 B. & S.

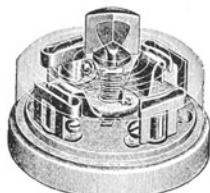
This Switch is the same as the 15 ampere double pole, except that the contacts and switch plates are made of phosphor bronze and hard rolled copper.

<i>Excrescent</i>	8243	With Nickel Plated Cover, each.....	2.25
<i>Excrescent</i>	8244	" Polished Brass " " .....	2.25

### Hart 50 Ampere Double Pole Switch.

Diameter of Base,  $4\frac{1}{2}$  inches. Diameter of Cover, 4 inches. Height, to Base of Handle,  $2\frac{1}{2}$  inches. Total Height,  $3\frac{1}{2}$  inches. Total Break,  $3\frac{1}{2}$  inches. Binding Posts for Wire to No. 1 B. & S.

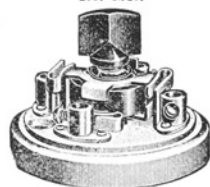
<i>Excrescent</i>	8245	With Nickel Plated Cover, each.....	4.50
<i>Excrescent</i>	8246	" Polished Brass " " .....	4.50



No. 8247.

Code Word.  
*Escruciate*  
*Esculpated*

List No. List Price.  
8247 With Nickel Plated Cover, each..... \$1.35  
8248 " Polished Brass " " ..... 1.35



No. 8249.

Counting  
*Country*

### Hart 10 Ampere Four-Way Switch.

Diameter of Base, 2½ inches. Diameter of Cover, 2 inches. Height, to Base of Handle, 1½ inches. Total Height, 1¾ inches.

8249 With Nickel Plated Cover, each..... 1.35  
8250 " Polished Brass " " ..... 1.35

### Hart Flush Plates.

The Flush Plates are made of solid plate brass ⅛ inch thick instead of being formed up of thin sheet metal as formerly. No screws show on the surface of the face plate, either in the single or gang plates. Single flush plates are made for all sizes of Hart Switches. Gang plates are made for any number of switches. The stock sizes are for two, three, four, six and eight switches. Five and ten ampere switches may be put on the same gang plate. Prices and dimensions of 15 and 30 ampere gang plates will be furnished upon application.

The standard finishes are nickel, bronze and polished brass. We can furnish the plates in any finish, or to match any house hardware from sample of same.

### Self-Adjusting Handle.

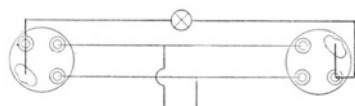
The collar has a vertical movement with reference to the body of the handle of 1-16 inch, and is held downward by a flat spring which it encloses and conceals. This spring-pressed collar holds the face-plate firmly against the wall with an easy, elastic pressure. The range of movement of the collar compensates for all variations liable to occur in the distance from the face of the plate to the porcelain base of the switch. This adjustment makes all handles, switches and face plates interchangeable. This adjustment is especially advantageous in gang plates. This adjustable handle is furnished with all Hart Standard and Flush Switches.

#### No. 1 Flush Plate.

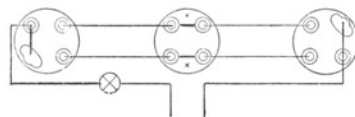
##### ONE SWITCH.

Length, 3¼ inch. Width, 2½ inch. Opening required for Switch, 2¼ inch, diameter.

<i>Masterly</i>	8208	Plate only, nickel, each.....	1.20
<i>Masterhip</i>	8209	" bronze, each.....	1.20
<i>Masticate</i>	8210	" brass, each.....	1.20



The method of connection for Three-Point Switches is shown in the above diagram.



To control lights from three points or more the Hart 4-Point Switch is used. The above diagram shows the method of making connection.



**Hart Flush Plates—(Continued).****No. 1 A Flush Plate.**Length,  $4\frac{1}{2}$  inch. Width,  $3\frac{1}{2}$  inch

Code Word	List No.	List Price.
<i>Mastered</i>	8211	Plate only, nickel, each . . . . . \$1.50
<i>Mastering</i>	8212	" " bronze, each . . . . . 1.50
<i>Masterless</i>	8213	" " brass, each . . . . . 1.50

**No. 1 B Flush Plate.****ONE SWITCH.**

This Plate is adapted for use with interior conduit branch boxes, and the Switches for use with same are our regular Switches, but with special porcelain basis, one and fifteen-sixteenths inches in diameter. The Switch is attached to a cast plate as with the standard Plates, and this Plate is clamped to the conduit box, and has an adjustment of one-sixteenth inch to allow for a variation in the setting of the box.

Diameter of Plate,  $2\frac{1}{4}$  inch.

<i>Most</i>	8214	Plate only, nickel, each . . . . . 1.20
<i>Mastered</i>	8215	" " bronze, each . . . . . 1.20
<i>Master</i>	8216	" " brass, each . . . . . 1.20

**No. 1 C Lock Flush Plate.****ONE SWITCH.**

Length,  $3\frac{1}{4}$  inch. Width,  $2\frac{3}{8}$  inch. Opening required,  $2\frac{1}{2}$  inch, diameter. One flat steel key is furnished with each Plate.

<i>Mosker</i>	8217	Plate only, nickel, each . . . . . 1.50
<i>Mason</i>	8218	" " bronze, each . . . . . 1.50
<i>Masonic</i>	8219	" " brass, each . . . . . 1.50

**No. 2 Flush Plate****TWO SWITCHES.**

Length,  $2\frac{1}{2}$  inch. Width,  $2\frac{1}{4}$  inch. Opening required,  $4\frac{1}{2} \times 2\frac{1}{4}$  inch.

These Plates can be furnished to special order with one Lock and one Handle Switch, the Lock Switch being connected in series with and controlling the use of the Handle Switch.

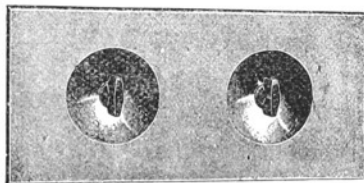
<i>Masonry</i>	8220	Plate only, nickel, each . . . . . 2.40
<i>Masquerade</i>	8221	" " bronze, each . . . . . 2.40
<i>Mass</i>	8222	" " brass, each . . . . . 2.40



No. 8214.



No. 8217.



No. 8220

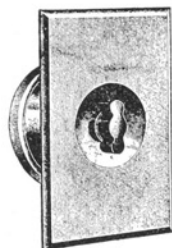
## Hart Flush Plates—(Continued).

## No. 3 Flush Plate.

## THREE SWITCHES.

Length,  $9\frac{1}{2}$  inch. Width,  $3\frac{1}{2}$  inch. Opening required,  
 $7\frac{3}{4} \times 2\frac{1}{8}$  inch.

Code Word.	List No.	List Price.
<i>Massacre</i>	8223	Plate only, nickel, each ..... \$ 3.60
<i>Massacred</i>	8224	" " bronze, " ..... 3.60
<i>Massive</i>	8225	" " brass, " ..... 3.60

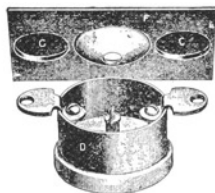


## No. 4 Flush Plate.

## FOUR SWITCHES.

Length,  $6\frac{1}{2}$  inch. Width,  $6\frac{1}{2}$  inch. Opening required,  
 $4\frac{1}{2} \times 4\frac{1}{2}$  inch.

<i>Exhaust</i>	8226	Plate only, nickel, each..... 4.80
<i>Exhausted</i>	8227	" " bronze, " ..... 4.80
<i>Exhauster</i>	8228	" " brass, " ..... 4.80



## No. 6 Flush Plate.

## SIX SWITCHES.

Length,  $9\frac{1}{2}$  inch. Width,  $6\frac{1}{2}$  inch. Opening required,  
 $7\frac{3}{4} \times 4\frac{1}{8}$  inch.

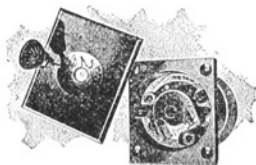
<i>Exhal</i>	8229	Plate only, nickel, each..... 5.70
<i>Exhalation</i>	8230	" " bronze, " ..... 5.70
<i>Exhaling</i>	8231	" " brass, " ..... 5.70

## No. 8 Flush Plate.

## EIGHT SWITCHES.

Length, 12 inch. Width,  $6\frac{1}{2}$  inch. Opening required,  
 $10 \times 4\frac{1}{8}$  inch.

<i>Exhalent</i>	8232	Plate only, nickel, each..... 6.60
<i>Exhalation</i>	8233	" " bronze, " ..... 6.60
<i>Exhale</i>	8234	" " brass, " ..... 6.60



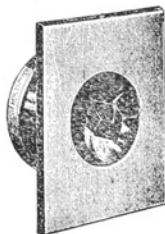
No. 915.

## Paiste Flush Switch.

<i>Manual</i>	915	Single pole, 10 amperes, each..... 1.30
<i>Manually</i>	916	Three point, 10 " ..... 1.60

With nickel face plates. Special finishes to order.





No. 2219.

### Perkins Flush Switch.

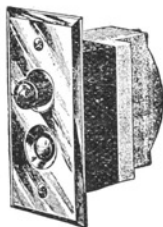
Diameter of base,  $2\frac{1}{4}$  inches. Length of plate,  $3\frac{1}{8}$  inches. Width,  $2\frac{1}{4}$  inches.

Flush Switches Nos. 12 and 61 are supplied with composition handles, which is the only handle that can be used with No. 61, but the double pole Switches will be furnished with metal handles if desired.

This Switch is made in three or four point, with or without flush plates.

Code Word.	List No.	List Price.
<i>Manuscript</i>	2219 No. 52, 10 Amperes, D. P., flush, each.....	\$2 25
<i>Map</i>	2220 " 53, 10 " " with key, each.....	2 50
<i>Maple</i>	2221 " 61, 10 " single pole, each.....	1 75

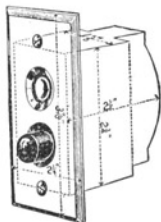
For 220 volts; will take wire up to No. 7 B. & S.



No. 241 to 246.

### C-S Flush Double Push Switch.

<i>Discerning</i>	241	10 Ampere, Single Pole, Double Break, Nickel Face, each.....	2.00
<i>Discerningly</i>	242	10 Ampere, Single Pole, Double Break, Brass Face.....	2.00
<i>Discharged</i>	245	15 Ampere, Double Pole, Double Break, Nickel Face, each.....	2.50
<i>Discharging</i>	246	15 Ampere, Double Pole, Double Break, Brass Face, each.....	2.50

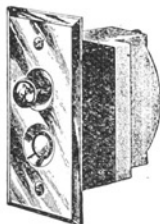


No. 241 to 246.

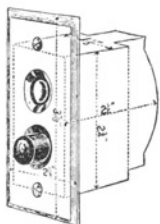
#### FACE PLATES IN COLORS OTHER THAN POLISHED BRASS AND NICKEL.

Silver, Silver Oxidized, Silver Mottled, Bronze, Bronze Oxidized, Copper Oxidized, extra beyond polished brass or nickel.....	.25
Bower Barfe.....	.50
Gold.....	.75

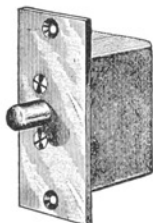
Other colors or specially designed face plates, special. Unless otherwise specified, nickel will be sent.



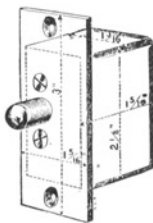
No. 247 to 250.



No. 247 to 250.



No. 251.



No. 251.

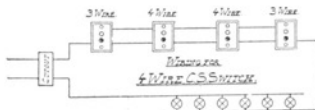
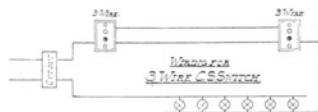
### C-S Flush Commutation Switch.

Code Word	List No.	List Price.
<i>Dischurched</i>	247 5 Ampere, Four Wire, Nickel Face, each.....	\$4.00
<i>Dischurched</i>	248 5 " " " " Brass " " .....	4.00
<i>Disciple</i>	249 10 " " Three " Nickel " " .....	2.50
<i>Discipline</i>	250 10 " " " " Brass " " .....	2.50

FACE PLATES IN COLORS OTHER THAN POLISHED BRASS AND NICKEL.

Silver, Silver Oxidized, Silver Mottled, Bronze, Bronze Oxidized, Copper Oxidized, extra beyond polished brass or nickel.....	.25
Bower Barfe.....	.50
Gold.....	.75

Other colors or specially designed face plates, special. Unless otherwise specified, nickel will be sent.



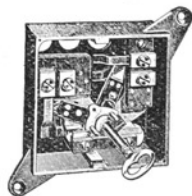
### C-S Flush Automatic Switch.

STRICTLY AUTOMATIC.—Opening door turns on the light; closing door shuts off light. Obviates necessity of placing Switch on outside of a dark room. Adapted also to be set underneath striker-plate of door-lock, so that unlocking door from outside turns on light, while locking it from outside turns it off.

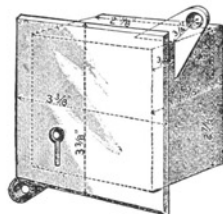
EFFICIENT BURGLAR ALARM.—Intruder confronted by a bright light immediately upon opening a door.

*Disclose*

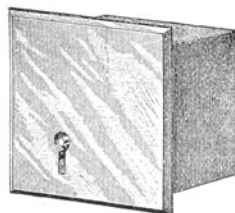
251 5 Ampere, Single Pole, Brass Face, each..... 2.00



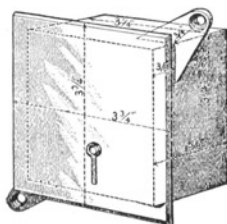
No. 254 to 258.



No. 259 and 260.



No. 259 and 260.



No. 259 and 260.

## C-S Flush Key Switch.

Code Word.	List No.	List Price.
<i>Discolor</i>	254	15 Ampere, Double Pole, Double Break, Nickel Face, each..... 2.50
<i>Discomfort</i>	255	15 Ampere, Double Pole, Double Break, Brass Face, each..... 2.50
<i>Discomfortable</i>	256	10 Ampere, Three Wire, Double Break, Nickel Face, each..... 2.50
<i>Discomforted</i>	257	10 Ampere, Three Wire, Double Break, Brass Face, each..... 2.50
<i>Discomforting</i>	258	Keys, per dozen..... 1.25

<i>Disciplined</i>	259	10 Ampere, Single Pole, Double Break, Nickel Face, each..... 2.00
<i>Disclaim</i>	260	10 Ampere, Single Pole, Double Break, Brass Face, each..... 2.00
<i>Disclaimer</i>	261	Keys, per dozen..... 1.25

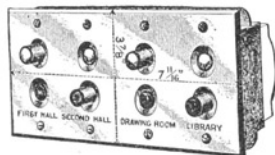
## FACE PLATES IN COLORS OTHER THAN POLISHED BRASS OR NICKEL.

Silver, Silver Oxidized, Silver Mottled, Bronze, Bronze Oxidized, Bronze Mottled, extra beyond polished brass or nickel, each.....	.25
Bower Barfe.....	.50
Gold.....	.75

Other colors or specially prepared face plates, special. In ordering, state particularly the kind of box wanted, whether with or without lugs.

## C-S Flush Switch Accessories.

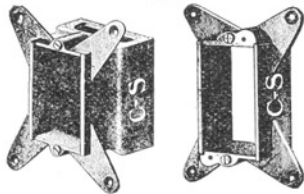
## GANG FACE PLATES FOR DOUBLE PUSH SWITCH.



Size of Gang Face Plate, Four Switches.

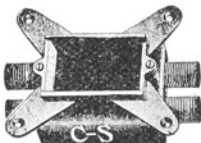


No. 262.

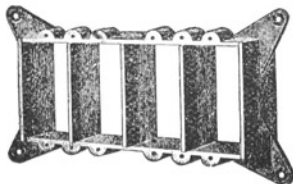


No. 20114.

No. 263.



No. 20115.



Iron Wall Box, Four Switches.

A comparison between the cut of plate for a single Switch and that of gang face plate for four Switches will show that by using the gang plate a saving of wall space of about  $1\frac{1}{2}$  x  $3\frac{1}{2}$  is effected, besides presenting a better appearance than by placing four face plates side by side. In like manner, the gang face plate for six Switches saves a wall space of  $2\frac{1}{2}$  x  $3\frac{1}{2}$ .

For Switches complete, in gangs, up to six Switches in gang, without iron boxes, same price as for same number singly.

Beyond 6 Switches in gang, special.

**Wooden Mat.**

The Wooden Mat is furnished singly or in gangs to order, in any wood desired. It offers a convenient device for concealing the broken edges of the plastering made in cutting away for the switch body

Code Word.	List No.	List Price.
<i>Discommode</i>	262	Wooden Mats, single switch, each. . . . . \$0.30
		Each additional switch, to and including 6 switches. . . . . .15

Mats beyond 6 switches, special.

**Iron Wall Box.**

The Iron Wall Box is intended to be put in while the building is in process of construction. The edge of the box comes flush with the plastering. Furnished singly or in gangs of 2, 3, 4, 5 and 6.

<i>Discommode</i>	263	Iron Wall Box, single switch, each. . . . . .15
		Each additional switch, to and including 6 switches . . . . . .12

Boxes beyond 6 switches, special.

<i>Robe</i>	20114	For 1 Switch. . . . . .45
		Each additional Switch. . . . . .36

Hole in top and bottom of box is arranged for reception of two  $\frac{3}{8}$  or  $\frac{1}{2}$  inch brass, iron, or circular loom conduits.

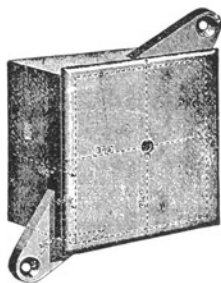
<i>Robinet</i>	20115	For 1 Switch. . . . . .75
		Each additional Switch. . . . . .50

Box fitted with nipples for either  $\frac{3}{8}$  or  $\frac{1}{2}$  inch iron conduit, or, if preferred, tapped for either size tube. In ordering styles "Robe" and "Robinet" state particularly What size or fitting of conduit is required.

**Dimensions of Iron Wall Boxes.**

No. Switches.	Length.	Breadth.	Depth.
1	$2\frac{1}{2}$	x $3\frac{1}{2}$	x $1\frac{1}{2}$
2	$3\frac{1}{2}$	x $3\frac{1}{2}$	x $1\frac{1}{2}$
3	$5\frac{1}{2}$	x $3\frac{1}{2}$	x $1\frac{1}{2}$
4	$7\frac{1}{2}$	x $3\frac{1}{2}$	x $1\frac{1}{2}$
5	$9\frac{1}{2}$	x $3\frac{1}{2}$	x $1\frac{1}{2}$
6	11	x $3\frac{1}{2}$	x $1\frac{1}{2}$

## Lock Switches.



No. 2222.

Code Word.	List No.	List Price.
<i>Marbled</i>	2222 No. 40, 10 Amperes, double pole, each	\$3.75
<i>March</i>	2223 " 41, 15 " " " "	4.50

For 220 Volts.

Nos. 40 and 41 are especially adapted for use where it is desirable that only authorized persons should have access to the Switch, for which purpose a spring lock fastens the flush plate to the cast iron box containing the Switch, and no one unprovided with a specially designed key can either remove the plate or turn the Switch.

This pattern has been found to be very desirable in insane asylums and similar institutions.



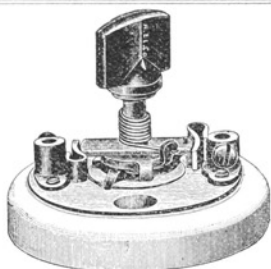
No. 947.

## Bryant Chandelier Switch.

<i>Exception</i>	947 5 Ampere, complete with 6-foot Chain and Ring, each	1.50
	Extra Brass Chain, per foot	.05
	Extra Brass Rings	.05

This Chandelier Switch is intended to be placed in the canopy of the chandelier, and is fitted with a clamping attachment on the back which clamps around the pipe, and is held in place by a set screw. Is rated at ten amperes. The chain can be dropped down between the pipe and the shell of the chandelier, or through a small hole in the canopy outside of the chandelier. It is fitted with brass ring hanging below the chandelier, the first pull of which lights the entire chandelier, the next pull cutting it off.

Chain and ring can be furnished to special finish where desired to match any finish of fixture.

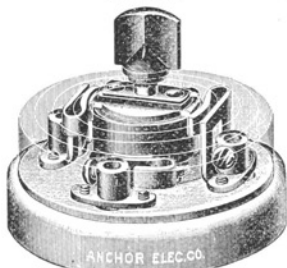


No. 20066.

## Anchor Switches.

## Single Pole.

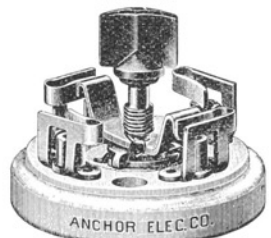
Code Word.	List No.		List Price Each.
<i>Rockland</i>	20066	5 Amperes, S. P.	\$ .27
<i>Rock river</i>	20067	10 " "	.33
<i>Rock side</i>	20068	10 " " 500 Volt.	1.26



No. 20069.

## Double Pole.

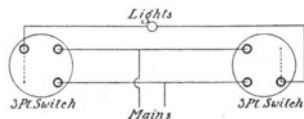
<i>Rock springs</i>	20069	10 Amperes, D. P.	.63
<i>Rockton</i>	20070	20 " "	1.00
<i>Rockville</i>	20071	30 " "	1.26



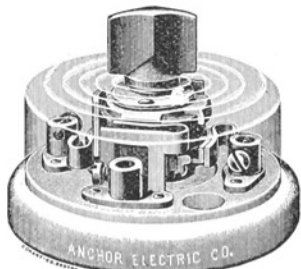
No. 20072.

## Three Point.

Three point switches are used to control lights from either one of two points. The method of connection is shown herewith.



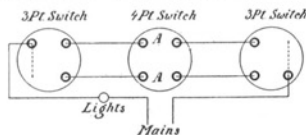
<i>Rocky run</i>	20072	10 Amperes, 3 pt. Switch	60
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No. 20073.

## Four Point.

To control lights from three or more points, two 3 pt. switches are used at two of the points, and a 4 pt. switch at each additional point up to any desired number. The method of connection is shown below.



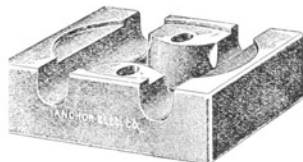
<i>Rock pie</i>	20073	4 pt. switch	90
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No. 29074.



Code Word.	List No.		List Price, Each.
<i>Rod</i>	20074	5 Amperes, S. P., Key.....	\$ .63
<i>Rotary</i>	20075	10 " " ".....	.69
<i>Rod corner</i>	20076	10 " 3 pt. ".....	.96
<i>Rod point</i>	20077	10 " 4 " ".....	1.26
<i>Rod place</i>	20078	10 " S P., 500 volt, Key.....	1.62
<i>Rod torn</i>	20079	10 " D. P., Key.....	.99
<i>Rodville</i>	20080	20 " " ".....	1.36
<i>Roddy</i>	20081	30 " " ".....	1.62



No. 20082-20083.

**Anchor Square Switchblock.**

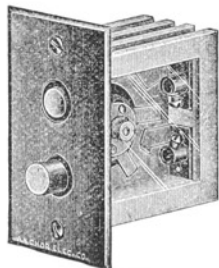
Of great convenience in leading in wires to switch, in moulded or cleat work.

<i>Rod tree</i>	20082	Fits 5, 10 Amp. S. P., 10 Amp., D. P.....	.12
<i>Rod stick</i>	20083	Fits 20 and 30 Amp., D. P.....	.14

**Anchor Push Button Switches.**

These Switches are made in "gangs" to order. Switches are finished regularly in nickel.

Special finishes, copper, silver, bronzes, etc., also to imitate onyx, pearl, etc., to order.

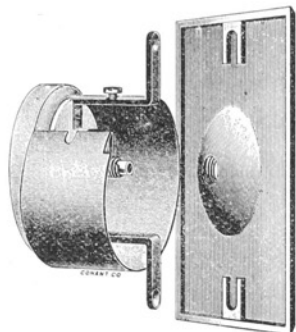


No. 20084.

<i>Rod aim</i>	20084	20 Amperes, D. P.....	2.50
<i>Rod shoot</i>	20085	20 " S. P.....	2.00
<i>Rod hill</i>	20086	20 " 3 pt.....	2.50
<i>Rod mount</i>	20087	20 " 4 pt.....	4.00

**Cast Iron Pockets for Anchor Switches.**

<i>Rod mill</i>	20089	Pocket for 1 Switch.....	.15
<i>Rod pond</i>	20090	" 2 ".....	.27
<i>Rod gun</i>	20091	" 3 ".....	.39
<i>Rod city</i>	20092	" 4 ".....	.51
<i>Rod farm</i>	20093	" 5 ".....	.63
<i>Rod house</i>	20094	" 6 ".....	.75
<i>Rod barn</i>	20095	" 8 ".....	.87



### Anchor Flush Plates.

The following prices are for plates only. To obtain the net price of the plate and switches complete, add the net price of the plate to the net price of such switches as are desired.

Keys for each switch, extra each	.30
Special finish, bronze, copper, etc., each plate extra each	.25 to 1.00
Enamel imitating marble, onyx, pearl, etc., each plate extra each	1.00 to 5.00

The Anchor Flush Plates are made, except the single switch, of solid plates, one-eighth inch thick, which finish with a smooth surface.

The handle is so designed as to be practically flush.

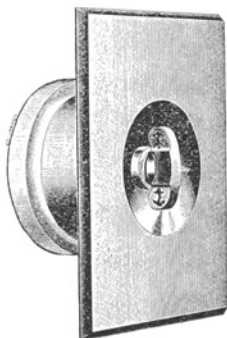
A spring beneath the handle makes the plate absolutely rigid.

Note the feature of the removable shell; by simply loosening one screw the shell may be removed for wiring.

The standard finish is nickel. We can furnish the plates in any finish, or to match any house hardware, from sample, at slight extra cost, also enameled to match onyx, marble, pearl, etc. The plates project one-eighth inch from face on wall, the switch itself being recessed in the wall. The depth of recess required is given in table below. In the multiple plates any or all of the switches may be "lock" and of any size given below.

We make to order plates of any desired size other than given, and for any number of switches.

In ordering use catalogue number of plate and specify the size of switch. When special finish is required send a sample with order.



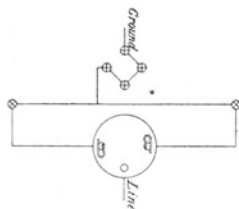
Code Word.	List No.	No. of Switches on plate.	Size Plate.	Horizontal Length Recess.	Depth Recess.	Vertical Length Recess.	List Price.
<i>Ramp</i>	20096	5 and 10 amp., S. P.	1 3 $\frac{1}{2}$ x 3	2 $\frac{1}{8}$	2 $\frac{1}{8}$	1 $\frac{1}{2}$	.60
<i>Roaring</i>	20097	" " "	2 3 $\frac{1}{2}$ x 5 $\frac{1}{2}$	2 $\frac{1}{8}$	4 $\frac{1}{2}$	1 $\frac{1}{2}$	2.10
<i>Roaring Creek</i>	20098	" " "	3 3 $\frac{1}{2}$ x 7 $\frac{1}{2}$	2 $\frac{1}{8}$	6 $\frac{1}{2}$	1 $\frac{1}{2}$	3.30
<i>Rob</i>	20099	" " "	4 5 $\frac{1}{2}$ x 5 $\frac{1}{2}$	4 $\frac{1}{2}$	4 $\frac{1}{2}$	1 $\frac{1}{2}$	4.20
<i>Roberts</i>	20100	" " "	6 5 $\frac{1}{2}$ x 7 $\frac{1}{2}$	4 $\frac{1}{2}$	6 $\frac{1}{2}$	1 $\frac{1}{2}$	5.40
<i>Roberts Creek</i>	20101	" " "	8 5 $\frac{1}{2}$ x 10	4 $\frac{1}{2}$	8 $\frac{1}{2}$	1 $\frac{1}{2}$	6.75
<i>Robin</i>	20102	3 pt, 4 pt and 10 amp., D. P.	1 3 $\frac{1}{2}$ x 3	2 $\frac{1}{8}$	2 $\frac{1}{8}$	1 $\frac{1}{2}$	.60
<i>Robinson</i>	20103	" " "	2 3 $\frac{1}{2}$ x 6 $\frac{1}{2}$	2 $\frac{1}{8}$	4 $\frac{1}{2}$	1 $\frac{1}{2}$	2.10
<i>Robinsdal</i>	20104	" " "	3 3 $\frac{1}{2}$ x 8 $\frac{1}{2}$	2 $\frac{1}{8}$	7 $\frac{1}{2}$	1 $\frac{1}{2}$	3.30
<i>Rock</i>	20105	" " "	4 6 $\frac{1}{2}$ x 6 $\frac{1}{2}$	4 $\frac{1}{2}$	4 $\frac{1}{2}$	1 $\frac{1}{2}$	4.20
<i>Rockbridge</i>	20106	" " "	6 6 $\frac{1}{2}$ x 8 $\frac{1}{2}$	4 $\frac{1}{2}$	7 $\frac{1}{2}$	1 $\frac{1}{2}$	5.40
<i>Rock Creek</i>	20107	" " "	8 6 $\frac{1}{2}$ x 11	4 $\frac{1}{2}$	9 $\frac{1}{2}$	1 $\frac{1}{2}$	6.75
<i>Rock Cut</i>	20108	20 and 30 amp., D. P.	1 4 $\frac{1}{2}$ x 4 $\frac{1}{2}$	3 $\frac{1}{8}$	3 $\frac{1}{8}$	1 $\frac{1}{2}$	1.00
<i>Rockdale</i>	20109	" " "	2 4 $\frac{1}{2}$ x 7 $\frac{1}{2}$	3 $\frac{1}{8}$	6 $\frac{1}{2}$	1 $\frac{1}{2}$	2.25
<i>Rock Eden</i>	20110	" " "	3 4 $\frac{1}{2}$ x 11	3 $\frac{1}{8}$	9 $\frac{1}{2}$	1 $\frac{1}{2}$	3.50
<i>Rock Falls</i>	20111	" " "	4 7 $\frac{1}{2}$ x 7 $\frac{1}{2}$	6 $\frac{1}{2}$	6 $\frac{1}{2}$	1 $\frac{1}{2}$	4.75
<i>Rock Field</i>	20112	" " "	6 7 $\frac{1}{2}$ x 11	6 $\frac{1}{2}$	9 $\frac{1}{2}$	1 $\frac{1}{2}$	6.00
<i>Rock Hill</i>	20113	" " "	8 7 $\frac{1}{2}$ x 11 $\frac{1}{2}$	6 $\frac{1}{2}$	12 $\frac{1}{2}$	1 $\frac{1}{2}$	7.25



### Special Switches.

#### Hart Two Circuit Switch, 10 Ampere.

This Switch is especially designed for lights in electric street cars, where there are four lights inside the car and one at each end outside. The four lights inside, and one "end" light, are turned "on" and "off" successively, by the first half revolution of the switch handle. The second half revolution of the handle turns "on" and "off" the inside lights and the other "end" light.



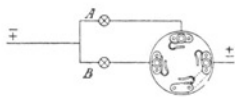
Connections for Two Circuit Switch.

#### Hart No. 9 Switch, 10 Ampere.

The first quarter turn of the handle lights a portion of the lamps on an electroliner; the second quarter turn lights the balance of the lamps. The third quarter turn puts out those last lighted, and the fourth quarter turn puts out those first lighted.

#### Hart Dimmer Switch.

This switch is used with two lamps in series, for "night lights." The first quarter turn connects the lamps in series, giving a dim light. The second quarter turn short-circuits one of the lamps, allowing the other to burn to full candle power. The third quarter turn connects them again in series, and the fourth quarter turn opens the circuit.



Connections for No. 9 and Dimmer Switch.

The price of above switches is the same as the net price of the 10 Ampere D. P. Hart Switch.

### Head-Light Switch.

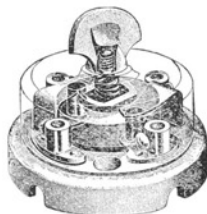
#### 3 Point, 3 Amperes, 500 Volts, Double Break.

This switch will break the circuit, no additional switch being required for that purpose.

The Head-Light Switch is used in street cars when it is desired to put in circuit with the interior lights either one of the head-lights. The method of connection is shown in Figure 1. It can also be used to put in circuit with the interior lights, either head-light and the vestibule light at other end of car.

Figure 2 shows the connections for 3 interior lights, front head-light and rear vestibule light.

Figure 3 shows connections for 8 interior lights, front head-light and rear vestibule light.



No. 20016.

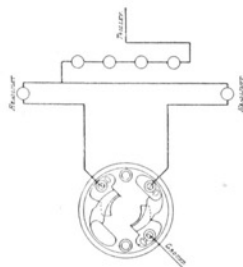


Fig. 1

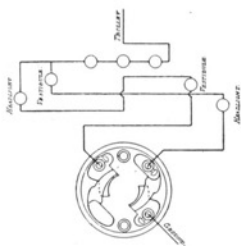


Fig. 2

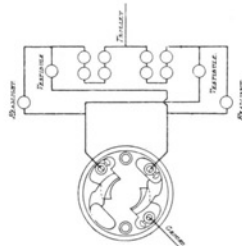
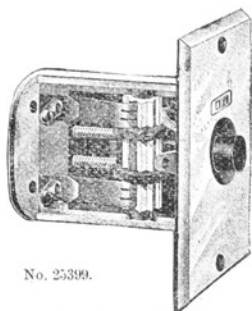
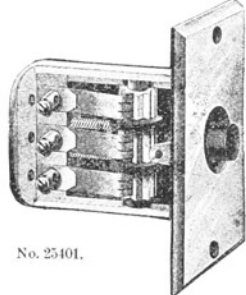


Fig. 3



No. 25399.

Single Pole showing Cap removed.



No. 25401.

Three-Way showing Cap removed.

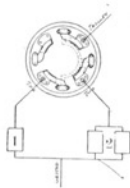


Diagram of Connections.

## New York Flush Switch.

(PATENTED)

Operated with a single button. Alternate pushes turn lights off or on. Single and Double Pole Switches have indicating dials as shown in cut.

The working parts are entirely of metal and cast welded glass. Cast welded glass is the best known insulator for a purpose of this kind and will not absorb a particle of moisture, even if it should become cracked or chipped.

		List Price, Each.
<i>Acorn</i> 25399	Single Pole.....	\$1.70
<i>Acorn</i> 25400	Double Pole.....	2.00
<i>Acrotectic</i> 25401	Three Way.....	2.00

Stock switches finished with nickel plated face plates. Special finishes furnished on short notice.

## Heat Regulating Switch.

15 Amperes, 500 Volts, Quadruple Break.

The handle upon being turned from left to right, raises by means of a screw thread cut thereon, a nut loose in the insulating block, which is then carried forward, as soon as released from a lock in the base, with great rapidity, and after a quarter revolution drops again into a lock.

The parts revolve in one direction only.

The loose contact pins, allow automatic adjustment between the points, so that when "made," contact is assured with every point by the pressure of strong spring copper brushes upon one end of the pin, forcing the other against the adjoining contact plates.

When in contact, the insulating block is free to move slightly in any direction, and can not possibly bind the contact pins.

The four simultaneous breaks of the circuit each time the switch is turned from one position to the next reduces the sparking to a minimum.

The Heat Regulating Switch is used for the regulation of heat by different combinations of the heaters.

On the commutator are four raised bosses or dials on which are printed "OFF," "1," "2," "3," respectively. These dials appear successively before a hole in the cover, and thus indicate the position of contacts in commutator.

From the "off" position, as indicated by dial, the first quarter turn connects in circuit the heaters No. 1, and figure 1 appears on dial.

The second turn throws out of circuit heaters No. 1 and connects in circuit heaters No. 2, and figure 2 appears on dial.

Heaters No. 2 being of greater capacity than No. 1, a larger amount of heat is generated.

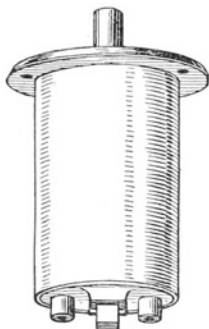
The third turn connects heaters No. 1 and No. 2 in parallel, which gives the maximum amount of heat, and figure 3 appears on dial.

### The H L Switch.

This switch is specially adapted for use in connection with a door for automatically throwing incandescent lamps in and out of circuit. It is circular in form, allowing it to be mounted in the casement of a door or in the wall with very little trouble—it being only necessary to bore a hole the size of the switch shell. It is made either as a single pole double break switch or a 3-point switch. It is mechanically strong and has a long, quick break. It may be used on 110 or 220 volt circuits. It will break three amperes at 220 volts and 5 amperes at 110 volts. Its carrying capacity at any voltage less than 110 volts is rated at 5 amperes.

When the door is opened the push projects forward, actuated by a spring. This movement turns the lights on. The closing of the door simply sets the switch in position ready to turn off the lights as soon as the door is opened again but while the door remains closed the lights continue to burn. When the door is opened the second time the lights are turned off.

This switch is designed specially for bathrooms, telephone booths and vaults, where the person entering the room desires to turn on the lights and at the same time close the door and upon leaving the room desires the lights to be turned off automatically. This switch may also be used for lighting long hallways where light is wanted only while a person is passing through the hall, a switch of the 3-point description being placed in each door, when the door at one end of the hall is opened the lights are turned on and the opening of the door at the other end turns them off.



<i>Acroblastus</i>	25405	Single Pole .....	\$3.00
<i>Acroblastus</i>	25406	Three Point .....	5.00

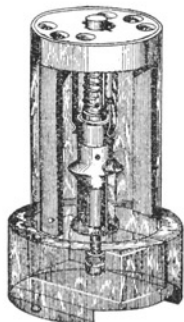
### Door and Closet Switches.

The object of these Switches is to furnish a device that will automatically throw on or off the incandescent lights as desired.

The door switch has one end arranged to take the place of that part of the lock which is fastened in the door jamb and into which the bolt of the lock fits when the door is locked. The bolt of the lock presses upon a projection of the switch which throws off the lights when the bolt is withdrawn from the jamb. By unlock the door the projection of the switch is released and the lights are turned on.

This same principle is used in the closet switch, excepting that the projection which operates the mechanism of the switch extends about one-fourth inch beyond the flush surface of the switch.

The switch is placed in the jamb of the door to which the hinges of the door are fastened. When the door is closed it depresses the projection so that it becomes flush with the door jamb and this turns off the lights. The opening of the door releases the switch and the lamps are turned on.



No. 25071

<i>Somner</i>	25071	Door Switch, each.....	1.25
<i>Somner</i>	25072	Closet Switch, ".....	1.25



BUTTON HANDLE.

Unmounted Switches, Types "A" and "B" furnished with above style of handle only when specified.

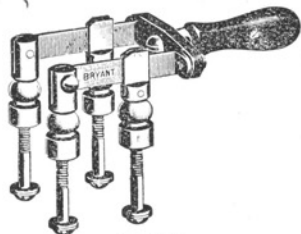
### Baby Knife Unmounted Switches.

NOTE.—Prices on Unmounted Switches do not include Screws.

Screws of any size and length furnished at cost.

#### For Tablet Board Work. Type A.

Code Word.	List No.			List Price.
<i>Ring</i>	20053	15 Amp., S. P. S. T.,	Unmounted, each	\$ .30
<i>Ringle</i>	20054	15 " D. P. S. T.	" "	.50
<i>Ri</i>	20055	15 " S. P. D. T.,	" "	.50
<i>Rio Break</i>	20056	15 " D. P. D. T.	" "	.70
<i>Ripley</i>	20057	15 " 3 Wire, S. T.	" "	.80
<i>Ripo</i>	20058	25 " S. P. S. T.	" "	.35
<i>Rising</i>	20059	25 " D. P. S. T.	" "	.60
<i>Ritrock</i>	20060	25 " S. P. D. T.	" "	.70
<i>Riverdane</i>	20061	25 " D. P. D. T.	" "	.90
<i>Riverfalls</i>	20062	25 " 3 Wire, S. T.	" "	1.00
<i>Acopella</i>	25397	15 " 3 Wire, D. T.	" "	1.00
<i>Acarida</i>	25398	25 " 3 Wire, D. T.	" "	1.20



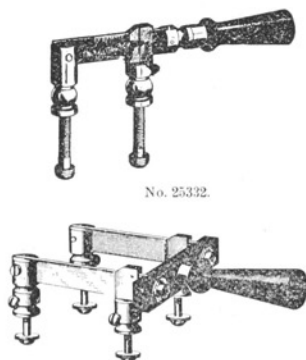
No. 25328.

### Type "B" Unmounted Knife Switches.

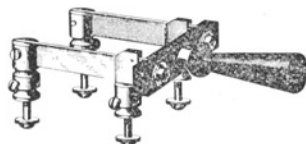
Code Word.	List No.	B. E. No.		List Price. Each.
<i>Abstentiously</i>	25328	1103	15 amp., double pole, single throw	\$0.32
<i>Abstentiouslyness</i>	25329	1152	15 " " double throw	.50
<i>Abstention</i>	25330	1075	25 " " single throw	.36
<i>Abstergent</i>	25331	1153	25 " " double throw	.60

### Type "C" Unmounted Knife Switches.

#### Single Break.



No. 25332.

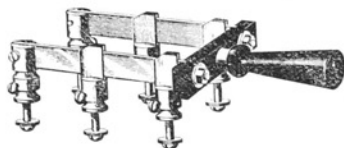


No. 25343.

<i>Absterion</i>	25332	1160	35 amp., S. P., single throw	.60
<i>Absterive</i>	25333	1161	35 " " double throw	.70
<i>Absterience</i>	25334	1162	35 " " single throw, fusible	.70
<i>Ricphend</i>	20063	1059	35 " D. P., single throw	.90
<i>Ricersi</i>	20064	1060	35 " " single throw, fusible	1.30
<i>Ricestation</i>	20065	1061	35 " " double throw	1.30
<i>Abstinecy</i>	25335	1154	35 " Three P., single throw	1.50
<i>Abstinent</i>	25336	1156	35 " " double throw	1.80
<i>Abstinently</i>	25337	1156	35 " " single throw, fusible	1.80
<i>Abstorted</i>	25338	1157	35 " " double throw, fusible	2.00
<i>Abstracted</i>	25339	1205	50 " S. P., single throw	.80
<i>Abstractedly</i>	25340	1206	50 " " double throw	1.20
<i>Abstractedness</i>	25341	1207	50 " " single throw, fusible	1.20
<i>Abstraction</i>	25342	1225	50 " " double throw, fusible	1.40
<i>Abstractor</i>	25343	1208	50 " D. P., single throw	1.20
<i>Abstractoive</i>	25344	1209	50 " " double throw	1.80
<i>Abstractitious</i>	25345	1210	50 " " single throw, fusible	1.80
<i>Abstractice</i>	25346	1204	50 " " double throw, fusible	2.20
<i>Abstractively</i>	25347	1211	50 " Three P., single throw	2.40
<i>Abstractly</i>	25348	1212	50 " " double throw	3.60
<i>Abstractness</i>	25349	1213	50 " " single throw, fusible	3.60
<i>Abstracted</i>	25350	1125	50 " " double throw, fusible	4.00

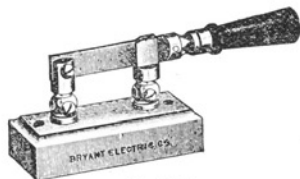
## Type "E" Double Break Knife Switches.

## Unmounted.



No. 25355.

Code Word.	List No.	B. E. Co. No.	List Price. Each
<i>Abstringe</i>	25351	1214 50 amp., S. P., single throw	1.00
<i>Abstrude</i>	25352	1215 50 " " double throw	1.70
<i>Abtrusely</i>	25353	1216 50 " " single throw, fusible	1.70
<i>Abtruseness</i>	25354	1223 50 " " double throw, fusible	2.00
<i>Abtrusion</i>	25355	1217 50 " D. P., single throw	1.50
<i>Abtrusity</i>	25356	1218 50 " " double throw	2.30
<i>Abtruse</i>	25357	1219 50 " " single throw, fusible	2.30
<i>Abtrusion</i>	25358	1224 50 " " double throw, fusible	3.00
<i>Abtrudess</i>	25359	1220 50 " Three P., single throw	3.00
<i>Abtruna</i>	25360	1221 50 " " double throw	4.30
<i>Abtrundant</i>	25361	1222 50 " " single throw, fusible	4.30
<i>Abtrundantly</i>	25362	1126 50 " " double throw, fusible	4.50



No. 20040.

## Type "A" Baby Knife Switches.

## Single Throw.—Porcelain Base.

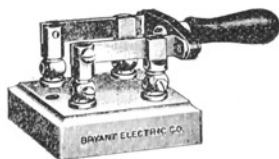
<i>Richhill</i>	20040	1001 15 amperes, S. P. S. T.	\$ .30
<i>Richford</i>	20041	974 15 " D. P. S. T.	.50
<i>Richland</i>	20042	1052 15 " 3 Wire, S. T.	.80
<i>Richwood</i>	20043	977 25 " S. P. S. T.	.36
<i>Richweir</i>	20044	978 25 " D. P. S. T.	.60
<i>Richmond</i>	20045	979 25 " 3 Wire, S. T.	1.00

## Double Throw.—Porcelain Base.

<i>Ridge</i>	20046	1039 15 amperes, S. P. D. T.	.50
<i>Ridgewood</i>	20047	1041 15 " D. P. D. T.	.80
<i>Ridgebrook</i>	20048	1040 25 " S. P. D. T.	.70
<i>Ridgetop</i>	20049	1042 25 " D. P. D. T.	1.00

## Slate Base.

<i>Abusable</i>	25363	1158 15 amperes, 3 Pole, D. T.	1.20
<i>Abusage</i>	25364	1159 25 " " " "	1.40

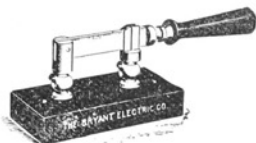


No. 25366.

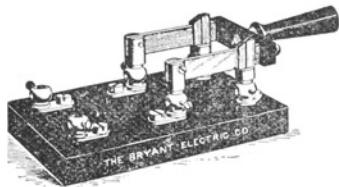
## Type "B" Baby Knife Switches.

## Single Throw.—Porcelain Base.

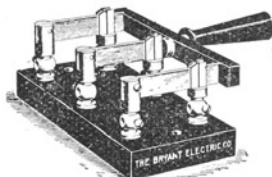
<i>Abuseful</i>	25365	1102 15 amperes, D. P. S. T.	.35
<i>Abuser</i>	25366	1074 25 " " "	.40



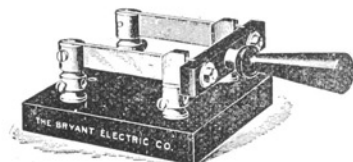
No. 25347.



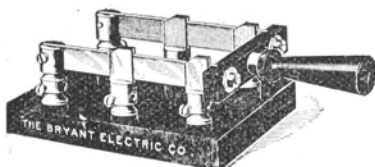
No. 20052.



No. 25376.



No. 25382.



No. 25388.

## Type "C" Single Break Knife Switches.

## Single Pole, Slate Base.

Code Word.	List No.	B. E. No.		List Price Each.
<i>Abusion</i>	25367	1147	35 amperes, S. P. S. T.	.80
<i>Abusively</i>	25368	1187	50 " " "	1.00
<i>Abusiveness</i>	25369	1148	35 " S. P. D. T.	1.10
<i>Abutter</i>	25370	1188	50 " " "	1.40
<i>Abolate</i>	25371	1149	55 " S. P. S. T. fusible	1.30
<i>Abolation</i>	25372	1189	50 " S. P. S. T. " "	1.60

## Double Pole, Slate Base.

<i>Ridgeville</i>	20050	1043	35 amperes, P. P. S. T.	1.00
<i>Abv</i>	25373	1190	50 " " "	1.20
<i>Riley</i>	20052	1044	35 " D. P. S. T. for fuse	1.50
<i>Abysmal</i>	25374	1192	50 " " "	1.90
<i>Ridgevay</i>	20051	1045	35 " D. P. D. T.	1.50
<i>Abysmal</i>	25375	1191	50 " " "	1.90

## Three Pole, Slate Base.

<i>Abysmal</i>	25376	1069	35 amperes, three pole, S. T.	1.50
<i>Associa</i>	25377	1193	50 " " "	2.50
<i>Academe</i>	25378	1101	35 " " D. T.	2.25
<i>Academical</i>	25379	1194	50 " " "	3.60
<i>Academica</i>	25380	1100	35 " " for fuse, S. T.	2.50
<i>Academic</i>	25381	1195	50 " " S. T.	3.80

## Type "D" Knife Switches.

Mounted on Porcelain Base, which can be furnished either Black Enameled or White Glazed.

## Single Break.

<i>Academical</i>	25382	1184	50 amperes, double pole, single throw, with black enameled base	1.40
<i>Academical</i>	25383	1185	50 amperes, double pole, single throw, with white glazed base	1.40

## Double Break.

<i>Academism</i>	25384	1236	50 amperes, double pole, single throw, with black enameled base	2.00
<i>Academist</i>	25385	1237	50 amperes, double pole, single throw, with white glazed base	2.00
<i>Acation</i>	25386	1238	35 amperes, double pole, single throw, with black enameled base	1.50
<i>Acateph</i>	25387	1230	35 amperes, double pole, single throw, with white glazed base	1.50

Porcelain is superior to slate as an insulator, and is much stronger.

## Type "E" Double Break Knife Switches.

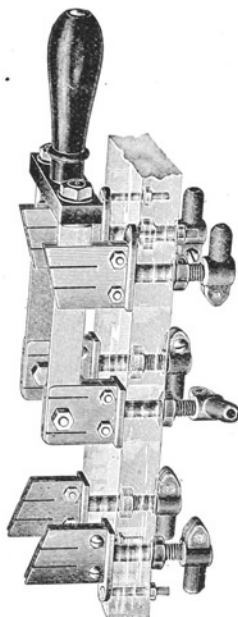
## Slate Base.

<i>Acateph</i>	25388	1190	50 amperes, double pole, single throw	1.50
<i>Acatephus</i>	25389	1200	50 " " double throw	2.30
<i>Acatephoid</i>	25390	1201	50 " " single throw, fusible	2.30
<i>Acatephus</i>	25391	1202	50 amperes, three pole, single throw	3.00
<i>Acatephous</i>	25392	1203	50 " " double throw	4.30
<i>Acathus</i>	25393	1204	50 " " single throw, fusible	4.30
<i>Acathus</i>	25394	1196	50 amperes, single pole, single throw	1.00
<i>Acathus</i>	25395	1197	50 " " double throw	1.70
<i>Acathus</i>	25396	1198	50 " " single throw, fusible	1.70

## The Western Electric Knife Switch.

## Type E.—For 220 Volts.

BACK CONNECTIONS, UNMOUNTED, FOR SWITCHBOARDS.



No. 20312.

These switches are all rolled tempered copper, and the greatest care in design and construction has been used in order to obtain a switch that would carry its rated capacity in amperes without showing any heating of its parts. In placing and fastening the jaws in position they are not soldered but bolted to the metal plates or lugs. By this method the temper of the jaws is in no way injured, and they will always grasp the blade of the switch with an equal and unvarying contact which will not deteriorate with time.

The hinge contact is made in the same way and the bolt which passes through the hinge is provided with a lock nut, preventing any liability of loosening or poor contact at this point. The blades are of drawn copper, hand finished.

The base is extended for connections on back of board and is secured in place by a lock nut. Swivel connections are provided which will admit of the circuit wires being brought into the switch from any direction.

NOTE.—These Switches are all made to gauge and any repair part can be obtained and a damaged part replaced in a few moments. These Switches are listed for switchboard work unmounted. If desired they will be furnished mounted upon slate bases with front connections, at an advance of 20 per cent. over the price of those with back connections unmounted.

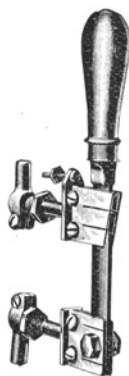
Special prices quoted on Type E Switch, for 500, 1000 and 2000 volts.

## Single Pole, Single Throw.

Code Word.	List No.			List Price. Each.
<i>Rotate</i>	20282	E 11	up to 50 Ampere capacity	5.60
<i>Rotated</i>	20283	E 21	" 75 " "	6.30
<i>Rotateplane</i>	20284	E 31	" 150 " "	8.10
<i>Rotarypump</i>	20285	E 41	" 300 " "	11.90
<i>Rotation</i>	20286	E 51	" 450 " "	14.40
<i>Rotatita</i>	20287	E 61	" 600 " "	20.70
<i>Rotator</i>	20288	E 71	" 800 " "	26.30
<i>Rot</i>	20289	E 81	" 1200 " "	43.10
<i>Rotgut</i>	20290	E 91	" 2000 " "	63.40

## Single Pole, Double Throw.

<i>Rotherbersts</i>	20291	E 12	up to 50 Ampere capacity	6.70
<i>Rothernail</i>	20292	E 22	" 75 " "	7.70
<i>Rothersoil</i>	20293	E 32	" 150 " "	10.10
<i>Rotifer</i>	20294	E 42	" 300 " "	14.70
<i>Rotiform</i>	20295	E 52	" 450 " "	19.50
<i>Rotten</i>	20296	E 62	" 600 " "	26.30
<i>Rottenly</i>	20297	E 72	" 800 " "	34.70
<i>Rottenness</i>	20298	E 82	" 1200 " "	57.00
<i>Rottenstone</i>	20299	E 92	" 2000 " "	84.00



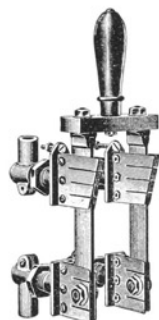
No. 20285.

## The Western Electric Knife Switch.

(Continued.)

## Type E.—For 220 Volts.

BACK CONNECTIONS, UNMOUNTED, FOR SWITCHBOARDS.



No. 20300.

## Double Pole, Single Throw.

Code Word	List No			List Price Each.
<i>Rotular</i>	20300	E 13 up to	50 Ampere capacity	7.80
<i>Rotand</i>	20301	E 23 "	75 " "	9.20
<i>Rotanda</i>	20302	E 33 "	150 " "	12.90
<i>Rotundity</i>	20303	E 43 "	300 " "	18.70
<i>Rotundo</i>	20304	E 53 "	450 " "	25.70
<i>Rouanne</i>	20305	E 63 "	600 " "	34.70
<i>Rouble</i>	20306	E 73 "	800 " "	45.80
<i>Rouche</i>	20307	E 83 "	1200 " "	79.40
<i>Roue</i>	20308	E 93 "	2000 " "	129.10

## Double Pole, Double Throw.

<i>Rouet</i>	20309	E 14 up to	50 Ampere capacity	10.10
<i>Rouge</i>	20310	E 24 "	75 " "	12.10
<i>Rough</i>	20311	E 34 "	150 " "	17.00
<i>Roughcast</i>	20312	E 44 "	300 " "	24.30
<i>Roughcaster</i>	20313	E 54 "	450 " "	34.00
<i>Roughdraw</i>	20314	E 64 "	600 " "	45.80
<i>Roughen</i>	20315	E 74 "	800 " "	62.60
<i>Roughfooted</i>	20316	E 84 "	1200 " "	107.20
<i>Roughheared</i>	20317	E 94 "	2000 " "	161.40

## Three Pole, Single Throw.

<i>Roughheer</i>	20318	E 15 up to	50 Ampere capacity	13.00
<i>Roughheen</i>	20319	E 25 "	75 " "	17.20
<i>Roughings</i>	20320	E 35 "	150 " "	19.80
<i>Roughish</i>	20321	E 45 "	300 " "	29.30
<i>Roughlegged</i>	20322	E 55 "	450 " "	41.40
<i>Roughly</i>	20323	E 65 "	600 " "	54.30
<i>Roughness</i>	20324	E 75 "	800 " "	71.80
<i>Roughrider</i>	20325	E 85 "	1200 " "	118.30
<i>Roughscuff</i>	20326	E 95 "	2000 " "	182.60

## Three Pole, Double Throw.

<i>Roughshod</i>	20327	E 16 up to	50 Ampere capacity	16.80
<i>Roughstrings</i>	20328	E 26 "	75 " "	21.80
<i>Rough</i>	20329	E 36 "	150 " "	28.40
<i>Roughfork</i>	29330	E 46 "	300 " "	38.20
<i>Rouk</i>	20331	E 56 "	450 " "	54.60
<i>Roulude</i>	20332	E 66 "	600 " "	71.50
<i>Roubran</i>	20333	E 76 "	800 " "	97.70
<i>Roulette</i>	20334	E 86 "	1200 " "	158.80
<i>Roua</i>	20335	E 96 "	2000 " "	243.30



## Western Electric Quick Break Knife Switch.

## Type Q.—For 220 Volts.



No. 20366.

BACK CONNECTIONS, UNMOUNTED, FOR SWITCHBOARDS.

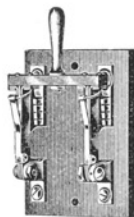
The Type Q is a Quick Break Knife Switch with essentially the same features as Type E, with the addition of the Quick Break Spring. This Switch is especially approved by the Underwriters for an entrance or service switch for motor work, constant potential arc or incandescent lighting as well as for switchboard work. The Switch is listed, with the exception of one size, with back connections unmounted. The Q Switch mounted with front connections on slate will be furnished at an advance of 20 per cent. over the price of the unmounted switches.

## Double Pole, Single Throw.

Code Word.	List No.	List Price Each.
<i>Rounce</i>	20336 Q 23 up to 75 Ampere capacity	11.40
<i>Rounceal</i>	20337 Q 33 " 150 " "	15.60
<i>Round</i>	20338 Q 43 " 300 " "	22.60
<i>Roundabout</i>	20339 Q 53 " 450 " "	31.50
<i>Roundback</i>	20340 Q 63 " 600 " "	45.20
<i>Roundel</i>	20341 Q 73 " 800 " "	68.00

## Three Pole, Single Throw.

<i>Roundelay</i>	20342 Q 25 up to 75 Ampere capacity	17.20
<i>Rounder</i>	20343 Q 35 " 150 " "	23.10
<i>Roundhead</i>	30344 Q 45 " 300 " "	33.00
<i>Roundhouse</i>	20345 Q 55 " 450 " "	47.40
<i>Rounding</i>	20346 Q 65 " 600 " "	67.90
<i>Roundish</i>	20347 Q 75 " 800 " "	98.10



No. 20349.

## Two Pole, Single Throw, 220 Volts.

<i>Roundlet</i>	20348 Q 03 up to 25 Ampere capacity, unmounted	2.90
<i>Roundly</i>	20349 Q 03 " 25 " " mounted	3.30



No. 20351.

## Two Pole, Single Throw, 500 Volts.

<i>Roundness</i>	20350 Q 03 up to 25 Ampere capacity, unmounted	3.00
<i>Roundridge</i>	20351 Q 03 " 25 " " mounted	3.40

## L. &amp; S. Knife Switches.

## Double Throw Without Fuse.

Amperes.	SINGLE POLE.		DOUBLE POLE.		TRIPLE POLE.		Amperes
	Plain.	Pol.	Plain.	Pol.	Plain.	Pol.	
50	4.00	5.00	6.75	8.50	10.75	13.50	50
100	6.75	8.50	11.25	14.00	18.00	22.50	100
200	9.75	12.25	16.00	20.00	25.50	32.00	200
300	12.00	15.00	20.00	25.00	31.50	39.50	300
400	15.25	19.00	25.50	32.00	40.00	50.00	400
600	20.00	25.00	33.50	42.00	52.50	65.75	600
800	28.00	35.00	46.50	58.00	73.75	92.25	800
1000	40.00	50.00	66.50	83.00	105.00	131.25	1000



## Double Throw With Fuse.

Amperes.	SINGLE POLE.		DOUBLE POLE.		TRIPLE POLE.		Amperes
	Plain.	Pol.	Plain.	Pol.	Plain.	Pol.	
50	5.00	6.25	8.50	10.75	13.50	17.00	50
100	8.50	10.75	14.00	17.50	22.50	28.25	100
200	12.25	15.25	20.00	25.00	32.00	40.00	200
300	15.00	18.75	25.00	31.25	39.50	49.50	300
400	19.00	23.75	32.00	40.00	50.00	62.50	400
600	25.00	31.25	42.00	52.50	65.75	82.25	600
800	35.00	43.75	58.00	72.50	92.25	115.25	800
1000	50.00	62.50	83.00	103.75	131.25	164.00	1000

500-volt switches, except D. T. Fused, add 20 per cent 500-volt switch  
Double Throw Fused, add 40 per cent

## Single Throw Without Fuse.

Amperes.	SINGLE POLE.		DOUBLE POLE.		TRIPLE POLE.		Amperes.
	Plain.	Pol.	Plain.	Pol.	Plain.	Pol.	
50	3.00	3.75	5.00	6.50	8.00	10.00	50
100	5.00	6.25	8.50	10.50	13.50	17.00	100
200	7.25	9.00	12.00	15.00	19.00	23.75	200
300	9.00	11.25	15.00	18.75	23.50	29.50	300
400	11.50	14.50	19.00	23.75	30.00	37.50	400
600	15.00	18.75	25.00	31.25	39.50	49.50	600
800	21.00	26.25	35.00	43.75	55.25	69.00	800
1000	30.00	37.50	50.00	62.50	78.75	98.50	1000

## Single Throw With Fuse.

Amperes.	SINGLE POLE.		DOUBLE POLE.		TRIPLE POLE.		Amperes.
	Plain.	Pol.	Plain.	Pol.	Plain.	Pol.	
50	3.75	4.75	6.25	8.00	10.00	12.50	50
100	6.25	7.75	10.50	13.00	17.00	21.25	100
200	9.00	11.25	15.00	18.75	23.75	29.75	200
300	11.25	14.00	18.75	23.50	29.50	37.00	300
400	14.30	18.00	23.75	29.75	37.50	47.00	400
600	18.75	23.50	31.25	39.00	49.50	62.00	600
800	26.25	32.75	43.75	54.75	69.00	86.25	800
1000	37.50	47.00	62.50	78.00	98.50	123.00	1000

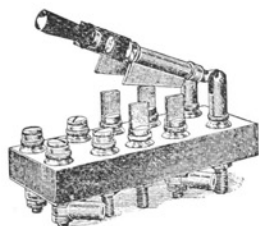
Front connected switches unmounted deduct 10 per cent. Back connected switches unmounted same as list. Back connected switches mounted add 10 per cent.

### Style "H" Station Switches for Back Connections.

In this Switch the arm is made sectional as the illustration shows. The blade is of hard drawn copper, securely held in the slotted tube by the end plugs and bushings.

From 25 to 1000 Amperes.

PRICE LIST.



Style "H" Station Switch for Back Connections.



Cut showing mechanical connection of arm.

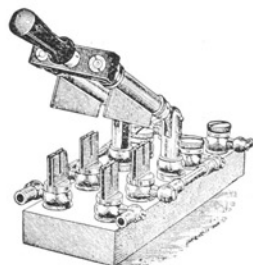
Capacity in Amperes		WITH FUSE TERMINALS.		WITHOUT FUSE TERMINALS.	
		Polished.	Plain.	Polished.	Plain.
		25	Single Pole, Single Throw,	\$ 2.60	\$ 2.35
25	Single " Double "	4.00	3.60	3.20	2.85
25	Double " Single "	4.75	4.25	3.80	3.40
25	Double " Double "	8.50	7.65	6.80	6.10
25	Triple " Single "	6.00	5.40	4.80	4.30
25	Triple " Double "	10.70	9.60	8.50	7.65
50	Single " Single "	5.50	5.00	4.40	4.00
50	Single " Double "	8.50	7.65	6.80	6.10
50	Double " Single "	10.00	9.00	8.00	7.20
50	Double " Double "	18.00	16.20	14.40	12.00
50	Triple " Single "	12.70	11.40	10.00	9.00
50	Triple " Double "	22.50	19.25	18.00	16.20
75	Single " Single "	7.10	6.40	5.60	5.00
75	Single " Double "	11.00	9.90	8.80	7.90
75	Double " Single "	13.00	11.70	10.40	9.35
75	Double " Double "	23.40	21.00	18.70	16.80
75	Triple " Single "	16.50	14.80	13.20	11.85
75	Triple " Double "	29.00	26.00	25.20	22.65
100	Single " Single "	8.25	7.40	6.60	6.00
100	Single " Double "	12.75	11.45	10.40	9.39
100	Double " Single "	15.00	13.50	12.00	10.80
100	Double " Double "	27.00	24.30	21.60	19.40
100	Triple " Single "	19.00	17.00	15.20	13.50
100	Triple " Double "	33.75	30.30	27.00	24.25
150	Single " Single "	9.00	8.00	7.20	6.50
150	Single " Double "	14.00	12.60	11.20	10.00
150	Double " Single "	16.50	14.80	13.20	11.80
150	Double " Double "	29.70	26.70	25.75	23.00
150	Triple " Single "	20.90	17.80	16.75	15.00
150	Triple " Double "	37.00	33.30	29.60	26.50
200	Single " Single "	11.00	9.90	8.80	8.00
200	Single " Double "	17.00	15.30	13.60	12.25
200	Double " Single "	20.00	18.00	16.00	14.40
200	Double " Double "	36.20	32.50	28.90	26.00
200	Triple " Single "	25.30	22.75	20.25	18.00
200	Triple " Double "	54.00	48.60	43.20	38.80
300	Single " Single "	15.40	13.80	12.30	11.00
300	Single " Double "	23.80	21.40	19.00	17.00
300	Double " Single "	28.00	25.20	22.40	20.00
300	Double " Double "	58.00	45.00	40.00	36.00
300	Triple " Single "	35.50	32.00	28.40	25.50
300	Triple " Double "	63.00	56.70	50.40	45.30
400	Single " Single "	18.70	16.80	15.00	13.50
400	Single " Double "	28.90	26.00	23.10	20.50
400	Double " Single "	34.00	30.60	27.20	24.40
400	Double " Double "	61.20	55.00	48.90	44.00
400	Triple " Single "	43.00	38.70	34.40	30.80
400	Triple " Double "	80.00	72.00	64.00	57.60
600	Single " Single "	25.30	22.75	20.20	18.00
600	Single " Double "	39.00	35.00	31.20	28.00
600	Double " Single "	46.00	41.40	36.80	33.00
600	Double " Double "	82.00	73.80	65.60	59.00
600	Triple " Single "	68.30	61.50	54.60	49.00
600	Triple " Double "	98.00	88.20	78.40	70.50
1000	Single " Single "	40.00	36.00	32.00	28.80
1000	Single " Double "	63.00	56.70	50.40	45.00
1000	Double " Single "	74.00	66.60	59.20	53.25
1000	Double " Double "	132.00	118.00	105.60	95.00
1000	Triple " Single "	93.00	83.00	74.40	67.00
1000	Triple " Double "	166.00	150.00	132.00	118.00

These prices are for parts mounted on slate. Extra charge for marble.

### Style "H" Station Switches for Front Connections.

From 25 to 1000 Amperes.

PRICE LIST.



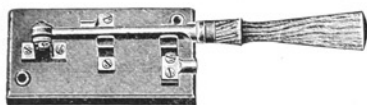
Style "H" Station Switch for Front Connections.



Cut showing mechanical connection of arm.

Capacity in Amperes		WITH FUSE TERMINALS.		WITHOUT FUSE TERMINALS.	
		Polished.	Plain.	Polished.	Plain.
25	Single Pole, Single Throw,	\$ 2.75	\$ 2.50	\$ 2.30	\$ 2.10
25	Single " Double "	4.20	3.80	3.35	3.00
25	Double " Single "	5.00	4.45	4.00	3.60
25	Double " Double "	8.90	8.00	7.15	6.45
25	Triple " Single "	6.30	5.65	5.00	4.50
25	Triple " Double "	11.20	10.00	8.80	8.00
50	Single " Single "	5.75	5.25	4.60	4.10
50	Single " Double "	8.90	8.00	7.20	6.50
50	Double " Single "	10.50	9.50	8.40	7.50
50	Double " Double "	19.00	17.00	15.20	13.20
50	Triple " Single "	13.30	12.00	10.60	9.50
50	Triple " Double "	23.50	20.00	18.80	17.00
75	Single " Single "	7.40	6.75	5.90	5.30
75	Single " Double "	11.50	10.20	9.20	8.25
75	Double " Single "	13.60	12.25	10.50	9.50
75	Double " Double "	24.60	22.00	19.60	17.75
75	Triple " Single "	17.50	15.50	14.00	12.60
75	Triple " Double "	30.50	27.30	24.40	22.00
100	Single " Single "	8.45	7.75	6.75	6.10
100	Single " Double "	13.40	12.00	10.72	9.70
100	Double " Single "	15.75	14.25	12.60	11.40
100	Double " Double "	28.25	25.50	22.60	20.40
100	Triple " Single "	20.00	17.85	16.00	14.40
100	Triple " Double "	34.25	31.80	27.40	24.70
150	Single " Single "	9.50	8.40	7.65	6.90
150	Single " Double "	14.75	13.25	11.80	10.70
150	Double " Single "	17.30	15.50	13.80	12.50
150	Double " Double "	31.20	28.00	25.00	22.50
150	Triple " Single "	22.00	19.75	17.60	15.90
150	Triple " Double "	38.85	35.00	31.00	28.00
200	Single " Single "	11.50	10.40	9.20	8.30
200	Single " Double "	17.80	16.00	14.00	12.60
200	Double " Single "	21.00	19.00	16.80	15.20
200	Double " Double "	38.00	35.20	30.00	27.00
200	Triple " Single "	26.50	24.00	21.25	19.00
200	Triple " Double "	56.50	50.00	45.00	40.00
300	Single " Single "	16.20	14.60	13.00	11.70
300	Single " Double "	25.00	22.50	20.00	18.00
300	Double " Single "	29.40	26.50	23.50	21.00
300	Double " Double "	52.50	47.25	42.00	37.75
300	Triple " Single "	37.25	33.50	29.80	27.00
300	Triple " Double "	66.50	63.20	53.00	48.00
400	Single " Single "	19.60	17.60	15.75	14.25
400	Single " Double "	30.25	27.00	24.20	21.80
400	Double " Single "	35.70	32.20	28.50	26.00
400	Double " Double "	64.00	57.00	51.00	46.00
400	Triple " Single "	45.00	40.00	36.40	32.80
400	Triple " Double "	84.00	75.00	67.00	60.00
600	Singles " Single "	26.50	23.90	21.25	19.00
600	Single " Double "	40.80	36.50	32.50	29.25
600	Double " Single "	48.30	43.50	38.50	34.00
600	Double " Double "	86.00	78.00	68.75	61.50
600	Triple " Single "	71.25	64.00	57.00	51.50
600	Triple " Double "	102.00	92.00	80.00	72.00
1000	Single " Single "	42.00	37.20	33.00	30.00
1000	Single " Double "	66.00	60.00	53.00	48.00
1000	Double " Single "	77.75	70.00	62.00	55.00
1000	Double " Double "	138.00	124.00	110.00	100.00
1000	Triple " Single "	97.00	87.50	77.00	70.00
1000	Triple " Double "	174.00	156.50	132.00	120.00

These prices are for parts mounted on slate. Extra charge for marble.

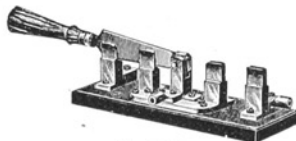


No. 8265.

**Station Switches.**

**Single Pole, Single Throw.**

Code Word.	List No.		List Price.
<i>Exemplify</i>	8265	15 Amperes, plain, no fuse, each	\$1.75
<i>Exemplifying</i>	8266	25 " " " "	3.00
<i>Exempt</i>	8267	50 " " " "	3.50
<i>Exempted</i>	8268	75 " " " "	4.25
<i>Exempting</i>	8269	100 " " " "	5.50
<i>Exercise</i>	8270	200 " " " "	7.00
<i>Exercised</i>	8271	300 " " " "	8.75
<i>Exercising</i>	8272	400 " " " "	13.00
<i>Exert</i>	8273	600 " " " "	18.25
<i>Exerted</i>	8274	800 " " " "	21.75
<i>Exertment</i>	8275	1000 " " " "	24.50
<i>Exhausting</i>	8287	15 " polished, no fuse, each	2.00
<i>Exhaustion</i>	8288	25 " " " "	3.50
<i>Exhaustive</i>	8289	50 " " " "	4.25
<i>Exhaustment</i>	8290	75 " " " "	5.50
<i>Exhibit</i>	8291	100 " " " "	7.00
<i>Exhibited</i>	8292	200 " " " "	8.75
<i>Exhibiting</i>	8293	300 " " " "	11.00
<i>Exhibition</i>	8294	400 " " " "	15.60
<i>Exhibitive</i>	8295	600 " " " "	21.90
<i>Exhilarate</i>	8296	800 " " " "	26.10
<i>Exhilarated</i>	8297	1000 " " " "	29.40
<i>Exhort</i>	8276	15 " plain, with fuse, "	2.50
<i>Exhorted</i>	8277	25 " " " "	3.75
<i>Exhorting</i>	8278	50 " " " "	4.25
<i>Exhume</i>	8279	75 " " " "	5.50
<i>Exhuming</i>	8280	100 " " " "	7.00
<i>Exile</i>	8281	200 " " " "	8.50
<i>Excitement</i>	8282	300 " " " "	10.50
<i>Exiling</i>	8283	400 " " " "	16.00
<i>Erist</i>	8284	600 " " " "	22.00
<i>Existence</i>	8285	800 " " " "	26.00
<i>Existent</i>	8286	1000 " " " "	29.75
<i>Existing</i>	8298	15 " polished, with fuse, each	3.00
<i>Exit</i>	8299	25 " " " "	4.50
<i>Exode</i>	8300	50 " " " "	5.25
<i>Exodus</i>	8301	75 " " " "	6.50
<i>Exonerate</i>	8302	100 " " " "	8.50
<i>Exonerated</i>	8303	200 " " " "	10.50
<i>Exotic</i>	8304	300 " " " "	13.50
<i>Expand</i>	8305	400 " " " "	19.20
<i>Expanded</i>	8306	600 " " " "	26.40
<i>Expanding</i>	8307	800 " " " "	31.20
<i>Expanse</i>	8308	1000 " " " "	35.70



No. 8000.

**Single Pole, Double Throw.**

<i>Expansion</i>	8000	25 Amperes, plain, no fuse, each	4.00
<i>Expansive</i>	8001	50 " " " "	4.75
<i>Expatiate</i>	8002	75 " " " "	5.75
<i>Expectant</i>	8003	100 " " " "	7.50
<i>Expectorate</i>	8004	200 " " " "	9.50
<i>Expellent</i>	8005	300 " " " "	12.00
<i>Expedit</i>	8006	400 " " " "	20.75
<i>Ezekiel</i>	8007	600 " " " "	29.25
<i>Ezra</i>	8008	800 " " " "	35.00
<i>Exertion</i>	8009	1000 " " " "	40.50

## AMERICAN ELECTRIC COMPANY.

## Station Switches—(Continued).

## Single Pole, Double Throw.

Code Word.	List No.		List Price
<i>Encage</i>	8020	25 Amperes, polished, no fuse, each.	\$4.75
<i>Encaged</i>	8021	50 " " " " " "	5.75
<i>Encaging</i>	8022	75 " " " " " "	7.00
<i>Encamp</i>	8023	100 " " " " " "	8.75
<i>Enchain</i>	8024	200 " " " " " "	11.00
<i>Enchained</i>	8025	300 " " " " " "	15.00
<i>Enchaining</i>	8026	400 " " " " " "	24.90
<i>Enchainment</i>	8027	600 " " " " " "	35.10
<i>Enchant</i>	8028	800 " " " " " "	42.80
<i>Enchanted</i>	8029	1000 " " " " " "	48.60
<i>Encounter</i>	8010	25 " plain, with fuse, each.	4.75
<i>Encountering</i>	8011	50 " " " " " "	5.75
<i>Encourage</i>	8012	75 " " " " " "	7.00
<i>Encouraging</i>	8013	100 " " " " " "	8.75
<i>Encradle</i>	8014	200 " " " " " "	11.00
<i>Encrimson</i>	8015	300 " " " " " "	14.50
<i>Encroach</i>	8016	400 " " " " " "	26.25
<i>Encroacher</i>	8017	600 " " " " " "	36.00
<i>Encroaching</i>	8018	800 " " " " " "	42.75
<i>Encroachment</i>	8019	1000 " " " " " "	48.25
<i>Enchanting</i>	8030	25 " polished, with fuse, each.	5.50
<i>Enchantment</i>	8031	50 " " " " " "	6.75
<i>Enchase</i>	8032	75 " " " " " "	8.25
<i>Enchased</i>	8033	100 " " " " " "	10.25
<i>Enchasing</i>	8034	200 " " " " " "	13.00
<i>Encircle</i>	8035	300 " " " " " "	17.00
<i>Enccompass</i>	8036	400 " " " " " "	31.50
<i>Enccompassed</i>	8037	600 " " " " " "	43.20
<i>Enccompassing</i>	8038	800 " " " " " "	51.30
<i>Encore</i>	8039	1000 " " " " " "	58.00

Made with back connections for ten per cent additional to list price.

## Double Pole, Single Throw.

<i>Encumber</i>	8040	15 Amperes, plain, no fuse, each.	2.25
<i>Encumbering</i>	8041	25 " " " " " "	5.75
<i>Encumbrance</i>	8042	50 " " " " " "	7.00
<i>Encumbrage</i>	8043	75 " " " " " "	8.75
<i>Endanger</i>	8044	100 " " " " " "	11.00
<i>Endear</i>	8045	200 " " " " " "	14.50
<i>Endearing</i>	8046	300 " " " " " "	18.00
<i>Endearment</i>	8047	400 " " " " " "	29.00
<i>Endeavor</i>	8048	600 " " " " " "	39.25
<i>Endeavoring</i>	8049	800 " " " " " "	45.75
<i>Endless</i>	8050	1000 " " " " " "	52.75
<i>Endlessly</i>	8062	15 " polished, no fuse, each.	3.25
<i>Endlessness</i>	8063	25 " " " " " "	7.00
<i>Endorn</i>	8064	50 " " " " " "	8.25
<i>Endower</i>	8065	75 " " " " " "	10.50
<i>Endowing</i>	8066	100 " " " " " "	13.50
<i>Endowment</i>	8067	200 " " " " " "	17.50
<i>Endurance</i>	8068	300 " " " " " "	24.00
<i>Endure</i>	8069	400 " " " " " "	34.80
<i>Endured</i>	8070	600 " " " " " "	47.10
<i>Enduring</i>	8071	800 " " " " " "	54.90
<i>Endurise</i>	8072	1000 " " " " " "	63.30



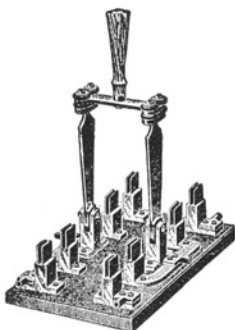
## Station Switches—(Continued).

## Three Pole, Single Throw.

Code Word.	List No.		List Price.
<i>Enjoin</i>	8157	15 Amperes, polished, with fuse, each.....	\$5.00
<i>Enjoined</i>	8158	25 " " " " " " " " .....	13.25
<i>Enjoining</i>	8159	50 " " " " " " " " .....	15.50
<i>Enjoiment</i>	8160	75 " " " " " " " " .....	19.00
<i>Enjoy</i>	8161	100 " " " " " " " " .....	24.25
<i>Enjoyable</i>	8162	200 " " " " " " " " .....	33.00
<i>Exerting</i>	8163	300 " " " " " " " " .....	43.00
<i>Enjoyed</i>	8164	400 " " " " " " " " .....	63.30
<i>Enjoying</i>	8165	600 " " " " " " " " .....	84.30
<i>Enjoyment</i>	8166	800 " " " " " " " " .....	97.80
<i>Enjail</i>	8167	1000 " " " " " " " " .....	111.00

## Double Pole, Double Throw.

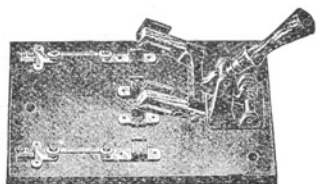
<i>Enhance</i>	8084	25 Amperes, plain, no fuse, each .....	7.75
<i>Enhanced</i>	8085	50 " " " " " " " " .....	9.50
<i>Enhancement</i>	8086	75 " " " " " " " " .....	11.75
<i>Enhancer</i>	8087	100 " " " " " " " " .....	14.75
<i>Enhancing</i>	8088	200 " " " " " " " " .....	18.75
<i>Enharden</i>	8089	300 " " " " " " " " .....	25.00
<i>Enharde</i>	8090	400 " " " " " " " " .....	43.50
<i>Enigma</i>	8091	600 " " " " " " " " .....	60.75
<i>Enigmatic</i>	8092	800 " " " " " " " " .....	71.75
<i>Enigmatize</i>	8093	1000 " " " " " " " " .....	82.50
<i>Engraving</i>	8104	25 " " polished, no fuse, each .....	9.50
<i>Engross</i>	8105	50 " " " " " " " " .....	11.00
<i>Engrossed</i>	8106	75 " " " " " " " " .....	14.00
<i>Engrossing</i>	8107	100 " " " " " " " " .....	17.50
<i>Engrossment</i>	8108	200 " " " " " " " " .....	23.50
<i>Enguard</i>	8109	300 " " " " " " " " .....	32.00
<i>Engulf</i>	8110	400 " " " " " " " " .....	52.20
<i>Engulfed</i>	8111	600 " " " " " " " " .....	72.90
<i>Engulfing</i>	8112	800 " " " " " " " " .....	86.10
<i>Engulfment</i>	8113	1000 " " " " " " " " .....	99.00
<i>Engorgement</i>	8094	25 " " plain, with fuse, each .....	10.50
<i>Engorging</i>	8095	50 " " " " " " " " .....	13.00
<i>Engrail</i>	8096	75 " " " " " " " " .....	16.00
<i>Engrain</i>	8097	100 " " " " " " " " .....	19.50
<i>Engrained</i>	8098	200 " " " " " " " " .....	25.50
<i>Engrapple</i>	8099	300 " " " " " " " " .....	33.00
<i>Engrave</i>	8100	400 " " " " " " " " .....	55.25
<i>Engraved</i>	8101	600 " " " " " " " " .....	74.25
<i>Engraven</i>	8102	800 " " " " " " " " .....	87.25
<i>Engravement</i>	8103	1000 " " " " " " " " .....	98.50
<i>Enring</i>	8114	25 " " polished, with fuse, each .....	13.00
<i>Enrobe</i>	8115	50 " " " " " " " " .....	15.25
<i>Enrobing</i>	8116	75 " " " " " " " " .....	18.75
<i>Enroll</i>	8117	100 " " " " " " " " .....	23.50
<i>Enrolled</i>	8118	200 " " " " " " " " .....	31.00
<i>Enrollment</i>	8119	300 " " " " " " " " .....	42.00
<i>Enroot</i>	8120	400 " " " " " " " " .....	66.30
<i>Enrooted</i>	8121	600 " " " " " " " " .....	89.10
<i>Enrooting</i>	8122	800 " " " " " " " " .....	104.70
<i>Enseal</i>	8123	1000 " " " " " " " " .....	118.20



No. 8084.





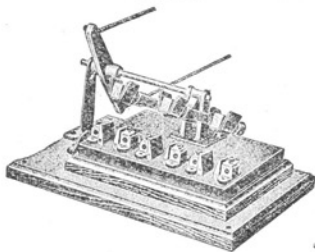


No. 8261.

### Dynamo Switch.

With this Switch and simple bus bar connections a very neat and convenient switchboard for a good-sized isolated plant can be made at a very small expense.

Code Word.	List No.	List Price.
<i>Excutor</i>	8261 25 Amperes, each	\$ 4.25
<i>Excutory</i>	8262 50 " "	6.50
<i>Excuteurs</i>	8263 100 " "	9.50
<i>Exemplary</i>	8264 200 " "	13.00



No. 8251.

### Elevator Switch.

<i>Excusably</i>	8251 3 Pole, 100 Amperes, each	15.00
<i>Excuse</i>	8252 2 " 100 " "	12.00

### Single Pole Blade Switches.

MOUNTED ON MARBLEIZED SLATE BASES.

#### With Safety Catch Holders.

<i>Mentor</i>	8309	Capacity in Amperes, up to 25, plain, each	.99
<i>Mercenary</i>	8311	" " " 25, polished "	1.20
<i>Mercez</i>	8312	" " " 50, plain "	2.97
<i>Merchant</i>	8314	" " " 50, polished "	3.57
<i>Merciless</i>	8316	" " " 100, plain "	3.63
<i>Mercury</i>	8317	" " " 100, polished "	4.26
<i>Rockaway</i>	20118	" " " 200, plain "	4.95
<i>Rockool</i>	20119	" " " 200, polished "	5.94
<i>Merce</i>	8318	" " " 300, plain "	5.46
<i>Merge</i>	8320	" " " 300, polished "	6.54
<i>Merged</i>	8321	" " " 400, plain "	5.94
<i>Meridian</i>	8323	" " " 400, polished "	7.14
<i>Merino</i>	8324	" " " 600, plain "	8.58
<i>Merital</i>	8326	" " " 600, polished "	10.29

#### Without Safety Catch Holders.

<i>Meditler</i>	8327	Capacity in Amperes up to 25, plain, each	.90
<i>Meditate</i>	8329	" " " 25, polished "	1.08
<i>Rockcourt</i>	20120	" " " 50, plain "	2.73
<i>Rockcork</i>	20121	" " " 50, polished "	3.27
<i>Meditating</i>	8330	" " " 100, plain "	3.36
<i>Medicall</i>	8332	" " " 100, polished "	4.05
<i>Medically</i>	8333	" " " 200, plain "	4.59
<i>Medicated</i>	8335	" " " 200, polished "	5.52
<i>Milked</i>	8336	" " " 300, plain "	5.04
<i>Milksmaid</i>	8338	" " " 300, polished "	6.06
<i>Milksman</i>	8339	" " " 400, plain "	5.49
<i>Milky</i>	8341	" " " 400, polished "	6.90
<i>Mill</i>	8342	" " " 600, plain "	7.95
<i>Millet</i>	8344	" " " 600, polished "	9.54

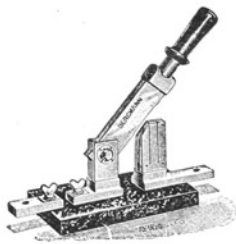


No. 8309.

## Single Pole Blade Switches—(Continued).

## With Safety Catch Holders.

Code Word.	List No.	Capacity in Amperes up to	each	List Price.
<i>Rockress</i>	20122	800, plain	each	\$13.80
<i>Rockdoe</i>	20123	800, polished	"	16.56
<i>Milling</i>	8345	1200, plain	"	18.15
<i>Mimic</i>	8347	1200, polished	"	21.78
<i>Mimicent</i>	8348	1800, plain	"	25.41
<i>Mince</i>	8350	1800, polished	"	30.49



No. 8345.

## Without Safety Catch Holders.

<i>Rockology</i>	20124	Capacity in Amperes up to 800, plain,	each	12.77
<i>Rocker</i>	20125	800, polished	"	15.34
<i>Minceed</i>	8351	1200, plain	"	16.79
<i>Mind</i>	8353	1200, polished	"	20.16
<i>Minded</i>	8354	1800, plain	"	23.50
<i>Mindfully</i>	8356	1800, polished	"	28.12

## Double and Triple Pole Blade Switches.

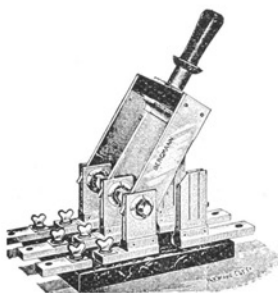
## WITH SAFETY CATCH HOLDERS.

## Double Pole.

<i>Miter</i>	8357	Capacity in Amperes up to 25, plain,	each	1.65
<i>Mingle</i>	8359	25, polished	"	1.98
<i>Mingie</i>	8360	50, plain	"	3.96
<i>Minstler</i>	8362	50, polished	"	4.77
<i>Mink</i>	8363	100, plain	"	5.94
<i>Minstrel</i>	8365	100, polished	"	7.14
<i>Rockery</i>	20126	200, plain	"	7.20
<i>Rocket</i>	20127	200, polished	"	9.30
<i>Mintoge</i>	8366	300, plain	"	9.00
<i>Minox</i>	8368	300, polished	"	10.80
<i>Mivate</i>	8369	400, plain	"	10.23
<i>Mintiveness</i>	8371	400, polished	"	12.27
<i>Mivacle</i>	8372	600, plain	"	13.86
<i>Miveness</i>	8374	600, polished	"	16.62

## Triple Pole.

<i>Mirror</i>	8375	Capacity in Amperes up to 25, plain,	each	2.31
<i>Mirth</i>	8377	25, polished	"	2.79
<i>Mirthful</i>	8378	50, plain	"	5.28
<i>Misoppy</i>	8380	50, polished	"	6.36
<i>Misbehave</i>	8381	100, plain	"	8.91
<i>Mischance</i>	8383	100, polished	"	10.71
<i>Rockfish</i>	20128	200, plain	"	11.22
<i>Rockpost</i>	20129	200, polished	"	13.47
<i>Mischief</i>	8384	300, plain	"	13.20
<i>Miser</i>	8386	300, polished	"	15.84
<i>Misery</i>	8387	400, plain	"	15.18
<i>Misfortune</i>	8390	400, polished	"	18.21
<i>Misgive</i>	8391	600, plain	"	20.79
<i>Misguide</i>	8393	600, polished	"	24.96



Nos. 8357 and 8375.

## Double and Triple Pole Blade Switches.

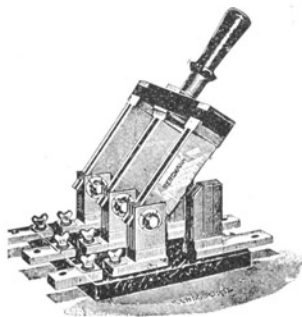
WITHOUT SAFETY CATCH HOLDERS.

### Double Pole.

Code Word.	List No	Capacity in Amperes, up to 25, plain, each	List Price.
<i>Misguided</i>	8394	25, plain	1.50
<i>Mishap</i>	8396	25, polished	1.80
<i>Misjoin</i>	8397	50, plain	3.66
<i>Misjudged</i>	8399	50, polished	4.38
<i>Misjudging</i>	8400	100, plain	5.49
<i>Mislead</i>	8402	100, polished	6.60
<i>Rockless</i>	20130	200, plain	7.17
<i>Rocking</i>	20131	200, polished	8.61
<i>Misleader</i>	8403	300, plain	8.34
<i>Misplace</i>	8405	300, polished	9.99
<i>Misrule</i>	8406	400, plain	9.48
<i>Missing</i>	8408	400, polished	11.37
<i>Mission</i>	8409	600, plain	12.84
<i>Mist</i>	8411	600, polished	15.42

### Triple Pole.

<i>Mistake</i>	8412	Capacity in Amperes up to 25, plain	each	2.10
<i>Mistakee</i>	8414	25, polished		2.52
<i>Mistreat</i>	8415	50, plain		4.86
<i>Mistrust</i>	8417	50, polished		5.85
<i>Misuse</i>	8418	100, plain		8.25
<i>Miter</i>	8420	100, polished		9.90
<i>Rockmilk</i>	20132	200, plain		10.38
<i>Rockmass</i>	20133	200, polished		12.45
<i>Mittigate</i>	8421	300, plain		12.21
<i>Mittimus</i>	8423	300, polished		14.67
<i>Mix</i>	8424	400, plain		14.04
<i>Mixture</i>	8426	400, polished		16.86
<i>Moun</i>	8427	600, plain		19.14
<i>Mousing</i>	8429	600, polished		22.98



Nos. 8430 and 8436.

## Double and Triple Pole.

WITH SAFETY CATCH HOLDERS.

### Double Pole.

<i>Rockoil</i>	20134	Capacity in Amperes up to 800, plain, each	23.23
<i>Rockrose</i>	20135	800, polished	27.83
<i>Mout</i>	8430	1200, plain	36.30
<i>Mobbed</i>	8432	1200, polished	43.56
<i>Mobbing</i>	8433	1800, plain	43.56
<i>Mocassin</i>	8435	1800, polished	52.27

## Double and Triple Pole—(Continued).

## Triple Pole.

Code Word	List No	Capacity in Amperes up to	List Price
<i>Rockplant</i>	20136	800, plain, each	35.57
<i>Rockaby</i>	20137	" " " 800, polished "	42.70
<i>Mock</i>	8436	" " " 1200, plain "	58.08
<i>Mocked</i>	8438	" " " 1200, polished "	69.70
<i>Mocking</i>	8439	" " " 1800, plain "	65.34
<i>Modeled</i>	8441	" " " 1800, polished "	78.41

## WITHOUT SAFETY CATCH HOLDERS.

## Double Pole.

<i>Rocksult</i>	20138	Capacity in Amperes up to 800, plain	each	\$21.42
<i>Rockshaft</i>	20139	" " " 800, polished "	"	26.37
<i>Modeling</i>	8442	" " " 1200, plain "	"	33.59
<i>Mordant</i>	8444	" " " 1200, polished "	"	40.33
<i>Morning</i>	8445	" " " 1800, plain "	"	40.29
<i>Morphology</i>	8447	" " " 1800, polished "	"	48.34

## Triple Pole.

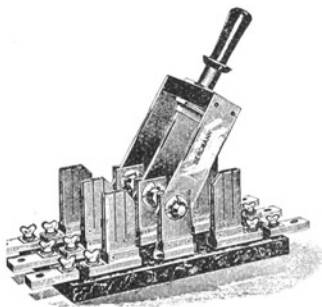
<i>Rochshell</i>	20140	Capacity in Amperes, up to 800, plain,	each	32.90
<i>Rocksap</i>	20141	" " " 800, polished "	"	39.47
<i>Morsel</i>	8448	" " " 1200, plain "	"	53.72
<i>Mortality</i>	8450	" " " 1200, polished "	"	64.48
<i>Mortar</i>	8451	" " " 1800, plain "	"	60.46
<i>Mortgage</i>	8453	" " " 1800, polished "	"	72.53

## Double Throw—Single, Double and Triple Pole.

## WITH SAFETY CATCH HOLDERS.

## Single Pole.

<i>Mortify</i>	8454	Capacity in Amperes up to 25, plain	each	1.77
<i>Mortise</i>	8456	" " " 25, polished "	"	2.13
<i>Mosaic</i>	8457	" " " 50, plain "	"	5.28
<i>Moslem</i>	8459	" " " 50, polished "	"	6.36
<i>Mossy</i>	8460	" " " 100, plain "	"	6.48
<i>Motherly</i>	8462	" " " 100, polished "	"	7.80
<i>Rocktar</i>	20142	" " " 200, plain "	"	8.82
<i>Rockwood</i>	20143	" " " 200, polished "	"	10.56
<i>Motion</i>	8463	" " " 300, plain "	"	9.69
<i>Motley</i>	8465	" " " 300, polished "	"	11.64
<i>Mottled</i>	8466	" " " 400, plain "	"	10.56
<i>Mound</i>	8468	" " " 400, polished "	"	12.69
<i>Mount</i>	8469	" " " 600, plain "	"	15.24
<i>Mounting</i>	8471	" " " 600, polished "	"	18.30



Nos. 8454, 8472 and 8490.

## Double Throw—Single, Double and Triple Pole

—(Continued)

### Double Pole.

Code Word	List No	Capacity in Amperes, up to	each	List Price.
<i>Mouru</i>	8472	25, plain	each	2.97
<i>Mouruful</i>	8474	" " " 25, polished	"	3.57
<i>Mourufully</i>	8475	" " " 50, plain	"	7.05
<i>Mouse</i>	8477	" " " 50, polished	"	8.46
<i>Mouth</i>	8478	" " " 100, plain	"	10.56
<i>Movable</i>	8480	" " " 100, polished	"	12.69
<i>Rockrock</i>	20144	" " " 200, plain	"	13.77
<i>Rocky</i>	20145	" " " 200, polished	"	16.53
<i>Movement</i>	8481	" " " 300, plain	"	16.02
<i>Mortgaging</i>	8483	" " " 300, polished	"	19.20
<i>Modern</i>	8484	" " " 400, plain	"	18.21
<i>Modest</i>	8486	" " " 400, polished	"	21.84
<i>Modestly</i>	8487	" " " 600, plain	"	24.66
<i>Lump</i>	8489	" " " 600, polished	"	29.58

### Triple Pole.

<i>Modify</i>	8490	Capacity in Amperes up to 25, plain	each	4.14
<i>Module</i>	8492	" " " 25, polished	"	4.98
<i>Moist</i>	8493	" " " 50, plain	"	9.42
<i>Moistening</i>	8495	" " " 50, polished	"	11.28
<i>Moisture</i>	8496	" " " 100, plain	"	15.84
<i>Moldiness</i>	8498	" " " 100, polished	"	19.02
<i>Booru</i>	20146	" " " 200, plain	"	19.98
<i>Route</i>	20147	" " " 200, polished	"	23.97
<i>Molest</i>	8499	" " " 300, plain	"	23.49
<i>Molify</i>	8501	" " " 300, polished	"	28.20
<i>Molt</i>	8502	" " " 400, plain	"	27.00
<i>Molten</i>	8504	" " " 400, polished	"	32.40
<i>Moment</i>	8505	" " " 600, plain	"	36.96
<i>Momentus</i>	8507	" " " 600, polished	"	44.37

### WITHOUT SAFETY CATCH HOLDERS.

### Single Pole.

<i>Mound</i>	8508	Capacity in Amperes up to 25, plain	each	\$1.62
<i>Monarchial</i>	8510	" " " 25, polished	"	1.92
<i>Monarchy</i>	8511	" " " 50, plain	"	4.65
<i>Monastic</i>	8513	" " " 50, polished	"	5.58
<i>Mongrel</i>	8514	" " " 100, plain	"	5.76
<i>Monkey</i>	8516	" " " 100, polished	"	6.93

**Double Throw—Single, Double and Triple Pole**  
 —(Continued).

**Single Pole.—(Continued.)**

Code Word.	List No.	Capacity in Amperes up to	each	List Price.
<i>Rodent</i>	20148	200, plain	each	\$ 7.86
<i>Rodge</i>	20149	" " 200, polished	"	9.45
<i>Monkish</i>	8517	" " 300, plain	"	8.61
<i>Monopoly</i>	8519	" " 300, polished	"	10.38
<i>Monotony</i>	8520	" " 400, plain	"	9.36
<i>Monthly</i>	8522	" " 400, polished	"	11.25
<i>Monument</i>	8523	" " 600, plain	"	13.56
<i>Moore</i>	8525	" " 600, polished	"	16.29

**Double Pole.**

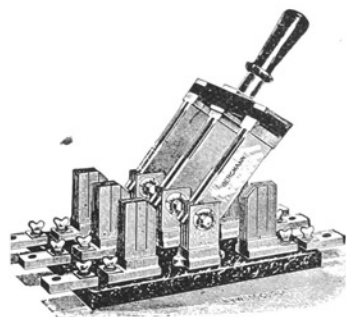
<i>Macaroni</i>	8526	Capacity in Amperes, up to 25, plain,	each	2.70
<i>Mace</i>	8528	" " 25, polished	"	3.24
<i>Macarute</i>	8529	" " 50, plain	"	6.24
<i>Machinery</i>	8531	" " 50, polished	"	7.50
<i>Machinist</i>	8532	" " 100, plain	"	9.36
<i>Madam</i>	8534	" " 100, polished	"	11.25
<i>Rodmel</i>	20150	" " 200, plain	"	12.24
<i>Roestone</i>	20151	" " 200, polished	"	14.73
<i>Madcop</i>	8535	" " 300, plain	"	14.25
<i>Madman</i>	8537	" " 300, polished	"	17.10
<i>Madness</i>	8538	" " 400, plain	"	16.20
<i>Magazine</i>	8540	" " 400, polished	"	19.44
<i>Maggot</i>	8541	" " 600, plain	"	21.93
<i>Magic</i>	8543	" " 600, polished	"	26.34

**Triple Pole.**

<i>Magteal</i>	8544	Capacity in Amperes up to 25, plain	each	3.78
<i>Magistrate</i>	8546	" " 25, polished	"	4.53
<i>Magney</i>	8547	" " 50, plain	"	8.28
<i>Magnifying</i>	8549	" " 50, polished	"	9.96
<i>Magnitude</i>	8550	" " 100, plain	"	14.10
<i>Magpie</i>	8552	" " 100, polished	"	16.92
<i>Rogue</i>	20152	" " 200, plain	"	17.73
<i>Rodgeship</i>	20153	" " 200, polished	"	21.30
<i>Mahometan</i>	8553	" " 300, plain	"	20.85
<i>Maiden</i>	8555	" " 300, polished	"	25.05
<i>Maidently</i>	8556	" " 400, plain	"	23.97
<i>Maimed</i>	8558	" " 400, polished	"	28.77
<i>Maiming</i>	8559	" " 600, plain	"	32.58
<i>Mainmail</i>	8561	" " 600, polished	"	39.09

## Double Throw—Single, Double and Triple Pole (Continued).

### WITH SAFETY CATCH HOLDERS.



Nos. 8562, 8568 and 8574.

#### Single Pole.

Code Word.	List No.	Capacity in Amperes up to	each..	List Price
<i>Royal</i>	20154	800, plain	..	24.52
<i>Royal</i>	20155	800, polished	..	29.44
<i>Maintain</i>	8562	1200, plain	..	32.27
<i>Maise</i>	8564	1200, polished	..	38.74
<i>Majestic</i>	8565	1800, plain	..	45.21
<i>Majic</i>	8567	1800, polished	..	54.25

#### Double Pole.

<i>Roist</i>	20156	800, plain	..	41.32
<i>Roke</i>	20157	800, polished	..	49.60
<i>Majority</i>	8568	1200, plain	..	64.55
<i>Malapert</i>	8570	1200, polished	..	77.48
<i>Malaria</i>	8571	1800, plain	..	77.45
<i>Mabcontent</i>	8573	1800, polished	..	93.36

#### Triple Pole.

<i>Rokeage</i>	20158	800, plain	..	63.23
<i>Role</i>	20159	800, polished	..	75.90
<i>Mope</i>	8574	1200, plain	..	103.29
<i>Moping</i>	8576	1200, polished	..	123.95
<i>Moral</i>	8577	1800, plain	..	116.16
<i>Morality</i>	8579	1800, polished	..	139.39

### WITHOUT SAFETY CATCH HOLDERS.

#### Single Pole.

<i>Rollcall</i>	20160	800, plain	..	21.78
<i>Roller</i>	20161	800, polished	..	26.14
<i>Moralize</i>	8580	1200, plain	..	28.64
<i>Morass</i>	8582	1200, polished	..	34.39
<i>Morbid</i>	8583	1800, plain	..	40.09
<i>Morbidity</i>	8585	1800, polished	..	48.11

#### Double Pole.

<i>Rollerbolt</i>	20162	800, plain	..	37.14
<i>Rollermill</i>	20163	800, polished	..	44.00
<i>Morose</i>	8586	1200, plain	..	57.38
<i>Malicious</i>	8588	1200, polished	..	68.87
<i>Maline</i>	8589	1800, plain	..	68.74
<i>Malignity</i>	8591	1800, polished	..	82.33

#### Triple Pole.

<i>Rollingpin</i>	20164	800, plain	..	56.10
<i>Rollingpress</i>	20165	800, polished	..	67.32
<i>Malard</i>	8592	1200, plain	..	91.67
<i>Malling</i>	8594	1200, polished	..	113.52
<i>Malt</i>	8595	1800, plain	..	103.16
<i>Mammalia</i>	8597	1800, polished	..	123.78



## Double Throw—Single, Double and Triple Pole (Continued).

### Separate Lugs for Blade Switches.

Code Word.	List No.	Capacity in Amperes up to 25, plain	each	List Price
<i>Mammon</i>	8598	"	"	.11
<i>Mammoth</i>	8599	"	" 25, polished	.12
<i>Manacle</i>	8600	"	" 50, plain	.15
<i>Manacled</i>	8601	"	" 50, polished	.17
<i>Romage</i>	20166	"	" 100, plain	.29
<i>Roman</i>	20167	"	" 100, polished	.34
<i>Manacling</i>	8602	"	" 150, plain	.29
<i>Manage</i>	8603	"	" 150, polished	.34
<i>Romance</i>	20168	"	" 200, plain	.44
<i>Romant</i>	20169	"	" 200, polished	.49
<i>Management</i>	8604	"	" 300, plain	.58
<i>Manager</i>	8605	"	" 300, polished	.65
<i>Managing</i>	8606	"	" 400, plain	.58
<i>Manakin</i>	8607	"	" 400, polished	.65
<i>Mandamus</i>	8608	"	" 600, plain	.73
<i>Mandarin</i>	8609	"	" 600, polished	.80
<i>Romance</i>	20170	"	" 800, plain	.97
<i>Romekin</i>	20171	"	" 800, polished	1.07
<i>Mandate</i>	8610	"	" 1200, plain	2.20
<i>Mandatory</i>	8611	"	" 1200, polished	2.44
<i>Mandrake</i>	8612	"	" 1800, plain	3.34
<i>Mandrel</i>	8613	"	" 1800, polished	3.67



No. 20199. Open.



No. 20199. Closed.

## Bryant High Tension Service Switch and Fuse Box Combined.

Designed for 500 Volt Motor Service Switch. Made of iron, slate lined, slate thoroughly baked in oil. It is double pole, double break. The distance between the terminals is five (5) inches. The positive and negative sides are separated by slate.

When opened the fuse terminals have no connections whatever with the live wires, and are therefore safe and convenient to fuse.

When the box is closed no live parts can be touched either intentionally or by accident. It is moisture and weather proof.

The box is also adapted to work on primary alternating circuits 1000 volts. It combines both the features of a cut-out and knife switch.

Code Word	List No.	List Price
<i>Roster</i>	20199	High Tension Service Switch, 100 Amperes, 500 Volts, each ..... <b>7.00</b>

Larger sizes made to order.

### Price of Connections for Blade Switches.

In figuring the cost of Knife Switches on pages 46 to 53 inclusive, add to the list prices the list prices of connections herewith.

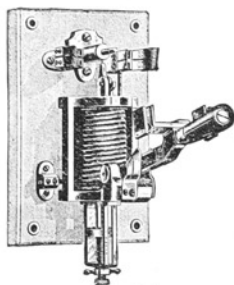
Prices on connections are subject to the same discount as the switches.

FOR SINGLE THROW.		FOR DOUBLE THROW.	
25 Amperes, 1 Pole.....	\$ .27	25 Amperes, 1 Pole.....	\$ .39
25 " 2 ".....	.54	25 " 2 ".....	.81
25 " 3 ".....	.81	25 " 3 ".....	1.20
50 " 1 ".....	.69	50 " 1 ".....	1.20
50 " 2 ".....	1.35	50 " 2 ".....	2.40
50 " 3 ".....	2.00	50 " 3 ".....	3.60
100 " 1 ".....	.87	100 " 1 ".....	1.74
100 " 2 ".....	1.74	100 " 2 ".....	3.48
100 " 3 ".....	2.79	100 " 3 ".....	5.22
200 " 1 ".....	.93	200 " 1 ".....	1.86
200 " 2 ".....	1.86	200 " 2 ".....	3.72
200 " 3 ".....	2.94	200 " 3 ".....	5.58
300 " 1 ".....	1.20	300 " 1 ".....	2.46
300 " 2 ".....	2.40	300 " 2 ".....	4.80
300 " 3 ".....	3.60	300 " 3 ".....	7.41
400 " 1 ".....	1.62	400 " 1 ".....	3.30
400 " 2 ".....	3.24	400 " 2 ".....	6.66
400 " 3 ".....	4.80	400 " 3 ".....	9.99
600 " 1 ".....	2.13	600 " 1 ".....	4.26
600 " 2 ".....	4.26	600 " 2 ".....	8.52
600 " 3 ".....	6.39	600 " 3 ".....	12.78
800 " 1 ".....	2.94	800 " 1 ".....	5.23
800 " 2 ".....	5.88	800 " 2 ".....	11.46
800 " 3 ".....	8.82	800 " 3 ".....	17.79
1200 " 1 ".....	4.02	1200 " 1 ".....	8.67
1200 " 2 ".....	8.01	1200 " 2 ".....	17.34
1200 " 3 ".....	12.00	1200 " 3 ".....	25.98
1800 " 1 ".....	4.14	1800 " 1 ".....	9.99
1800 " 2 ".....	8.28	1800 " 2 ".....	19.98
1800 " 3 ".....	12.66	1800 " 3 ".....	30.00
For Single Pole Switches, as above, 2 Connections.		For Single Pole Switches, as above, 3 Connections.	
" Double " " " " 4 " "		" Double " " " " 6 " "	
" Three " " " " 6 " "		" Three " " " " 9 " "	

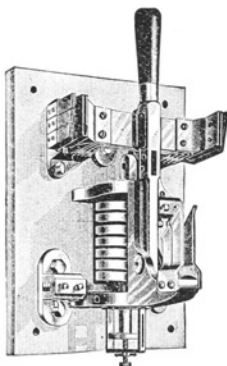
In ordering Switches, be sure to specify connections if they are desired.

I-T-E Automatic Magnetic Circuit Breaker.

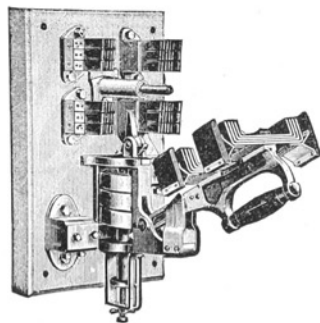
Single Pole and Double Pole, Direct or Alternating Current, Standard Switchboard Type, Back Connections.



Open. Small Size.



Closed. Large Size.



800 Ampere Single.

Size of Base.

From 5 Amperes to 60 Amperes, Single Pole.....	7 x 11 x 1 1/2 inches.
“ 80 “ 600 “ .....	10 x 14 x 1 1/2 “
“ 800 “ 1000 “ .....	11 x 17 x 1 1/2 “
“ 5 “ 60 “ Double Pole.....	7 x 13 x 1 1/2 “
“ 80 “ 600 “ .....	10 x 17 x 1 1/2 “

The Double Pole Circuit Breakers between 80 Amperes and 600 Amperes are identical in construction with the 800 Ampere Single Pole.

Finish, Price-List, Rating and Adjustment.

The I-T-E Standard Switchboard Circuit Breakers are furnished in the following finishes:

No. 1. Standard. Mounted on black enamel, slate or marble base, as desired. Jacket finished in polished nickel; current-carrying parts natural copper finish, highly polished and lacquered; non-electrical parts nickel-plated.

No. 3. Rough Type. Mounted on plain slate base. Jacket copper-plated; current-carrying and non-electrical parts dipped finish; all movable iron parts copper-plated; all bearing pins phosphor bronze.

Should the Circuit Breaker be desired for switchboard work on template, so state and give thickness of switchboard.

Double Pole Circuit Breakers of this type should not be used on circuits of over 250 volts.

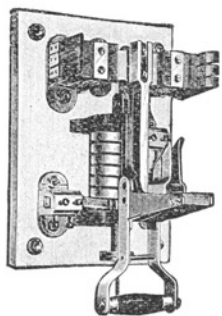
Price of No. 3 finish is 10 per cent. less than list of No. 1 finish.

Direct Current.

CODE.	Actual Rating Amperes.	ADJUSTMENT AMPERES.			NO. 1 FINISH.	
		Steps.	Lowest.	Highest.	Single Pole.	Double Pole.
OI	2000				}	}
PI	1500					
AI	1000	150	800	1600	\$98.00	\$146.25
QI	800	100	700	1400	98.00	146.25
UI	600	100	500	1000	69.00	103.00
BI	500	80	400	800	66.00	98.00
VI	400	70	350	700	63.00	94.00
CI	300	60	225	525	57.00	85.00
DI	200	50	150	350	45.00	67.00
GI	100	25	75	175	39.00	58.00
WI	80	20	60	150	39.00	58.00
HI	60	20	45	125	33.00	49.00
XI	45	15	35	95	}	}
KI	30	15	25	75		
YI	20	5	15	40	30.00	45.00
MI	10	4	8	24		
NI	5	2	4	12		

Alternating Current.

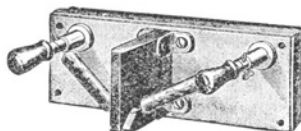
CODE.	Actual Rating Amperes.	ADJUSTMENT AMPERES.			NO. 1 FINISH.	
		Steps.	Lowest.	Highest.	Single Pole.	Double Pole.
OAI	2000				}	}
PAI	1500					
AAI	1000	150	800	1600	\$122.50	\$183.00
QAI	800	100	700	1400	122.50	183.00
UAI	600	100	500	1000	86.25	128.75
BAI	500	80	400	800	82.50	122.50
VAI	400	70	350	700	78.75	117.50
CAI	300	60	225	525	71.25	106.25
DAI	200	50	110	350	56.25	83.75
GAI	100	25	75	175	48.75	72.50
WAI	80	20	60	150	48.75	72.50
HAI	60	20	45	125	41.25	61.25
XAI	45	15	35	95	37.50	56.25
KAI	30	15	25	75	37.50	56.25
YAI	20	5	15	40	37.50	56.25
MAI	10	4	8	24	37.50	
	5	2	4	12		



Circuit Breaker with Swinging Arm Handle.



Throwing in Arm.



Complete Shunt Block. Fuse in Position.



Extra Plugs and Fuse for Shunt Block.



Protected Terminal Fuse.

## I-T-E Automatic Magnetic Circuit Breakers —(Continued).

This cut represents Circuit Breaker with Swinging Arm Handle to permit of its location at top of Switchboard or under hood of street railway car.

### Throwing-In Arm.

Throwing-In Arm for use on 800 Ampere Single Pole and larger, and 300 Ampere Double Pole and larger

This arm is included in price for above size Circuit Breakers.

## I-T-E Shunt Block with Protected Terminal Fuse.

For high voltage work, where an extra precaution is desired to protect the contacts of circuit breaker, it is advisable to use the protected terminal fuse and shunt block. By means of this device the arc is transferred from the contacts of circuit breaker to a favorably located fuse of such construction that the terminals of fuse block are protected and arcing cannot be maintained.

These fuses are much less in carrying capacity than the minimum adjustment of the circuit breaker, hence they afford an absolute protection.

### Shunt Blocks.

Style A 2, 600-80 Amperes, each .....	\$6.00
Style A 3, 80-5 " .....	6.00

Price includes an extra set of plugs.

### Protected Terminal Fuses.

#### SWITCHBOARD TYPE.

For 2,000-1,000 Amperes, per 100 .....	6.00
For 800- " " " .....	4.50

SIZE OF STANDARD CIRCUIT BREAKERS.		SIZE OF FUSE TO PROTECT STANDARD CIRCUIT BREAKERS.		
Code	Capacity Amperes, Actual.	Type Shunt Block.	Primary Fuse	Metal.
O1	2000	A-1	No. 10 B. & S.	Copper.
P1	1500	A-1	10 "	"
A1	1000	A-1	12 "	"
Q1	800	A-1	12 "	"
U1	600	A-2	14 "	"
B1	500	A-2	16 "	"
V1	400	A-2	18 "	"
C1	300	A-2	18 "	"
D1	200	A-2	18 "	"
G1	100	A-2	18 "	"
W1	80	A-2	20 "	"
H1	60	A-3	22 "	"
X1	45	A-3	24 "	"
K1	30	A-3	15 Amp.	Lead and Tin.
Y1	20	A-3	10 "	"
M1	10	A-3	5 "	"
N1	5	A-3	3 "	"

We also make a form of shunt fuse block designed to have the fuse "blow" back of the switchboard, but controlled from the front.

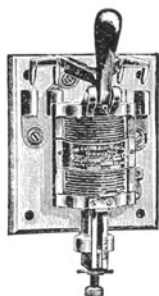
## I-T-E Mercury Contact Circuit Breakers

For Direct and Alternating Current both in Single and Double Pole.

SPECIALLY DESIGNED FOR CURRENTS OF HIGH VOLTAGE.

The contacts and mercury-containing cups are made of aluminum, a metal with which mercury will not amalgamate.

This form of Circuit Breaker is intended to be used for service wires entering buildings and also for all mains carrying currents in excess of 10 amperes. There are but two forces employed in this device, namely, gravity and magnetism.



Double Pole Mercury Contact.

### Size of Base.

5 Amperes to 60 Amperes, Single and Double Pole, 6 x 7 x  $\frac{1}{4}$  inches.

CODE.	Actual Rating Amperes.	ADJUSTMENT AMPERES.			PRICE.	
		Steps.	Lowest.	Highest.	Single Pole.	Double Pole.
Hg NI	5	2	4	12	\$12.00	\$16.50
Hg MI	10	4	8	24		
Hg YI	20	5	15	40		
Hg KI	30	15	25	75		
Hg XI	45	15	35	90	16.50	22.50
Hg HI	60	20	45	125		
Hg WI	80	25	65	175	22.50	30.00
Hg GI	100	30	75	200	30.00	36.00

The jackets and all other non-current carrying parts are nickel-plated. The current-carrying parts are polished aluminum.

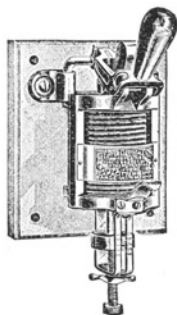
## I-T-E Mercury Contact Circuit Breakers

For Underload and Overload.

Specially designed for use in connection with Motors, to open a circuit in case of an overload; also, to open the circuit in case of an underload or a break between motor and service supply. This special device protects motor and building against overloads and fires resulting therefrom. It also protects the generator and cables against sudden overloads. The underload feature protects motor and building in case the current is momentarily cut off at the generator end.

### Size of Base.

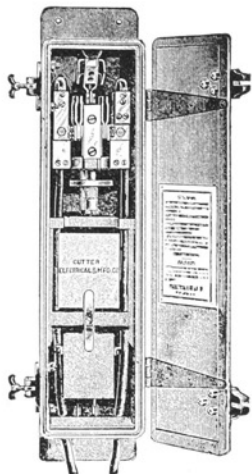
5 Amperes to 60 Amperes, Single Pole and Double Pole, 6 x 7 x  $\frac{1}{4}$  inches.



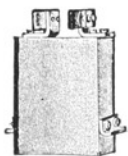
Underload and Overload.

CODE.	Actual Rating Amperes.	OVERLOAD ADJUSTMENT AMPERES.			Underload Adjustment Amperes.	PRICE.	
		Steps.	Lowest.	Highest.		Single Pole.	Double Pole.
Hg N2I	5	1	5	10	1	\$16.50	\$22.50
Hg F2I	7½	1½	8	16	1½		
Hg M2I	10	2	10	20	2		
Hg L2I	15	3	15	30	3		
Hg Y2I	20	4	20	40	4	22.50	30.00
Hg T2I	25	5	25	50	5		
Hg K2I	30	6	30	60	6	30.00	40.00
Hg X2I	45	9	45	90	9		
Hg H2I	60	12	60	120	12	40.00	50.00
Hg W2I	80	16	80	160	16	40.00	50.00
Hg G2I	100	20	100	200	20	40.00	50.00

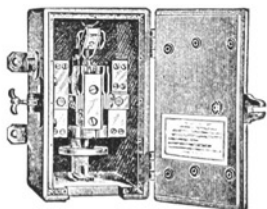
The Mercury Circuit Breakers are positive in action, and are guaranteed to operate at all times within five per cent. of adjustment. They are non-arcing, having a long, clean break of five inches, and can be instantly, and without special effort, re-set. These Circuit Breakers cannot be re-set if the same excess of current or trouble still exists on the wires that caused it to open.



Platform Type, to use on Dashboard.



Fuse Block.



Sill Type, to use on Platform Sill.

## I-T-E Automatic Magnetic Car Circuit Breaker.

The severe conditions under which street railway equipments operate demand some other protection than that afforded by fuses.

Briefly, the following troubles in Electric Railway Service are remedied by the use of the "I-T-E" Magnetic Circuit Breaker.

Careless treatment and abuse of equipment by incompetent or reckless motormen.

Interference of travel, due to power-station Circuit Breakers opening on the failure of some individual car.

The continuance of the arcing, present after a "ground" or "short circuit" occurs, in the motor equipment, owing to the sluggishness of the heavy fuses to "blow," results in the destruction of surrounding material and insulation.

Development of new flaws and faults in the apparatus, during a "short circuit" or "ground," owing to the abnormal carrying capacity of fuses employed.

The circuit is opened in less and less time as the circuit protected approaches nearer and nearer a "short circuit."

Positively no burning or blistering of contacts when circuit breaker opens.

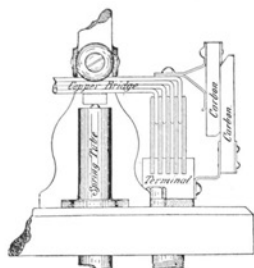
Means of keeping a record of each time circuit breaker is opened.

The device is simple and inexpensive to maintain.

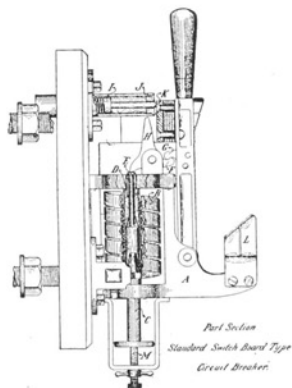
Adjustment independent of friction, springs or other features liable to cause alteration.

TYPE.	RATING AMPERES.		ADJUSTMENT AMPERES.			LIST PRICE.	
	Actual.	Nominal	Steps.	Lowest.	Highest.	Sill.	Dash.
R1	60	80	25	100	175	\$18.00	\$19
S1	60	80	50	150	250	18.00	19

Prices quoted on larger sizes and on special forms on receipt of information giving requirements.



Top View of Circuit Breaker.  
Showing Carbon Protection.



“I-T-E” Circuit Breakers.—Continued.

Special Instructions.

In ordering state style of finish by number—(whether No. 1 or No. 3);—character of base—(when ordering No. 1 finish). Also state whether circuit breakers ordered are desired for direct or alternating current. If to be shipped unmounted, state thickness of switchboard on which the circuit breaker will be used.

The “I-T-E” Circuit Breakers can be furnished on plain, polished or enameled slate or marble, as desired. Unless otherwise ordered slate bases will be furnished.

Special size and style bases will be furnished on receipt of definite information, for which special prices will be given on application.

We are prepared to furnish “I-T-E” Circuit Breakers to meet the varying requirements of storage battery work on receipt of definite information.

The “I-T-E” Circuit Breaker has frequently been used as an ampere meter for obtaining readings of sudden flows of current. When the Circuit Breaker is desired for such work, if advised, we will carefully calibrate the same for each adjustment throughout its range.

ACTUAL RATING.—The Cutter Electrical and Manufacturing Co. Standard. Heating of any part of Circuit Breaker not to exceed 20 deg. C. above surrounding atmosphere after a 10-hour consecutive flow of current, as tabulated in column under heading of actual rating.

IMPORTANT NOTICE.—While the range of the “I-T-E” Circuit Breaker is very great and allows of large jump of current, it must not be used for carrying continuously current in excess of its actual rating.

Detail Section of “I-T-E” Circuit Breaker, Standard Switchboard Type.

- |                           |                                      |
|---------------------------|--------------------------------------|
| A Iron Jacket.            | H Striker Plate to throw Switch out. |
| B Solinoidal Coil.        | I Spring Piston.                     |
| C Movable Plunger.        | J Spring Tube, head removable.       |
| D Fixed Plug.             | K Steel Striker Plate on Arm.        |
| E Striker Pin.            | L Buffer Springs.                    |
| F Catch of Striker Plate. | M Adjusting Screen.                  |
| G Catch of Switch Arm.    |                                      |

Diagram of Connections of “I-T-E” Current Breakers.

Diagram No. 1.

Showing method of connecting “I-T-E” Circuit Breaker and protected Terminal Fuse Shunt Block.

Diagram No. 2.

Showing method of connecting Double Pole “I-T-E” Circuit Breakers.

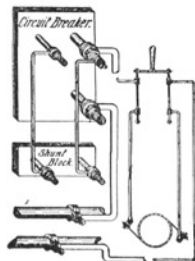


Diagram No. 1.

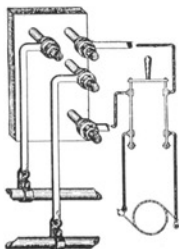


Diagram No. 2.

# CUT-OUTS.

## Fixture Cut-outs.



STRAIGHT (LONG), No. 900.

Code Word.	List No.	List Price.
<i>Exalted</i>	900 Straight (Long), each.....	\$0.32



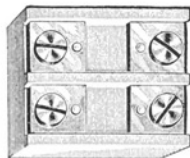
QUADRANT, No. 901.

<i>Exalting</i>	901 Quadrant, each.....	.32
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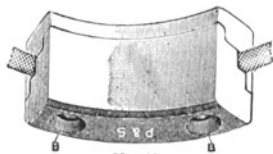
MIDGET, No. 902.

<i>Examination</i>	902 Midget, each.....	.15
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MIDGET, D. P., No. 903.

<i>Examining</i>	903 Midget, double pole, each.....	.25
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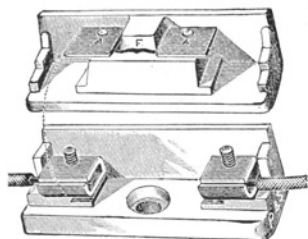


No. 18.

<i>Examining</i>	18 Covered Bug Cut-out, each.....	.12
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This is a Fixture Cut-out with a cover which can be removed to renew fuse. It is small enough for smallest canopy.





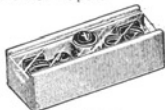
No. 19, OPEN



No. 24487-Open.

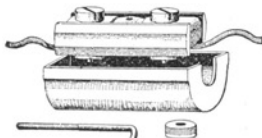
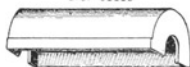


No. 24487-Covered.



No. 61119

<i>Exactness</i>	<b>61119</b>	Single Pole Electrolier Cut-out, 6 light.	<b>each.</b>	<b>15</b>
<i>Exactor</i>	<b>61116</b>	" " " " 8 "	<b>Hard</b>	
		Rubber Base, 1 1/4 inch long, each.		<b>10</b>



No. 2395.

<i>Exaggerate</i>	<b>2394</b>	Newton Bug Cut-out only, each.....	<b>.10</b>
<i>Exaltation</i>	<b>2395</b>	" " " complete, with cover, each	<b>.20</b>



No. 946

<i>Euphony</i>	<b>946</b>	Each.....	<b>.15</b>
----------------	------------	-----------	------------

**Fixture Cut-outs—(Continued).**

This is similar to No. 18, but is made straight instead of curved, and can be used wherever a single pole Cut-out is desirable, or where wires are run over moldings or cornices

Code Word.	List No	List Price.
<i>Examined</i>	<b>19</b>	Covered Bug Cut-out, each ..... <b>\$0.12</b>

Use No. 18 for fixtures using 5 amperes and under. For larger fixtures use No. 19.

**The Bryant Bug Cut Out.**

Code Word	List No	B. E. No	List Price
<i>Vineyard</i>	<b>24487</b>	1106	Each ..... <b>\$0.12</b>

Concave-head contact screws in the base, and convex in the cap, insure a perfect contact where the two connecting wires are of different gauge.

The cover, being held in place by but one nut, can be readily removed for fusing.

**Medium Horseshoe Cut-out.**

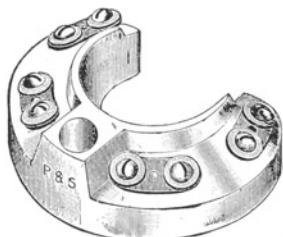


No. 54.

### Medium Horseshoe Cut-out—(Continued).

Code Word.	List No.	List Price.
<i>Europe</i>	54 Bracket Cut-out.....	\$0.04½

This is a very small double pole Horseshoe Fixture Cut-out, measuring only 2½ inches at its greatest diameter,



No. 74.

<i>European</i>	74 Horseshoe, each.....	.09
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No. 930.

### Fixture Cut-outs.

<i>Chronograph</i>	930 Horseshoe, each.....	.20
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No. 931

<i>Chronicle</i>	931 Horseshoe, each.....	.20
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No. 933.

<i>Estranged</i>	933 Horseshoe, per pair.....	.18
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Fixture Cut-outs—(Continued).



No. 932.

Code Word.  
*Estrange*

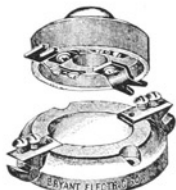
List No.

List Price.

932 Horseshoe, each.....\$0.20

K. W. Ceiling Rosette.

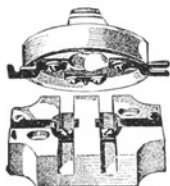
PACKED IN INDIVIDUAL BOXES.



CLEAT, No. 870.

*Caliph*

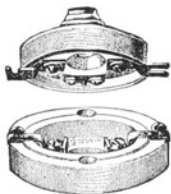
870 Cleat, each ..... .20



SQUARE BASE MOULDING, No. 926.

*Call*

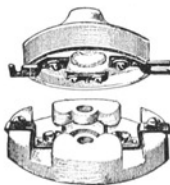
926 Square Moulding, each..... .20



CONCEALED, No. 871.

*Calling*

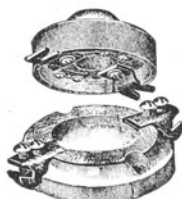
871 Concealed, each..... .20



COMBINATION, No. 872.

*Callous*

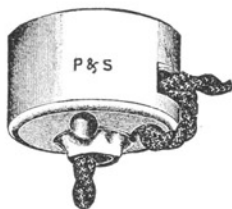
872 Combination, each..... .20



No. 950.

## K. W. Cleat Rosette—Improved Side Pieces.

Code Word.	List No.	List Price.
<i>Chuckling</i>	950 Each	.....\$0.18



No. 170.

## Self-Tying Ceiling Button

<i>Rosset</i>	170 Per 100	..... 2.75
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No. 2300.

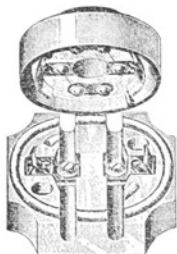
## Dovetail Rosettes.

<i>Calob</i>	2300 No. 101, for Cleat Work, each	..... .35
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No. 2301.

<i>Calf</i>	2301 No. 102, for Concealed Work, each	..... .40
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No. 232.

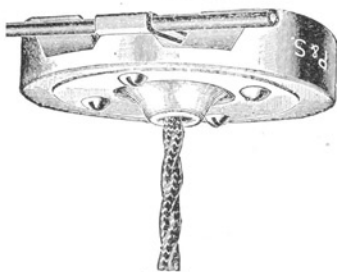
**Dovetail Rosettes—(Continued).**

Code Word.	List No.	List Price.
<i>Calico</i>	2302 No. 104, for Moulding Work, each.....	\$0.40



No. 2303

<i>Calico</i>	2303 No. 106, for Moulding Work, each.....	.40
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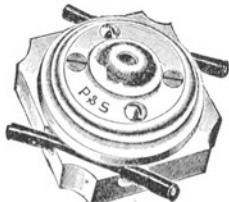


No. 6.

**Fuseless Rosette.**

This Fuseless Rosette is useful in factories and places where it is difficult to replace fuse. Five or six can be used on a branch with small branch block. It is fitted with a substantial clamp for wire, which also has a screw and washer at inner end to fasten the lamp cord to.

<i>Ether</i>	6 Fuseless Rosette, each.....	.06
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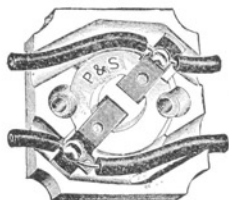


No. 80.

**Combination Rosette.**

Made in three styles, viz.: No. 80, for cleat and concealed; No. 81, for moulding or 3 wire and concealed; No. 82, full combination, for cleat, moulding, 3 wire and concealed. With No. 82 you can do any kind of wiring with the same Rosette, and it is only necessary to carry one kind in stock to be able to do any job.

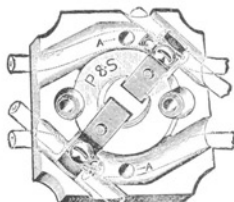
<i>Ether</i>	80 For Cleat and Concealed, each.....	.14
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No. 81.

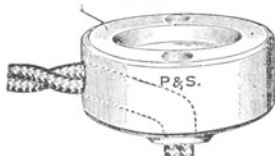
## Combination Rosette—(Continued).

Code Word.	List No.	List Price.
<i>Etiquette</i>	81 For Moulding, Concealed and 3 wire, each.....	\$0.14



No. 82.

<i>Eugenie</i>	82 For Cleat, Moulding, Concealed and 3 wire, each.....	.14
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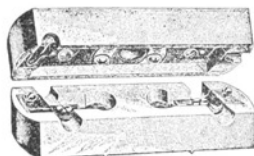


No. 70.

## "P. &amp; S." High Insulation Ceiling Button.

This Ceiling Button effectually keeps the wire away from the ceiling. It is small, being but  $1\frac{1}{4}$  inches in diameter.

<i>Eugenie</i>	70 Ceiling Button, per 100.....	2.50
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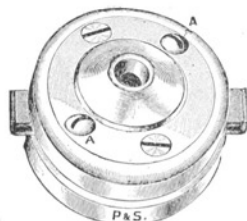


No. 20030.

## Bryant Rosette and Cleat Combined.

The upper and lower parts are fastened together by the well-known K. W. Fastening.

<i>Renfree</i>	20030 Each.....	.12
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No. 40.—COVERED.

## "P. &amp; S." Ceiling Rosette with Cap.

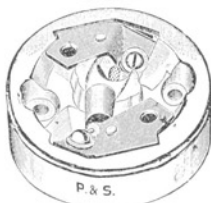
<i>Eustace</i>	40 Each.....	.12
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No. 25067.



No. 869.



No. 39.—OPEN.



No. 1323.



No. 1324.

### Imperial Rosettes.

Code Word.	List No.		List Price.
<i>Somnambulator</i>	25067	Two-piece Rosette, per 1,000	\$30.00
<i>Somnambulic</i>	25068	Base, only, " "	15.00
<i>Somnambulism</i>	25069	Cap, " "	15.00
<i>Somnambulist</i>	25070	Solid Rosette, " "	30.00

### Plain Rosette, No Fuse.

	List Price.
<i>Callow</i> 869 Plain Rosette, each	\$0.15

### "P. & S." Concealed Rosette.

This is an adaptation of No. 40 Ceiling Rosette to concealed work. To remove cap, loosen the round head screws AA one or two turns.

<i>Eva</i> 39 For Concealed Work, each	.12
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### Porcelain Ceiling Button.

This Ceiling Button is used when it is desired to suspend the lamp at a distance from the rosette cut-out. No. 1323 is 1 1/4 inches, and No. 1324 is 2 1/4 inches diameter.

<i>Eternally</i> 1323 1 1/4 inches in diameter, per 100	2.00
<i>Eternity</i> 1324 2 1/4 inches in diameter, per 100	3.50

## Anchor Covered Chandelier Cut-Out.

Code Word.	List No.	List Price Each.
<i>Roomful</i>	20186 Plain .....	\$0.06
<i>Roomily</i>	20187 Covered .....	.12



No. 20187.



No. 20188.

## Concealed Ceiling Cut-Out.

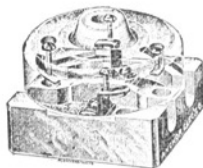
<i>Roominess</i>	20188 .....	.12 $\frac{3}{4}$
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No. 20189.

## Cleat Ceiling Cut-Out.

<i>Roomsome</i>	20189 Cleat Ceiling Cut-Out.....	.12 $\frac{3}{4}$
<i>Roomless</i>	20190 " " " with solid lug.....	.16



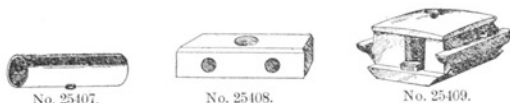
No. 20191.

## Combination Cut-Out.

<i>Roomth</i>	20191 .....	.12 $\frac{3}{4}$
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**New Style Cut Outs.**



Code Word.	List No.	Material	Covered
<i>Acoulinc</i>	25407	Rubber	Covered
		Midget Cut Out	.....
<i>Acoulase</i>	25408	Porcelain	
		Clear	.....



No. 25413.

**P. Branch Cut Outs.**  
Covered.

<i>Acceleration</i>	25409	10 amperes capacity
<i>Accelerative</i>	25410	25 " "
<i>Accelerator</i>	25411	50 " "
<i>Acceleratory</i>	25412	100 " "

**P. Main Cut Outs.**

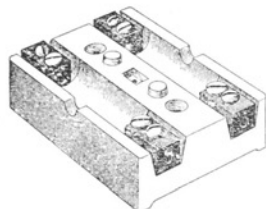
Covered.

<i>Accend</i>	25413	10 amperes capacity
<i>Accendibility</i>	25414	25 " "
<i>Accendible</i>	25415	50 " "
<i>Accension</i>	25416	100 " "

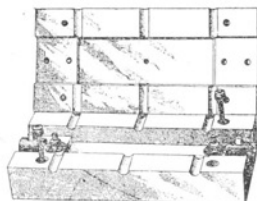
**P. Main Cut Outs.**

Uncovered.

<i>Accentor</i>	25417	10 amperes capacity
<i>Accentual</i>	25418	25 " "
<i>Accentuate</i>	25419	50 " "
<i>Accentuation</i>	25420	100 " "



No. 25417.



No. 25421.

**P. 500 Volt Motor Cut Outs.**

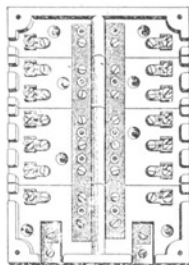
<i>Acceptable</i>	25421	30 amperes capacity
<i>Acceptability</i>	25422	60 " "
<i>Acceptably</i>	25423	150 " "

**Multiple Circuit Tablet Boards.**

Built in any number of circuits from four up.



Three-Wire Tablet Board.



Two-Wire Tablet Board.

**Branch Cut Out Block.**

	P. No.	
<i>Acceptancy</i>	25424 (1299)	Two or three wire, capacity 30 amperes.
<i>Acceptation</i>	25425 1235	Two or three wire, capacity 30 amperes
<i>Acception</i>	25426 2235	Three wire, single branch, capacity 30 amperes.....

**Main Cut Outs.**

<i>Acceptius</i>	25427 1365	Three wire, main, capacity 25 amperes.
<i>Acceptior</i>	25428 1265	Three wire, main, capacity 30 amperes..



No. 25424.



No. 25425.



No. 25426.



No. 25427.



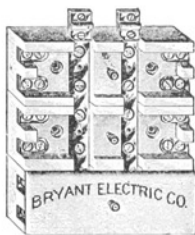
No. 24477



No. 24478.



No. 24479.



No. 20725.

## B. E. Rosettes.

Patented September 13, 1887, April 30, 1889, and April 23, 1895.

Caps are interchangeable and will fit any B. E. Rosette Base.

The principal advantage of the B. E. Rosette lies in the adjustable spring contact in the cap. Slight pressure of a screw-driver against the spring will tighten or loosen the contact as desired.

Code Word	List No.	B. E. No.	List Price Each.
<i>Volant</i>	24477	1082 For Cleat Work	\$0.15

<i>Volley</i>	24478	1083 For Concealed Work	.15
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<i>Volition</i>	24479	1084 Square Base for Moulding Work	.15
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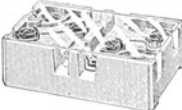




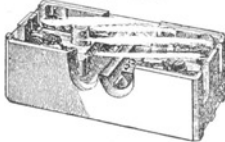
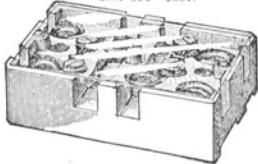
## Bryant Porcelain Tablet Board.

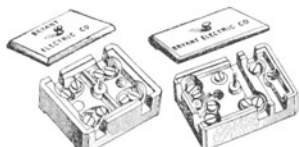
For Two-Wire System.

<i>Sacque</i>	20723	1085	2 Circuits	1.00
<i>Sacral</i>	20724	1086	4 "	2.00
<i>Sacrament</i>	20725	1087	6 "	3.00
<i>Sacramental</i>	20726	1088	8 "	4.00
<i>Sacramental</i>	20727	1089	10 "	5.00
<i>Sacrote</i>	20728	1090	12 "	6.00
<i>Sacree</i>	20729	1091	14 "	7.00

Each block or section includes two Circuits.

**Bryant-Edison Main and Branch Blocks with  
Mica Cover.**

	No. 891-1435.	Code Word. <i>Excavate</i>	List No.	891 No. 1435, Double Pole Branch, capacity 30 Amperes, each .....	List Price. <b>\$0.90</b>
	No. 892-1465.	<i>Excavated</i>	892	No. 1465, Double Pole Main, capacity 30 Amperes, each .....	<b>.77</b>
	No. 893-1487.	<i>Excavating</i>	893	No. 1487, Double Pole, Double Branch, capacity 30 Amperes, each .....	<b>1.80</b>
	No. 894-2835.	<i>Ends</i>	894	No. 2835, Double Pole, Single Branch, capac- ity 30 Amperes, each .....	<b>1.10</b>
	No. 895-1565.	<i>Ended</i>	895	No. 1565, Double Pole, Main, capacity 75 Amperes, each .....	<b>1.65</b>
	No. 896-1587.	<i>Ending</i>	896	No. 1587, D. P. Double Branch, 75 Amperes, will take No. 00 B. & S. wire, each .....	<b>6.25</b>
	No. 897-1535.	<i>Roof</i>	897	No. 1535, Double Pole, Double Branch, for wire up to No. 4 B. & S., capacity 75 Amperes, each .....	<b>2.00</b>



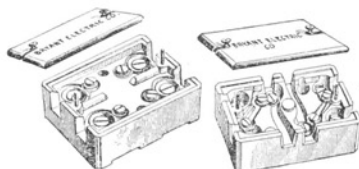
No. 20192.

No. 20193.

## Bryant-Edison Fuse Blocks.

Plain and Branch—Porcelain Covered.

Code Word	List No	List Price Each.
<i>Roony</i>	20192 1465—30 Ampere, S. P. Main Line Cut-Out	.50
<i>Roon</i>	20193 2835—30 Ampere, D. P. Single Branch Cut-Out	.60

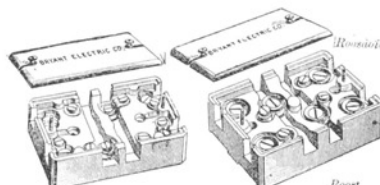


No. 20194

No. 20195

<i>Rosp</i>	20194 1565—75 Ampere, D. P. Main Line Cut-Out	.85
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<i>Roorbach</i>	20195 1435—25 Ampere, D. P. Double Branch Cut-Out	.55
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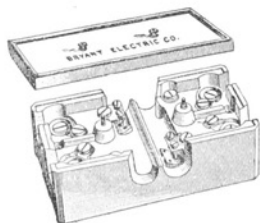


No. 20196.

No. 20197.

<i>Rooniell</i>	20196 1487—30 Ampere, D. P. Double Branch Cut-Out	.85
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<i>Roost</i>	20197 1535—75 Ampere D. P. Double Branch for Wire up to No. 4 B. & S. Gauge	1.80
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No. 20198.

<i>Roontruck</i>	20198 1587—75 Ampere D. P. Double Branch for Wire up to No. 00 B. & S. Gauge	3.50
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## Edison Link Fuse Cut-outs on Porcelain Bases.

These Cut-outs have been designed for use on both the two and the three-wire systems, and are intended to protect circuits having a potential of not over 125 volts across one link.



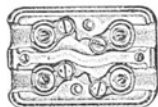
No. 61569

Code Word.	List No	List Price.
<i>Evangelic</i>	<b>61569</b> Single Pole Main Line Cut-out, capacity 75 amperes, each .....	.75



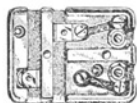
No. 61465.

<i>Essential</i>	<b>61465</b> Double Pole Main Line Cut-out, capacity 30 amperes, each.....	.70
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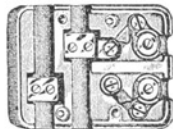
No. 61565.

<i>Evaporating</i>	<b>61565</b> Double Pole Main Line Cut-out, capacity 75 amperes, each.....	1.20
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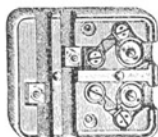
No. 62835.

<i>Evaporated</i>	<b>62835</b> Double Pole Single Branch Cut-out, capacity 30 amperes, each.....	1.00
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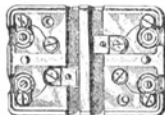
No. 61243.

<i>Evangelist</i>	<b>61243</b> Double Pole Single Branch Cut-out for wire up to No. 0 B. W. G., capacity 75 amperes, each..	2.00
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No. 61245.

<i>Evaporate</i>	<b>61245</b> Double Pole Single Branch Cut-out for wire up to No. 6 B. W. G., capacity 75 amperes, each..	1.50
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No. 61487.

<i>Evason</i>	<b>61487</b> Double Pole Double Branch Cut-out, capacity 30 amperes, each.....	1.50
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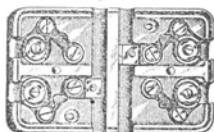
No. 61587.

## Edison Link Fuse Cut-outs on Porcelain Bases

—(Continued).

Code Word. List No. List Price.

*Esposed* 61587 Double Pole Double Branch Cut-out for wire up to No. 0 B. W. G., capacity 75 amperes, each. \$4.00



No. 61535.

*Espy* 61535 Double Pole Double Branch Cut-out for wire up to No. 6 B. W. G., capacity 75 amperes, each. 2.50



No. 61299.

*Esying* 61299 Three to Two-Wire Double Branch Cut-out, capacity 30 amperes, each. 1.70



No. 61265.

*Esquire* 61265 Three-Wire Main Line Cut-out, capacity 30 amperes, each. .85



No. 61365.

*Essay* 61365 Three-Wire Main Line Cut-out, capacity 75 amperes, each. 1.75



No. 62235.

*Essayed* 62235 Three-Wire Single Branch Cut-out, capacity 30 amperes, each. 1.50



No. 61247.

### Edison Link Fuse Cut-Outs on Porcelain Bases. (Continued).

Code Word	List No	List Price.
<i>Essaying</i>	61247	Three-Wire Single Branch Cut-out, capacity 75 Amperes, each..... \$2.50



No. 61235.

<i>Essence</i>	61235	Three-Wire Double Branch Cut-out, capacity 30 Amperes, each ..... 2.25
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<i>Roumage</i>	28230	D. P. Double Branch Porcelain Cover, 10 Amp ..... .40
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No. 62965.



No. 62569.

### Edison Plug Cut-Outs on Porcelain Bases.

These Cut-outs have been designed to protect circuits having a maximum current of 30 amperes, at a maximum potential of 125 volts.

#### MAXIMUM CAPACITY, 30 AMPERES.



No. 61935.



No. 62945.

<i>Escort</i>	62569	Single Pole Main Line Cut-out, each ..... .30
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<i>Escorting</i>	62965	Double Pole Main Line Cut-out, each ..... .50
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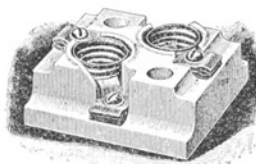


No. 62587.

<i>Escorte</i>	61935	Double Pole Single Branch Cut-out, each ..... .60
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<i>Escotechon</i>	62945	Double Pole Single or Double Cross-over Branch, each ..... 1.30
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<i>Esculent</i>	62587	Double Pole Double Branch Cut-out, each ..... 1.10
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No. 68020.

<i>Roumer</i>	68020	D. P. Single or Double Cross-over ..... .60
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No. 62199.

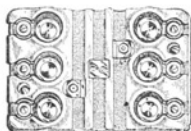
### Edison Plug Cut-outs on Porcelain Bases— (Continued).

Code Word.	List No.	List Price.
<i>Especial</i>	62199	Three to Two-Wire Double Branch, each.....\$1.25



No. 62165.

<i>Expoual</i>	62165	Three-Wire Main Line, each.....	.80
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No. 62135.

<i>Expouse</i>	62135	Three-Wire, Double Three-wire Branch, each..	1.50
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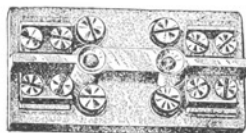
### Edison Fuse Plugs.

FOR USE WITH PLUG CUT-OUTS ON PORCELAIN BASES.



No. 66327

<i>Escalade</i>	66327	Fuse Plug, maximum capacity, 3 amperes, each,	.12
<i>Escapade</i>	66329	" " " " 6 " "	.12
<i>Escape</i>	66331	" " " " 10 " "	.12
<i>Escapement</i>	66333	" " " " 12 " "	.12
<i>Escapiny</i>	66335	" " " " 15 " "	.12
<i>Escarp</i>	66337	" " " " 20 " "	.12
<i>Escieur</i>	66339	" " " " 25 " "	.12
<i>Escort</i>	66341	" " " " 30 " "	.12



No. 884

### Sawyer-Man Main Cut-outs.

<i>Established</i>	884	Capacity, 10 amperes, each.....	.45
<i>Estate</i>	885	" " 25 " ".....	.60
<i>Estem</i>	886	" " 50 " ".....	.85
<i>Esteemed</i>	887	" " 100 " ".....	1.35

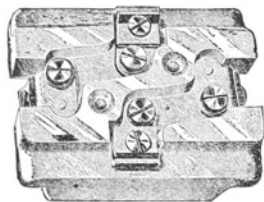


No. 938.

### Sawyer-Man Main Cut-outs, Covered.

<i>Esteminy</i>	938	10 Amperes, each.....	.40
<i>Esthetic</i>	939	25 " ".....	.65
<i>Esther</i>	940	50 " ".....	.80
<i>Estimable</i>	941	100 " ".....	1.00





No. 888

## Sawyer-Man Branch Cut-outs.

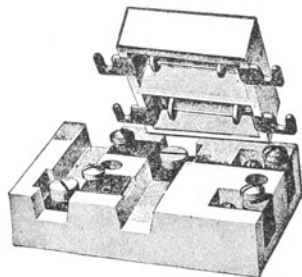
Code Word.	List No.	List Price.
<i>Estimate</i>	888 Capacity, 15 Amperes, each.....	\$.14
<i>Estimated</i>	889 " 25 " " .....	.20
<i>Estimating</i>	890 " 50 " " .....	.44



No. 942.

## Sawyer-Man Branch Cut-outs, Covered.

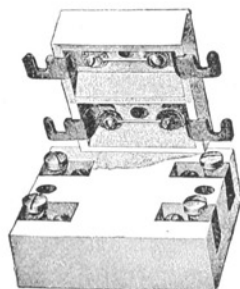
<i>Estimation</i>	942 15 Amperes, each.....	.14
<i>Estimate</i>	943 25 " " .....	.22
<i>Estoppel</i>	944 50 " " .....	.46



No. 881.

## K. W. Branch Cut-outs.

<i>Estray</i>	881 10 Amperes, each.....	.50
<i>Estreat</i>	882 30 " " .....	.90
<i>Etch</i>	883 50 " " .....	1.00



No. 878.

## K. W. Main Line Cut-out.

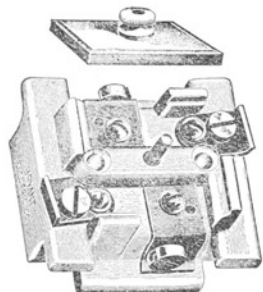
<i>Etched</i>	878 10 Amperes, each.....	.50
<i>Etching</i>	879 30 " " .....	.80
<i>Eternal</i>	880 50 " " .....	.90



No. 20172.

## Improved Form of S. M. Branch Cut-Out.

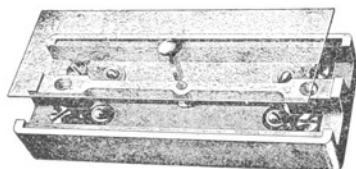
Code Word.	List No.	List Price
<i>Romist</i>	20172 25 Amperes, each.....	\$0.45
<i>Romp</i>	20173 50 " " .....	.70



No. 20174.

## Special Branch Blocks.

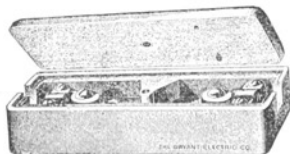
<i>Rondcan</i>	20174 10 Amperes, each.....	.40
<i>Rondel</i>	20175 25 " " .....	.65



No. 20176.

## 500 Volt D. P. Cut-Out.

<i>Rondo</i>	20176 10 amperes, mica cover, each.....	.25
<i>Accompt</i>	25468 10. " " porcelain cover, each ..	.25



No. 945.

## 500 Volt S. P. Cut-Out.

<i>Rongst</i>	20177 25 Amperes, each.....	.80
<i>Ront</i>	945 100 " " .....	1.50



No. 1326.

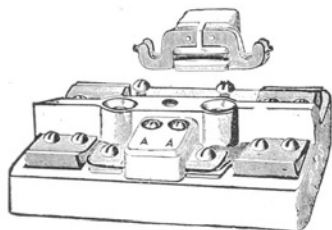
Seymour's Patent Branch Block.

Code Word.	List No.	List Price.
<i>Everlasting</i>	1326 10 Amperes, with china cover, each.....	\$0.25
<i>Eversion</i>	1328 25 " " " " .....	.35
<i>Evict</i>	1330 50 " " " " .....	.57



No. 1325.

<i>Evergreen</i>	1325 10 Amperes, without cover, each.....	.17
<i>Ecernore</i>	1327 25 " " " " .....	.27
<i>Eery</i>	1329 50 " " " " .....	.47



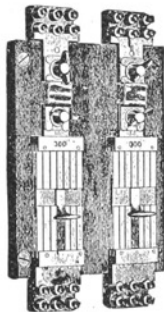
No. 22.

Sawyer-Man Main Block.

We furnish Sawyer-Man Main Blocks complete, with or without fuse plug. The fuse plug is a unique device for holding the fuse, and also acts as a cover for the fuse. To insert fuse, loosen screws AA one or two turns and insert fuse between brasses, tighten screws and the fuse will be held in position, and the plug can then be inserted under the regular screws on the Main Block.

THEY WILL FIT ANY MAKE OF SAWYER-MAN MAINS.

<i>Evicted</i>	22 Sawyer-Man Main, 10 amperes, each.....	.17
<i>Evicting</i>	23 " " " 25 " " .....	.23
<i>Eviction</i>	24 " " " 50 " " .....	.34
<i>Evact</i>	25 " " " 100 " " .....	.60
<i>Evacted</i>	26 Fuse Plug, 10 " " .....	.05
<i>Evacting</i>	27 " " " 25 " " .....	.05



No. 2405.

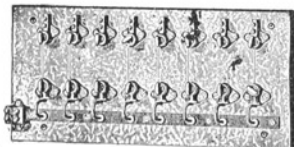
Double Pole Switch Cut-out.

This Cut-out is of new design and embraces certain features specially adapting it for use in the mains, feeders and sub-feeders of incandescent wiring systems.

The terminals and Switch mechanism are of ample proportions for the service required, and at the same time are so compact in arrangement as to take but little room, a very desirable feature when the limited space allowed for Cut-out cabinets in buildings is considered.

The Switch breaks either pole independently, making a quick break, and cannot be caused to open or close or become loose in connection by any jar communicated through a building.

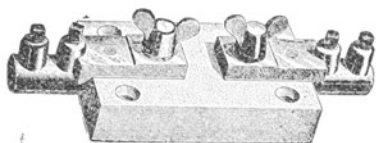
<i>Ecent</i>	2405 100 Amperes, each.....	5.00
<i>Ecentful</i>	2406 200 " " .....	6.00
<i>Ecentual</i>	2407 300 " " .....	7.50
<i>Everglade</i>	2408 400 " " .....	11.00



No. 1320.

Multiple Cut-out Board.

<i>Excursion</i>	1320 Per Circuit .....	1.80
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Nos. 2588 to 2592.

Code Word.  
*Excel*  
*Excelled*  
*Excellence*  
*Excelency*  
*Excellent*

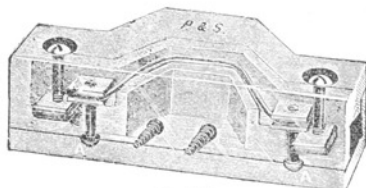
List No.	Soapstone Base.	List Price.
2588	25 Amperes, each.....	\$2.50
2589	50 " ".....	2.75
2590	100 " ".....	3.00
2591	250 " ".....	3.50
2592	400 " ".....	4.00

## Safety Fuse Block.

## Covered Motor Cut-out.

### Single Pole.

This Cut-out is designed for motors on power circuits, and as it has a fuse 3 inches long, it is especially adapted for 500 volt circuits. The channel which incases the fuse is of such a shape as to cause the fuse to be bent at four angles, which adds to the efficiency, as it is difficult to maintain an arc around an angle. To remove fuse cover, to renew fuse, loosen screws AA one-half turn.



No. 38.

*Essentially*

38 20 Amperes, each..... .25



No. 2409.

*Establish*

## Special Fuse Holders.

### With Cable Terminals.

2409 each..... 3.50

## Main Line Fuse Blocks.

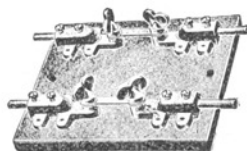
For use in main line circuits where no switch is required. Mounted on slate base, and, with exception of fuse bar, indestructible.



No. 2576.

*Example*  
*Exasperate*  
*Exasperated*  
*Excavate*

Single Pole.		
2576	1 to 25 Amperes, each.....	1.00
2577	Over 25 to 100 Amperes, each.....	1.50
2578	" 100 " 300 " ".....	2.50
2579	" 300 " 600 " ".....	3.50



No. 2580.

*Excavated*  
*Excavating*  
*Excavator*  
*Excavation*

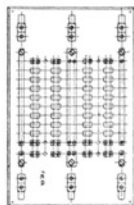
Double Pole.		
2580	1 to 25 Amperes, each.....	2.00
2581	Over 25 to 100 Amperes, each.....	3.00
2582	" 100 " 300 " ".....	5.00
2583	" 300 " 600 " ".....	7.00

*Excelled*  
*Excelled*  
*Exceeding*  
*Exceedingly*

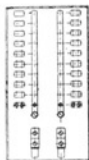
Three Pole.		
2584	1 to 25 Amperes, each.....	3.00
2585	Over 25 to 100 Amperes, each.....	4.50
2586	" 100 " 300 " ".....	7.50
2587	" 300 " 600 " ".....	10.50

Ten per cent. advance for 500 volts.

## Cut-Out and Distributing Boards.



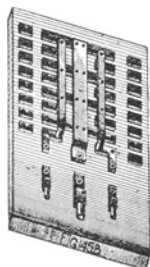
No. 101 M.



No. 105 M.



No. 145 A.

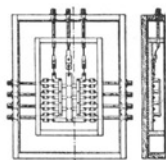


No. 145 B.

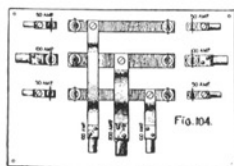
We illustrate a few of the many different styles of Cut-Out and Distributing Boards.

As most of these Boards are made in special sizes to suit the various conditions, it is difficult to list them. We have facilities for furnishing any style of these Boards, and will quote prices on receipt of specifications and requirements.

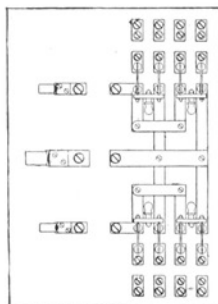
Boards may be furnished with plain slate, marbleized slate, or marble backs. Cut-Out boxes are made with single or double slate lining, and covers made of hardwood, slate or glass.



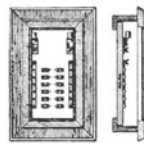
No. 17 M.



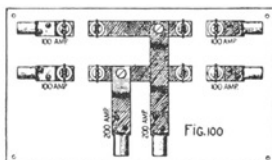
No. 104 M.



No. 145 S.



No. 135 M.



No. 100 M.

## Cut-Outs and Distributing Boards.—(Continued.)

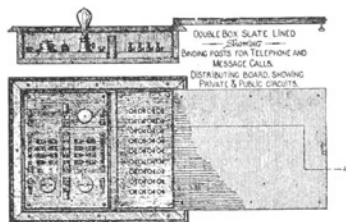


Fig. 146 M.

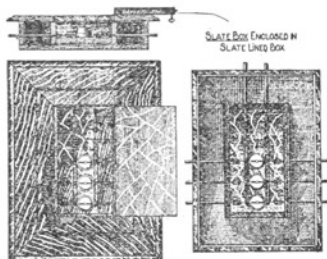


Fig. 147 M.

## Main Branch Cut-Outs.

The Cut-Outs illustrated, Figs. 148 W and 149 W, are designed for large capacities and are for the purpose of taking circuits off from mains on each floor of large buildings. The Mains feed into the bottom of the Cut-Outs and out at the top, being fused at both points, if desirable, or copper strips may be placed instead of fuses. The circuits branch each way on the sides and can be fused for the capacity desired. For all Cut-Outs over 200 amperes, parallel fuses are used, insuring sufficient contact on the bottom of the fuses to carry the current without heating from lack of contact. The space occupied by the fuse tips is reset, making it impossible to twist the fuses when the set screw is screwed down, a feature not found in other Cut-Outs. The set screws are of steel, copper-plated, with slotted hexagon heads, enabling the use of either a wrench or screwdriver. The connections on the larger size of Cut-Outs are made with swivel lugs which are of ample carrying capacity. The polarities are separated by one-quarter inch slate insulation.

This style of Cut-Out is also made for the 3-Wire and 3-Wire convertible systems.

The neutral fuses and lugs are of twice the capacity of one of the outside to enable the wires to be thrown on the 2-wire system when desired.

Swivel lugs are used on all the Cut-Outs above 100 amperes.

The contacts are mounted on slate or marble bases.

In ordering these Cut-Outs state what size of wire is desired to connect to the terminals and they will be bored accordingly.

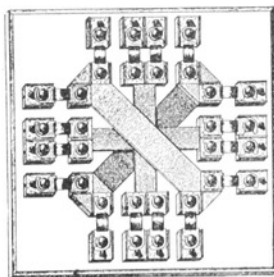


Fig. 148 W.

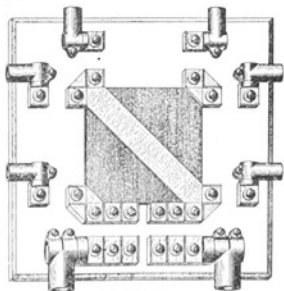


Fig. 149 W.

# SOCKETS AND RECEPTACLES.



No. 855.



No. 849.



No. 850.



No. 3909.

## Bryant Standard No. 1 Sockets.

Code Word.	List No.		List Price. Each.
<i>Arthur</i>	855	Westinghouse Key .....	\$0.60
<i>Assimilate</i>	856	Westinghouse Keyless.....	.50

<i>Avr</i>	851	Thomson-Houston Key .....	.60
<i>Assimilating</i>	852	Thomson-Houston Keyless.....	.50
<i>Root</i>	849	Thomson-Houston Key, Short Shell .....	.60
<i>Routerop</i>	850	Thomson-Houston Keyless, Short Shell.....	.50

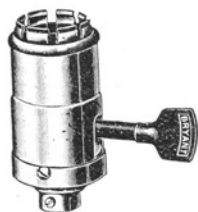
<i>Exceptive</i>	859	United States Key, each .....	.70
<i>Exceptless</i>	860	United States Keyless, each.....	.60

## No. 1 Bracket Sockets.

For Street Lighting.

WITH  $\frac{3}{8}$  INCH OPENING.

<i>Calculate</i>	3608	Thomson-Houston Base, Keyless .....	.20
<i>Calbron</i>	3909	Westinghouse Base, " .....	.20
<i>Absenter</i>	25298	Thomson-Houston Base, Key.....	.30
<i>Absentation</i>	25299	Westinghouse Base, " .....	.30



No. 952.

### Sockets with Extra Long Keys.

Any Bryant Key Socket can be furnished with extra long key to special order. In ordering specify distance from outside of shell to end of handle.



No. 20204.

<i>Roothouse</i>	20204	No. 2A, Thomson-Houston Key Socket .....	.20
<i>Rootleaf</i>	20205	No. 2A, Thomson-Houston Keyless Socket .....	.15
<i>Rootless</i>	20206	No. 2A, Westinghouse Key Socket .....	.20
<i>Rootlet</i>	20207	No. 2A, Westinghouse Keyless Socket .....	.15

### Bryant No. 2A Key Sockets.



No. 20208.

<i>Rootstock</i>	20208	Thomson-Houston Key Socket .....	.20
<i>Rooty</i>	20209	Thomson-Houston Keyless Socket .....	.15
<i>Rootze</i>	20210	Westinghouse Key Socket .....	.20
<i>Rootzie</i>	20211	Westinghouse Keyless Socket .....	.15

### Bryant No. 2B Fixture Sockets.

By means of the third bayonet joint, the shell is firmly "locked" to the base of the socket, making it impossible to "wobble" or "sag" when used with a heavy shade.

An examination of a sample lot will show its great advantage over the regular style.

### Bryant Pull Socket.

<i>Rooteater</i>	20202	Thomson-Houston Base .....	.50
<i>Rooter</i>	20203	Westinghouse Base .....	.50

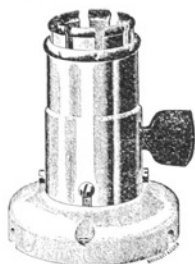


No. 20202.

### G. E. Pull Socket.

<i>Roothair</i>	9400	Edison Base .....	.60
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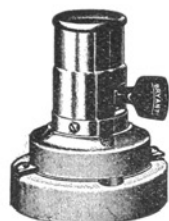


No. 20212.

## Bryant Standard No. 1 Wall Socket.

Code Word.	List No.		List Price Each.
<i>Rope</i>	20212	No. 1, Thomson-Houston Key Wall Socket.....	\$0.25
<i>Ropeband</i>	20213	No. 1, Thomson-Houston Keyless Wall Socket.....	.20
<i>Ropebander</i>	20214	No. 1, Westinghouse Key Wall Socket.....	.25
<i>Ropeladder</i>	20215	Westinghouse Keyless Wall Socket.....	.20
<i>Ropemaker</i>	20216	U. S. Key Wall.....	.64
<i>Ropenut</i>	20217	U. S. Keyless Wall.....	.54

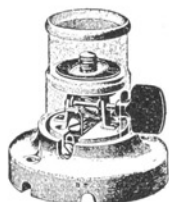
## Bryant No. 2B Fusible Wall Socket.



<i>Absentaneous</i>	25300	Thomson-Houston Key, concealed.....	.36
<i>Absentment</i>	25301	" " " cleat.....	.36
<i>Absinthian</i>	25302	" " " moulding.....	.36
<i>Absinhiate</i>	25303	" " Keyless, concealed.....	.34
<i>Absinthiated</i>	25304	" " " cleat.....	.34
<i>Absinthine</i>	25305	" " " moulding.....	.34
<i>Absinthium</i>	25306	Westinghouse Key, concealed.....	.36
<i>Absis</i>	25307	" " " cleat.....	.36
<i>Absist</i>	25308	" " " moulding.....	.36
<i>Absistance</i>	25309	" Keyless, concealed.....	.34
<i>Absolutesness</i>	25310	" " " cleat.....	.34
<i>Absolution</i>	25311	" " " moulding.....	.34

Caps are interchangeable and will fit any K. W. Rosette Base. Shell fitted with three bayonet joints, making a rigid fastening.

## Bryant No. 2A Wall Socket.



No. 20222.

<i>Ropetrick</i>	20222	No. 2A, Thomson-Houston Key Wall Socket....	.25
<i>Ropewalk</i>	20223	No. 2A, Thomson-Houston Keyless Socket.....	.20
<i>Ropeyarn</i>	20224	No. 2A, Westinghouse Key Wall Socket.....	.25
<i>Ropely</i>	20225	No. 2A, Westinghouse Keyless Wall Socket....	.20

## Standard Edison Sockets.



No. 69323.

<i>Ropiness</i>	69323	Gen. Elec. Co. Key Socket with Fibre Ring, polished.....	.35
<i>Ropish</i>	69364	Gen. Elec. Co. Key Socket with Rubber Ring, polished.....	.40

## Edison Sockets.



No. 69324

Code Word.	List No	List Price Each.
<i>Copy</i>	69324 G. E. Keyless Socket $\frac{1}{4}$ in. Pipe, plain	\$0.30
<i>Rogue</i>	69373 G. E. T. H. Keyless Socket $\frac{1}{4}$ in. Pipe, plain	.30



No. 66223

<i>Condor</i>	66223 Keyless Socket for $\frac{1}{4}$ in. Pipe, plain	.30
<i>Condore</i>	66225 " " $\frac{1}{2}$ " polished	.35



No. 66235

<i>Excreeble</i>	66235 Keyless Electrolier Socket for $\frac{1}{4}$ in. Pipe, plain	.30
<i>Excreeate</i>	66237 " " " $\frac{1}{2}$ " polished	.35



No. 9319

<i>Excreeation</i>	9319 Keyless Socket for High Candle-Power Lamps	1.30
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No. 4505

<i>Roral</i>	4505 Socket for Series Incandescent Lamp for Alternating Current Circuits	2.00
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No. 4504.

Edison Sockets--(Continued).

Code Word	List No	List Price Each.
<i>Rorid</i>	4504	Socket for Series Incandescant Lamp for Arc Circuits ..... \$2.00



No. 6066.

<i>Eeenness</i>	60666	Edison Hard Rubber Waterproof Socket ..... 60
<i>Roriferous</i>	20226	T. H. Hard Rubber Waterproof Socket..... 60



No. 66307.

<i>Rorifluent</i>	20227	Edison Porcelain Waterproof Socket..... .35
<i>Roriquat</i>	20228	T. H. Porcelain Waterproof Socket ..... .35

<i>Rorulent</i>	66307	Edison Key Wall Socket, polished..... .60
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No. 66297.

<i>Rorv</i>	66297	Edison Key Wall Socket, plain ..... 40
<i>Rorary</i>	66299	Edison Key Wall Socket, polished.... .45



No. 69368 and 69376.

## Edison Sockets and Receptacles.—(Continued.)

Code Word.	List No		List Price Each.
<i>Rosechifer</i>	69368	Key Wall Receptacle, Edison Base Lamp, Porcelain Base, polished brass .....	\$0.40
<i>Rosecolor</i>	69376	Key Wall Receptacle, T. H. Base Lamp, Porcelain Base, polished brass .....	.40



No. 69369 and 69377.

<i>Rosecolored</i>	69369	Keyless Wall Receptacle, Edison Base Lamp, Porcelain Base, polished brass .....	.35
<i>Rosecut</i>	69377	Keyless Wall Receptacle, T. H. Base Lamp, Porcelain Base, polished brass .....	.30



No. 66281, 50978 and 50979.

<i>Rosecut</i>	66281	Edison Keyless Wall Socket, polished .....	.40
<i>Rose</i>	50978	Edison Keyless Receptacle, with D. P. Fuse, plain .....	.45
<i>Roseal</i>	50979	Edison Keyless Receptacle, with D. P. Fuse, polished .....	.55



No. 66285.

<i>Rosecote</i>	66285	Edison Keyless Wall Socket, polished .....	.35
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No. 66272 and 66273.

<i>Rosebay</i>	66271	Edison Keyless Wall Socket, plain .....	.25
<i>Rosedog</i>	66273	Edison Keyless Wall Socket, polished .....	.30

## Weather-proof Sockets.



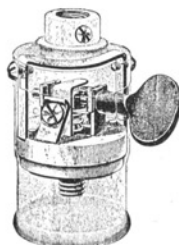
No. 3203.



No. 3202.



No. 3728.



No. 3729.

## H. W. Johns Mfg. Co.'s Moulded Mica Lamp Sockets.

Made in Brown or Black.

Code Word.	List No.		List Price Each.
<i>Architect</i>	3203	Thomson-Houston Base, Pendant Socket, 6 inch wires.....	\$0.25
<i>Arching</i>	3202	Westinghouse Base, Pendant Socket, 6 inch wires, each.....	.25
<i>Archibald</i>	3201	Edison Base, Pendant Socket, 6 inch wires.....	.25
<i>Archer</i>	3204	" Mica Wall Socket.....	.40
<i>Bronning</i>	3728	" Mica Bracket Socket.....	.40

With Extra Long Wires.

	Mica Sockets, with wires	6 inches long	.....	.25
	"	" 12 "	.....	.27½
	"	" 18 "	.....	.30
	"	" 24 "	.....	.35
	"	" 30 "	.....	.40
	"	" 3 feet long	.....	.45
	"	" 4 "	.....	.55
	"	" 5 "	.....	.65
	"	" 6 "	.....	.75
	"	" 7 "	.....	.85
	"	" 8 "	.....	.95
	"	" 10 "	.....	1.15
<i>Lactation</i>	3383½	Thomson-Houston Base, Mica Wall Socket...		.40
<i>Lactol</i>	3384	Westinghouse Base, Mica Wall Socket...		.40
<i>Bedeck</i>	3730	Thomson-House Base, Mica Bracket Socket...		.40
<i>Bedding</i>	2729	Westinghouse Base, Mica Bracket Socket...		.50

Will fit ¼ inch pipe bracket.

## Perkins Sockets.

Plain Sockets.

<i>Rosewort</i>	20254	Key Socket for Thomson-Houston Base.....	.40
<i>Rosieructan</i>	20255	Keyless Socket for Thomson-Houston Base...	.35

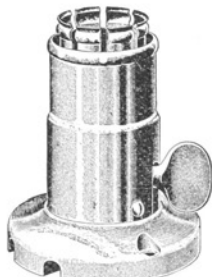


No. 20257.

## Perkins Sockets.—Continued.

## Plain.

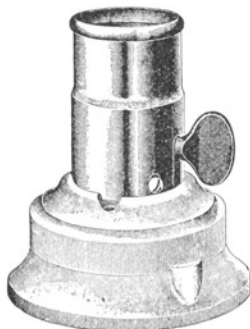
Code Word.	List No.		List Price. Each.
<i>Rosied</i>	20256	Key Socket for Westinghouse Base.....	\$0.40
<i>Rosier</i>	20257	Keyless Socket, Westinghouse Base.....	.35



No. 20260.

## Wall.

<i>Rosia</i>	20258	Key Wall Socket for Thomson-Houston Base...	.45
<i>Rosiness</i>	20259	Keyless Wall Socket for Thomson-Houston Base	.40
<i>Rosinail</i>	20260	Key Wall Socket for Westinghouse Base.....	.45
<i>Rosiny</i>	20261	Keyless Wall Socket for Westinghouse Base....	.40



No. 20262.

## Fusible Wall.

<i>Rosland</i>	20262	Key Fusible Wall Socket for Thomson-Houston Base .....	.75
<i>Rosmorine</i>	20263	Keyless Fusible Wall Socket for Thomson Houston Base.....	.70
<i>Ross</i>	20264	Key Fusible Wall Socket for Westinghouse Base .....	.75
<i>Rossell</i>	20265	Keyless Fusible Wall Socket for Westinghouse Base .....	.70

This Fusible Wall Socket is a combination of the Dove-tail Rosette Cut-out and Perkins Socket. In ordering please state what style of base is required; whether cleat, concealed or moulding rosette.



No. 20269.

## Anchor Sockets.

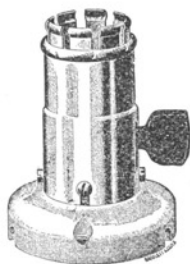
## Plain.

Code Word.	List No.	List Price. Each.
<i>Rostel</i>	20269	Key Socket, T. H. Base..... \$0.18
<i>Rostelate</i>	20270	Key Socket, Westinghouse Base..... .18
<i>Roster</i>	20271	Keyless Socket, T. H. Base..... .16
<i>Rostrul</i>	20272	Keyless Socket, Westinghouse Base..... .16

## Special 3-8 Keyless Socket.

Will screw on  $\frac{3}{8}$  inch pipe for street fixtures, brackets, etc.

<i>Rastrate</i>	20273	Special for T. H. Base.....	.20
<i>Rostrum</i>	20274	Special for Westinghouse Base.....	.20

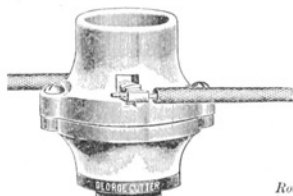


No. 20276.

## Wall.

<i>Rosulate</i>	20275	Key Socket, T. H. Base .....	.20
<i>Rot</i>	20276	Key Socket, Westinghouse Base.....	.20
<i>Rota</i>	20277	Keyless Socket, T. H. Base .....	.18
<i>Rotal</i>	20278	Keyless Socket, Westinghouse Base .....	.18

Extra long handles, extra .....	.20
Fancy finish, bronze, copper, etc., extra .....	.20
“ “ marble, onyx, granite, extra.....	.20

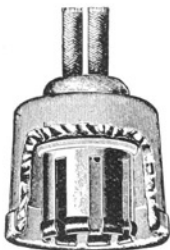


No. 20279.

## Cutter's, Street Hood Socket.

Has the terminals exposed on the porcelain shell so that it is readily wired without pulling the wires through a narrow neck. Saves time and insures high insulation. Shipped complete with iron flange threaded to fit standard streethoods.

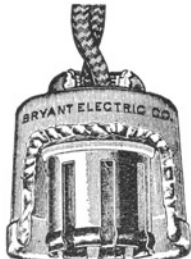
<i>Rotalite</i>	20279	Complete, T. H. Base .....	.25
<i>Rotary</i>	20280	“ Westinghouse Base .....	.25
<i>Rotroscope</i>	20281	“ Edison Base .....	.30



No. 20230.

### Bryant Porcelain Weatherproof Sockets.

Code Word	List No	List Price Each
<i>Rosediamond</i>	20229 T. H. Base	\$0.20
<i>Rosedrop</i>	20230 Westinghouse Base	.20



No. 20232.

<i>Rose-engine</i>	20231 T. H. W. P. Bracket Socket	.40
<i>Rosefish</i>	20232 Westinghouse W. P. Bracket Socket	.40

Fitted with  $\frac{1}{4}$  inch brass socket bushing for bracket work.



No. 20233.

#### Side Wires.

<i>Rosefly</i>	20233 Style A, for T. H. Lamp	.30
<i>Rosegall</i>	20234 Style A, for Westinghouse Lamp	.30

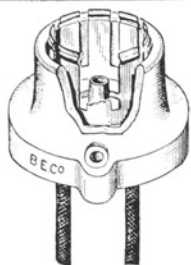


No. 20235.

#### Bottom Wires.

<i>Rosehead</i>	20235 For T. H. Lamp	.30
<i>Roseknot</i>	20236 For Westinghouse Lamp	.30





No. 20238.

### Bryant Porcelain Weatherproof Sockets. —(Continued.)

Code Word.	List No.	List Price, Each.
<i>Roselake</i>	20237 T. H. Base .....	\$0.20
<i>Roselite</i>	20238 Westinghouse Base .....	.20



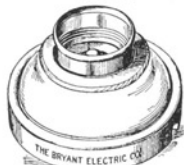
No. 868.

### Porcelain Keyless Receptacles.

<i>Excitation</i>	868 For Thomson Houston System, each .....	.40
<i>Excititive</i>	1868 For Westinghouse System .....	.40

#### For Shade Holder.

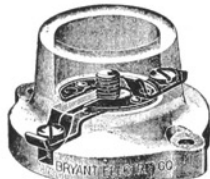
Made extra heavy; fastened by turning the top, and so arranged that Shade Holder can be held. These Receptacles are made with fusible cut-outs.



No. 20856.

<i>Saintess</i>	20856 For Thomson Houston system, each .....	.25
<i>Sainthood</i>	20857 For Westinghouse system, each .....	.25

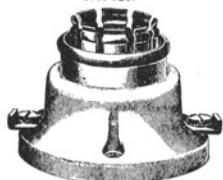
#### For Cleat Work.



No. 921.

<i>Excite</i>	921 For Thomson-Houston System .....	.15
<i>Excitement</i>	1921 For Westinghouse System .....	.15

### Special Shade Holder Receptacle.



No. 948.

<i>Exc</i>	948 Westinghouse Base .....	.20
<i>Excn</i>	3948 Thomson-Houston Base .....	.20

## Standard Edison Receptacles.



No. 69171

Code Word	List No.	List Price Each.
<i>Rosebush</i>	<b>69171</b> Edison Keyless Receptacle, Porcelain, with screw connections .....	<b>\$0.18</b>



No. 69370.

<i>Rosecrumpton</i>	<b>69370</b> Edison Keyless Wall Receptacle, T. H. Lamp, Porcelain.....	<b>.20</b>
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The Wall Receptacle No. 2868 is intended for use with attaching plug and portable lamp. The fuse in the receptacle protects the circuits without requiring a fuse in the attaching plug.



No. 2868.

<i>Excitatory</i>	<b>2868</b> Wall Receptacle, with fuse.....	<b>.40</b>
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No. 2921.

<i>Exciter</i>	<b>2921</b> Porcelain Receptacle for cleat work .....	<b>.18</b>
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No. 1948.

<i>Eveline</i>	<b>1948</b> Porcelain Receptacle for cleat work to take Shade Holder.....	<b>.25</b>
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No. 929.

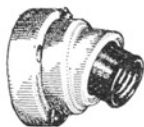
<i>Exclaiming</i>	<b>929</b> K. W. Fusible Receptacle.....	<b>.40</b>
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No. 1949.

**Standard Edison Receptacles—(Continued.)**

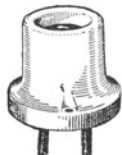
Code Word.	List No.	List Price Each.
<i>Erving</i>	1949 K. W. Shade Holder Receptacle . . . . .	\$0.50



No. 8830.

<i>Courtly</i>	8830 K. W. Shade Holder Angle Receptacle . . . . .	.80
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**Edison Standard Waterproof Receptacles.**



No. 20210.

<i>Rosenbury</i>	20240 G. E. Waterproof Receptacle . . . . .	.40
	Extra heavy for refrigerators, stock yards, breweries and out of door work.	



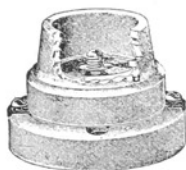
No. 20241.

<i>Rosen</i>	20241 G. E. Waterproof Receptacle . . . . .	.25
	This is the same as No. 2021, with the side lugs taken off and bottom wires inserted.	

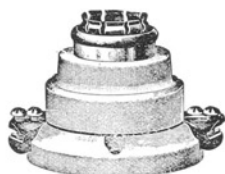


No. 20242.

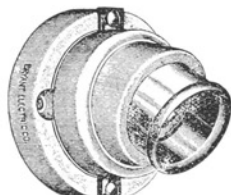
<i>Roseville</i>	20242 G. E. Waterproof Receptacle . . . . .	.40
	Extra heavy for refrigerators, stock yards, breweries, and out of door work.	



No. 25162.



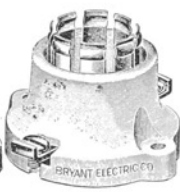
No. 25168.



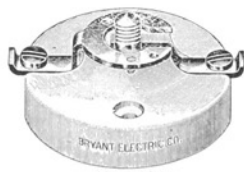
No. 25174.



No. 1922.



No. 25294.



No. 25296.

### Bryant K. W. Receptacle.

The K. W. Receptacle is for double fuse, the caps are interchangeable and will fit any K. W. base.

Code Word.	List No.		List Price, Each.
<i>Abductant</i>	25162	Thomson-Houston Base, concealed.....	\$0.28
<i>Abduct</i>	25163	" " " " cleat.....	.28
<i>Abduction</i>	25164	" " " " moulding.....	.28
<i>Abductor</i>	25165	Westinghouse " concealed.....	.28
<i>Abcam</i>	25166	" " " cleat.....	.28
<i>Abear</i>	25167	" " " moulding.....	.28

### K. W. Shade Holder Receptacle.

<i>Aberrance</i>	25168	Thomson-Houston Base, concealed.....	.32
<i>Abcedarina</i>	25169	" " " " cleat.....	.32
<i>Abcd</i>	25170	" " " " moulding.....	.32
<i>Abelc</i>	25171	Westinghouse " concealed.....	.32
<i>Abeltree</i>	25172	" " " cleat.....	.32
<i>Abelian</i>	25173	" " " moulding.....	.32

### K. W. Shade Holder Receptacle—Angle.

<i>Abelite</i>	25174	Thomson-Houston Base, concealed.....	.50
<i>Abelonian</i>	25175	" " " " cleat.....	.50
<i>Abelmark</i>	25176	" " " " moulding.....	.50
<i>Aberdecine</i>	25177	Westinghouse " concealed.....	.50
<i>Aberv</i>	25178	" " " cleat.....	.50
<i>Aberrance</i>	25179	" " " moulding.....	.50

### Bryant Receptacle.

For Concealed and Moulding Work.

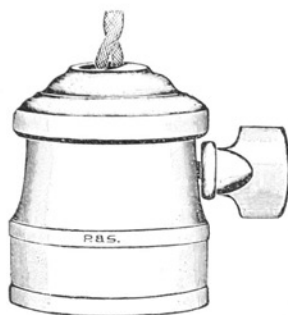
<i>Exciting</i>	922	For Thomson-Houston System.....	.16
<i>Excitingly</i>	1922	For Westinghouse System.....	.16

### Pony Receptacle.

<i>Abseconce</i>	25294	Bryant No. 1123 T. H. Base.....	.10
<i>Abseconder</i>	25295	Bryant No. 1124 West. Base.....	.10

### Bryant Testing Base.

<i>Absent</i>	25296	Bryant No. 1180 T. H. Base.....	.10
<i>Absentecism</i>	25297	Bryant No. 1181 West Base.....	.10



“P. & S.” China Key and Keyless Sockets.

Code Word.	List No.		List Price Each.
<i>Rosclout</i>	20243	Key Socket for Drop Lights, T. H.	\$0.15
<i>Rosepink</i>	20244	“ “ “ W. H.	.15
<i>Rosequarts</i>	20245	Keyless Socket “ T. H.	.12
<i>Rosier</i>	20246	“ “ “ W. H.	.12
<i>Roseroot</i>	20247	Key Socket for Fixtures T. H.	.18
<i>Rosery</i>	20248	“ “ “ W. H.	.18
<i>Roset</i>	20249	Keyless Socket “ T. H.	.15
<i>Rosetta</i>	20250	“ “ “ W. H.	.15
<i>Rosewater</i>	20251	Key Wall Socket, T. H.	.16
<i>Rosewindow</i>	20252	“ “ “ W. H.	.16
<i>Rosetoad</i>	20253	Keyless Wall Socket, T. H.	.13
<i>Roset</i>	20268	“ “ “ W. H.	.13



No. 117.

*Exclusively* 117 T. H. Porcelain Weatherproof Socket, P. & S. .18

The standard length of wire in this Waterproof Socket is 8 inches. We can, however, furnish them to order with wires of any length. Where it is desired to drop lamps a considerable distance from mains, it is an advantage to have wires long, so as to avoid splicing the wire.



No. 108.

“P. & S.” China Wall Socket Receptacles.

We make these Receptacles in three different styles as shown. All have backs thus insuring high insulation. We use the same wire connection as is used in our Combination Rosette.



No. 111.

<i>Exclamatory</i>	108	With small back for Thomson-Houston Base	.13
<i>Exclude</i>	109	“ “ Westinghouse Base	.13



No. 114.

<i>Excluded</i>	111	With large back for Thomson-Houston Base	.17
<i>Exclamative</i>	112	“ “ Westinghouse Base	.17

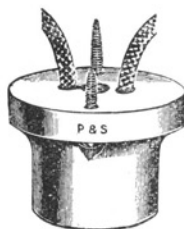
<i>Exclusion</i>	114	With small back and screw for Thomson-Houston Base	.17
<i>Excluding</i>	115	With small back and screw for Westinghouse Base	.17

## Fusible Wall Socket Receptacles.



No. 8835.

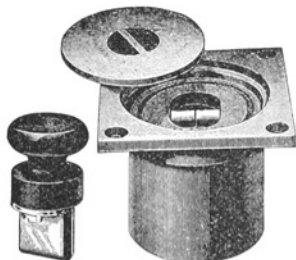
Code Word.	List No.	List Price, Each.
<i>Discredit</i>	8836	Concealed, for Thomson-Houston Base..... \$0.17
<i>Discreet</i>	8837	" " Westinghouse Base ..... .17
<i>Discretion</i>	8839	Open, for Thomson-Houston Base ..... .17
<i>Discriminate</i>	8840	" " Westinghouse Base..... .17
<i>Discuss</i>	8842	Cleat and Concealed, for Thomson-Houston Base ..... .19
<i>Donald</i>	8843	" " " Westinghouse Base ... .19
<i>Dorcas</i>	8845	Moulding and Concealed, for Thomson-Houston Base ..... .19
<i>Dorinder</i>	8846	Moulding and Concealed, for Westinghouse Base..... .19
<i>Duncan</i>	8848	Full Combination, for Thomson-Houston Base..... .19
<i>Dunb</i>	8849	" " " Westinghouse Base..... .19



No. 20266.

## P. &amp; S. Waterproof Receptacle.

<i>Roselly</i>	20266	Waterproof Receptacle, for Thomson-Houston Base..... .20
<i>Rossignol</i>	20267	Waterproof Receptacle, for Westinghouse Base ..... .20

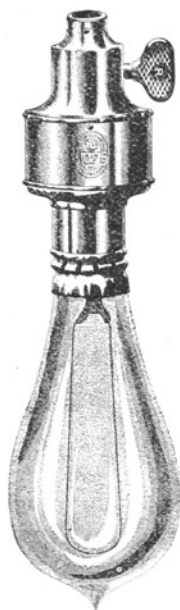


No. 6001.

No. 6000.

## Edison Key and Keyless Lamp Receptacles—

Code Word.	List No.	List Price
<i>Excising</i>	6000	Iron Stage Box and Receptacle, capacity 50 amperes, each..... \$ 4.50
<i>Excision</i>	6001	Attaching Plug for No. 6000, each..... 1.50



### Rie's Regulating Sockets.

For Alternating Current Circuits, light can be regulated from dull red to full candle power, and the consumption of candle power controlled accordingly.

#### For Thomson-Houston Base Lamps.

Code Word	List No	Volts	Candle Power	Price Each.
<i>Accolent</i>	25456	50 to 55	16 to 25	\$3.25
<i>Accommodating</i>	25457	50 to 55	32 to 50	4.00
<i>Accommodable</i>	25458	100 to 110	16 to 25	4.00
<i>Accommodablest</i>	25459	100 to 110	32 to 50	5.00

#### For Sawyer-Mann Base Lamps.

Code Word	List No	Volts	Candle Power	Price Each
<i>Accommodately</i>	25460	50 to 55	16 to 25	\$3.25
<i>Accommodateness</i>	25461	50 to 55	32 to 50	4.00
<i>Accommodating</i>	25462	100 to 110	16 to 25	4.00
<i>Accomplishment</i>	25463	100 to 110	32 to 50	5.00

### Brunts' Regulating Socket.

Controls the electric light same as gas. Five degrees of light with a positive saving of current when turned down.

This Regulating Socket is for 16 candle power Incandescent Lights. It is adapted to direct or alternating current; any voltage from 50 to 118. By the simple turning of Key you raise or lower your light from 2 to 16 candle power and consequently save your current when turned down. This Socket is valuable for the Sick Room, Vestibules and Sleeping apartments.

In ordering please state voltage and base (T. H. or Edison.)

#### Thomson-Houston Base.

Code Word	List No.	Volts	Candle Power	Price Each
<i>Accomplish</i>	25464	50 to 55	16	\$2.00
<i>Accomplishable</i>	25465	100 to 118	16	2.00

#### Edison Base.

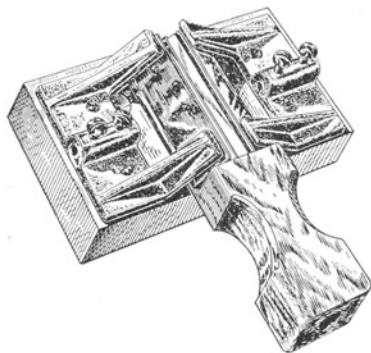
<i>Accomplish</i>	25466	50 to 55	16	2.00
<i>Accomplishment</i>	25467	100 to 118	16	2.00



No. 21488.



No. 21489.



No. 20862.

<i>Saintologist</i>	20862	Complete	3.20
<i>Saintship</i>	20863	Without plug	2.50
<i>Sajene</i>	20864	Plug only	.70



No. 25404.



No. 24492.

## Weatherproof Sockets.

Type "D." for Shade Holder.

Code Word.	List No	B. E. No	List Price, Each.
<i>Villoger</i>	24488	1104 Thomson-Houston Base.	\$0.20
<i>Vigorous</i>	24489	1105 Westinghouse	.20

Regular length of wire is 12 inches Special length to special order

The rim at the bottom of the socket is a new feature designed to hold the shadeholder

## No. 2A Brush Swan Socket.

<i>Sufa</i>	24490	1113 Brush-Swan Base, Key	.30
<i>Sulfanara</i>	24491	1114 " " Keyless	.24
<i>Aontalepsy</i>	25402	1116 " " Key Wall	.34
<i>Aonter</i>	25403	1117 " " Keyless Wall	.32

## Stage Receptacle.

The Jaws and Wire Connectors are made in one piece, of heavy cast brass. The face of the Jaws are pure tempered copper, securely fastened

The handle is made of hard wood, appropriate for the purpose. The portion of the plug which enters the jaws is triangular in section, on two faces of which are secured heavy copper strips. These strips make a contact with the jaws and are also connected with the flexible cable which enters the handle of the plug through the hole in the end.

## Attachment Plugs.

Enameled Wood Handle not Fusible.

<i>Aortis</i>	25404	1163 United States Base.	.15
<i>Salfatura</i>	24492	1115 Brush-Swan Base	.15



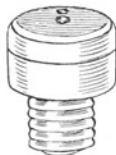


No. 867.

## Attachment Plugs.

Not Fusible—Wood Handle. With Metal Base.

Code Word.	List No.		List Price.
<i>Cetacean</i>	867	For Thomson-Houston System, each.....	\$0.25
<i>Cetaceous</i>	1867	" Westinghouse " " .....	.25
<i>Cetic</i>	2867	" Edison " " .....	.25



No. 25292



No. 25293

<i>Abeyssa</i>	25292	Attaching Plug for Standard Lamp Socket, Porcelain.....	.30
<i>Abeyssin</i>	25293	Attaching Plug for T.-H. Lamp Socket, polished .....	.30

## Attachment Plugs.

Fusible—All Parts Brass and Porcelain.

The metal cover can be removed by giving it a quarter turn; the fuse is then easily inserted.



No. 923.

<i>Bawling</i>	923	For Thomson-Houston Socket, each.....	.40
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No. 924.

<i>Beach</i>	924	For Westinghouse Sockets, each.....	.40
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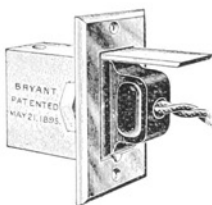


No. 925.

<i>Bacon</i>	925	For Edison Sockets, each.....	.40
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Receptacle closed—not in use.

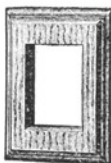


39.

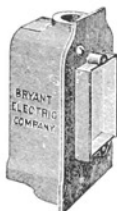
Code Word.  
*Suitlike*  
*Suitliness*  
*Suintly*  
*Forn*  
*Fanatic*



No. 20861.



No. 262.



No. 26002.



No. 26006.



No. 26007.



No. 26008.

## The Chapman Receptacle.

Patented May 21, 1895.

The Chapman Receptacle is placed in the wall, base-board or floor. When not in use the lid is closed—the plug being removed—and the face plate is flush, out of the way. All plugs are fused to thirty amperes, and are interchangeable.

Modern methods require a receptacle of this character placed in the base-board at every point where there is a possibility that current may be required for fan motors, desk lights, electrical heating devices or hospital work.

Distance between screw centers of face plate is  $3\frac{1}{2}$  inches. Size of face plate is  $3\frac{1}{2}$  x  $2\frac{1}{4}$  inches.

List No.	B. E. No.	Description	List Price.
20859	1108	Complete with lid and plug.....	\$3.00
20860	1109	" " plug, no lid.....	2.50
20861	1110	Chapman Attaching plug only.....	1.50
26000	1111	Receptacle only, with lid.....	1.50
26001	1112	" " no lid.....	1.00

Prices cover light bronze face plates. Special finishes to order.

## Woods Mats for Chapman Receptacles.

The Wooden Mat is furnished singly or in gangs to order, in any wood desired. It offers a convenient device for concealing the broken edges of the plastering made in cutting away for the receptacle.

<i>Discount</i>	262	1127	Wooden Mats, single switch, each.....	.30
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The above price covers the common woods, for rare and expensive woods special prices will be quoted.

## Iron Wall Boxes for Chapman Receptacles.

<i>Thimble</i>	26002	1118	1 Outlet at one end only.....	.80
<i>Reel</i>	26003	1227	2 " " " ".....	.80
<i>Needless</i>	26004	1228	2 " " " " 1 at other end..	.80
<i>Reeling</i>	26005	1229	1 " " at each end.....	.80

These boxes are lined with porcelain enamel and are guaranteed to withstand an alternating current of 2,000 volts. Distance between screw centers is  $3\frac{1}{2}$  inches, adapting it for use with the Chapman Receptacle or any Standard Push Button Switch on the market.

## The Chapman Bracket Receptacle.

Adapted for use with any Standard  $\frac{1}{2}$  inch Bracket made from  $\frac{3}{8}$ -inch brass tubing. Regular finish is polished brass. Special finish to special order. Distance between screw centers of face plate is  $3\frac{1}{2}$  inches. Diameter of face plate is  $\frac{1}{4}$  inches.

<i>Tiger</i>	26006	1128	Bracket Receptacle complete with Plug No. 1129.....	4.50
<i>Tipler</i>	26007	1183	Bracket Receptacle only.....	2.50
<i>Tigress</i>	26008	1129	" Plug only.....	2.00

Chapman Attaching plugs, No. 20861 and 26008 are interchangeable and can be used either with No. 20859 or No. 26007.







<i>Painting</i>	26009	1182	Dummy Plug for No. 26007.....	1.00
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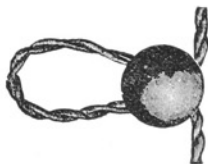
This is merely a wood plug with brass plate, designed to fill the receptacle opening when not in use.

# INCANDESCENT SUPPLIES.

## MISCELLANEOUS.

### Socket Bushings.

				
No. 3630.				
				
No. 3632.				
				
No. 3634.				
				
No. 3636.				
				
No. 3637.				
				
No. 2927.				
	Code Word.	List No.		List Price.
	<i>Anchored</i>	3630	Genuine Hard Rubber, $\frac{1}{4}$ inch, per 1,000.....	\$20.00
	<i>Anchress</i>	3631	Composition, $\frac{1}{4}$ inch, per 1,000.....	8.00
	<i>Anchorite</i>	3632	Genuine Hard Rubber, $\frac{1}{4}$ inch, per 1,000.....	30.00
	<i>Anchoring</i>	3633	Composition, $\frac{1}{4}$ inch, per 1,000.....	9.00
	<i>Anchoy</i>	3634	Genuine Hard Rubber, $\frac{1}{4}$ inch, per 1,000.....	30.00
	<i>Ancient</i>	3635	Composition, $\frac{1}{4}$ inch, per 1,000.....	12.00
	<i>Anciently</i>	3636	Soft Rubber, per 1,000.....	7.00
	<i>Ancipital</i>	3637	Genuine Hard Rubber, $\frac{1}{4}$ inch, per 1,000.....	30.00
	<i>Cemetery</i>	2927	Polished Brass and Hard Rubber Fixture Bushing, each.....	.25



No. 3457.

## Cord Adjusters.

Code Word.	List No.	List Price.
<i>Bindingly</i>	3457	Ball Cord Adjuster, stained cherry, per 1,000.... \$7.00
<i>Aum</i>	25100	" " black enamel..... " 11.50



No. 3651.

<i>Beamfird</i>	3651	Bar Cord Adjuster, wood, per 1,000..... 7.00
<i>Aardteark</i>	25101	" " hard rubber, per 100..... 7.00



No. 5559.

<i>Idling</i>	5559	"Q and S" Cord Adjuster, each..... .04
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No. 3561.

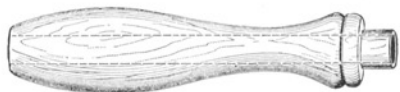
<i>Idiotic</i>	3561	Dumb Bell Cord Adjuster, per 1,000..... 8.00
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No. 1337.

## Socket Handles.

<i>Idler</i>	1337	Two Piece, screw top, per 1,000.... 15.00
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No. 3556.

<i>Illness</i>	3556	One Piece, per 1,000..... 12.50
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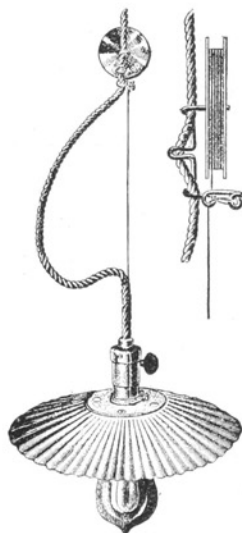


No. 20760.

### The Dow Cord Adjuster.

The Dow Adjuster is a thoroughly reliable device for instantly raising or lowering any electric light, and is especially adapted for stores, offices, libraries and hospitals. Can be operated with one hand; is not liable to get out of order, and is much safer than long cords, as the cord when not in use can be rolled up out of the way. In most places the Adjuster can be placed on the cord now in use. It is three inches in diameter and holds twelve feet of cord.

<i>Saddleshore</i>	<b>20760</b>	Nickel-plated, per doz.....	<b>\$20.00</b>
<i>Saddler</i>	<b>20761</b>	Gilt, " .....	<b>18.00</b>



No. 20762.

### The Disc Cord Adjuster.

It is round, scarce two and a quarter inches in diameter; it is flat, a thickness of but little more than a quarter of an inch. It is in shape like a spool of small height and large diameter; it is hollow, and in its inside is a well tempered spiral spring. A wire twisted into a peculiar shape, fastens this little device to a lamp cord. In the spool-like groove is wound a cord which passes through the loop, extending from the side wire. Fasten it to the lamp cord, pull this cord out the entire length; this winds up the spring, and while the cord is extended fasten it to the lamp cord. You can then raise your lamp to any desired height. It will stay there until you change it.

<i>Saddleshore</i>	<b>20762</b>	Each .....	<b>.50</b>
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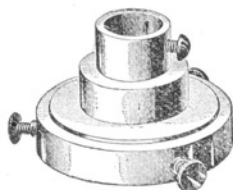
No. 8691.

### Perfection Desk or Music Rack Clamp.

Sold complete, including half shade of opal, red, blue, green or yellow glass or of aluminum.

<i>Crimful</i>	<b>8691</b>	Brass, each .....	<b>3.50</b>
<i>Custler</i>	<b>8692</b>	Nickel, " .....	<b>4.00</b>

In ordering, state kind of socket required.



No. 3618.

## Shade Holder for Cluster Lights.

Slips  $\frac{3}{8}$  Inch Tube.

Code Word.	List No.	List Price.
<i>Caloric</i>	3618 $2\frac{1}{2}$ Inch, each.....	\$0.30
<i>Calorife</i>	3619 $3\frac{1}{2}$ " " .....	.40



No. 3803.

## Acme Shade Holder.

Will Fit Any Socket.

<i>Belong</i>	3803 $2\frac{1}{2}$ Inch, per gross.....	10.00
<i>Belonging</i>	3804 $3\frac{1}{2}$ " " .....	15.00



No. 3198.

## Socket Rings.

<i>American</i>	3197 Hard Rubber Ring for Standard Edison Socket, each.....	.15
<i>Amethyst</i>	3198 Porcelain Ring for Standard Edison Socket, each.....	.10



No. 2694.

<i>Exclamation</i>	2694 Soft Rubber Socket Cover, each.....	.10
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No. 8723.

## Gas Attachments.

<i>Censorial</i>	8723 Polished Brass, per 100.....	10.00
<i>Ancient</i>	3635 Composition Fixture Bushing for same, per 1,000.....	12.00
<i>Anchoy</i>	3634 Hard Rubber " " " " .....	30.00
<i>Censurable</i>	8724 Polished Brass, per 100.....	9.00
<i>Ancient</i>	3635 Composition Fixture Bushing for same, per 1,000.....	12.00
<i>Anchoy</i>	3634 Hard Rubber " " " " .....	30.00



No. 8724.



No. 239.

<i>Census</i>	239	Stamped Brass, not polished, per 100.....	\$ 5.00
<i>Centage</i>	240	"    "    polished,    "    .....	7.00



No. 8677.

**Iron Duopod.**

<i>Lank</i>	8677	Tapped $\frac{1}{4}$ to $\frac{1}{2}$ inch, per dozen.....	1.00
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No. 8678.

**Iron Tripod.**

<i>Languishment</i>	8678	Per dozen.....	.75
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No. 8679.

**Iron Crowfoot.**

<i>Languor</i>	8679	Per dozen.....	.70
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No. 8680.



No. 8681.

**Iron Chandelier Loops.**

<i>Languishing</i>	8680	Closed, per dozen.....	3.00
<i>Lantern</i>	8681	Closed, per dozen.....	3.00



No. 8682.

<i>Lanyard</i>	8682	Open, $\frac{1}{2}$ inch, per dozen.....	3.00
<i>Lapdog</i>	8683	" $\frac{3}{8}$ "    "    .....	3.00
<i>Lapful</i>	8684	" $\frac{1}{2}$ "    "    .....	3.00



No. 8983.

## Lacquer Radiant.

### For Coloring Incandescent Lamps.

The advantages of this material are: Cheapness, richness and permanency of color, and simplicity of application.

#### 16 Ounce Bottle.

Code Word.	List No.		List Price
<i>Centennial</i>	8983	Ruby, per bottle.....	\$ 2.00
<i>Centering</i>	8984	Amber, " .....	2.00
<i>Centesimal</i>	8985	Blue, " .....	2.00
<i>Centigrade</i>	8986	Green, " .....	2.00
<i>Centime</i>	8987	Orange, " .....	2.00
<i>Centipede</i>	8988	Violet, " .....	2.00

#### 6-Ounce Bottle.

<i>Mantau</i>	14850	Ruby, per bottle.....	.80
<i>Manoka</i>	14851	Amber, " .....	.80
<i>Manteno</i>	14852	Blue, " .....	.80
<i>Manton</i>	14853	Green, " .....	.80
<i>Mancille</i>	14854	Orange, " .....	.80
<i>Mapimi</i>	14855	Violet, " .....	.80

Full directions with each bottle.



No. 8989.

## Frosting Varnish.

### For Frosting Incandescent Lamps.

Contains no acid, is perfectly harmless and easily applied.

<i>Centenary</i>	8989	Per 16-oz. bottle.....	
<i>Centallo</i>	14856	Per 6-oz. bottle.....	.80



No. 8990.

## Metal Dipping Cup.

For Use with Lacquer Radiant and Frosting Varnish.

<i>Centour</i>	8990	Each.....	.40
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## The Macallen Solid Mica Insulating Joint.



Registered July 31, 1894.



No. 1001.

These Joints have been approved and recommended by the Boards of Fire Underwriters throughout the country, and are recognized by the trade as the standard insulating joint.

All our joints are tested electrically to 2500 volts, and all our combination joints are tested under high atmospheric pressure, and we guarantee them not to leak gas.

## IN COMPOSITION BRASS.

## Combination.

<i>Cormorant</i>	1001	$\frac{3}{8} \times \frac{1}{2}$ , each	\$0.50
<i>Corn</i>	1002	$\frac{3}{8} \times \frac{1}{2}$ , "	.50
<i>Cornea</i>	1003	$\frac{3}{8} \times \frac{1}{2}$ , "	.50
<i>Cornet</i>	1004	$\frac{1}{2} \times \frac{1}{2}$ , "	.66 $\frac{2}{3}$
<i>Cornelia</i>	1005	$\frac{1}{2} \times \frac{1}{2}$ , "	.66 $\frac{2}{3}$
<i>Cornelius</i>	1006	$\frac{1}{2} \times \frac{1}{2}$ , "	.66 $\frac{2}{3}$
<i>Corner</i>	1007	$\frac{1}{2} \times \frac{1}{2}$ , "	.66 $\frac{2}{3}$
<i>Cornet</i>	1008	$\frac{1}{2} \times \frac{1}{2}$ , "	1.00
<i>Cornetcy</i>	1009	$\frac{1}{2} \times \frac{1}{2}$ , "	1.00
<i>Cornish</i>	1010	$\frac{1}{2} \times \frac{1}{2}$ , "	1.00
<i>Cornucopia</i>	1011	$\frac{1}{2} \times \frac{1}{2}$ , "	1.00
<i>Corollary</i>	1012	$\frac{1}{2} \times \frac{1}{2}$ , "	1.00
<i>Corona</i>	1013	1 x $\frac{1}{2}$ , "	1.60
<i>Coronal</i>	1014	1 x $\frac{1}{2}$ , "	1.60
<i>Coronary</i>	1015	1 x 1, "	1.60
<i>Coroner</i>	1016	1 $\frac{1}{2}$ x 1, "	2.20
<i>Corporal</i>	1017	1 $\frac{1}{2}$ x 1 $\frac{1}{2}$ , "	2.20
<i>Corporally</i>	1018	1 $\frac{1}{2}$ x 1 $\frac{1}{2}$ , "	4.00
<i>Corporate</i>	1019	2 x 2, "	6.00

Larger sizes made to order, special prices.

## Blank.

<i>Corporation</i>	1021	$\frac{3}{8} \times \frac{1}{2}$ , each	.50
<i>Corpulence</i>	1022	$\frac{3}{8} \times \frac{1}{2}$ , "	.50
<i>Corpulent</i>	1023	$\frac{3}{8} \times \frac{1}{2}$ , "	.50
<i>Corrective</i>	1024	$\frac{1}{2} \times \frac{1}{2}$ , "	.66 $\frac{2}{3}$
<i>Conducting</i>	1025	$\frac{1}{2} \times \frac{1}{2}$ , "	.66 $\frac{2}{3}$
<i>Conduction</i>	1026	$\frac{1}{2} \times \frac{1}{2}$ , "	.66 $\frac{2}{3}$
<i>Conductor</i>	1027	$\frac{1}{2} \times \frac{1}{2}$ , "	.66 $\frac{2}{3}$
<i>Cone</i>	1028	$\frac{1}{2} \times \frac{1}{2}$ , "	1.00
<i>Confab</i>	1029	$\frac{1}{2} \times \frac{1}{2}$ , "	1.00
<i>Confederacy</i>	1030	$\frac{1}{2} \times \frac{1}{2}$ , "	1.00
<i>Confederate</i>	1031	$\frac{1}{2} \times \frac{1}{2}$ , "	1.00
<i>Confederating</i>	1032	$\frac{1}{2} \times \frac{1}{2}$ , "	1.00
<i>Confederation</i>	1033	1 x $\frac{1}{2}$ , "	1.60
<i>Confer</i>	1034	1 x $\frac{1}{2}$ , "	1.60
<i>Conference</i>	1035	1 x 1, "	1.60
<i>Confess</i>	1036	1 $\frac{1}{2}$ x 1, "	2.20
<i>Confessedly</i>	1037	1 $\frac{1}{2}$ x 1 $\frac{1}{2}$ , "	2.20
<i>Confessing</i>	1038	1 $\frac{1}{2}$ x 1 $\frac{1}{2}$ , "	4.00
<i>Confessor</i>	1039	2 x 2, "	6.00

Larger sizes made to order, special prices.

## The Macallen Solid Mica Insulating Joint.

## IN MALLEABLE IRON.

Code Word.	List No.	Combination.	List Price.
<i>Confineless</i>	1041	$\frac{3}{4} \times \frac{1}{2}$ , each.....	\$0.45
<i>Confinement</i>	1042	$\frac{3}{4} \times \frac{1}{2}$ , ".....	.45
<i>Confiner</i>	1043	$\frac{3}{4} \times \frac{3}{8}$ , ".....	.45
<i>Confirm</i>	1044	$\frac{1}{2} \times \frac{1}{2}$ , ".....	.60
<i>Confirmable</i>	1045	$\frac{1}{2} \times \frac{1}{2}$ , ".....	.60
<i>Confiscate</i>	1046	$\frac{1}{2} \times \frac{3}{8}$ , ".....	.60
<i>Confiscating</i>	1047	$\frac{1}{2} \times \frac{1}{2}$ , ".....	.60
<i>Confidant</i>	1048	$\frac{3}{4} \times \frac{3}{8}$ , ".....	.90
<i>Confide</i>	1049	$\frac{3}{4} \times \frac{1}{2}$ , ".....	.90
<i>Confidence</i>	1050	$\frac{3}{4} \times \frac{3}{8}$ , ".....	.90
<i>Confidently</i>	1051	1 x $\frac{1}{2}$ , ".....	1.45
<i>Confiding</i>	1052	1 x $\frac{1}{2}$ , ".....	1.45
<i>Confine</i>	1053	1 x 1, ".....	1.45

## Blank.

<i>Conform</i>	1061	$\frac{3}{4} \times \frac{1}{2}$ , each.....	.45
<i>Conformable</i>	1062	$\frac{3}{4} \times \frac{1}{2}$ , ".....	.45
<i>Conformation</i>	1063	$\frac{3}{4} \times \frac{3}{8}$ , ".....	.45
<i>Conformed</i>	1064	$\frac{1}{2} \times \frac{1}{2}$ , ".....	.60
<i>Conforming</i>	1065	$\frac{1}{2} \times \frac{1}{2}$ , ".....	.60
<i>Conformist</i>	1066	$\frac{1}{2} \times \frac{3}{8}$ , ".....	.60
<i>Conformity</i>	1067	$\frac{1}{2} \times \frac{1}{2}$ , ".....	.60
<i>Confiscator</i>	1068	$\frac{3}{4} \times \frac{3}{8}$ , ".....	.90
<i>Confugration</i>	1069	$\frac{3}{4} \times \frac{1}{2}$ , ".....	.90
<i>Conflict</i>	1070	$\frac{3}{4} \times \frac{1}{2}$ , ".....	.90
<i>Conflicting</i>	1071	1 x $\frac{1}{2}$ , ".....	1.45
<i>Confluence</i>	1072	1 x $\frac{1}{2}$ , ".....	1.45
<i>Confluent</i>	1073	1 x 1, ".....	1.45

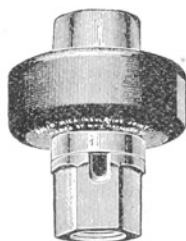
## Electrolier or Separable Joint.

## IN MALLEABLE IRON.

<i>Confound</i>	1101	$\frac{3}{4} \times \frac{1}{2}$ , each.....	.50
<i>Confounded</i>	1102	$\frac{3}{4} \times \frac{1}{2}$ , ".....	.50
<i>Confounding</i>	1103	$\frac{3}{4} \times \frac{3}{8}$ , ".....	.50
<i>Confront</i>	1104	$\frac{1}{2} \times \frac{1}{2}$ , ".....	.66%
<i>Confrontant</i>	1105	$\frac{1}{2} \times \frac{1}{2}$ , ".....	.66%
<i>Confrontation</i>	1106	$\frac{1}{2} \times \frac{3}{8}$ , ".....	.66%
<i>Confronted</i>	1107	$\frac{1}{2} \times \frac{1}{2}$ , ".....	.66%
<i>Confronting</i>	1110	$\frac{1}{2} \times \frac{1}{2}$ , ".....	1.00
<i>Confrontment</i>	1111	$\frac{3}{4} \times \frac{1}{2}$ , ".....	1.00

## IN COMPOSITION BRASS.

<i>Confuse</i>	1081	$\frac{3}{4} \times \frac{1}{2}$ , each.....	.60
<i>Confused</i>	1082	$\frac{3}{4} \times \frac{1}{2}$ , ".....	.60
<i>Confusedly</i>	1083	$\frac{3}{4} \times \frac{3}{8}$ , ".....	.60
<i>Confusedness</i>	1084	$\frac{1}{2} \times \frac{1}{2}$ , ".....	.80
<i>Confusing</i>	1085	$\frac{1}{2} \times \frac{1}{2}$ , ".....	.80
<i>Confusion</i>	1086	$\frac{1}{2} \times \frac{3}{8}$ , ".....	.80
<i>Confutable</i>	1087	$\frac{1}{2} \times \frac{1}{2}$ , ".....	.80
<i>Confutation</i>	1090	$\frac{1}{2} \times \frac{1}{2}$ , ".....	1.20
<i>Confute</i>	1091	$\frac{1}{2} \times \frac{1}{2}$ , ".....	1.20



No. 1101.



No. 1141.

## The Macallen Solid Mica Bracket Joint.

IN MALLEABLE IRON

## Combination.

Code Word.	List No.		List Price.
<i>Confuted</i>	1141	$\frac{1}{2}$ in. $\times$ $\frac{1}{2}$ in., each	\$0.36
<i>Confuting</i>	1142	$\frac{1}{2}$ in. $\times$ $\frac{3}{8}$ in., "	.36
<i>Congcal</i>	1143	$\frac{1}{2}$ in. $\times$ $\frac{1}{2}$ in., "	.36
<i>Congcaling</i>	1144	$\frac{1}{2}$ in. $\times$ $\frac{3}{8}$ in., "	.50
<i>Congcalation</i>	1145	$\frac{1}{2}$ in. $\times$ $\frac{1}{2}$ in., "	.50
<i>Congener</i>	1146	$\frac{1}{2}$ in. $\times$ $\frac{3}{8}$ in., "	.50

## Blank.

<i>Congerica</i>	1151	$\frac{1}{2}$ in. $\times$ $\frac{3}{8}$ in., each	.36
<i>Congenial</i>	1152	$\frac{1}{2}$ in. $\times$ $\frac{1}{2}$ in., "	.36
<i>Congenital</i>	1153	$\frac{1}{2}$ in. $\times$ $\frac{1}{2}$ in., "	.36
<i>Congest</i>	1154	$\frac{1}{2}$ in. $\times$ $\frac{3}{8}$ in., "	.50
<i>Congestible</i>	1155	$\frac{1}{2}$ in. $\times$ $\frac{1}{2}$ in., "	.50
<i>Congestion</i>	1156	$\frac{1}{2}$ in. $\times$ $\frac{3}{8}$ in., "	.50

IN COMPOSITION BRASS.

## Combination.

<i>Congression</i>	1121	$\frac{1}{2}$ in. $\times$ $\frac{1}{2}$ in., each	.40
<i>Congruent</i>	1122	$\frac{1}{2}$ in. $\times$ $\frac{1}{2}$ in., "	.40
<i>Conically</i>	1123	$\frac{1}{2}$ in. $\times$ $\frac{1}{2}$ in., "	.40
<i>Conifer</i>	1124	$\frac{1}{2}$ in. $\times$ $\frac{3}{8}$ in., "	.54
<i>Coniform</i>	1125	$\frac{1}{2}$ in. $\times$ $\frac{1}{2}$ in., "	.54
<i>Conjecture</i>	1126	$\frac{1}{2}$ in. $\times$ $\frac{3}{8}$ in., "	.54

## Blank.

<i>Conjoin</i>	1131	$\frac{1}{2}$ in. $\times$ $\frac{1}{2}$ in., each	.40
<i>Conjoint</i>	1132	$\frac{1}{2}$ in. $\times$ $\frac{1}{2}$ in., "	.40
<i>Conjointly</i>	1133	$\frac{1}{2}$ in. $\times$ $\frac{1}{2}$ in., "	.40
<i>Conjointness</i>	1134	$\frac{1}{2}$ in. $\times$ $\frac{3}{8}$ in., "	.54
<i>Conjugal</i>	1135	$\frac{1}{2}$ in. $\times$ $\frac{1}{2}$ in., "	.54
<i>Conjugate</i>	1136	$\frac{1}{2}$ in. $\times$ $\frac{3}{8}$ in., "	.54



No. 8790.

## "P. &amp; S." China Insulating Joint.

<i>Cenobile</i>	8790	$\frac{1}{2}$ in. $\times$ $\frac{1}{2}$ in., $2\frac{1}{2}$ in. diameter, each	.27
<i>Cenobitic</i>	8791	$\frac{1}{2}$ in. $\times$ $\frac{1}{2}$ in., " next to wall, $2\frac{1}{2}$ in. diameter, each,	.27
<i>Cenotaph</i>	8792	$\frac{1}{2}$ in. $\times$ $\frac{1}{2}$ in., " " " " " " " " " " " "	.27
<i>Censor</i>	8793	$\frac{1}{2}$ in. $\times$ $\frac{1}{2}$ in., $2\frac{1}{2}$ in. diameter, each	.27
<i>Cosket</i>	8794	$\frac{1}{2}$ in. $\times$ $\frac{1}{2}$ in., " next to wall, $2\frac{1}{2}$ in. diameter, each,	.33
<i>Caspian</i>	8795	$\frac{1}{2}$ in. $\times$ $\frac{1}{2}$ in., " " " " " " " " " "	.33
<i>Cassock</i>	8796	$\frac{1}{2}$ in. $\times$ $\frac{1}{2}$ in., " " " " " " " " " "	.33
<i>Castinet</i>	8797	$\frac{1}{2}$ in. $\times$ $\frac{1}{2}$ in., $2\frac{1}{2}$ in. diameter, each	.33
<i>Castaway</i>	8798	$\frac{1}{2}$ in. $\times$ $\frac{1}{2}$ in., " next to wall, 3 in. diameter, each,	.38
<i>Caste</i>	8799	$\frac{1}{2}$ in. $\times$ $\frac{1}{2}$ in., " " " " " " " " " "	.38
<i>Castellan</i>	8800	$\frac{1}{2}$ in. $\times$ $\frac{1}{2}$ in., 3 in. diameter, each	.38



## Tested Fuse Wire and Ribbon.

### Fuse Wire.

Code Word.	List No.	Dia. Mils.	Carry. Cap. Amp.	Std. Lgth.	Ft. lb.	Price per lb.
<i>Abaisance</i>	25113	10	$\frac{1}{2}$	1½ inches	2700	Special
<i>Roundshoulder</i>	20352	17	$\frac{1}{2}$	1½ "	950	<b>\$2.75</b>
<i>Roundtrade</i>	20354	20	1	1½ "	670	1.10
<i>Roundtray</i>	20355	23	1½	1½ "	510	1.05
<i>Roupp</i>	20356	25	2	1½ "	430	1.05
<i>Rousant</i>	20357	27	3	1½ "	370	1.00
<i>Rouse</i>	20358	30	4	1½ "	300	1.00
<i>Rouser</i>	20359	35	5	2 "	220	1.00
<i>Rousing</i>	20360	38	6	2 "	185	.85
<i>Rousingly</i>	20361	44	7	2 "	140	.85
<i>Roust</i>	20362	47	8	2 "	120	.80
<i>Rout</i>	20363	54	9	2 "	93	.80
<i>Route</i>	20364	58	10	2 "	80	.80
<i>Routine</i>	20365	62	12	3 "	70	.80
<i>Routously</i>	20366	68	14	3 "	60	.80
<i>Rovee</i>	20367	70	15	3 "	52	.75
<i>Rover</i>	20368	73	16	3 "	49	.75
<i>Roving</i>	20369	78	18	3 "	43	.75
<i>Rovingly</i>	20370	86	20	4 "	36	.75
<i>Rovingness</i>	20372	90	25	4 "	32	.75
<i>Rovingshot</i>	20373	100	30	4 "	26	.75
<i>Roure</i>	20374	110	36	4 "	22	.75
<i>Rovable</i>	20375	122	40	4 "	18	.75
<i>Roucentree</i>	20376	126	45	4 "	17	.75
<i>Rouebout</i>	20377	147	50	5 "	12.5	.75
<i>Rouedgish</i>	20379	160	60	5 "	10.3	.70
<i>Rouel</i>	20380	172	70	5 "	9.0	.70
<i>Rouecu</i>	20381	178	75	5 "	8.3	.70
<i>Roueer</i>	20382	190	80	5 "	7.5	.70
<i>Rouett</i>	20383	196	90	5 "	6.7	.70
<i>Roueyruggy</i>	20384	220	100	5 "	5.5	.70

$\frac{1}{2}$  to 35 Amp. inclusive, on 1 lb. spools. 40 to 100 Amp. inclusive, on 2 lb. spools.

### Tested Fuse Ribbon.

	Carrying Capacity Amperes.	Length in ins.	Size in inches.	Feet per lb.	Price per lb.
<i>Rouelock</i>	20385	50	4 .36 x .047	12.5	<b>\$0.65</b>
<i>Rouiser</i>	25114	60	4 .44 x .042	11.3	.65
<i>Rouipart</i>	20386	75	4 .50 x .043	9.7	.65
<i>Abouinate</i>	25115	90	4 .66 x .045	7.0	.65
<i>Roupe</i>	20388	100	4 .38 x .078	7.0	.65
<i>Abouination</i>	25116	115	4 .44 x .092	5.2	.60
<i>Rouplet'</i>	20389	125	4 .50 x .085	4.5	.60
<i>Rouplism</i>	20390	150	4 .53 x .092	4.3	.60
<i>Rouplist</i>	20391	175	4 .66 x .095	3.3	.60
<i>Abourd</i>	25117	190	4 .75 x .094	3.0	.60
<i>Rouplize</i>	20392	200	4 .87 x .093	2.6	.60
<i>Abouabourd</i>	25118	225	4 1.0 x .095	2.2	.60
<i>Rouplly</i>	20393	250	4½ 1.0 x .113	1.8	.60
<i>Rouplly</i>	20394	300	4½ 1.0 x .15	1.4	.60
<i>Abouandor</i>	25119	400	4½ 1.0 x .19	1.1	.60
<i>Roupe</i>	20395	500	4½ 1.25 x .20	.85	.60
<i>Abouaboument</i>	25120	600	4½ 1.5 x .18	.75	.60

Furnished in coils of any length,

**Shawmut Tested Fuse Links.**

**For Rosettes.**



No. 1.

No. 1 B Terminal. 1, 2, 3, 5 Ampere. Slots  $\frac{1}{4}$  inch,  $1\frac{1}{2}$  inch centers. \$21.50

**For S. M. or Edison Main or Branch Blocks.**



No. 2  $\frac{1}{2}$  B.

No. 2  $\frac{1}{2}$  B Terminal. 5, 8, 10, 12, 15, 20, 25, 30 Ampere. Slots  $\frac{1}{2}$  inch,  $1\frac{1}{2}$  inch centers..... 33.50

**For Edison Main or Branch Blocks.**



No. 3 A.

No. 3 A Terminal. 35, 40, 45, 50, 60, 75, 90, 100 Ampere. Slots inch,  $1\frac{1}{2}$  inch centers..... 35.00

**For S. P. Blocks and Fused Switches.**

Same Terminal as above, 25, 30, 35, 40, 50 Amperes,  $2\frac{1}{2}$  inch centers. 50.00

**For S. M. Blocks and Fused Switches.**

No. 4 A Terminal. 60, 75, 90 Amperes Slots  $\frac{1}{4}$  inch,  $2\frac{1}{2}$  inch centers 55.00

**For Fuse Blocks and Switch Boards.**



No. 4 A.

	List Price, per 1000.
No. 5 A Terminal, Slots $\frac{1}{4}$ inch, $2\frac{1}{2}$ inch centers, 100, 125, 150, 175, 200 amperes.....	\$112.50
No. 6 A Terminal, Slots $\frac{1}{4}$ inch, $2\frac{1}{2}$ inch centers, 200, 225, 250, 275 amperes.....	135.00
300, 350, 400 amperes.....	165.00
500, 600 amperes.....	200.00
700, 800 amperes.....	250.00

Prices are based upon the TERMINAL used, and not upon the carrying capacity. An additional charge will be made for links over 4 inches between centers, based upon the extra metal used and the difficulty in manufacture.

In ordering, find the exact cut of the Fuse Link required, and then specify

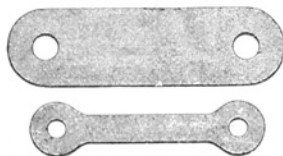
FIRST. Safe carrying capacity.

SECOND. Terminal number, *e. g.*, 1 B, 2  $\frac{1}{2}$  B, etc.

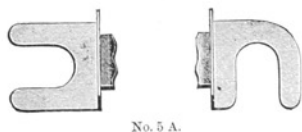
THIRD. Distance between centers of binding posts.

NOTE.—The fusing point of Shawmut Fuse Links is about 30 per cent. above safe carrying capacity.

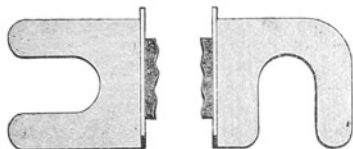
**Sawyer-Man Flat Lead Links.**



	Dist. between Center.	Amperes.	
<i>Reguish</i>	20396 $1\frac{1}{2}$ inch.	10-25	25.00
<i>Regster</i>	20397 $2\frac{1}{2}$ "	25-40	40.00
<i>Regstercon</i>	20398 $2\frac{1}{2}$ "	40-50	45.00
<i>Regtelet</i>	20399 $2\frac{1}{2}$ "	50-60	50.00
<i>Regtish</i>	20400 $2\frac{1}{2}$ "	60-80	60.00
<i>Rut</i>	20401 $2\frac{1}{2}$ "	80-125	100.00
<i>Robadob</i>	20402 $2\frac{1}{2}$ "	125-175	120.00
<i>Robato</i>	20403 $2\frac{1}{2}$ "	175-225	150.00



No. 5 A.



No. 6 A.

## Shawmut Copper Terminals.

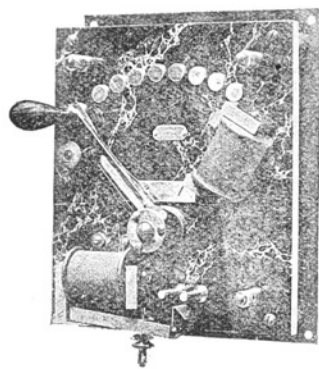
Code Word.	List No.	Number.	Maximum Capacity in Amperes	List Price per 1000.
<i>Robbige</i>	20404	1	10	9.20
<i>Robber</i>	20405	2	20	9.40
<i>Robbidge</i>	20405 $\frac{1}{2}$	2 $\frac{1}{2}$ B	30	9.40
<i>Robbish</i>	20407	3	60	12.00
<i>Robbishly</i>	20468	4	100	19.00
<i>Robble</i>	20409	4 $\frac{1}{2}$ B	100	19.20
<i>Robblestone</i>	20410	5	200	30.00
<i>Robbleroll</i>	20411	5 $\frac{1}{2}$ or 6	300	58.00
<i>Robblerark</i>	20412	5 $\frac{1}{2}$ or 6 thick	600	64.00
<i>Robbly</i>	20413	8	1000	120.00
<i>Robeliousa</i>	20414	10 C	1500	160.00
<i>Robefuricat</i>	20415	T. H. Ry	150	20.00

## Shawmut Specially Designed Fuses.

T. H. RAILWAY LINKS.			GENERATOR FUSES.			ED. UNDERGROUND FUSES.		
Amp.	Type.	Price per 1000.	Amp.	Terminal	Price per 100.	Amp.	Terminal	Price per 1000.
35	Round	\$40.00	500	No. 8 A.	\$30.00	600	No. 5 1/2 A.	\$25.00
50	"	45.00	600	"	30.00	700	"	25.00
75	"	50.00	700	"	35.00	800	"	25.00
80	"	50.00	800	"	40.00	900	"	25.00
100	"	50.00	900	"	40.00	1000	"	25.00
100	Flat	50.00	1000	"	40.00	300	No. 10 C.	30.00
150	"	60.00				400	"	30.00
200	"	75.00				500	"	35.00
						600	"	40.00
						700	"	40.00
						800	"	40.00
						900	"	50.00
						1000	"	50.00
						1200	"	65.00

GENERATOR FUSES.			ED. UNDERGROUND FUSES.		
Amp.	Terminal	Price per 100.	Amp.	Terminal	Price per 100.
100	No. 8 A.	\$25.00	100	No. 5 1/2 A.	\$15.00
150	"	25.00	150	"	15.00
200	"	25.00	200	"	18.00
250	"	25.00	250	"	18.00
300	"	25.00	300	"	20.00
350	"	25.00	400	"	20.00
400	"	25.00	500	"	20.00



20 Ampere Type.

3 B Terminal, 500 Volt Fuses, 5 inch Centers, 5 to 40 amp. capacity,	Per 100
5 A " 500 " 5 " " 20 to 60 "	\$10.00
	15.00

## Cutler-Hammer Rheostats.

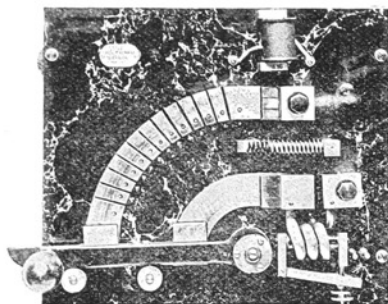
## MOTOR STARTING BOXES.

## With Automatic Release and Circuit Breaker.

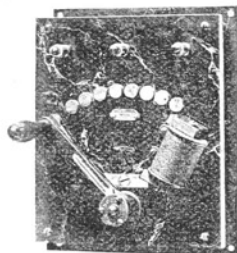
This device is a combined Starting Box and Circuit Breaker.

Should the motor become overloaded the lever immediately flies back, inserting the resistance of the Rheostat and then opening the circuit WITHOUT SPARK. No carbons for the final break are therefore necessary.

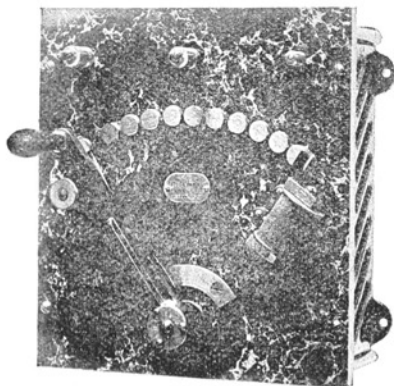
The combined device not only protects the motor from Short Circuit, Ground and Overload, but also protects the motor from interrupted current and open field circuit.



Motor Starting Box with Automatic Release.



Motor Starting Box with Magnetic Release.



Motor Starting Box with Magnetic Release.

**Cutler-Hammer Rheostats.—Continued.****Motor Starting Boxes.—Continued.****With Automatic Release and Circuit Breaker.**

Horse Power.	125 Volts.	240 Volts.	500 Volts.
$\frac{1}{4}$ to 3 .....	\$ 25.00	\$ 25.00	\$ 25.00
5 .....	37.00	37.00	37.00
7½ .....	55.00	42.00	42.00
10 .....	58.00	45.00	45.00
15 .....	65.00	60.00	52.00
20 .....	70.00	65.00	58.00
25 .....	85.00	70.00	63.00
30 .....	95.00	85.00	75.00
35 .....	105.00	90.00	90.00
40 .....	115.00	100.00	100.00
50 .....	140.00	115.00	115.00
75 .....	220.00	185.00	175.00
100 .....	280.00	250.00	225.00
150 .....	375.00	335.00	300.00
200 .....	480.00	440.00	380.00

**Motor Starting Boxes.****With Magnetic Release.**

Absolutely fire proof; built entirely of marbleized slate, metal and asbestos.

Impossible to leave the resistance in circuit and burn out the box.

Prevents injury to motor when supply of current is cut off and then suddenly turned on again.

Prevents injury to armature and commutator due to an open field circuit.

Simple durable and reliable. Only one moving part. Endorsed by the Board of Fire Underwriters.

When ordering give horse power, voltage and make of motor.

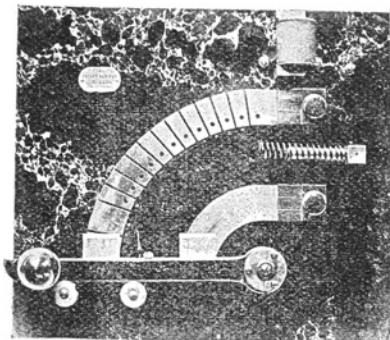
Horse Power.	125 Volts.	240 Volts.	500 Volts.
$\frac{1}{4}$ to 3 .....	\$ 15.00	\$ 15.00	\$ 15.00
5 .....	25.00	25.00	25.00
7½ .....	40.00	30.00	30.00
10 .....	43.00	33.00	33.00
15 .....	50.00	45.00	40.00
20 .....	55.00	50.00	45.00
25 .....	65.00	55.00	50.00
30 .....	73.00	65.00	60.00
35 .....	80.00	70.00	70.00
40 .....	90.00	80.00	80.00
50 .....	115.00	100.00	100.00
75 .....	190.00	165.00	150.00
100 .....	250.00	225.00	200.00
150 .....	325.00	300.00	275.00
200 .....	420.00	400.00	350.00

**SPECIAL RHEOSTATS.**

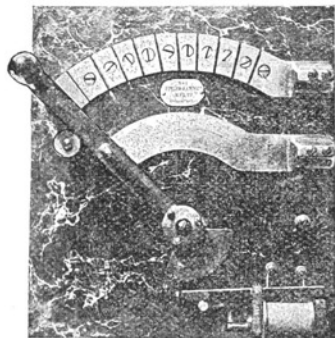
In ordering Special Rheostats the following information is necessary.

- 1st. The purpose for which the Rheostat is to be used.
- 2nd. The maximum current to be carried.
- 3rd. The maximum time the current will be flowing through the resistance of the Rheostat.
- 4th. The minimum current to be used.
- 5th. The total resistance to be required.
- 6th. The voltage of the current.
- 7th. The horse power or K.W. of the motor or dynamo used.
- 8th. The number of steps or divisions necessary on the front of Rheostat.

When provided with the exact knowledge of just what the Rheostat is expected to do, many of the above points can be determined. By giving explicit and full information prompt results can be obtained.



Motor Starting Box, with Automatic Release.  
300 Ampere Front.



Combined Motor Starting Box and  
Speed Regulator.

## Cutler-Hammer Rheostats.—Continued.

### COMBINED MOTOR STARTING BOX AND SPEED REGULATOR.

#### Automatic Release from Every Point.

Our Motor Speed Regulators, with Automatic Release, combine in one device all the advantages and protections afforded by our Automatic Release Motor Starters, in addition to the great convenience of a Speed Regulator.

The Automatic Release acts from every contact point, firmly locking the arm in position at any desired speed, and upon failure of the current, or the opening of the field circuit, automatically releases the arm, permitting it to return to the full off position.

In ordering give Horse-power, Voltage, Normal Speed, and make of Motor. Also, lowest speed desired and kind of machinery attached to the motor. Prices are based on 50 per cent. reduction of speed at full load.

H. P.	120 VOLTS.		220 VOLTS.		500 VOLTS.	
	With Autom'tic Release.	Without Autom'tic Release.	With Autom'tic Release.	Without Autom'tic Release.	With Autom'tic Release.	Without Autom'tic Release.
$\frac{1}{4}$	\$ 22.00	\$ 15.00	\$ 22.00	\$ 15.00	\$ 22.00	\$ 15.00
$\frac{1}{2}$	28.00	18.00	28.00	18.00	28.00	18.00
1	35.00	22.00	35.00	22.00	35.00	22.00
2	42.00	30.00	42.00	30.00	42.00	30.00
3	52.00	40.00	52.00	40.00	52.00	40.00
5	67.00	55.00	67.00	55.00	67.00	55.00
$7\frac{1}{2}$	85.00	70.00	85.00	70.00	85.00	70.00
10	100.00	85.00	100.00	85.00	100.00	85.00
15	125.00	110.00	120.00	105.00	100.00	85.00
20	155.00	135.00	145.00	125.00	120.00	105.00
25	185.00	160.00	175.00	150.00	145.00	125.00
30	215.00	185.00	205.00	180.00	200.00	175.00
35	250.00	210.00	240.00	205.00	235.00	200.00
40	295.00	245.00	285.00	235.00	275.00	225.00
50	390.00	300.00	340.00	290.00	325.00	275.00
75	500.00	435.00	450.00	400.00	425.00	375.00



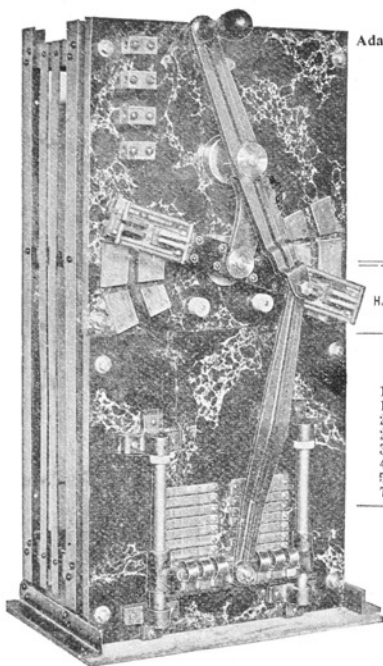
## Reversible Controllers.

For either Series or Shunt Wound Motors.

Adapted for Traveling Cranes, Locomotive Turn Tables, Conveyor:  
Swinging Bridges, Rolling Mills, Hoists,  
Unloading Vessels,

and all kinds of Electric work where the Motor is started and  
stopped, and its direction of rotation is changed a great many  
times a day

Renewable Carbon Brushes and Segments, Non-Sparkling,  
Compact and Indestructible.



H. P.	VOLTS.			DIMENSIONS OVER ALL IN INCHES.			Weight Lbs.
	110	220	500	Height.	Width.	Depth.	
3	\$120.00	\$120.00	\$120.00	30	16	14	150
5	150.00	150.00	150.00	30	16	16	175
7½	180.00	180.00	180.00	30	16	18	200
10	200.00	200.00	200.00	36	18	18	250
15	220.00	220.00	220.00	36	18	18	275
20	240.00	230.00	230.00	40	18	18	300
25	250.00	240.00	240.00	40	18	18	300
30	260.00	250.00	250.00	40	20	18	350
40	280.00	260.00	260.00	40	20	18	350
50	300.00	275.00	275.00	40	20	18	350
75	360.00	300.00	300.00	40	22	22	400

Depth includes projection of handle.

These Controllers are designed to start and stop a Motor a  
great many times a day, and to regulate the speed of the  
motor during a time not to exceed a minute or two. They  
are not designed to regulate the speed of a Motor which  
runs continuously for hours, but will not burn out even if  
abused to this extent.

In ordering always state whether a Controller  
is desired for a Shunt or Series wound Motor.

## Carpenter Enamel Rheostats.

Type "R"

Small Motor Regulating Rheostats, 1-16 to 1-6 H. P.

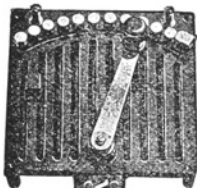


No. 20416.

Code Word.	List No.	Size of Motor in H. P.	Volts.	Capacity in Amp. Continuously.	List Price Each.
<i>Aaronic</i>	25102	$\frac{1}{8}$	125	.7	\$4.50
<i>Rubelite</i>	20416	$\frac{1}{8}$	125	1.	3.70
<i>Rubelite</i>	20417	$\frac{1}{8}$	125	1.5	3.70
<i>Rubescence</i>	20418	$\frac{1}{8}$	125	2.	4.50
<i>Rubescence</i>	20419	$\frac{1}{8}$	250	.5	4.50
<i>Rubleau</i>	20420	$\frac{1}{8}$	250	.75	4.50

## Motor Regulating Rheostats.

These Rheostats are intended for regulating the speed of motors down to one-half of the full speed under full torque, and will stand the "maximum amperes" continuously with the full switch lever on any contact.



No. 20421.

Code Word.	List No.	H. P. of Motor	Volts.	Maximum Amperes.	List Price Each.
<i>Rubicelle</i>	20421	$\frac{1}{4}$	125	2.5	8.50
<i>Rubicund</i>	20422	$\frac{1}{4}$	125	4	13.00
<i>Rubidium</i>	20423	1	125	8	17.00
<i>Rubifite</i>	20424	2	125	16	23.00
<i>Rubiforme</i>	20425	3	125	24	23.00
<i>Rubify</i>	20426	5	125	40	35.00
<i>Rubiginous</i>	20427	7 $\frac{1}{2}$	125	60	55.00
<i>Rubigo</i>	20428	10	125	80	55.00
<i>Rubine</i>	20429	15	125	120	78.00
<i>Rubious</i>	20430	20	125	150	98.00
<i>Rubric</i>	20431	25	125	190	175.00
<i>Rubrical</i>	20432	30	125	230	220.00
<i>Aaronical</i>	25103	40	125	288	260.00
<i>Aaron's rod</i>	25104	50	125	360	350.00
<i>Rubricote</i>	20433	$\frac{1}{2}$	250	1.2	8.50
<i>Rubrician</i>	20434	$\frac{1}{2}$	250	2	14.00
<i>Rubricist</i>	20435	1	250	4	17.00
<i>Rubstone</i>	20436	2	250	8	22.00
<i>Rubus</i>	20437	3	250	12	23.00
<i>Ruby</i>	20438	5	250	20	35.00
<i>Rubytail</i>	20439	7 $\frac{1}{2}$	250	30	55.00
<i>Rubycwood</i>	20440	10	250	40	55.00
<i>Rube</i>	20441	15	250	60	75.00
<i>Ruck</i>	20442	20	250	75	95.00
<i>Ructation</i>	20443	25	250	95	118.00
<i>Rud</i>	20444	30	250	115	138.00
<i>Ab</i>	25105	40	250	144	235.00
<i>Abaca</i>	25106	50	250	180	275.00
<i>Abaiscus</i>	25107	75	250	270	400.00
<i>Abacist</i>	25108	100	250	360	550.00
<i>Rudder</i>	20445	$\frac{1}{2}$	500	6	11.00
<i>Rudderoat</i>	20446	$\frac{1}{2}$	500	1	14.00
<i>Rudderoad</i>	20447	1	500	2	23.00
<i>Ruddernole</i>	20448	2	500	4	39.00
<i>Rudderness</i>	20449	3	500	6	40.00
<i>Ruddersail</i>	20450	5	500	10	55.00
<i>Ruddersant</i>	20451	7 $\frac{1}{2}$	500	15	60.00
<i>Ruddersack</i>	20452	10	500	20	60.00
<i>Ruddied</i>	20453	15	500	30	100.00
<i>Ruddle</i>	20454	20	500	38	120.00
<i>Ruddlemay</i>	20455	25	500	48	140.00
<i>Ruddock</i>	20456	30	500	58	160.00
<i>Abocot</i>	25109	40	500	72	200.00
<i>Abactor</i>	25110	50	500	90	270.00
<i>Aboculus</i>	25111	75	500	135	370.00
<i>Abaddon</i>	25112	100	500	180	500.00

## Carpenter Enamel Rheostats.—(Continued.)

## Motor Starting Rheostats.

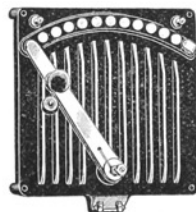
With "No Voltage" Automatic Release. Protecting Motor in case of Failure of Current from any cause.

## "IA" Type.

Code Word	List No.	H. P. of Motor.	Volts.	Max. Amp. for 15 Sec.	List Price, Each.
<i>Abernacy</i>	25180	$\frac{1}{2}$	125	2.5	\$14.50
<i>Ruddy</i>	20457	$\frac{1}{2}$	125	4.	14.50
<i>Rude</i>	20458	1	125	8.	14.50
<i>Rudely</i>	20459	2	125	16.	16.00
<i>Rudeness</i>	20460	3	125	24.	19.00
<i>Rudenture</i>	20461	5	125	40.	23.00
<i>Rudery</i>	20462	7 $\frac{1}{2}$	125	60.	28.00
<i>Ruderation</i>	20463	10	125	80.	33.00
<i>Aberate</i>	25181	15	125	120.	46.00
<i>Aberation</i>	25182	20	125	150.	46.00
<i>Aberacote</i>	25183	25	125	190.	59.00
<i>Aberacotor</i>	25184	30	125	230.	79.00
<i>Abetment</i>	25185	40	125	288.	82.00
<i>Abettal</i>	25186	50	125	360.	92.00
<i>Abettor</i>	25187	$\frac{1}{2}$	250	1.2	14.50
<i>Rodesby</i>	20464	$\frac{1}{2}$	250	2.	14.50
<i>Rudiment</i>	20465	1	250	4.	14.50
<i>Rudish</i>	20466	2	250	8.	16.00
<i>Rudity</i>	20467	3	250	12.	19.00
<i>Rudiphiae</i>	20468	5	250	20.	23.00
<i>Rue</i>	20469	7 $\frac{1}{2}$	250	30.	28.00
<i>Rueful</i>	20470	10	250	40.	32.00
<i>Ruefully</i>	20471	15	250	60.	38.00
<i>Ruelle</i>	20472	20	250	75.	41.00
<i>Aberacuation</i>	25188	25	250	95.	46.00
<i>Aberance</i>	25189	30	250	115.	66.00
<i>Aberant</i>	25190	40	250	144.	67.00
<i>Aggregate</i>	25191	50	250	180.	79.00
<i>Aggregation</i>	25192	75	250	270.	117.00
<i>Abhal</i>	25193	100	250	360.	157.00
<i>Abominable</i>	25194	$\frac{1}{2}$	500	.6	17.00
<i>Refescent</i>	20473	$\frac{1}{2}$	500	1.	17.00
<i>Ruff</i>	20474	1	500	2.	17.00
<i>Ruffed</i>	20475	2	500	4.	19.00
<i>Ruffian</i>	20476	3	500	6.	21.00
<i>Ruffianism</i>	20477	5	500	10.	26.00
<i>Ruffianly</i>	20478	7 $\frac{1}{2}$	500	15.	30.00
<i>Ruffianous</i>	20479	10	500	20.	34.00
<i>Ruffle</i>	20480	15	500	30.	36.00
<i>Rufflement</i>	20481	20	500	38.	39.00
<i>Abhor</i>	25195	25	500	48.	44.00
<i>Abhorrence</i>	25196	30	500	58.	64.00
<i>Abhorreny</i>	25197	40	500	72.	64.00
<i>Abhorrent</i>	25198	50	500	90.	78.00
<i>Abhorrently</i>	25199	75	500	135.	106.00
<i>Abhorrr</i>	25200	100	500	180.	139.00



No. 25120.



No. 25201.

## Spring Starters—Motor Starting Rheostats.

Provided with Safety Spring Switch.

## "SS" Type.

Code Word	List No.	H. P. of Motor.	Volts.	Max. Amp. for 15 Sec.	List Price, Each.
<i>Abhorrible</i>	25201	$\frac{1}{2}$	125	2.5	7.00
<i>Ruffless</i>	20482	$\frac{1}{2}$	125	4.	7.00
<i>Ruffler</i>	20483	1	125	8.	8.50
<i>Ruffous</i>	20484	2	125	16.	10.00
<i>Ruff</i>	20485	3	125	24.	13.00
<i>Ruffhood</i>	20486	5	125	40.	17.00
<i>Ruff</i>	20487	7 $\frac{1}{2}$	125	60.	22.00
<i>Ruffate</i>	20488	10	125	80.	27.00
<i>Ruffed</i>	20489	15	125	120.	40.00
<i>Ruffedly</i>	20490	20	125	150.	40.00
<i>Ruffedness</i>	20491	25	125	190.	52.00
<i>Ruffing</i>	20492	30	125	230.	72.00
<i>Abhorring</i>	25202	40	125	288.	75.00
<i>Abih</i>	25203	50	125	360.	85.00

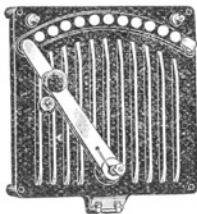
## Carpenter Enamel Rheostats.—(Continued.)

## Spring Starters—(Continued.)

## Motor Starting Rheostats.

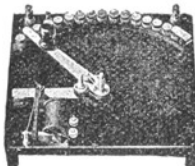
Provided with Safety Spring Switch.

"SS" Type.



No. 20493.

Code Word	List No.	H. P. of Motor	Volts	Max. Amp. for 15 Sec.	List Price Each.
<i>Abandon</i>	25121	4	250	1.2	\$ 7.00
<i>Raggy</i>	20493	4	250	2.	7.00
<i>Raggy</i>	20494	1	250	4.	8.50
<i>Raggy</i>	20495	2	250	8	10.00
<i>Ragin</i>	20496	3	250	12.	13.00
<i>Ragine</i>	20497	5	250	20.	17.00
<i>Ragose</i>	20498	7½	250	30.	22.00
<i>Raglose</i>	20499	10	250	40.	26.00
<i>Ruin</i>	20500	15	250	60.	32.00
<i>Ruinable</i>	20501	20	250	75	35.00
<i>Ruinote</i>	20502	25	250	95	40.00
<i>Ruination</i>	20503	30	250	115	60.00
<i>Abinet</i>	25122	40	250	144	60.00
<i>Abanga</i>	25123	50	250	180	72.00
<i>Abannation</i>	25124	75	250	270	110.00
<i>Abanition</i>	25125	100	250	360.	150.00
<i>Abaptisto</i>	25126	4	500	6	9.00
<i>Ruiner</i>	20504	4	500	1	9.00
<i>Ruiform</i>	20505	1	500	2.	9.00
<i>Ruinous</i>	20506	2	500	4.	11.00
<i>Ruinously</i>	20507	3	500	6.	13.00
<i>Ruinousness</i>	20508	5	500	10.	18.00
<i>Ruik</i>	20509	7½	500	15.	22.00
<i>Ruitable</i>	20510	10	500	20.	26.00
<i>Rule</i>	20511	15	500	30.	28.00
<i>Ruleless</i>	20512	20	500	38.	31.00
<i>Ruler</i>	20513	25	500	48.	36.00
<i>Ruling</i>	20514	30	500	58.	56.00
<i>Abaptiston</i>	25127	40	500	72.	56.00
<i>Abare</i>	25128	50	500	90.	70.00
<i>Abarticulat</i>	25129	75	500	135.	97.00
<i>Abax</i>	25130	100	500	180.	130.00



No. 20515.

## Leoard Universal Automatic Rheostat.

With "Overload" and "No Voltage" Release.

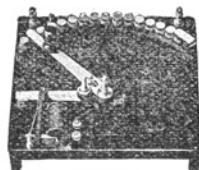
"DL" Type.

Code Word.	List No.	H. P. of Motor	Volts	Max. Amp. for 15 Sec.	List Price Each.
<i>Abashment</i>	25131	4	125	2.5	\$24.00
<i>Rulingly</i>	20515	4	125	4.	24.00
<i>Rulliches</i>	20516	1	125	8	24.00
<i>Ruly</i>	20517	2	125	16.	24.00
<i>Ruin</i>	20518	3	125	24	24.00
<i>Rumble</i>	20519	5	125	40.	29.00
<i>Rumbler</i>	20520	7½	125	60.	35.00
<i>Rumblingly</i>	20521	10	125	80.	40.00
<i>Rumbud</i>	20522	15	125	120.	55.00
<i>Rumen</i>	20523	20	125	150.	60.00
<i>Abassi</i>	25132	25	125	190.	70.00
<i>Abassis</i>	25133	30	125	230.	111.00
<i>Abator</i>	25134	40	125	288.	126.00
<i>Abattis</i>	25135	50	125	360.	172.00

## Carpenter Enamel Rheostats.—(Continued.)

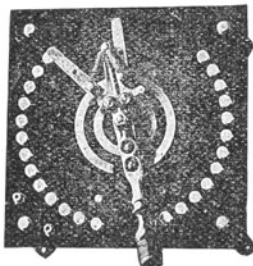
"D L" Type—(Continued.)

## Leonard Universal Automatic Rheostat.



No. 20528.

Code Word	List No	H P of Motor	Volts	Max. Amp. for 15 Sec.	List Price Each.
Abattise	25136	1	250	1.2	\$24.00
Ruminal	20528	1	250	2	24.00
Ruminant	20529	1	250	4	24.00
Ruminate	20530	2	250	8	24.00
Rumination	20531	3	250	12	24.00
Ruminator	20532	5	250	20	29.00
Ruminsch	20533	7½	250	30	35.00
Rumkin	20534	10	250	40	40.00
Rummage	20535	15	250	60	45.00
Abature	25137	20	250	75	50.00
Abature	25138	25	250	95	55.00
Abature	25139	30	250	115	75.00
Abattol	25140	40	250	144	85.00
Abattol	25141	50	250	180	90.00
Abba	25142	75	250	270	185.00
Abatship	25143	100	250	360	230.00
Rumney	20539	1	500	6	26.00
Rumnous	20540	1	500	1	26.00
Ramoror	20541	1	500	2	26.00
Rumorous	20542	2	500	4	26.00
Rump	20543	3	500	6	27.00
Rumper	20544	5	500	10	32.00
Rumped	20545	7½	500	15	36.00
Rumple	20546	10	500	20	40.00
Rumpless	20547	15	500	30	45.00
Abbricate	25144	20	500	38	46.00
Abbrication	25145	25	500	48	50.00
Abbricator	25146	30	500	58	70.00
Abbricatory	25147	40	500	72	75.00
Abbricatory	25148	50	500	90	88.00
Abbricol	25149	75	500	135	135.00
Abdal	25150	100	500	180	180.00



No. 20551.

## Reversing Controllers.

## Reversing Controllers, for Reversing Direction of Rotation and for Controlling Speed of Motors. "RR" Type.

One of the most difficult problems in connection with electric motors, is to secure a perfect device for operating a motor at a variable speed at will, and reversing its direction of rotation.

We handle a full line of reversing Rheostats for motors, from ½ H. P. to 100 H. P., and of any voltage. Also a complete line of field reversing Rheostats. We make a speciality of such Rheostats for traveling crane service and elevator service, and can ordinarily make prompt shipment from stock for usual sizes.

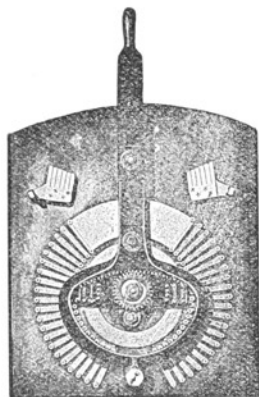
These controllers are provided with quick break devices, in connection with controlling switch, so that when bringing the motor to rest from either direction of rotation the arc is broken instantly.

Code Word	List No	H P of Motor	Volts	Max. Amp for 15 Sec	List Price Each.
Aberinn	25151	2	125	16	\$85.00
Aberite	25152	3	125	24	85.00
Abert	25153	5	125	40	90.00
Abdicant	25154	7½	125	60	105.00
Abdication	25155	10	125	80	105.00
Abdicitive	25156	15	125	120	260.00
Abditory	25157	20	125	150	280.00
Abdomen	25158	25	125	190	300.00
Abdominal	25159	30	125	230	420.00
Abdominopy	25160	40	125	288	460.00
Abdominous	25161	50	125	360	500.00

## Carpenter Enamel Rheostats.—(Continued.)

"RR" Type.—Continued.

Reversing Controllers.

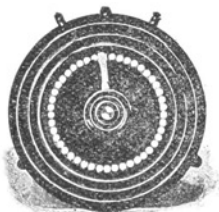


Code Word.	List No.	H. P. of Motor.	Volts.	Max. Amp. for 15 Sec.	List Price Each.
<i>Abidance</i>	25204	2	250	8.	\$85.00
<i>Abider</i>	25205	3	250	12.	85.00
<i>Abner</i>	20559	5	250	20.	90.00
<i>Rung</i>	20560	7½	250	30.	105.00
<i>Runghead</i>	20561	10	250	40.	105.00
<i>Runic</i>	20562	15	250	60.	125.00
<i>Runlet</i>	20563	20	250	75.	145.00
<i>Runnel</i>	20564	25	250	95.	300.00
<i>Abidingly</i>	25206	30	250	115.	320.00
<i>Abiotic</i>	25207	40	250	144.	360.00
<i>Abigail</i>	25208	50	250	180.	400.00
<i>Abiliment</i>	25209	75	250	270.	600.00
<i>Abintestate</i>	25210	100	250	360.	700.00
<i>Abirritation</i>	25211	2	500	4.	105.00
<i>Abjudicate</i>	25212	3	500	6.	105.00
<i>Runnel</i>	20565	5	500	10.	105.00
<i>Running</i>	20567	7½	500	15.	105.00
<i>Runnion</i>	20568	10	500	20.	105.00
<i>Runt</i>	20569	15	500	30.	125.00
<i>Rupoe</i>	20570	20	500	38.	145.00
<i>Rupellary</i>	20571	25	500	48.	165.00
<i>Abjudication</i>	25213	30	500	58.	185.00
<i>Ajugate</i>	25214	40	500	72.	225.00
<i>Abjunctive</i>	25215	50	500	90.	265.00
<i>Abjuration</i>	25216	75	500	135.	525.00
<i>Abjurator</i>	25217	100	500	180.	625.00

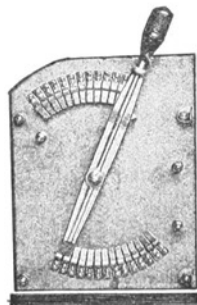
## Ventilating-Fan Speed Controllers.

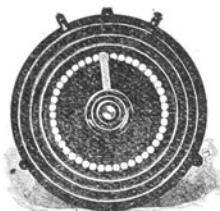
Reducing Speed of Fan and Series Wound Motor to Half-Full Speed.

"SV" Round Type. "V" Square Type.



Code Word.	List No.	H. P. of Motor.	Volts.	Type.	Max. Amp. at full Speed of Fan.	List Price Each.
<i>Abymeant</i>	25218	1	125	SV	1.	\$3.70
<i>Abjurer</i>	25219	1½	125	SV	1.5	3.70
<i>Abactate</i>	25220	½	125	SV	2.	3.70
<i>Abactate</i>	25221	¾	125	V	1.5	7.00
<i>Abaqueate</i>	25222	¾	125	V	2.5	7.00
<i>Abaqueator</i>	25223	½	125	V	4.	7.00
<i>Ab-bodied</i>	25224	1	125	V	8.	11.00
<i>Abegate</i>	25225	2	125	V	16.	15.00
<i>Ablegation</i>	25226	3	125	V	24.	22.00
<i>Ablen</i>	25227	5	125	V	40.	38.00
<i>Ablet</i>	25228	7½	125	V	60.	40.00
<i>Ablesse</i>	25229	10	125	V	80.	70.00
<i>Ablespy</i>	25230	15	125	V	120.	90.00
<i>Abler</i>	25231	½	250	SV	.5	4.50
<i>Ablest</i>	25232	¾	250	SV	.75	4.50
<i>Abtigate</i>	25233	¾	250	V	.5	10.00
<i>Abtigation</i>	25234	¾	250	V	1.2	8.00
<i>Abtigation</i>	25235	½	250	V	2	9.00
<i>Abocate</i>	25236	1	250	V	4.	11.00
<i>Abocation</i>	25237	2	250	V	8.	15.00
<i>Abloom</i>	25238	3	250	V	12.	22.00
<i>Abnle</i>	25239	5	250	V	20.	38.00
<i>Abnral</i>	25240	7½	250	V	30.	40.00
<i>Ablationary</i>	25241	10	250	V	40.	55.00
<i>Ablucon</i>	25242	15	250	V	60.	72.00
<i>Abnegation</i>	25243	½	500	V	.6	18.00
<i>Abnegative</i>	25244	½	500	V	1.	12.00
<i>Abnegator</i>	25245	1	500	V	2.	12.00
<i>Abnet</i>	25246	2	500	V	4.	14.00
<i>Abnodate</i>	25247	3	500	V	6.	23.00
<i>Abnodate</i>	25248	5	500	V	10.	38.00
<i>Abnodrinx</i>	25249	7½	500	V	15.	40.00
<i>Abodance</i>	25250	10	500	V	20.	55.00
<i>Abodment</i>	25251	15	500	V	30.	72.00





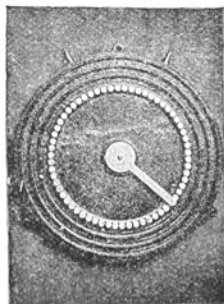
No. 20593.



No. 20607.



No. 20609.



No. 20611.

## Carpenter Enamel Rheostats.—(Continued.)

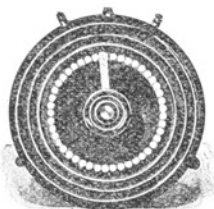
## 125 Volt Round Type, Field Rheostats.

## For Front of Board.

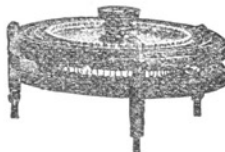
Code Word.	List No.	Max. Amp. 1st Step.	Ohms of Field to which Rheostat is well suited.	Ohms of Rheostat	No. of Steps.	Ampere Capacity of Last Step.	Diam. ins.	List Price, Each.
<i>Rusher</i>	20593	.5	250	300.	24	.227	8	\$ 12.50
<i>Rushgrass</i>	20594	.62	200	240.	24	.284	8	12.50
<i>Rushiness</i>	20595	.75	166	200.	24	.341	8	12.50
<i>Rushingly</i>	20596	1.	125	150.	24	.454	8	12.50
<i>Rushlight</i>	20597	1.25	100	120.	24	.568	8	12.50
<i>Rushlike</i>	20598	1.5	83	100.	24	.683	8	12.50
<i>Rushring</i>	20599	2.	62.5	75.	24	.91	8	12.50
<i>Rushy</i>	20600	2.5	50.	60.	24	1.13	8	12.50
<i>Rusk</i>	20601	3.	42.	50.	24	1.35	8	12.50
<i>Rusna</i>	20602	4.	31.	37.5	33	1.82	10	14.25
<i>Russ</i>	20603	5.	25.	30.	44	2.27	12	18.50
<i>Russett</i>	20604	6.	21.	25.	44	2.7	12	18.50
<i>Russcting</i>	20605	8.	15.6	18.75	60	3.64	15	24.50
<i>Russty</i>	20606	10.	12.5	15.	60	3.33	15	24.50
<i>Russleather</i>	20607	12.5	10.	12.	60	5.7	15	39.00
<i>Russia</i>	20608	16.	7.8	9.3	60	7.3	15	39.00
<i>Russian</i>	20609	20.	6.2	7.5	60	9.1	15	56.00
<i>Rust</i>	20610	25.	5.	6.	60	11.36	15	56.00

## For Back of Board.

Code Word.	List No.	Max. Amp. 1st Step.	Ohms of Field to which Rheostat is well suited.	Ohms of Rheostat	No. of Steps.	Ampere Capacity of Last Step.	Diam. ins.	List Price, Each.
<i>Rustful</i>	20611	.5	250	300.	24	.227	8	\$ 25.00
<i>Rustic</i>	20612	.62	200	240.	24	.284	8	25.00
<i>Rustical</i>	20613	.75	166	200.	24	.341	8	25.00
<i>Rustingly</i>	20614	1.	125	150.	24	.454	8	25.00
<i>Rusticate</i>	20615	1.2	100	120.	24	.568	8	25.00
<i>Rustication</i>	20616	1.5	83	100.	24	.683	8	25.00
<i>Rusticity</i>	20617	2.	62.5	75.	24	.91	8	25.00
<i>Rusting</i>	20618	2.5	50.	60.	24	1.13	8	25.00
<i>Rustiness</i>	20619	3.	42.	50.	24	1.35	8	25.00
<i>Rustjoint</i>	20620	4.	31.	37.5	33	1.82	10	27.50
<i>Rustle</i>	20621	5.	25.	30.	44	2.27	12	31.50
<i>Rustler</i>	20622	6.	21.	25.	44	2.7	12	31.50
<i>Rusty</i>	20623	8.	15.6	18.75	60	3.64	15	37.00
<i>Ru</i>	20624	10.	12.5	15.	60	3.33	15	37.00
<i>Rutabaga</i>	20625	12.5	10.	12.	60	5.7	15	48.00
<i>Rutaceous</i>	20626	16.	7.8	9.3	60	7.3	15	48.00
<i>Ruth</i>	20627	20.	6.2	7.5	60	9.1	15	66.00
<i>Ruthenium</i>	20628	25.	5.	6.	60	11.36	15	66.00



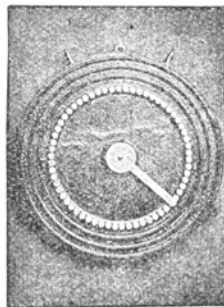
No. 20629.



No. 20637.



No. 20639.



No. 20641.

## Carpenter Enamel Rheostats.—(Continued.)

## 250 Volt Round Type, Field Rheostats.

For Front of Board.

Fig. 8, 9 and 10.

Code Word.	List No.	Max. Amp. 1st Step.	Ohms of Field to which Rheostat is well suited.	Ohms of Rheostat	No. of Steps.	Ampere Capacity of Last Step.	Diam. ins.	List Price, Each.
<i>Rothful</i>	20629	1	250	300	44	.454	12	\$18.50
<i>Rothfully</i>	20630	1.25	200	210.	44	.568	12	18.50
<i>Rothless</i>	20631	1.5	166	200.	44	.682	12	18.50
<i>Rothlousis</i>	20632	2.	125	150.	44	.909	12	18.50
<i>Rothl</i>	20633	2.5	100	120.	44	1.136	12	18.50
<i>Rothlout</i>	20634	3	83	100.	44	1.396	12	18.50
<i>Rothlots</i>	20635	4	62	75.	60	1.82	15	24.50
<i>Rothle</i>	20636	5	50	60	60	2.27	15	24.50
<i>Rotter</i>	20637	6.25	40	48.5	60	2.84	15	39.00
<i>Rotterkia</i>	20638	8.	31	37	60	3.65	15	39.00
<i>Rottier</i>	20639	10.	25	30.	60	4.54	15	56.00
<i>Rottish</i>	20640	12.5	20	24	60	5.7	15	56.00

For Back of Board.

Code Word.	List No.	Max. Amp. 1st Step.	Ohms of Field to which Rheostat is well suited.	Ohms of Rheostat	No. of Steps.	Ampere Capacity of Last Step.	Diam. ins.	List Price, Each.
<i>Rottikness</i>	20641	1.	250	300	44	.454	12	\$31.50
<i>Rottle</i>	20642	1.25	200	210	44	.568	12	31.50
<i>Rottly</i>	20643	1.5	166	200.	44	.682	12	31.50
<i>Ryol</i>	20644	2.	125	150.	44	.909	12	31.50
<i>Ryder</i>	20645	2.5	100	120.	44	1.136	12	31.50
<i>Rye</i>	20646	3	83	100.	44	1.396	12	31.50
<i>Ryegrass</i>	20647	4.	62	75.	60	1.82	15	37.00
<i>Rynclays</i>	20648	5.	50	60.	60	2.27	15	37.00
<i>Rynd</i>	20649	6.25	40	48.	60	2.84	15	48.00
<i>Ryot</i>	20650	8.	31	37.5	60	3.65	15	48.00
<i>Ryth</i>	20651	10.	25	30.	60	4.54	15	66.00
<i>Rytua</i>	20652	12.5	20	24.	60	5.7	15	66.00

## 500 Volt Round Type, Field Rheostats.

Front of Board.

Code Word.	List No.	Max. Amp. 1st Step.	Ohms of Field to which Rheostat is well suited.	Ohms of Rheostat	No. of Steps.	Ampere Capacity of Last Step.	Diam. ins.	List Price, Each.
<i>Sobah</i>	20653	1.25	400	480	44	.568	12	\$18.50
<i>Saba</i>	20654	1.5	333	400	44	.682	12	18.50
<i>Sabadilat</i>	20655	2.	250	300	60	.909	15	24.50
<i>Sabacan</i>	20656	2.5	200	240	60	1.14	15	24.50
<i>Sabacanism</i>	20657	3.	166	200	60	1.36	15	39.00
<i>Sabacism</i>	20658	4.	125	150	60	1.82	15	39.00
<i>Sabah</i>	20659	5.	100	120	60	2.27	15	56.00
<i>Sabauth</i>	20660	6.25	80	96	60	2.84	15	56.00

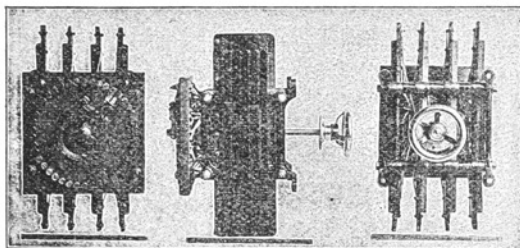


## Carpenter Enamel Rheostats.—(Continued.)

500 Volt Round Type, Field Rheostats.

For Back of Board.

Code Word.	List No.	Max. Amp. 1st Step.	Ohms of Field Rheostat to which is well suited.	Ohms of Rheostat	No. of Steps.	Ampere Capacity of Last Step.	Diam. ins.	List Price, Each.
<i>Subasia</i>	20661	1.25	400	480	44	.568	12	\$31.50
<i>Sabbat</i>	20662	1.5	333	400	44	.682	12	31.50
<i>Sabbatarian</i>	20663	2.	250	300	60	.909	15	37.00
<i>Sabbatia</i>	20664	2.5	200	240	60	1.14	15	37.00
<i>Sabbatic</i>	20665	3.	166	200	60	1.36	15	48.00
<i>Sabbatim</i>	20666	4.	125	150	60	1.82	15	48.00
<i>Sabbatous</i>	20667	5.	100	120	60	2.25	15	66.00
<i>Sabbine</i>	20668	6.25	80	96	60	2.84	15	66.00



No. 20669 to 20704.

## Field Rheostats of Large Capacity.

For Railway and Large Incandescent Lighting Generators.

Code Word.	List No.	Max. Amp. 1st Step.	Ohms of Field Rheostat to which is well suited.	Ohms of Rheostat	No. of Steps.	Ampere Capacity of Last Step.	Volts.	List Price, Each.
<i>Subera</i>	20669	8.	18.7	22.5	80	3.6	150	\$ 70.00
<i>Suberism</i>	20670	10.	15.	18.	80	4.5	"	70.00
<i>Subella</i>	20671	12.	12.5	15.	80	5.4	"	84.00
<i>Subellona</i>	20672	16.	9.4	11.2	80	7.2	"	84.00
<i>Subellian</i>	20673	20.	7.5	9.	80	9.	"	84.00
<i>Suber</i>	20674	24.	6.2	7.5	80	10.8	"	98.00
<i>Sublian</i>	20675	32.	4.7	5.6	80	14.4	"	112.00
<i>Subianism</i>	20676	40.	3.7	4.5	80	18.	"	127.00
<i>Subine</i>	20677	48.	3.1	3.8	80	21.6	"	156.00
<i>Suble</i>	20678	64.	2.3	2.8	80	28.8	"	184.00
<i>Sublenouse</i>	20679	80.	1.9	2.2	80	36.	"	200.00
<i>Sublere</i>	20680	100.	1.5	1.8	80	45.	"	230.00
<i>Sobot</i>	20681	128.	1.2	1.4	80	57.6	"	315.00
<i>Subulous.</i>	20682	4.	75.	90.	80	1.8	300	70.00
<i>Sac</i>	20683	5.	60.	72.	90	2.2	"	70.00
<i>Sucar</i>	20684	6.	50.	60.	80	2.7	"	84.00
<i>Succode</i>	20685	8.	37.5	45.	80	3.6	"	84.00
<i>Succote</i>	20686	10.	30.	36.	80	4.5	"	84.00
<i>Suecharie</i>	20687	12.	25.	30.	80	5.5	"	98.00
<i>Suecharifous</i>	20688	16.	18.7	22.5	80	7.2	"	112.00
<i>Suecharify</i>	20689	20	15.	18.	80	9.0	"	112.00
<i>Suecharilla</i>	20690	24.	12.5	15.	80	11.0	"	142.00
<i>Suecharimety</i>	20691	32.	9.4	11.2	80	14.4	"	170.00

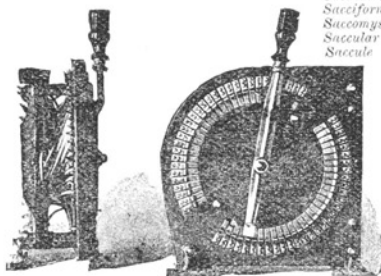
## Carpenter Enamel Rheostats.—(Continued).

## For Railway Generators.

Code Word	List No.	Max Amp. 1st Step	Ohms of Field to which Rheostat is well Suited.	Ohms of Rheostat.	No. of Steps.	Ampere Capacity of Last Step.	Volts	List Price Each
<i>Saccharine</i>	20692	2	300	360.	80	91	600	\$ 70.00
<i>Saccharine</i>	20693	2 5	240	288	80	1 13	600	70.00
<i>Saccharoid</i>	20694	3	200	240	80	1 36	600	84.00
<i>Saccharoid</i>	20695	4 7	150	180	80	1 81	600	84.00
<i>Saccharometer</i>	20696	5	120	144	80	2 27	600	84.00
<i>Saccharin</i>	20697	6	100	120	80	2 72	600	98.00
<i>Saccholate</i>	20698	8	75	90	80	3 63	600	112.00
<i>Saccholate</i>	20699	10	60	72	80	4 54	600	112.00
<i>Sacchulnic</i>	20700	12	50.	60	80	5 45	600	142.00
<i>Saciform</i>	20701	16	37 5	45	80	7 26	600	170.00
<i>Sacomp</i>	20702	20	30	36	80	9 09	600	170.00
<i>Sacular</i>	20703	25	24.	28 8	80	11 36	600	200.00
<i>Sacule</i>	20704	32	18 75	22 5	80	14 54	600	285.00

## Theatre Dimmers.

It is safe as regards fire risk, is self-contained, and is shipped complete from factory ready to set up on the stage and connect the two circuit wires to it.



No. 20705.

Code Word	List No.	Type	No. of H. C. P. 50 Watt Lamps Controlled	No. of Steps.	Max. Amperes First Step	Max. Amperes Last Step	Horizontal Pivot Axis, Diam.	Vertical Pivot Axis, Diam.	Approx. Weights in lbs.	List Price Each	
<i>Aboding</i>	25252	SD	1	4	5	1 1/4	5	5	11	\$ 4.50	
<i>Abolite</i>	25253	"	2	4	1	2	1 1/2	5	4	4.50	
<i>Abolis</i>	25254	"	4	1 5	3	1 1/2	5	5	1 1/2	4.50	
<i>Abolishable</i>	25255	"	6	9	3	6 3/4	5 1/2	5 1/2	3	9.50	
<i>Abolishment</i>	25256	"	12	13	6	12 3/4	7	7	5	11.00	
<i>Abolishment</i>	25257	"	15	16	7 5	1 5	4	9	9	8	14.50
<i>Abolitionism</i>	25258	"	20	16	10	2	4	9	9	8	14.50
<i>Abolitionist</i>	25259	"	25	18	12 5	2 5	4	11	11	16	19.00
<i>Abolitionist</i>	25260	"	30	18	15	3	4	11	11	16	19.00
<i>Abolla</i>	25261	"	40	22	20.	4.	5	14	14	30	27.00
<i>Aboma</i>	25262	"	50	22	25	5.	5	14	14	30	27.00
<i>Abomasum</i>	25263	BD	20-50	50	25	5	6	18	36	87	40.00
<i>Abomasus</i>	25264	"	30-75	50	37.5	7 5	6	18	36	87	40.00
<i>Abominable</i>	25265	"	40-100	50	50	10	6	18	36	87	45.00
<i>Abominable</i>	25266	"	50-125	50	62.5	12 5	6	18	36	87	50.00
<i>Abominantion</i>	25267	"	60-150	50	75	15	6	18	36	87	50.00
<i>Abon</i>	25268	"	70-175	50	87.5	17 5	10	18	36	170	80.00
<i>Abord</i>	25269	"	80-200	50	100.	20	10	18	36	170	85.00
<i>Aborsite</i>	25270	"	90-225	50	112.5	22 5	10	18	36	170	90.00
<i>About</i>	25273	"	100-250	50	125.	25	10	18	36	170	95.00
<i>Above-board</i>	25274	"	110-275	50	137.5	27 5	10	18	36	170	100.00
<i>Above-cted</i>	25275	"	120-300	50	150.	30	10	18	36	170	110.00

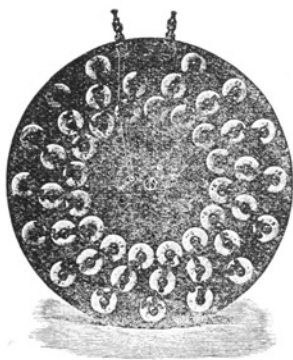
## With Interlocking Switches. "IBD" Type. 100-125 Volt Lamps.

<i>Above-deck</i>	25276	"	20-50	50	25	5	8	18	44	112	65.00
<i>Above-said</i>	25277	"	30-75	50	37.5	7 5	8	18	44	112	65.00
<i>Abraid</i>	25278	"	40-100	50	50.	10	8	18	44	112	70.00
<i>Abrown</i>	25279	"	50-125	50	62.5	12 5	8	18	44	112	75.00
<i>Abroxas</i>	25280	"	60-150	50	75.	15	8	18	44	112	75.00
<i>Abroy</i>	25281	"	70-175	50	87.5	17 5	12	18	44	195	105.00
<i>Abrequence</i>	25282	"	80-200	50	100.	20	12	18	44	195	110.00
<i>Abrock</i>	25283	"	90-225	50	112.5	22 5	12	18	44	195	115.00
<i>Abrooch</i>	25284	"	100-250	50	125.	25	12	18	44	195	120.00
<i>Abrogation</i>	25285	"	110-275	50	137.5	27 5	12	18	44	195	125.00
<i>Abrood</i>	25286	"	120-300	50	150.	30	12	18	44	105	135.00

## American "Universal" Enamel Field Rheostats.



[Front view.]



[Back view.]

The "Universal" rheostat is compact, fire proof, and meets all the requirements of underwriters and municipal inspectors.

The most important feature gained is by having each step of resistance independent, detachable and of small area. Each section of the resistance is made up of a small steel enamelled disc, the resistance being imbedded in the enamel and having copper strip terminals arranged so they are easily connected in series, one disc with another, as shown in the illustration of the back of the plate. Each disc has a hole in its centre which coincides with one on the plate when mounted, through which a flat headed bolt is passed from the front of the plate under the nut of which, when screwed in place, the terminals are clamped, the flat head making the contact point on the front to engage the usual movable arm.

As every step of the "Universal" is removable it is obvious that within certain limits numerous combinations of resistance sections may be made on any one plate. It is only necessary for us to define the limits of each size of plates, leaving you to indicate just what you want, instead of submitting an arbitrary list to which you must conform. To fill orders promptly we have a quantity of a few sizes of plates ready for the resistance and a complete stock of the resistance required, and assemble them to order. When we know what you want and it is within the limits of our lists we can ship on demand. For convenience in ordering, the following tables define the limits of each different plate at the voltage mentioned and also give the list price for each size.

All are made for mounting on front or back of board, as ordered, and the same template for drilling the board answers for all sizes referred to in this catalogue, thereby avoiding the chance of having holes drilled wrong, due to any mistake in ordering.

### For 550. Volts. Single Plates.

Maximum Ampere Capacity with only One Section of Resistance in Circuit.	Maximum Ohms in Rheostat.	Minimum Ohms in Field on 550 Volts, required to keep Amperes within limit stated in column 1.	
1.	600	540	
1.25	574	432	
1.5	528	384	
1.75	400	310	
2.	315	272	
2.25	229	241	
			Diameter of Plate..... 15 inches
			No. of steps..... 60
			Price Front of Board..... \$28.00
			Price Back of Board..... 37.00

### Double Plates:

2.5	287	216	
3.	264	192	
3.5	290	155	
4.	158	136	
4.5	115	121	
			Diameter of Plate..... 15 inches
			No. of Steps..... 60
			Price Front of Board..... \$50.00
			Price Back of Board..... 60.00

**In Ordering,** state the maximum voltage at the dynamo, and the resistance of the shunt field circuit; or, the maximum voltage, and the maximum number of amperes required for the field circuit.

## American "Universal" Enamel Field Rheostats.

For 125 Volts. Single Plates.

Maximum Ampere Capacity with only One Section of Resistance in Circuit.	Maximum Ohms in Rheostat	Minimum Ohms in Field on 125 Volts. required to keep Amperes within limit stated in column 1.		
1.	250	115	Diameter of Plate.... 9 inches No. of Steps..... 25 Price Front of Board.... \$15.00 Price Back of Board.... 26.00	
1.25	244	92		
1.5	231	77		
1.75	206	67		
2.	184	59		
2.25	160	53		
2.5	134	48		
2.75	101	43		
3.	79	40		
3.5	47.6	34		
4.		32.7		
1.	310	115	Diameter of Plate.... 10½ inches No. of Steps..... 31 Price Front of Board.... \$18.00 Price Back of Board.... 27.00	
1.5	291	77		
2.	244	59		
2.5	195	48		
3	140	40		
3.5	95	34		
4	70	30.4		
4.5	44.7	27.2		
5.	28.5	24.5		
1	450	115	Diameter of Plate.... 12 inches No. of steps..... 45 Price Front of Board.... \$22.00 Price Back of Board.... 31.00	
2	384	59		
3	273	40		
4	182	30.4		
5.	96	24.5		
6	26.5	19.7		
7.	20.2	17.5		
1.	600	115	Diameter of Plate.... 15 inches No. of steps..... 60 Price Front of Board.... \$28.00 Price Back of Board.... 37.00	
3	423	40		
5.	182	24.5		
7.	38.8	17.5		
8.	24.5	15.6		
9.	17.3	14		
10.	14.5	12.4		
10.5	11.4	11.5		

### Double Plates.

12.5	13.3	9.8	Diameter of Plate.... 12 inches No. of Steps..... 45 Price Front of Board.... \$40.00 Price Back of Board.... 49.00
14	10.1	8.7	
12.5	35.	9.8	Diameter of Plate... 15 inches No. of Steps..... 60 Price Front of Board.... \$50.00 Price Back of Board.... 60.00
14	19.4	8.7	
16.	12.3	7.7	
18.	8.7	6.9	
20.	7.3	6.1	
21.	5.7	5.7	

**In Ordering,** state the maximum voltage at the dynamo, and the resistance of the shunt field circuit; or, the maximum voltage, and the maximum number of amperes required for the field circuit.

American "Universal" Enamel Field Rheostats.

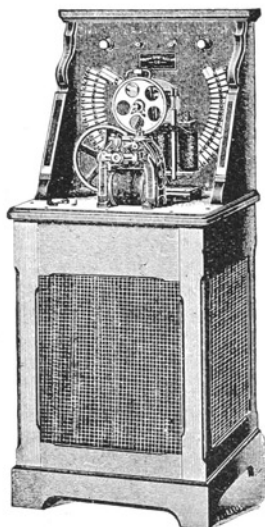
For 250 Volts. Single Plates.

Maximum Ampere Capacity with only One Section of Resistance in Circuit.	Maximum Ohms in Rheostat.	Minimum Ohms in Field on 250 Volts. required to keep Amperes within limit stated in column 1.	
1.	250	240	
1.25	195	192	
1.5	178	167	Diameter of Plate.....9 inches
1.75	161	139	No. of Steps.....25
2.	136	122	Price Front of Board.....\$15.00
2.25	102	108	Price Back of Board..... 25.00
1.	310	240	
1.5	238	167	Diameter of Plate.....10 $\frac{1}{2}$ inches
2.	186	122	No. of Steps.....31
2.5	114	98	Price Front of Board.....\$18.00
			Price Back of Board..... 27.00
1.	450	240	
2.	317	122	Diameter of Plate.....12 inches
3.	145	82	No. of steps.....45
4.	59	61	Price Front of Board.....\$22.00
			Price Back of Board..... 31.00
1.	600	240	
2.	467	122	Diameter of Plate.....15 inches
3.	238	82	No. of steps.....60
4.	99	61	Price Front of Board.....\$28.00
5.	48	49	Price Back of Board..... 37.00

Double Plates.

6	73	41	Diameter of Plate.....12 inches
8	29.5	30.5	No. of Steps.....45
			Price Front of Board.....\$40.00
			Price Back of Board..... 49.00
6.	119	41.	Diameter of Plate.....15 inches
8.	49.2	30.5	No. of Steps.....60
10.	24.	24.5	Price Front of Board.....\$50.00
			Price Back of Board..... 60.00

In Ordering, state the maximum voltage at the dynamo, and the resistance of the shunt field circuit; or, the maximum voltage, and the maximum number of amperes required for the field circuit.

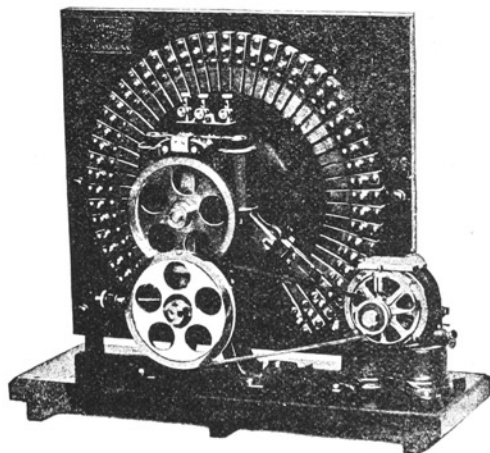


Controller and Rheostat.

### Automatic Pressure Controller.

The Controller automatically builds up the machine as soon as the Armature begins to revolve, and keeps the pressure constant without the slightest variation, under all loads, and in spite of rapid changes in speed. The Controller saves time and insures a steady light and long life of the lamps.

List No.		List Price. Each.
25060	Controller in Cabinet with Rheostat .....	200.00
25061	Controller in Cabinet without Rheostat .....	150.00
25062	Motor and Rheostat for regulating speed, for use with above, extra .....	50.00
25063	For currents above 20 amperes and up to 100 amperes, extra .....	50.00
25064	Potential Indicator, direct current .....	40.00
25065	Potential Indicator, alternating current .....	50.00



Patented.

### Controller Head.

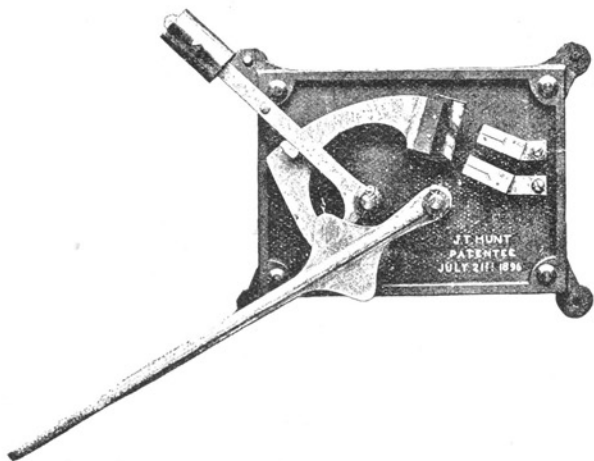
This is designed for use with rheostat ordinarily supplied with dynamo or power generator.

Arranged with pulley to be driven by countershaft or motor as shown.

25066	Controller Head with Pulley...	100.00
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## Automatic Switches for Electric Motors.

Specially Adapted for Operating Electric Pumps.



The above cut represents switch for automatically starting and stopping electric motors (Series wound).

This Switch is for motors not exceeding half horse power.

Mounted on plain slate base in iron frame, with unfinished metal parts.....	\$12.00
Mounted on marbleized slate with japanned iron frame, all metal parts highly polished	15.00
Tinned copper ball float with 2 pulleys, 10 feet brass chain, weight and adjusting balls complete for the above	3.50

## Separate Parts.

Tinned Copper Ball Float.....	1.50
Brass Chain, per foot.....	.10
Japanned Iron Pulleys, each.....	.25
Brass Box with Adjustable Weights.....	.75
Adjusting Balls, each.....	.10

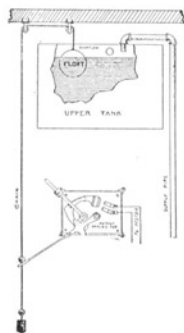


Fig. F

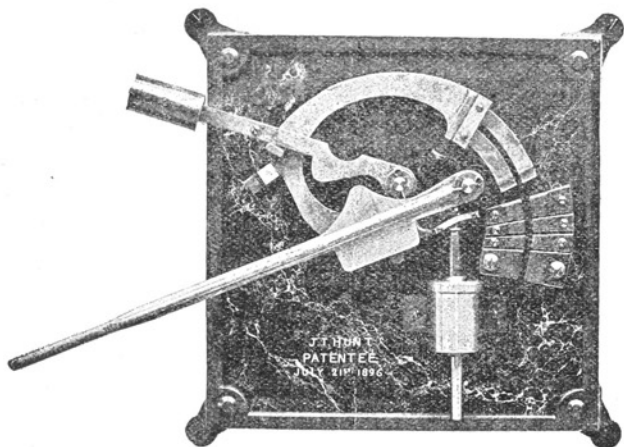
Fig. F represents Automatic Switch in position after cutting off current and stopping motor, the water in tank having reached the desired level. As the water is lowered the float in sinking raises the weight on chain running through slot in bottom lever of switch until the lower adjusting ball reaches the lever.

In lifting it gradually raises the top lever until it reaches a vertical position.

The weight on this lever then carries it over by gravity, causing it to strike the cam and make contact and start motor and pump.

Any desired depth of water can be maintained in the tank by altering the distance between the adjusting balls on chain running through the slot of switch lever.

## Automatic Switches for Electric Motors—(Continued)



The above cut represents Switch for automatically starting and stopping Electric Motors up to and including 5 H. P. Arranged to allow the current to gradually enter through resistance, preventing undue sparking at commutator at time of starting motor, thus taking the place of a starting box or rheostat as usually operated by hand.

This switch can be readily adjusted so that the time taken to turn on full current can be varied from 5 to 30 seconds.

## Price List.

	Plain	Marbleized Slate with Metal Parts highly Polished
1 H. P. ....	\$50.00	\$55.00
2 " .....	58.00	63.00
3 " .....	65.00	70.00
4 " .....	72.00	77.00
5 " .....	80.00	85.00

Tinned copper ball float, 2 pulleys, 10 feet brass chain, weight and adjusting balls, complete. .... 4.50

## Separate Parts.

Tinned Copper Ball Float .....	2.50
Brass Chain, per foot .....	.15
Japanned Iron Pulleys .....	.40
Brass Box, with Adjusting Weights .....	1.00
Adjusting Balls .....	.10



## Adjustable Rheostats.

This Rheostat is simple in construction, reliable in operation, and low in cost. It is perfectly fire-proof throughout, only iron and asbestos being used in its construction. The resistance wire is wound upon an asbestos covered wrought iron drum and over the wire is spread a layer of fire-proof cement.

The drums are made both round and elliptical in shape and offer a large radiating surface which insures a cool and uniform action.

The contact with the resistance wire in the drum is made by a slide carrying a number of rollers, thereby insuring good contact at several points and avoiding any heating.

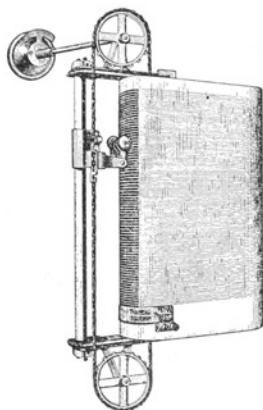
Owing to the form of the shell an exceedingly delicate graduation of resistance is obtained, and moreover the drum occupies but little space in width and is, therefore well adapted for use upon Station Switchboards.

These Rheostats can be operated directly or by mechanism connecting to the front of the rheostat.

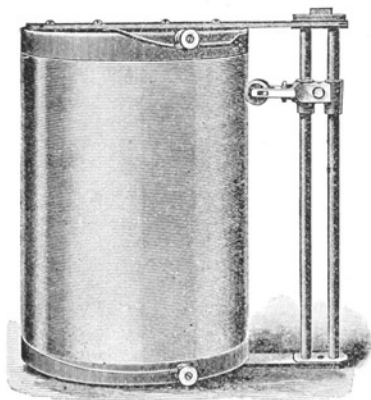
Specify voltage when ordering.

<i>Saltspring</i>	21016	For	$\frac{1}{2}$ K. W. Dynamos	.....	\$20.00
<i>Saltwater</i>	21017	"	3 "	.....	20.00
<i>Saltwork</i>	21018	"	12 "	.....	22.00
<i>Saltwort</i>	21019	"	15 "	.....	22.00
<i>Salty</i>	21020	"	17 "	.....	22.00
<i>Salubrious</i>	21021	"	20 "	.....	24.00
<i>Salubriously</i>	21022	"	25 "	.....	24.00
<i>Salubri</i>	21023	"	30 "	.....	24.00
<i>Salubrity</i>	21024	"	40 "	.....	24.00
<i>Salutarily</i>	21025	"	50 "	.....	26.00
<i>Salutariness</i>	21026	"	60 "	.....	26.00
<i>Salutary</i>	21027	"	75 "	.....	26.00
<i>Salutation</i>	21028	"	100 "	.....	26.00

Prices quoted on special sizes.



No. 21020.



No. 372.

## B.-F. Theatre Dimmers.

The Bairstow-Fanning Theatre Dimmer is an adjustable Rheostat for regulating the brilliancy of incandescent lamps for stage effects.

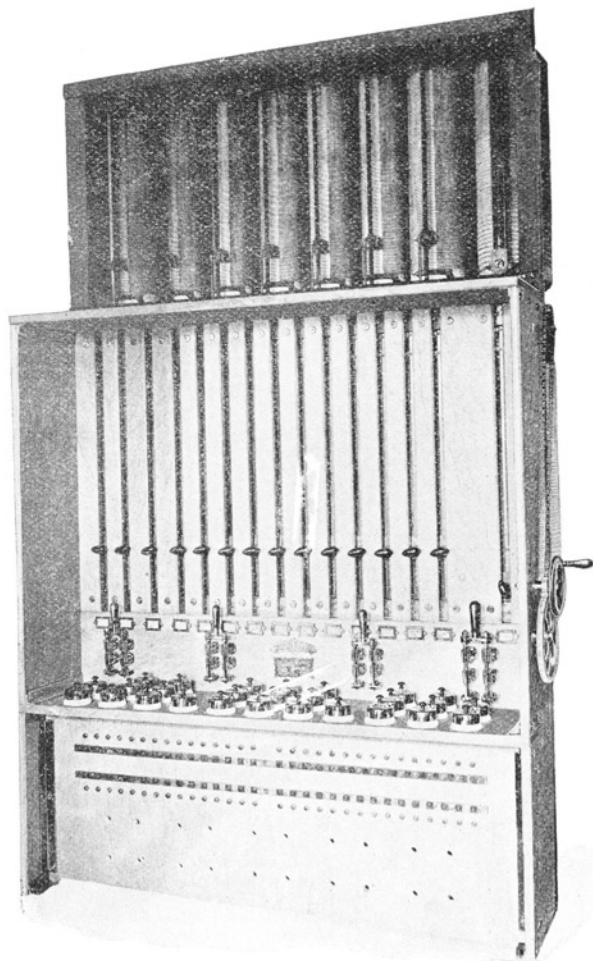
In construction these Dimmers resemble our adjustable rheostats described above.

The alterations in voltage of the lamps with the aid of these Dimmers, may be made so gradually that the change in illumination is entirely imperceptible; while on the other hand the lamps may be brought from a bright incandescence to a dull glow almost instantly. This valuable quality of rapidity of adjustment is entirely under control of the operator; while the great range and delicacy of gradations of the Dimmers is afforded by their design and construction.

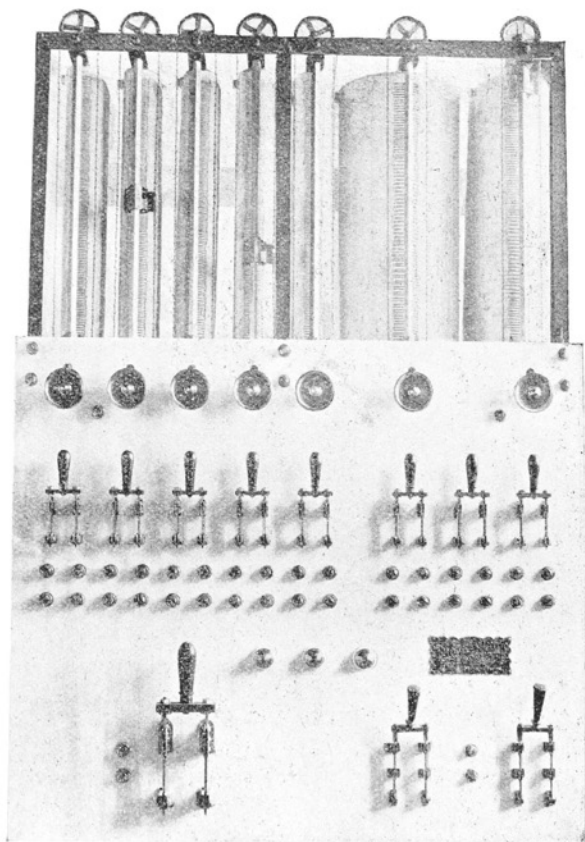
These Theatre Dimmers are made not only to dim the lamps, i. e. to bring the lamps to a dull glow, but also to totally darken them if desired.

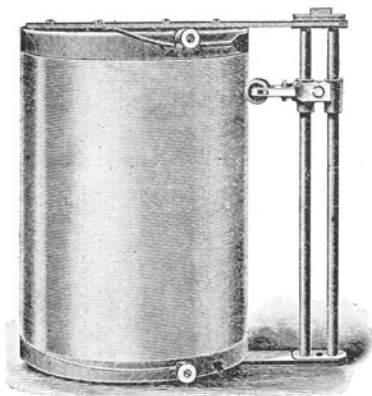
We have the sole right to manufacture these Dimmers and can furnish them in any size.

**Interlocking Switchboard for Theatre Lighting.**  
Equipped with B.-F. Rheostats.



**Erected in the Davidson Theatre,  
Milwaukee, Wisconsin.**

**Switchboard for Theatre Lighting.****Equipped with B.-F. Rheostats.****Erected in the Oliver Opera House,  
South Bend, Indiana.**



No. 372.

## B.-F. Theatre Dimmers.—(Continued.)

Code Word.	List No.		List Price Each
<i>Ibez</i>	372	10 Amperes, single	\$24.00
<i>Ibis</i>	373	20 " "	30.00
<i>Icarion</i>	374	25 " "	33.00
<i>Iceberg</i>	375	30 " "	36.00
<i>Iceland</i>	376	35 " "	39.00
<i>Icele</i>	377	40 " "	42.00
<i>Icy</i>	378	50 " two in multiple	51.00
<i>Ida</i>	379	60 " "	60.00
<i>Idol</i>	380	70 " "	75.00
<i>Idiom</i>	381	80 " "	91.50
<i>Idiot</i>	382	90 " "	110.00
<i>Idly</i>	383	100 " three	120.00
<i>Idolater</i>	384	125 " "	136.00
<i>Idoltruss</i>	385	150 " four	160.00

## Lightning Arresters.

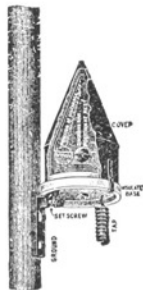
There are few problems in electrical engineering which have presented so many difficulties as that of protecting electrical apparatus against lightning.

The successful operation of lightning arresters depends largely—more than is ordinarily supposed—upon a systematic arrangement of the lightning arrester, or a combination of lightning arresters and choke coils, and upon the care with which the installation is made with reference to short straight ground wires, reliable earth connection and maintenance of these connections.

The protection of electric light and power circuits divides itself under two heads: first, the protection of distributing systems; second, the protection of transmission systems.

The Protection of Distributing Systems is effected by means of lightning arresters distributed at frequent intervals over the system. In suburban and otherwise exposed districts four to the mile of wire are recommended. In city districts two are usually found sufficient.

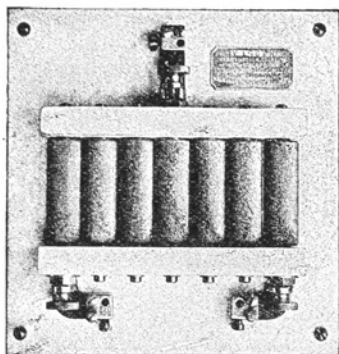
Power Transmission Systems do not require line arresters. The points of protection being at the extremities of the system, namely, in the power house and motor stations, a bank of lightning arresters, in combination with choke coils, is installed at each of these points. For voltages up to 3000 volts, four choke coils arranged in series in each wire, with lightning arresters intervening are recommended. For higher voltages than this, special combinations have to be made, according to the general characteristics of the system with reference to the capacity of the generator and the use of raising and lowering transformers.



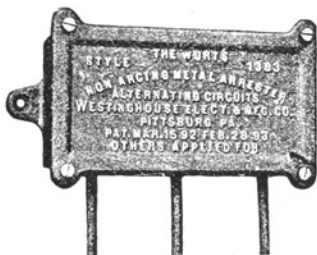
No. 126.

## Swinging Ball Lightning Arrester.

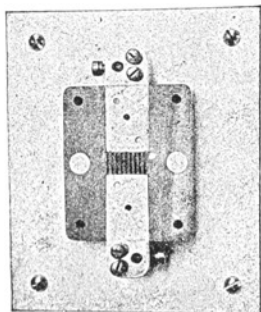
<i>Laceration</i>	126	Each	\$8.00
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No. 20763.



No. 20765.



No. 20767.

## Lightning Arresters.

### Wurt Lightning Arresters.

#### Double Pole Station Arrester.

##### Type A.

Code Word.	List No.	List Price. Each.
<i>Saddlery</i>	<b>20763</b>	For Alternating Current, Incandescent and Power Circuits, up to 1200 volts, each. . . . . <b>\$21.00</b>
		Use two up to 2400 volts.
		Use three up to 3200 volts.

<i>Saddlesloped</i>	<b>20764</b>	For Alternating Current Arc Circuits, up to 3000 volts, each . . . . . <b>21.00</b>
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#### Double Pole Line Arresters.

##### Type C.

<i>Saddletree</i>	<b>20765</b>	For Alternating Current, Incandescent and Power Circuits, up to 1200 volts, each. . . . . <b>4.50</b>
		Use two up to 2400 volts.
		Use three up to 3000 volts.
<i>Saddleshoe</i>	<b>20766</b>	For Alternating Current Arc Circuits, up to 3000 volts, each . . . . . <b>4.50</b>

#### Single Pole Station Arrester.

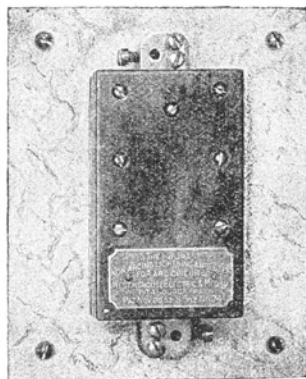
##### Type K.—For Direct Current Only.

125 up to 600 volts.

<i>Saddleshoe</i>	<b>20767</b>	Each . . . . . <b>10.50</b>
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No. 20769.



No. 20770.



## Lightning Arresters.—(Continued.)

## Wurt Lightning Arresters.—(Continued.)

## Single Pole Line Arrester.

## Type J.

Code Word.	List No.		List Price. Each.
<i>Sadducee</i>	20768	For Direct Current Arc Circuits up to 4000 Volts.....	6.00
		Type J similar to Type L.	

## Type L.

<i>Sadduceism</i>	20769	For Direct Current Circuits, 125 up to 600 Volts.....	4.50
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## Single Pole Station Arrester.

## Type I.

<i>Sadduceion</i>	20770	For Direct Current Arc Circuits up to 4000 Volts.....	8.25
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## Double Pole Station Arrester.

## Type F.

<i>Sadduceize</i>	20771	For Direct Current, Brush Circuits only	21.00
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## Garton Lightning Arrester.

## Lightning Arresters.

<i>Absolutist</i>	25312	Station Arrester, marble base .....	11.00
<i>Absolutistic</i>	25313	" " marbled slate .....	11.00
<i>Absolutory</i>	25314	" " plain slate .....	8.00
<i>Absoluble</i>	25315	Pole Arrester, with iron cover .....	11.00
<i>Absolatory</i>	25316	" " " wooden cover .....	8.00
<i>Absolute</i>	25317	Car " " iron cover .....	11.00

## Kicking Coil.

<i>Absolous</i>	25318	Marble Base, 325 amperes .....	14.00
<i>Absorbabil</i>	25319	Wooden Base, 325 amperes .....	12.00
<i>Absorbabil</i>	25320	Marble Base, 125 amperes .....	12.00
<i>Absorbition</i>	25321	Plain Slate, 125 amperes .....	10.00
<i>Absorpt</i>	25322	Car and Stationary .....	9.00

"In ordering Garton Lightning Arresters state voltage and whether for Direct or Alternating Current."



## Perfection Woven Wire Brushes.

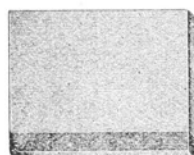
Code Word.	List No				List Price. Each.
<i>Salient</i>	20900	½ ins. wide, 3-16 ins. thick, 6 ins. long			\$ .75
<i>Saliently</i>	20901	¾ " " " " " "	1-4	7	1.25
<i>Saliferous</i>	20902	¾ " " " " " "	1-2	7	1.50
<i>Salifiable</i>	20903	¾ " " " " " "	1-4	7	1.35
<i>Salification</i>	20904	1 " " " " " "	1-8	7	1.30
<i>Salify</i>	20905	1 " " " " " "	1-4	7	1.50
<i>Saligat</i>	20906	1 " " " " " "	5-16	7	1.60
<i>Salina</i>	20907	1½ " " " " " "	1-4	7	1.60
<i>Salination</i>	20908	1½ " " " " " "	5-16	7	1.70
<i>Saline</i>	20909	1½ " " " " " "	3-8	7	1.80
<i>Salineness</i>	20910	1½ " " " " " "	1-2	7	2.00
<i>Saliniferous</i>	20911	1½ " " " " " "	1-4	7	1.75
<i>Saliniform</i>	20912	1½ " " " " " "	5-16	7	1.90
<i>Salinometer</i>	20913	1½ " " " " " "	3-8	7	2.05
<i>Salinous</i>	20914	1½ " " " " " "	1-2	7	2.30
<i>Salique</i>	20915	1½ " " " " " "	3-16	7	1.75
<i>Salite</i>	20916	1½ " " " " " "	1-4	7	1.85
<i>Salica</i>	20917	1½ " " " " " "	5-16	7	2.00
<i>Salical</i>	20918	1½ " " " " " "	3-8	7	2.20
<i>Salicant</i>	20919	1½ " " " " " "	1-2	7	2.50
<i>Salicary</i>	20920	1½ " " " " " "	1-4	7	2.00
<i>Salicate</i>	20921	1½ " " " " " "	5-16	7	2.20
<i>Salication</i>	20922	1½ " " " " " "	3-8	7	2.40
<i>Salicious</i>	20923	1½ " " " " " "	1-2	7	2.75
<i>Salix</i>	20924	1½ " " " " " "	5-8	7	3.00
<i>Sallenders</i>	20925	1½ " " " " " "	5-8	8	3.25
<i>Sallet</i>	20926	1½ " " " " " "	1-4	7	2.20
<i>Salleting</i>	20927	1½ " " " " " "	5-16	7	2.50
<i>Salliance</i>	20928	1½ " " " " " "	3-8	7	2.75
<i>Sallow</i>	20929	1½ " " " " " "	1-2	7	3.25
<i>Sallowness</i>	20930	1½ " " " " " "	1-4	7	2.25
<i>Sallowthorn</i>	20931	1½ " " " " " "	5-16	8	2.35
<i>Sally</i>	20932	1½ " " " " " "	3-8	8	2.50
<i>Sallylunn</i>	20933	1½ " " " " " "	1-2	8	3.00
<i>Sallyport</i>	20934	1½ " " " " " "	5-8	8	3.50
<i>Salmagundi</i>	20935	1½ " " " " " "	3-4	8	4.00
<i>Salmae</i>	20936	1½ " " " " " "	7-8	8	4.50
<i>Salmis</i>	20937	1½ " " " " " "	1-4	7	2.30
<i>Salmon</i>	20938	1½ " " " " " "	5-16	8	2.45
<i>Salmonet</i>	20939	1½ " " " " " "	3-8	8	2.75
<i>Salmonoid</i>	20940	1½ " " " " " "	1-2	8	3.50
<i>Salmonpeel</i>	20941	1½ " " " " " "	5-8	8	4.25
<i>Salmonpipe</i>	20942	1½ " " " " " "	5-8	12	7.00
<i>Salmontrout</i>	20943	2 " " " " " "	1-4	7	2.50
<i>Salygen</i>	20944	2 " " " " " "	5-16	8	2.75
<i>Salon</i>	20945	2 " " " " " "	3-8	8	3.00
<i>Saloon</i>	20946	2 " " " " " "	1-2	8	3.75
<i>Saloop</i>	20947	2 " " " " " "	5-8	8	4.50
<i>Salop</i>	20948	2¼ " " " " " "	3-8	8	3.30
<i>Salpa</i>	20949	2¼ " " " " " "	3-8	8	3.50
<i>Salpian</i>	20950	2¼ " " " " " "	1-2	8	4.25
<i>Salpicon</i>	20951	2¼ " " " " " "	5-8	8	4.75
<i>Salsofy</i>	20952	2½ " " " " " "	5-16	8	3.25
<i>Salsa</i>	20953	2½ " " " " " "	3-8	8	4.00



## Perfection Woven Wire Brushes.

—(Continued.)

Code Word	List No.				List Price. Each.	
<i>Subsilla</i>	20954	2½	ins. wide,	1-2 ins. thick,	8 ins. long.....	\$4.50
<i>Subsacid</i>	20955	2½	"	5-8 "	8 "	5.00
<i>Subsoda</i>	20956	2¾	"	3-8 "	8 "	4.25
<i>Subsaloaceous</i>	20957	2¾	"	1-2 "	8 "	4.75
<i>Subsuginous</i>	20958	2¾	"	5-8 "	8 "	5.25
<i>Salt</i>	20959	3	"	3-8 "	8 "	4.50
<i>Saltant</i>	20960	3	"	1-2 "	8 "	5.00
<i>Saltarello</i>	20961	3	"	5-8 "	8 "	5.75
<i>Saltate</i>	20962	3	"	3-4 "	8 "	6.50
<i>Saltation</i>	20963	3½	"	1-4 "	8 "	3.00
<i>Saltatorial</i>	20964	3½	"	5-16 "	8 "	3.75
<i>Saltatory</i>	20965	3½	"	3-8 "	8 "	4.75
<i>Saltoske</i>	20966	3½	"	1-2 "	8 "	5.50
<i>Saltont</i>	20967	3½	"	5-8 "	8 "	6.50
<i>Saltocellar</i>	20968	3½	"	3-4 "	8 "	7.50



## Carbon Brushes.

We give below a list of the Standard Carbon Brushes used on Western Electric Generators and Motors. In addition to this list we are prepared to quote prices on any size needed. When you are in the market for brushes write to us for special price list which will be mailed on application.

Code Word	List No.				List Price. Per 1000.	
<i>Sapling</i>	21269	1½	x	¾	x ¼	\$20.00
<i>Saponaceous</i>	21270	1¼	x	¾	x ¾	20.00
<i>Saponacity</i>	21271	1¼	x	¾	x ¾	20.00
<i>Saponary</i>	21272	2	x	¾	x ¾	20.00
<i>Saponifiable</i>	21273	2	x	1	x ¾	25.00
<i>Saponify</i>	21274	2	x	2	x ¾	40.00
<i>Saponine</i>	21275	2½	x	¾	x ¾	25.00
<i>Saponule</i>	21276	2½	x	1½	x ¾	25.00
<i>Sapor</i>	21277	2½	x	1½	x ½	25.00
<i>Saporifite</i>	21278	2½	x	1½	x 1	40.00
<i>Saporosity</i>	21279	2½	x	1½	x ¾	25.00
<i>Saporous</i>	21280	2½	x	1½	x ¾	25.00
<i>Sapota</i>	21281	4	x	1½	x ¾	55.00
<i>Sappatre</i>	21282	4	x	1½	x ¾	60.00
<i>Sapper</i>	21283	4	x	1½	x ¾	65.00
<i>Sapphic</i>	21284	4	x	1½	x 1	70.00
<i>Sappiness</i>	21286	4	x	2	x 1	80.00
<i>Sappy</i>	21287	4	x	2	x 1½	100.00
<i>Saproller</i>	21288	4	x	2	x 1½	130.00



## Western Electric Non-Sparking Brushes.



Western Electric Non-Sparking Brushes are made under Patent No. 419,660, and are specially adapted for use on dynamos where metal brushes are ordinarily used.

The brushes are constructed with high resistance metal placed upon both sides of a low resistance, the object being to prevent sparking at the edges of the brushes when leaving the segments.

The principle on which these brushes work is shown in the cut. The armature coils are represented diagrammatically at  $c^1 c^2$ , and the brush is shown just before it leaves one of the commutator segments. It will be seen from an inspection of the cut that the current traveling up on either side of the armature, and passing into the brush from the segments  $a$  and  $d$ , has to pass through the high resistance metal of the brush, while the current can pass through the coils  $c^1$  and  $c^2$  into the segment  $b$ , and from there into the low resistance metal of the brush. Of course, under these conditions, the main body of the current goes through the low resistance metal, and as the segment  $a$  approaches nearer and nearer the tip of the brush the resistance still further increases and the amount of current flowing from segment  $a$  into the brush is gradually diminished until just as the brush leaves the segment there is very little, if any, current to be interrupted, and consequently little or no sparking.

This action takes place whether the brush is in its proper position for the load it is carrying or not, the action in the latter case being to reduce the amount of current which has to be broken when the segment leaves the tip of the brush, and consequently when sparking does occur it is not as violent as if the ordinary low resistance brush was used.

An insulating medium is placed between the high resistance metal and the stiffening springs on the outside of the brushes which prevents the current from reaching the brush holder without first passing through the entire length of the brush.

These brushes are made of selected material of the best quality and in the most careful manner possible.

The outside strips of stiffened metal should never be allowed to touch the commutator. If this happens the high resistance metal is short-circuited and rendered useless.

When the brushes become worn down use a file or hack saw to cut away about an inch of the metal of the stiffening springs.

If brushes tend to spread at the toe, the stiffening springs may be bowed at the brush holder to hold the toe more tightly together. Tension may be light if commutator is true and smooth. Some lubrication is needed—oil is generally used, but in some cases something heavier is to be preferred, such as vaseline or tallow. There are very few commutators that do not need the occasional application of sandpaper if for no other reason than to keep the mica down to the level of the copper. A rub in time saves a trip to the repair shop.

Next to a smooth commutator, the most important condition for sparkless running of dynamo brushes is the amount of "lap," or length of bearing of the brush. The lap is determined by the thickness and the bevel of the "business end" of the brush. Except where otherwise specified Western Electric Brushes are made with a bevel of forty-five degrees. This repre-

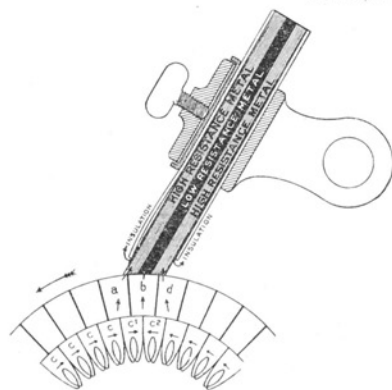


Diagram.



Showing Bow of Stiffening Spring.

Western Electric Non-Sparking Brushes.

(Continued.)

sents the common practice. Siemens & Halske brushes are beveled to twenty-nine degrees. It is not uncommon to find dynamos which have been running for years with totally wrong lap on the brushes. No rule can be laid down, but in most cases a little observation will show what is best for a particular dynamo, and after this has been determined the correct bevel should be maintained by trimming brushes when necessary. In some cases trimming can be saved in part by carefully shoving forward one brush at a time, allowing the natural wear to restore the original bevel.

Regular Stock Sizes of Western Electric Brushes.

See Special List for other Sizes.

Style	Width.	Thickness.	Length.	Price.
A	$\frac{1}{2}$	$\frac{5}{16}$	8	\$ .90
M	$\frac{1}{2}$	$\frac{5}{16}$	8	1.05
R	$\frac{1}{2}$	$\frac{5}{16}$	8	1.15
B	1	$\frac{5}{16}$	8	1.25
N	1	$\frac{5}{16}$	8	1.45
F	$1\frac{1}{4}$	$\frac{5}{16}$	8	1.15
I	$1\frac{1}{4}$	$\frac{5}{16}$	8	1.40
O	$1\frac{1}{4}$	$\frac{5}{16}$	8	1.65
D	$1\frac{1}{2}$	$\frac{5}{16}$	10	2.00
J	$1\frac{1}{2}$	$\frac{5}{16}$	10	2.60
P	$1\frac{1}{2}$	$\frac{5}{16}$	8	1.55
Q	$1\frac{1}{2}$	$\frac{5}{16}$	8	1.70
L	$1\frac{1}{2}$	$\frac{5}{16}$	10	2.05
C	$1\frac{1}{2}$	$\frac{5}{16}$	10	2.45
K	$1\frac{1}{2}$	$\frac{5}{16}$	10	3.25
G	$1\frac{1}{2}$	$\frac{5}{16}$	10	2.85
E	$1\frac{1}{2}$	$\frac{5}{16}$	12	4.60

Price List of Western Electric Brushes.

Thickness in Inches.	Length in Inches.	WIDTH IN INCHES.												
		$\frac{1}{2}$	$\frac{3}{4}$	1	1	1	1	1	1	1	1	1	2	
$\frac{3}{16}$	8	\$0.55	\$0.60	\$0.55	\$0.70	\$0.75	\$0.80	\$0.85	\$0.90	\$0.95	\$1.00	\$1.05	\$1.10	\$1.15
	10	.65	.70	.75	.80	.85	.90	.95	1.00	1.05	1.10	1.15	1.20	1.25
$\frac{1}{4}$	8	.75	.80	.85	.90	.95	1.00	1.10	1.15	1.20	1.25	1.30	1.40	1.45
	10	.80	.90	.95	1.05	1.15	1.20	1.30	1.35	1.45	1.50	1.60	1.70	1.75
$\frac{5}{16}$	8	.85	.95	1.05	1.15	1.25	1.35	1.45	1.50	1.65	1.70	1.80	1.90	2.00
	10	.90	1.00	1.05	1.15	1.25	1.35	1.40	1.45	1.55	1.60	1.70	1.80	1.85
$\frac{3}{8}$	8	1.00	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.85	1.95	2.05	2.15
	10	1.05	1.20	1.30	1.40	1.50	1.65	1.75	1.90	2.00	2.15	2.25	2.35	2.50
$\frac{7}{16}$	8	1.10	1.15	1.25	1.35	1.45	1.55	1.65	1.75	1.80	1.90	2.00	2.10	2.20
	10	1.15	1.30	1.40	1.50	1.65	1.75	1.85	2.00	2.10	2.20	2.35	2.45	2.60
$\frac{1}{2}$	8	1.20	1.40	1.55	1.70	1.85	1.95	2.10	2.25	2.40	2.50	2.65	2.80	2.95
	10	1.25	1.35	1.45	1.55	1.70	1.80	1.90	2.00	2.10	2.20	2.35	2.45	2.55
$\frac{9}{16}$	8	1.35	1.50	1.60	1.75	1.90	2.05	2.15	2.30	2.45	2.60	2.70	2.85	3.00
	10	1.45	1.60	1.80	1.95	2.10	2.30	2.45	2.60	2.75	2.90	3.10	3.25	3.40
$\frac{5}{8}$	8	1.40	1.50	1.65	1.80	1.90	2.00	2.15	2.30	2.40	2.50	2.65	2.80	2.90
	10	1.60	1.70	1.85	2.00	2.15	2.30	2.45	2.60	2.80	2.95	3.10	3.25	3.40
$\frac{3}{4}$	8	1.65	1.85	2.00	2.20	2.40	2.60	2.80	2.95	3.15	3.35	3.50	3.70	3.90
	10	1.70	1.90	2.05	2.25	2.35	2.50	2.65	2.80	3.00	3.15	3.30	3.45	3.60
$\frac{7}{8}$	8	1.90	2.05	2.25	2.45	2.65	2.85	3.05	3.25	3.45	3.65	3.85	4.05	4.20
	10	2.05	2.25	2.50	2.75	3.00	3.20	3.45	3.70	3.90	4.15	4.40	4.60	4.85

Thickness is given for the middle of the Brush.

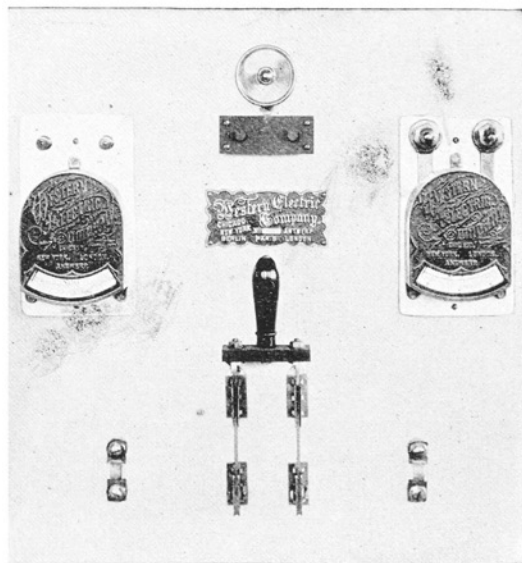
For price of 6 inch Brush, subtract from 8 inch, difference between 8 and 10 inch.

$\frac{3}{16}$  inch price will be charged for any size under that thickness.

## Brush Copper.

REGULAR SIZES IN STOCK. SPECIAL SIZES MADE UPON SHORT NOTICE.

Nos. B. & S. Gauge.	$\frac{1}{2}$ in. and Narrower	Over $\frac{1}{2}$ in. to 1 in.	Over 1 in. to $1\frac{1}{4}$ in.	Over $1\frac{1}{4}$ in. to 2 in.	Over 2 in. to $2\frac{1}{2}$ in.	Over $2\frac{1}{2}$ in.
23	\$0.37 $\frac{1}{2}$	\$0.37	\$0.38 $\frac{1}{2}$	\$0.38 $\frac{1}{2}$	\$0.38 $\frac{1}{2}$	\$0.38
24	.37 $\frac{1}{2}$	.37	.38 $\frac{1}{2}$	.38 $\frac{1}{2}$	.38 $\frac{1}{2}$	.36
25	.38 $\frac{1}{2}$	.38	.37 $\frac{1}{2}$	.37 $\frac{1}{2}$	.37 $\frac{1}{2}$	.37
26	.38 $\frac{1}{2}$	.38	.37 $\frac{1}{2}$	.37 $\frac{1}{2}$	.37 $\frac{1}{2}$	.37
27	.40	.39 $\frac{1}{2}$	.39	.39	.39	.38
28	.40	.39 $\frac{1}{2}$	.39	.39	.39	.38
29	.41	.40 $\frac{1}{2}$	.40	.40	.40	.39
30	.41	.40 $\frac{1}{2}$	.40	.40	.40	.39
31	.43	.42	.41 $\frac{1}{2}$	.41 $\frac{1}{2}$	.41 $\frac{1}{2}$	.40
32	.43 $\frac{1}{2}$	.42 $\frac{1}{2}$	.41 $\frac{1}{2}$	.41 $\frac{1}{2}$	.41 $\frac{1}{2}$	.40
33	.44 $\frac{1}{2}$	.43 $\frac{1}{2}$	.42 $\frac{1}{2}$	.42 $\frac{1}{2}$	.42 $\frac{1}{2}$	.41
34	.44 $\frac{1}{2}$	.43 $\frac{1}{2}$	.42 $\frac{1}{2}$	.42 $\frac{1}{2}$	.42 $\frac{1}{2}$	.41
35	.46	.45	.44	.44	.44	.42
36	.47	.46	.45	.45	.45	.43
37	.50	.49	.46	.45 $\frac{1}{2}$	.45	.43
38	.53	.49 $\frac{1}{2}$	.48	.47 $\frac{1}{2}$	.47	.44
39	.56	.51	.49 $\frac{1}{2}$	.48	.47	.44
40	.60	.53	.50	.49	.48	.45



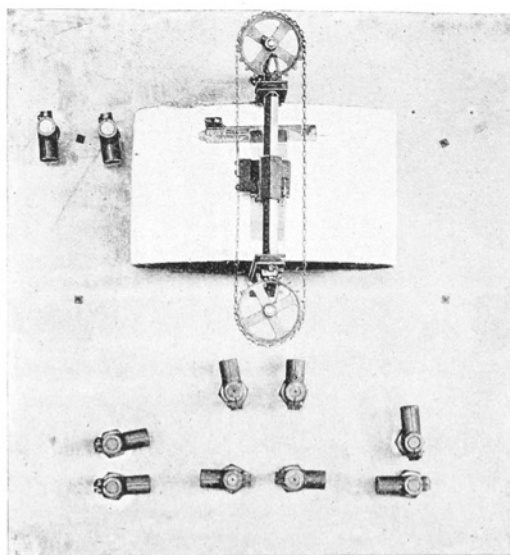
### Switchboard.

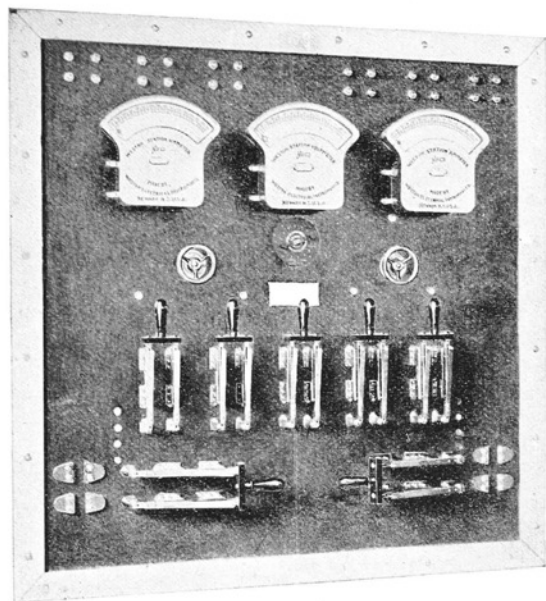
The illustrations on this page show respectively the front and rear of our standard switchboard for one dynamo and one feeder circuit.

#### Switchboard Front.

We are prepared to furnish switchboards for any number or sizes of dynamos and for any number of feeder circuits.

#### Switchboard Rear.

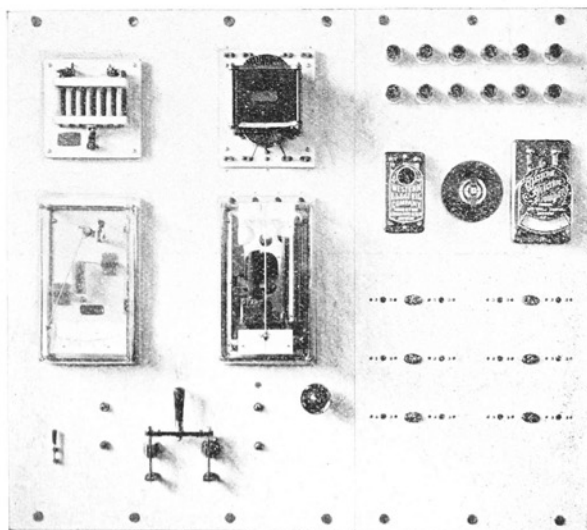




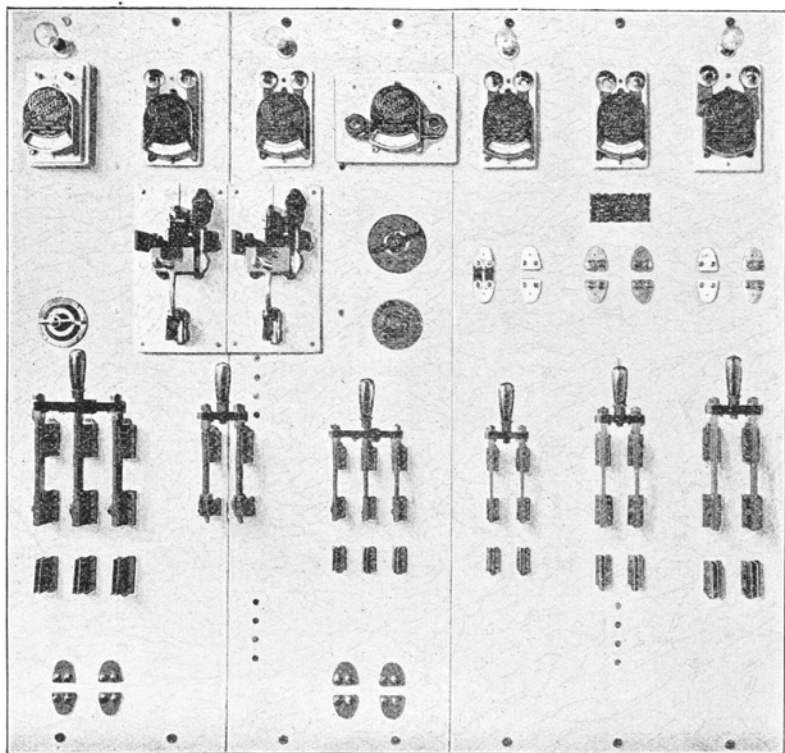
### Switchboards.

This illustration shows a switchboard furnished with Type "Q" quick break switches for two dynamos and five line circuits.

This illustration shows a combination switchboard for one incandescent alternator and arc dynamo.



## Switchboards.



Combination power and lighting board for two dynamos and four circuits.

Equipped with Western Electric ammeters and volt meters, and Western Electric type "E" switches.

It is almost impossible to standardize switchboards. We build switchboards in accordance with specifications and conditions.



## Switchboard Clock.

This is an American Eight Day Engine Lever Clock in a dust-proof case, designed especially for use on the Switchboard, where an accurate record of time is a valuable accessory to the proper running of a station.

The second hand is placed in the same position as is usually found on a watch. The movement can be easily taken from the dust-proof case. The porcelain dial is without feet and consequently is not liable to fracture. The regulator is of the micrometer pattern and allows of the closest regulation. The escapement is of the pattern known as the quick beat and is in a separate frame.

The movement is of the three plate type which permits of the removal of the main spring without disturbing the train or escapement.

The construction of the clock and working proportions of the movement from the main wheel to the balance wheel compare favorably with the very highest grade of English or French clocks.

The particular mounting of the main spring produces a uniform maintenance of the arc of vibration and the deviation from absolute correct time can be no greater on the eighth day than on the first, and after once adjusting the clock the result is great accuracy as a time-keeper.

Watches carried by persons in a dynamo room are always subject to magnetism and a correct timepiece located on the switch board will be a useful article in any electric light plant.

The dimensions of the Eight Day Switchboard Clock.

Width of back	.....	5 $\frac{1}{2}$ inches.
Length of back	.....	7 "
Depth	.....	3 $\frac{1}{2}$ "
Diameter of clock	.....	5 $\frac{1}{2}$ "

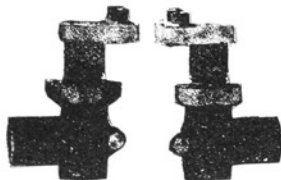
*Price* 25571 Switchboard clock, nickel finish . . \$10.00



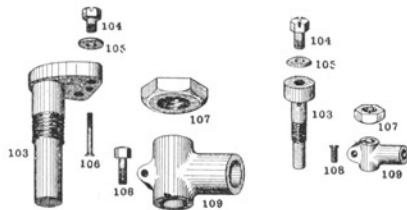
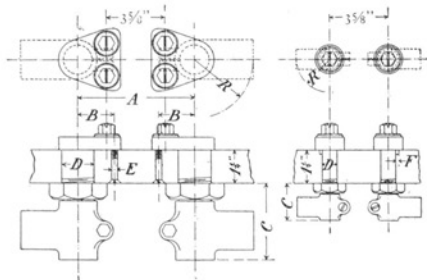




Fuse Posts, No. 1, 2, 3 and 4.



Fuse Posts No. 5, 6 and 7.



Switch Board Fittings.—Continued  
Fuse Posts.

The illustration shows our fuse posts. The smaller size are equipped for one fuse, the larger one for two fuses. The posts are cast from a special composition. The conductivity of which is almost the same as that of copper. The connectors are our standard.

The Hexagon slotted cap screw with brass washers can be tightened by either a wrench or a screw driver.

Fuse Posts.

Code Word.	List No.	No. 1	25 to 50 amperes	List Price Each.
<i>Access</i>	25573	No. 1	25 to 50 amperes	\$ .080
<i>Accesser</i>	25574	No. 2	50 to 75 "	1.00
<i>Accessy</i>	25575	No. 3	75 to 150 "	1.30
<i>Access</i>	25576	No. 4	150 to 300 "	1.90
<i>Acknowledg</i>	25577	No. 5	300 to 450 "	3.00
<i>Acknowledger</i>	25578	No. 6	450 to 900 "	4.00
<i>Acknowledgmet</i>	25579	No. 7	600 to 800 "	6.10

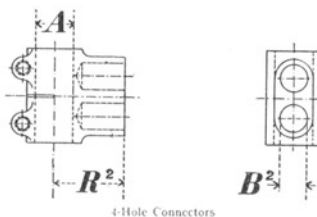
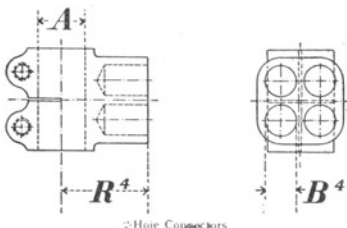
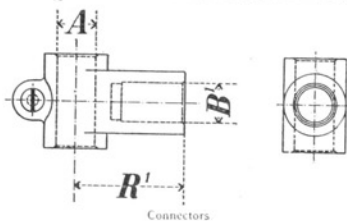
Table of dimensions of fuse posts. Letters referring to diagrams.

Size of Fuse Post	Amperes	Dimensions—Inches.						
		A	B	C	D	E	F	R
1	25-50	.....	.....	1 1/2	1/2	.....	1/2	3/8
2	50-75	.....	.....	1	1/2	.....	1/2	1
3	75-150	.....	.....	1 1/4	1/2	.....	1/2	1 1/4
4	150-300	.....	.....	2 1/4	1/2	.....	1/2	1 1/2
5	300-450	5/8	1 1/4	2 3/4	1 + 1/8	.....	3/8	2
6	450-600	5/8	1 1/2	3	1 1/2 + 1/8	.....	3/8	2 1/2
7	600-800	5/8	1 1/2	3 1/2	1 1/2 + 1/8	.....	3/8	2 1/2

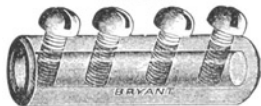
Table giving shop order numbers for parts of fuse posts.

Code No.	Name of Part	ORDER NUMBERS ON PARTS FOR							
		Fuse-Post	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	No. 7
		Amperes	25-50	50-75	75-150	150-300	300-450	450-600	600-800
103	Fuse Post	1031	1032	1033	1034	1035	1036	1037	
104	Cap Screw	1041	1042	1043	1044	1045	1046	1047	
105	Washer	1051	1052	1053	1054	1055	1056	1057	
106	Screw	.....	.....	.....	.....	1065	1066	1067	
107	Post Nut	1071	1072	1073	1074	1075	1076	1077	
108	Conn'y Screw	1081	1082	1083	1084	1085	1086	1087	
109	Connector	1091	1092	1093	1094	1095	1096	1097	

Prices on Parts Quoted on Application.



No. 25580.



No. 25581.



No. 25585.

## Switchboard Fittings.—Continued.

### Connectors.

All our connectors for switches (with back connectors) and fuse posts are of the same swivel type, clamping around a stud, allowing the circuit wires to be connected from any direction.

The standard connectors are for one cable entering the connector in a direction vertical to the stud.

Larger sizes of connectors are also made for two or four cables. Compare tables of dimensions No. 18 and No. 19.

We also manufacture "vertical" connectors for cables entering the connector in a direction parallel with the stud, and T-Connectors.

### Dimensions of Standard Connectors.

Table of Dimensions No. 18.

To Fit Stud on Switch No.	Dimensions—Inches.								
	1	1	3	4	5	6	7	8	9
A	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{7}{8}$	$\frac{1}{2}$	$\frac{1}{2}$	1	$1\frac{1}{2}$	$1\frac{1}{2}$	$1\frac{1}{2}$
B1	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{8}$	$1\frac{1}{8}$	$1\frac{1}{8}$	$2\frac{1}{8}$
B1, maximum	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{8}$	1	$1\frac{1}{8}$	$1\frac{1}{8}$	$1\frac{1}{8}$	$2\frac{1}{8}$
R1	$\frac{3}{8}$	1	$1\frac{1}{4}$	$1\frac{1}{4}$	2	$2\frac{1}{4}$	$2\frac{1}{4}$	$3\frac{1}{4}$	$4\frac{1}{4}$

NOTE.—For Q No. 2 Switch use No. 1 Connector.

Order numbers for these connectors are found under parts of switches or fuse-points.

### Dimensions of Special Connectors.

Table of Dimensions No. 18.

To Fit Stud on Switch No	7	8	9
Order No	2627	2628	2629
Dimensions—In.	A	$1\frac{1}{2}$	$1\frac{1}{2}$
" "	B2	$\frac{3}{8}$ (max - 1)	1 (max - $1\frac{1}{8}$ )
" "	R2	$2\frac{1}{4}$	$3\frac{1}{4}$

Table of Dimensions No. 19.

To Fit Stud on Switch No	8	9
Order No	2648	2649
Dimensions—Inches	A	$1\frac{1}{2}$
" "	B4	$2\frac{1}{4}$
" "	R4	$2\frac{1}{4}$

### Wire Connectors.

#### Straight Connectors.

Code Word	List No.	B. E. No.	For No. 8 B. & S. Gauge Wire.	List Price
Actone	25580	315	"	\$.07
Armita	25581	316	10	".07
Arus	25582	317	12 or 14	".06
Arckbill	25583	313	$\frac{1}{2}$ -inch, for No. 6 Wire.	".07
Aradd	25584	314	$\frac{1}{4}$ " " " 4 "	".08

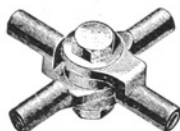
#### Brooklyn Connector.

When necessary to solder one end, the dividing wall prevents the melted solder from running through.

Arlogy	25585	310	$\frac{1}{2}$ -inch Both Ends, for No. 6 Wire.	.06
Arolyte	25586	311	One End $\frac{1}{4}$ -inch for No. 4 Wire, Other End $\frac{1}{2}$ -inch for No. 6 Wire.	.07
Arolyth	25587	312	$\frac{1}{4}$ -inch Both Ends, for No. 4 Wire.	.07

Switchboard Fittings — *Continued.*

Connectors for Heavy Conductors.



Nos. 65189 to 65205.



Nos. 65209 to 65225.



Nos. 65229 to 65245.

Code Word.	List No.	List Price.
<i>Chaleric</i>	65189	Cross Connection for $\frac{1}{2}$ inch rod, each..... \$1.00
<i>Choose</i>	65193	" " " " " " " " ..... 1.75
<i>Chooser</i>	65197	" " " " " " " " ..... 2.00
<i>Choosing</i>	65201	" " " " " " " " ..... 3.00
<i>Chop</i>	65205	" " " " " " " " ..... 4.00
<i>Chopper</i>	65209	" Tee " or " Y " Connection for $\frac{1}{2}$ inch rod, each... .90
<i>Chops</i>	65213	" " " " " " " " ..... 1.40
<i>Choral</i>	65217	" " " " " " " " ..... 1.60
<i>Chord</i>	65221	" " " " " " " " ..... 2.00
<i>Charister</i>	65225	" " " " " " " " ..... 3.00
<i>Chorus</i>	65229	Straight Connection for $\frac{1}{2}$ inch rod, each..... .65
<i>Chorusgirl</i>	65233	" " " " " " " " ..... .90
<i>Chosc</i>	65237	" " " " " " " " ..... 1.10
<i>Chosen</i>	65241	" " " " " " " " ..... 1.50
<i>Chousing</i>	65245	" " " " " " " " ..... 2.00

Wire Terminals.

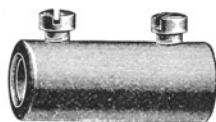


No. 1321.

<i>Lack</i>	1321	$\frac{1}{2}$ Inch, each	.25
<i>Lackey</i>	1322	$\frac{3}{8}$ " "	.40
<i>Lacking</i>	1333	$\frac{1}{2}$ " "	.75
<i>Laonic</i>	1334	$\frac{3}{8}$ " "	1.00
<i>Laconical</i>	1335	$\frac{1}{2}$ " "	1.40
<i>Laconics</i>	1336	1 " "	1.75
<i>Absorptive</i>	25323	$1\frac{1}{2}$ " "	2.25
<i>Absorbitive</i>	25324	$1\frac{1}{2}$ " "	3.00

Wire Connections.

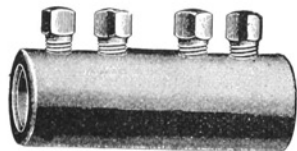
Single Screw.



No. 1851.

	Outside Size.	Size of Wire.	per 100	
<i>Crag</i>	1851	$\frac{5}{16}$	6	15.00
<i>Cragged</i>	1852	$\frac{3}{8}$	4	18.00
<i>Craggy</i>	1853	$\frac{1}{2}$	2	21.00
<i>Cramp</i>	1854	$\frac{3}{8}$	0	24.00
<i>Cramping</i>	1855	$\frac{1}{2}$	00	27.00

Double Screw.

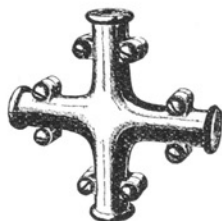


No. 8973.

	Outside Size.	Size of Wire.	per 100	
<i>Edna</i>	8973	$\frac{3}{8}$	000	44.00
<i>Educate</i>	8974	$\frac{1}{2}$	0000	60.00
<i>Education</i>	8975	1	$\frac{3}{8}$	75.00
<i>Educard</i>	8976	$1\frac{1}{2}$	$\frac{1}{2}$	90.00

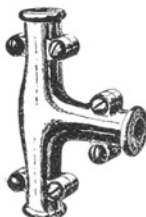
## Switchboard Fittings—(Continued).

## Clamp Connections for Heavy Conductors.



No. 8977.

Code Word.	List No.	List Price.
<i>Chocder</i>	8977	Cross Connection for $\frac{3}{8}$ inch rod, each..... \$2.20



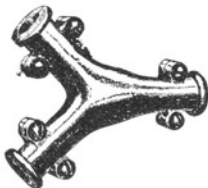
No. 8978.



No. 8979.

<i>Chrisal</i>	8978	T Connection for $\frac{3}{8}$ inch rod, each..... 1.45
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<i>Chrimath</i>	8979	Straight Connection for $\frac{3}{8}$ inch rod, each..... 1.10
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No. 8980.

<i>Chrim</i>	8980	Y Connection for $\frac{3}{8}$ inch rod, each..... 1.15
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No. 8981.



No. 8982.

<i>Cemented</i>	8981	L Connection for $\frac{3}{8}$ inch rod, each..... 1.25
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<i>Cementing</i>	8982	T Connection for $\frac{3}{8}$ inch rod, each..... 1.20
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## Wire Terminals.



Nos. 1804 to 1812.

Code Word.	List No.	List Price.
<i>Cheaply</i>	1804	For No. 12 wire, B. & S. G., per 100..... 4.00
<i>Cheapness</i>	1805	" 10 " " " " "..... 4.50
<i>Cheating</i>	1806	" 8 " " " " "..... 5.00
<i>Checker</i>	1807	" 6 " " " " "..... 6.00
<i>Checkmate</i>	1808	" 4 " " " " "..... 7.00
<i>Cheerful</i>	1809	" 3 " " " " "..... 7.50
<i>Cheerfully</i>	1810	" 2 " " " " "..... 8.00
<i>Cheerily</i>	1811	" 1 " " " " "..... 9.00
<i>Cheering</i>	1812	" 0 " " " " "..... 11.00

## Switchboard Fittings—(Continued).

## Wire Holders.

Code Word.	List No.		List Price.
<i>Correcte</i>	1813	1 to 25 amperes, per pair.....	\$0.50
<i>Cosmetic</i>	1814	25 to 100 " " .....	1.00
<i>Cosmic</i>	1815	100 to 300 " " .....	2.00
<i>Cossark</i>	1816	400 " " .....	3.00
<i>Costing</i>	1817	500 " " .....	4.00
<i>Couch</i>	1818	800 " " .....	5.00
<i>Conchant</i>	1819	800 " " .....	6.00
<i>Cough</i>	1820	1000 " " .....	8.00



No. 1813.

## Bus Bar Stands.

<i>Coventry</i>	1821	$\frac{1}{2}$ inch, each.....	.50
<i>Covert</i>	1822	$\frac{3}{8}$ " " .....	.75
<i>Covertly</i>	1823	$\frac{1}{2}$ " " .....	1.00
<i>Coverture</i>	1824	$\frac{3}{4}$ " " .....	1.25
<i>Corcet</i>	1825	$\frac{1}{2}$ " " .....	1.50
<i>Coroted</i>	1826	1 " " .....	2.00
<i>Corotling</i>	1827	$1\frac{1}{4}$ " " .....	2.50
<i>Corctous</i>	1828	$1\frac{1}{2}$ " " .....	3.00



No. 1821.

We make the above in the following lengths: 1 inch,  $1\frac{1}{4}$  inch,  $\frac{3}{8}$  inch and 4 inch. SPECIFY LENGTH.

## Bus Bar Connections.

## Solid.

<i>Corey</i>	1829	$\frac{1}{2}$ inch, each.....	.40
<i>Corard</i>	1830	$\frac{3}{8}$ " " .....	.60
<i>Corardice</i>	1831	$\frac{1}{2}$ " " .....	.60
<i>Corardly</i>	1832	$\frac{3}{4}$ " " .....	.80
<i>Crab</i>	1833	$\frac{1}{2}$ " " .....	1.00
<i>Crabapple</i>	1834	$\frac{3}{4}$ " " .....	1.25
<i>Crabbed</i>	1835	1 " " .....	1.50
<i>Crabedly</i>	1836	$1\frac{1}{4}$ " " .....	2.00
<i>Crabby</i>	1837	$1\frac{1}{2}$ " " .....	3.00



No. 1829.

## Split.

<i>Crack</i>	1838	$\frac{1}{2}$ inch, each.....	.40
<i>Cracked</i>	1839	$\frac{3}{8}$ " " .....	.60
<i>Cracker</i>	1840	$\frac{1}{2}$ " " .....	.60
<i>Crackling</i>	1841	$\frac{3}{4}$ " " .....	.80
<i>Crackle</i>	1842	1 " " .....	1.00
<i>Crackling</i>	1843	$1\frac{1}{4}$ " " .....	1.25
<i>Cradle</i>	1844	1 " " .....	1.50
<i>Cradled</i>	1849	$1\frac{1}{4}$ " " .....	2.00
<i>Crating</i>	1850	$1\frac{1}{2}$ " " .....	3.00



No. 1838.

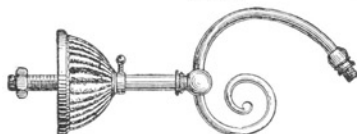
## Switchboard Fittings—(Continued).

## Switchboard Brackets.

Code Word.	List No.	List Price.
<i>Jumping</i>	136 1 Light, each .....	\$1.25
<i>Junction</i>	137 1 Light, each .....	1.50
<i>Juncture</i>	138 2 " " .....	2.50



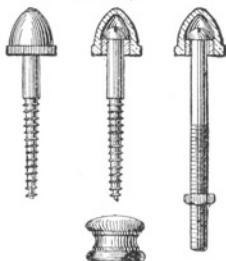
No. 136.



No. 137.



No. 142.



Nos. 143 to 145.



No. 139.

## Switchboard Bolts.

<i>Kirk</i>	141 Machine Screw, complete, each .....	.40
<i>Kirkman</i>	142 Wood " " " .....	.30
<i>Kirtle</i>	143 Wood Screw, complete, each .....	.20
<i>Kirtled</i>	144 Machine " " " .....	.20
<i>Kiss</i>	145 Special Cap to fit Nos. 143 and 144, each .....	.20
<i>Jungle</i>	139 Voltmeter Bolt, each .....	.20

# ARC SUPPLIES.

## Miscellaneous.

### Current Direction Indicator.

This instrument is placed directly in an arc circuit and visually indicates or shows the direction of the current, if desired, it can be made to close a local battery circuit so as to ring an alarm bell and trip an annunciator needle whenever the current flows in the wrong direction, the annunciator showing the number of the circuit that is mis-connected.

The Indicator is well adapted for use upon arc circuits of both high and low tension systems of any manufacture.



No. 213.

Code Word.  
*Eulogy*

List No. List Price.  
213 Each ..... \$20.00



No. 214

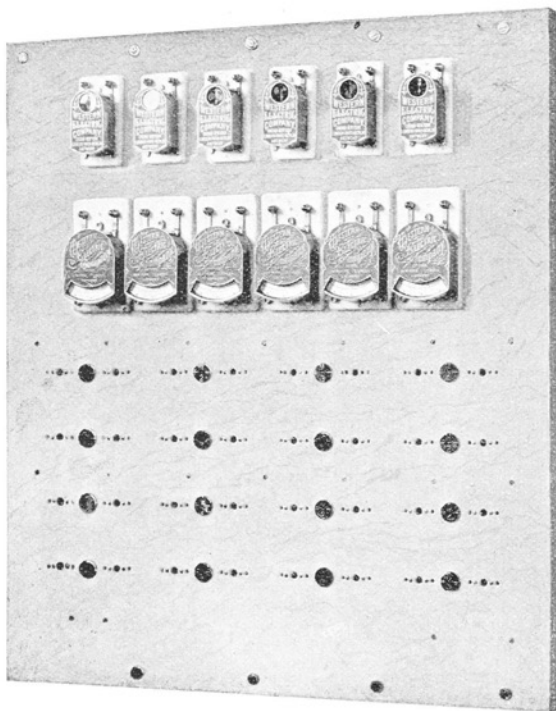
### Arc Ammeter.

This Ammeter is designed for use as a station instrument. It is well protected by a sealed case; has no springs or permanent magnets; is dead beat and accurate within one per cent.

*Eulogize* 214 Each..... 18.00

### Arc Switchboard.

Equipped with Western Electric Instruments.

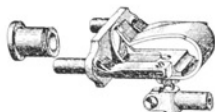


**A Typical Switchboard** constructed for six dynamo and ten line circuits. The board is constructed of marble, and for each dynamo is furnished an ammeter and polarity indicator. Only specially selected marble is used for arc boards and the workmanship is guaranteed. Specifications for special boards will be furnished on application.



## Arc Switchboard Fittings.

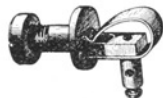
## Improved Spring Jack.



No. 21350.

This cut represents the latest type of Switchboard Spring Jack for Arc Circuits. The Spring Jack is separable and a bushing screwing through from the face of the board holds the Spring Jack in place and obviates any liability from shock on the face of the board as there are no metal parts of the Jack on the front of the board. The connection to circuit is made by means of a swivel lug and brings the wire against the marble board. When the Spring Jack is in place, with all connections made, it extends from the back of the board but  $2\frac{3}{8}$  inches. The contact spring is of phosphor bronze, and extra length is secured by making it the curved form as shown.

Code Word	List No.	List Price Each
<i>Sarcodol</i>	21350 Spring Jack .....	\$3.35



No. 25325.

<i>Absque</i>	25325 Test Jack .....	.50
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## Improved Plugs.

The Safety Plug illustrated is of the sheathing type and renders it impossible to obtain a shock should the circuit be opened accidentally at the switchboard while making a change of circuits when the dynamo is in operation. The insulation is of hard rubber and of sufficient strength to stand any ordinary service. These plugs are made in two sizes, one for main circuit and one for transfer circuit.



No. 21351.

<i>Sarcolla</i>	21351 Transfer Plug .....	4.00
<i>Sarcode</i>	21352 Main Plug .....	5.00



No. 21352.

## Old Style Plugs.



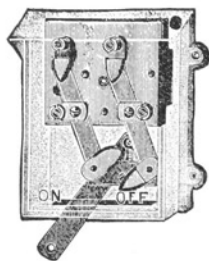
No. 1176.

<i>Daening</i>	1176 Disconnecting Plug, each ....	1.00
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No. 1177.

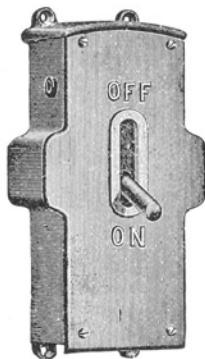
<i>Day</i>	1177 Main Plug, each .....	1.50
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No. 935.

## Cleveland Arc Cut-out.

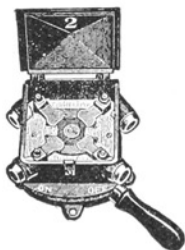
Code Word.	List No.	List Price.
<i>Editor</i>	935 Each .....	\$2.50



No. 2926.

## Western Electric Building Switch.

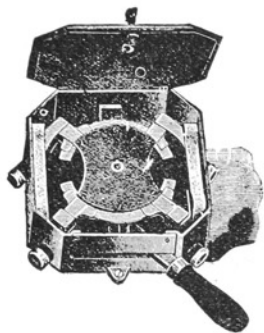
<i>Edmond</i>	2926 Each .....	11.25
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No. 1115.

## Hope Arc Cut-out.

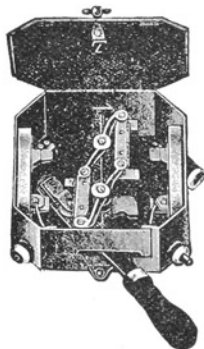
<i>Damp</i>	1115 Slate base, each.....	4.70
<i>Dampness</i>	1116 Porcelain base, each.....	6.00
<i>Damsel</i>	1117 " " cam movement, each.....	6.00



No. 1118.

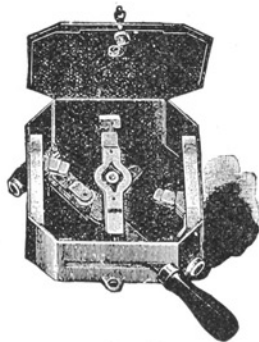
## Hope Arc Cut-out—(Continued).

Code Word.	List No.	List Price.
<i>Dance</i>	1118 Extra large, for station use, each.....	\$20.00



No. 1119.

<i>Dancer</i>	1119 For Alternating Currents, each.....	18.00
<i>Dancing</i>	1120 " " " with fuse, each.....	18.00



No. 1127.

<i>Dandify</i>	1127 For Alternating Currents, Bi-pole, each.....	14.40
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No. 934

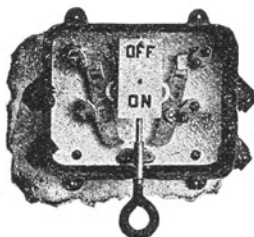
### Bryant-Cleveland Arc Cut-Out.

This Arc Cut-Out is made entirely of porcelain and metal, consequently incombustible and moisture-proof.

The action of the commutator at the point of breaking or closing the circuit is entirely uncontrolled by the handle.

The binding posts are the well-known K. W. style, very secure and easy to wire.

Code Word.	List No.	List Price.
<i>Edition</i>	934	Each..... \$3.00

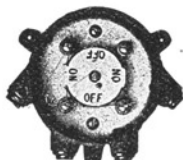


No. 21079.

### F. W. Large Arc Circuit Cut-Out.

In order to comply with the requirements of the fire underwriters an absolute cut-out must be placed wherever arc wires enter or leave a building. The cut-out here shown is of an improved type, having been adopted by many of the large electric companies. It is fire-proof, all the mechanism being mounted on porcelain, while the switching action is instantaneous in both directions, the operator having no control over it. It is, therefore, impossible for the contacts to remain in any position but that shown by the indicator "ON" or "OFF." This cut-out is designed for heavy service, and will operate without arcing on from one to fifty lamps.

<i>Sawyer</i>	21079	Each.....	7.00
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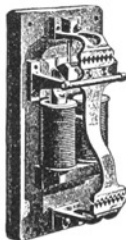


No. 21080.

### F. W. Small Arc Circuit Cut-Out.

This Cut-Out is intended for light service, such as from one to five lamps. It is designed for use in places where it would be inconvenient to install the larger size. The switching action is performed by turning a key which compresses a spring, then suddenly releasing it, causing the central porcelain disc to make one-quarter revolution but always in the same direction. This instantly switches the current off and on. This cut-out is admirably adapted for use in iron lamp posts where the cables come up from below.

<i>Sawyer</i>	21080	Each.....	7.00
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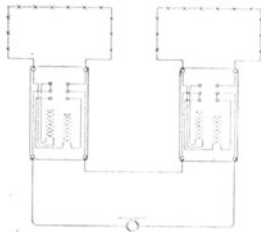
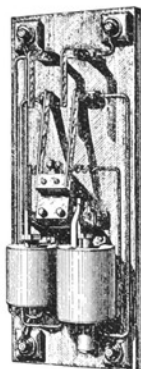
No. 21081.

### Lightning Arresters for Arc Circuits.

Where arc circuits enter or leave the station it is necessary to place lightning arresters in the several branches, in order to protect the dynamos and apparatus in the station during heavy thunder storms so prevalent in some parts of this country. The lightning arrester here shown affords a path for the lightning discharge to earth, and should an arc from any cause follow the discharge, it is broken.

<i>Sawyer</i>	21081	Each.....	10.00
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### Automatic Circuit Controlling Switch.



This switch is designed more especially for use with series arc or other high potential circuits where it is desired to cut out and entirely insulate a line when not in actual service. It is entirely automatic in its action and never offers any appreciable resistance to the passage of current through itself. The construction is such that when current is supplied to its terminals that current will be established in the line in case the line is in proper working condition; if the line should be open the switch will again insulate the line and the current will flow directly through the switch encountering there only the resistance of a small solenoid wound with heavy wire. If at any time during the operation of the line an accident should occur causing the circuit to be opened, the switch will immediately insulate the line and provide a path for the current through itself. Before remaining permanently in that position, however, it will make a trial stroke so that if the continuity of the line has been re-established (as for instance by the dropping together of carbons in a lamp whose rod had become stuck) that current will be re-established in the line as before.

The diagrams of circuits shows the usual way of connecting the switches to the lamp circuits—any number of switches may be used on a line, each one controlling a given portion. A single switch is capable of controlling a circuit of any number of lamps up to fifty.

Prices on application.

### Electric Clock Switch.

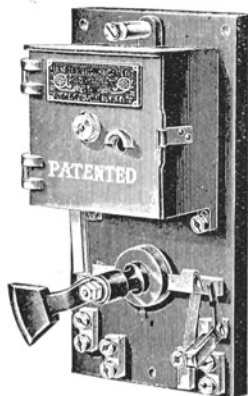
This Switch was designed for use in offices, show windows, hotels, etc., or on any direct or alternating current circuit, not exceeding 125 volts of pressure.

It operates both to turn on the current at whatever hour of the day the dial is set for, and later on to cut it off again at any desired time.

It is not a magnetic, but a mechanical switch, operated by means of a clock movement, which is wound when the switch is set.

The clock movement is protected by a neat Iron Japanese case, with hinged door. The switch part is free, and readily accessible. A case, enclosing the entire switch, can be furnished if desired. All the parts are insulated in the best manner, and the work is strong and substantial.

Mounted on slate base, capacity 10 amperes.



No. 23078.

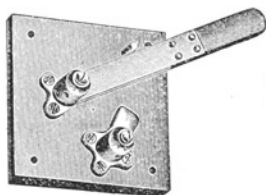
Code Word.

List No.

Silberian

23078 Electric Clock Switch .....

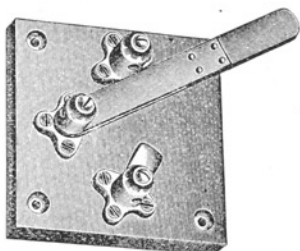
Price List.  
Each. \$14.40



No. 21048.

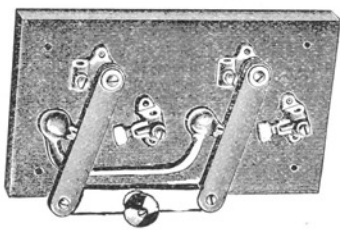
## Arc Light Line Switches.

Code Word.	List No.		
<i>Saleor</i>	21048	2-Point .....	1.50
		Mounted on Slate.	



No. 21049.

<i>Sam</i>	21049	3-Point .....	2.50
		Mounted on Slate.	

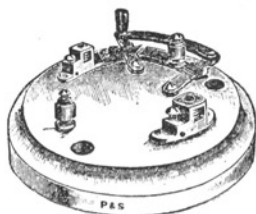


No. 21050.

## Isolating Switch for Arc Circuit.

A simple and reliable Switch adapted for currents below 30 amperes, and which operates to completely isolate or remove the lamps from all connections with a circuit made with a circuit. Made with slate base and bronze terminals.

<i>Samara</i>	21050	Each .....	3.50
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No. 21053.

## P. &amp; S. China Hanging Board.

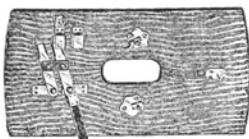
<i>Samaroid</i>	21053	Base, only .....	.90
<i>Sammarra</i>	21054	" with oil brass work refitted .....	1.35



No. 2850.

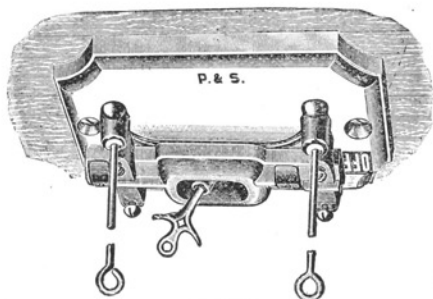
### Arc Cut-Out Boards.

Code Word	List No.		List Price. Each.
<i>Earldona</i>	2850	Round, wood, each	\$3.00
<i>Abstainer</i>	25326	" slate, "	3.70



No. 2851.

<i>Earn</i>	2851	Oblong, wood, each	2.80
<i>Abstentions</i>	25327	" slate, "	3.70



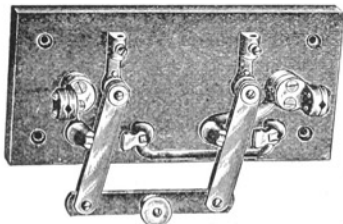
No. 8851.

### China Arc Hanging Board.

No. 8851, for series circuits, has automatic device which closes circuit if the lamp is disconnected when the switch is on.

No. 8852 is for incandescent circuits, and the switch is also double pole and breaks in four places.

Code Word.	List No.		List Price. Each.
<i>Dating</i>	8851	For Constant Current, Series Circuit	2.50
<i>Dattee</i>	8852	For Constant Potential, Multiple Circuits	2.50



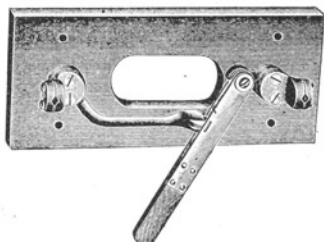
No. 21051.

### Stationary Lamp Hanger.

#### With Isolating Switch.

By the use of this Hanger the lamp can be entirely disconnected from the circuit, and not merely shunted, as is the case with single pole switches. They are made for either wide or narrow frame lamps. Mounted on slate.

<i>Sahare</i>	21051	Narrow frame	4.50
<i>Samuritan</i>	21052	Wide "	5.25



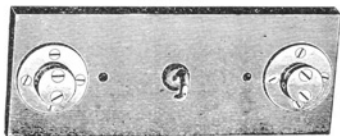
No. 21058.

### Stationary Hanger Boards.—(Continued.)

Code Word.	List No.		List Price. Each.
<i>Somester</i>	21058	For Narrow Frame Lamps .....	\$2.75
<i>Someth</i>	21059	For Wide Frame Lamps.....	3.20

Mounted on Slate.

For either double or single lamps.



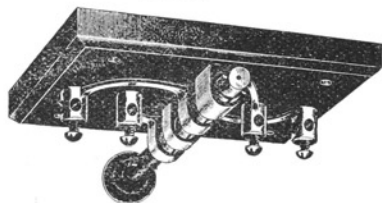
No. 21060.

### Hanger Boards.

For Constant Potential Lamps.

<i>Samian</i>	21060	With Binding Terminals.....	2.10
<i>Samill</i>	21061	With Hook Terminals.....	2.10

Mounted on Slate.

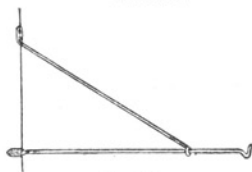


No. 21062.

### Kelsh Arc Lamp Hanger Board.

<i>Samiot</i>	21062	Each .....	3.00
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Mounted on Marbleized Slate.



No. 8705.

### Arc Lamp Hooks.

<i>Copiousness</i>	8705	Plain, wrought iron, each .....	1.50
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No. 8706.

<i>Copist</i>	8706	Ornamental, each .....	
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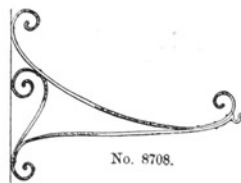
No. 8707.

<i>Coplornt</i>	8707	Ornamental, each .....	
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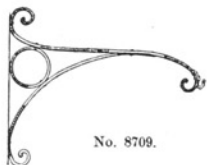
Prices on Ornamental Brackets quoted on application.



Arc Lamp Hooks—(Continued).



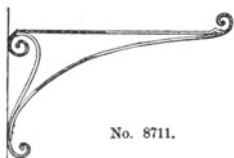
Code Word.	List No.	List Price.
<i>Copperish</i>	<b>8708</b> Ornamental, each.....	



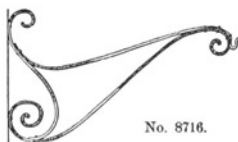
<i>Coppice</i>	<b>8709</b> Ornamental, each.....	
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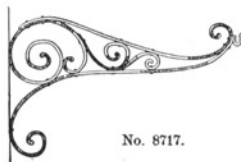
<i>Copse</i>	<b>8710</b> Ornamental, each.....	
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<i>Copula</i>	<b>8711</b> Ornamental, each.....	
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<i>Copy</i>	<b>8716</b> Ornamental, each.....	
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<i>Copybook</i>	<b>8717</b> Ornamental, each.....	
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Prices on Ornamental Brackets quoted on application.



No. 21636.

### Lamp Hoods.

These Hoods are made of heavy galvanized iron, japanned, supported by iron frames, with a cast iron base, making the whole very strong and substantial.

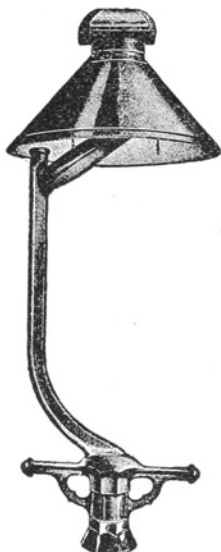
The lamp is suspended from a hanging board provided with a hand cut-out, and firmly fastened inside the Hood.

Code Word.	List No.	List Price.
<i>Scoria</i>	21636 Each	Each. \$18.00



No. 2001.

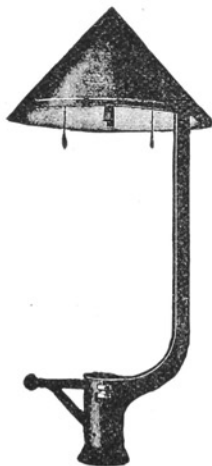
<i>Ease</i>	2001 Each	28.00
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No. 2002.

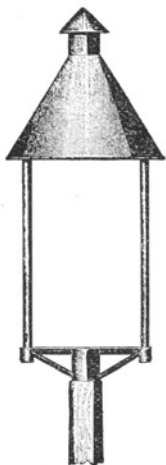
## Lamp Hoods—(Continued)

Code Word.	List No.	List Price.
<i>Easel</i>	2002 Each.....	\$25.00



No 2003.

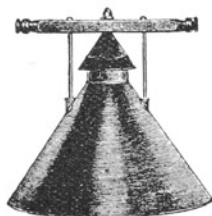
<i>Easily</i>	2003 Each.....	20.00
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No. 2886.

## Lamp Hoods.—(Continued.)

Code Word.	List No.	List Price. Each.
<i>Easiness</i>	2886 Complete .....	\$9.00
<i>Salutatorian</i>	21029 Hood only .....	3.50
<i>Salutatory</i>	21030 Side Rods and Bracket .....	3.50
<i>Salute</i>	21031 Cut-Out Board .....	2.00



No. 2887.

<i>Easement</i>	2887 Complete with Cut-Out Board .....	5.00
<i>Solater</i>	21032 Hood only .....	3.00



No. 2888.

<i>Easimg</i>	2888 Complete with Cut-Out Board .....	4.00
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## Domestic Carbons.

## Solid.

## High Tension Series Arc.

Specify when ordering whether moulded or forced.

Code Word.	List No.	Inches.	List Price. Per 1000.
<i>Salter</i>	20969	7-16 x 12, plain.....	\$13.50
<i>Salterna</i>	20970	7-16 x 12, coppered.....	13.50
<i>Saltfish</i>	20971	1 2 x 12, plain.....	14.00
<i>Saltfast</i>	20972	1 2 x 12, coppered.....	14.00
<i>Saltgauche</i>	20973	5-8 x 12, plain.....	19.50
<i>Saltgreen</i>	20974	5-8 x 12, coppered.....	20.50
<i>Saltier</i>	20975	9-16 x 14, plain.....	20.50
<i>Saltieraise</i>	20976	9-16 x 14, coppered.....	22.00
<i>Saltigrade</i>	20977	5-8 x 14, plain.....	21.70
<i>Saltimbanco</i>	20978	5-8 x 14, coppered.....	23.70
<i>Saltinag</i>	20979	7-16 x 7, plain.....	6.75
<i>Saltire</i>	20980	7-16 x 7, coppered.....	6.75
<i>Saltish</i>	20981	1 2 x 7, plain.....	7.00
<i>Saltishly</i>	20982	1 2 x 7, coppered.....	7.00
<i>Saltishness</i>	20983	5-8 x 7, plain.....	11.00
<i>Saltjunk</i>	20984	5-8 x 7, coppered.....	12.00
<i>Saltpeper</i>	20985	1 2 x 9, plain.....	9.50
<i>Saltless</i>	20986	1 2 x 9, coppered.....	9.50
<i>Saltlick</i>	20987	5-8 x 9, plain.....	13.00
<i>Saltly</i>	20988	5-8 x 9, coppered.....	13.70

## Coppered Solid Forced.

## For Low Tension Series Arc.

<i>Saltmarsh</i>	20989	7-16 x 12.....	13.50
<i>Saltmine</i>	20990	1 2 x 12.....	14.00
<i>Saltness</i>	20991	5-8 x 12.....	20.50
<i>Saltpen</i>	20992	7-16 x 7.....	6.75
<i>Saltpen</i>	20993	1 2 x 7.....	7.00
<i>Saltperlate</i>	20994	5-8 x 7.....	12.00

## For Constant Potential Lamps.

## Uppers—Soft Cored.

<i>Sault</i>	21091	5-16 x 7 1 2.....	9.50
<i>Saunacingsbell</i>	21092	3-8 x 7 1 2.....	12.00
<i>Saunders</i>	21093	7-16 x 7 1 2.....	13.50
<i>Saundersblue</i>	21094	1 2 x 7 1 2.....	16.50
<i>Saunter</i>	21095	9-16 x 7 1 2.....	17.50
<i>Saunterer</i>	21096	5-8 x 7 1 2.....	24.00
<i>Saur</i>	21097	5-8 x 8.....	25.50
<i>Saurin</i>	21098	11-16 x 8.....	34.00
<i>Saurian</i>	21099	5-16 x 10.....	13.00
<i>Sauroid</i>	21100	3-8 x 10.....	16.50
<i>Saurophagus</i>	21101	7-16 x 10.....	18.00
<i>Saurg</i>	21102	1 2 x 10.....	22.00
<i>Sausage</i>	21103	9-16 x 10.....	24.00
<i>Saussurite</i>	21104	5-8 x 10.....	32.00
<i>Sauterelle</i>	21105	11-16 x 10.....	38.00





## Domestic Carbons.—(Continued.)

## For Constant Potential Lamps.

## Uppers—Soft Cored.

Code Word.	List No.		List Price. Per 1000.
<i>Sautern</i>	21106	23-32 x 10.....	40.00
<i>Saucegarde</i>	21107	5-16 x 12.....	15.00
<i>Sucable</i>	21108	3-8 x 12.....	20.00
<i>Sucacon</i>	21109	7-16 x 12.....	22.00
<i>Sucage</i>	21110	15-32 x 12.....	24.00
<i>Sucagely</i>	21111	1-2 x 12.....	26.00
<i>Sucageness</i>	21112	9-16 x 12.....	28.00
<i>Sucagery</i>	21113	5-8 x 12.....	38.00
<i>Sucogtam</i>	21114	1-2 x 14.....	30.00
<i>Sucaona</i>	21115	9-16 x 14.....	33.00
<i>Sucant</i>	21116	5-8 x 14.....	44.00
<i>Suce</i>	21117	11-16 x 14.....	51.00
<i>Suceall</i>	21118	3-4 x 14.....	58.00

## Lowers—Solid.

<i>Saceloy</i>	21119	5-16 x 6.....	6.50
<i>Sucer</i>	21120	3-8 x 6.....	8.50
<i>Sucin</i>	21121	7-16 x 6.....	9.50
<i>Sucing</i>	21122	1-2 x 6.....	12.00
<i>Sucingly</i>	21123	7-16 x 7.....	11.00
<i>Savingness</i>	21124	1-2 x 7.....	14.00
<i>Savingsbank</i>	21125	9-16 x 7.....	15.00
<i>Savor</i>	21126	5-8 x 7.....	20.00
<i>Savorily</i>	21127	5-16 x 7 1/2.....	10.00
<i>Savoriness</i>	21128	3-8 x 7 1/2.....	11.00
<i>Savorless</i>	21129	7-16 x 7 1/2.....	12.00
<i>Savorly</i>	21130	1-2 x 7 1/2.....	15.00
<i>Savorous</i>	21131	9-16 x 7 1/2.....	16.00
<i>Savory</i>	21132	5-8 x 7 1/2.....	21.50
<i>Savoy</i>	21133	1-2 x 8.....	16.00
<i>Savoyard</i>	21134	5-8 x 8.....	23.00
<i>Sae</i>	21135	5-16 x 9 1/2.....	10.00
<i>Savoie</i>	21136	3-8 x 9 1/2.....	13.50
<i>Sampan</i>	21137	7-16 x 9 1/2.....	15.50
<i>Samphine</i>	21138	1-2 x 9 1/2.....	19.00
<i>Sample</i>	21139	5-16 x 10.....	11.00
<i>Sampler</i>	21140	3-8 x 10.....	14.50
<i>Sanshoo</i>	21141	7-16 x 10.....	16.00
<i>Sanshu</i>	21142	1-2 x 10.....	20.00
<i>Sansone</i>	21143	3-8 x 12.....	17.00
<i>Sansonspost</i>	21144	7-16 x 12.....	19.00
<i>Sanability</i>	21145	15-32 x 12.....	21.00
<i>Sanable</i>	21146	1-2 x 12.....	24.00
<i>Sanableness</i>	21147	17-32 x 12.....	25.00
<i>Sanation</i>	21148	9-16 x 12.....	26.00
<i>Sanative</i>	21149	5-8 x 12.....	34.00



Domestic Carbons.—(Continued.)

High Tension Series Arc Cored.

Uppers—Cored.

Code Word.	List No.	Inches.	List Price. Per 1000.
<i>Sanctiveness</i>	21150	7.16 x 12.....	10.00
<i>Sanatory</i>	21151	1.2 x 12.....	10.00
<i>Sanbenito</i>	21152	5.8 x 12.....	13.50
<i>Sanctibell</i>	21153	1.2 x 14.....	11.50
<i>Sanctibell</i>	21154	9.16 x 14.....	14.00
<i>Sanctifeate</i>	21155	5.8 x 14.....	16.00
<i>Sanctificaton</i>	21156	11.16 x 14.....	18.00
<i>Sanctimonios</i>	21157	3.4 x 14.....	20.00

Special Bottoms—Solid.

<i>Sanctimony</i>	21158	7.16 x 7.....	5.00
<i>Sanction</i>	21159	1.2 x 7.....	5.00
<i>Sanctinary</i>	21160	5.8 x 7.....	6.50
<i>Sanctitude</i>	21161	5.8 x 9.....	8.25
<i>Sanctify</i>	21162	3.8 x 10.....	7.25
<i>Sanctium</i>	21163	1.2 x 10.....	8.25
<i>Sanctus</i>	21164	3.8 x 12.....	8.50
<i>Sand</i>	21165	7.16 x 12.....	9.00
<i>Sanda</i>	21166	15.32 x 12.....	9.50
<i>Sun</i>	21167	1.2 x 12.....	10.00

“Helios.”

Direct Current Carbons.

Cored.



Millimeters		Inches.		Price.	Millimeters		Inches.		Price.
12 x 160	15.32 x 6.516	6.516		\$14.00	10 x 255	3.8 x 10		\$16.00	
15 x 160	19.32 x 6.516	6.516		18.50	11 x 255	7.16 x 10		18.40	
18 x 160	23.32 x 6.516	6.516		26.00	12 x 255	15.32 x 10		20.00	
8 x 190	5.16 x 7.12	7.12		9.60	13 x 255	1.2 x 10		22.15	
10 x 190	3.8 x 7.12	7.12		12.35	14 x 255	9.16 x 10		24.00	
11 x 190	7.16 x 7.12	7.12		13.75	15 x 255	19.32 x 10		27.50	
12 x 190	15.32 x 7.12	7.12		15.00	16 x 255	5.8 x 10		32.25	
13 x 190	1.2 x 7.12	7.12		16.50	18 x 255	23.32 x 10		40.00	
14 x 190	9.16 x 7.12	7.12		17.85	20 x 255	25.32 x 10		48.00	
15 x 190	19.32 x 7.12	7.12		20.50	25 x 255	1 x 10		70.00	
16 x 190	5.8 x 7.12	7.12		24.00	8 x 305	5.16 x 12		15.40	
18 x 190	23.32 x 7.12	7.12		31.00	10 x 305	3.8 x 12		20.00	
13 x 205	1.2 x 8	8		17.80	11 x 305	7.16 x 12		22.00	
16 x 205	5.8 x 8	8		25.75	12 x 305	15.32 x 12		24.00	
18 x 205	23.32 x 8	8		33.00	13 x 305	1.2 x 12		26.40	
12 x 240	15.32 x 9.12	9.12		19.00	14 x 305	9.16 x 12		28.85	
15 x 240	19.32 x 9.12	9.12		27.00	15 x 305	19.32 x 12		33.00	
18 x 240	23.32 x 9.12	9.12		39.00	16 x 305	5.8 x 12		38.60	
8 x 255	5.16 x 10	10		12.90	18 x 305	23.32 x 12		50.00	



## Domestic Carbons—(Continued.)

## "Helios."—(Continued.)

## Direct Current Carbons.

## Solid.

Millimeters	Inches.	Price.	Millimeters	Inches.	Price.
8 x 160	5-16 x 6.5-16	\$ 7.00	14 x 190	9-16 x 7 1/2	\$16.50
10 x 160	3-8 x 6.5-16	9.25	15 x 190	19-32 x 7 1/2	19.00
12 x 160	15-32 x 6.5-16	11.75	16 x 190	5-8 x 7 1/2	22.00
8 x 150	5-16 x 6	6.50	10 x 205	3-8 x 8	11.60
10 x 150	3-8 x 6	8.65	12 x 205	15-32 x 8	15.00
11 x 150	7-16 x 6	9.75	13 x 205	1-2 x 8	16.00
12 x 150	15-32 x 6	11.00	8 x 240	5-16 x 9 1/2	10.40
13 x 150	1-2 x 6	12.00	10 x 240	3-8 x 9 1/2	13.90
14 x 150	9-16 x 6	13.00	11 x 240	7-16 x 9 1/2	15.60
15 x 150	19-32 x 6	15.00	12 x 240	15-32 x 9 1/2	17.60
16 x 150	5-8 x 6	17.35	13 x 240	1-2 x 8 1/2	19.10
11 x 180	7-16 x 7	11.70	14 x 240	9-16 x 9 1/2	20.80
13 x 180	1-2 x 7	14.35	15 x 240	19-32 x 9 1/2	24.00
14 x 180	9-16 x 7	15.65	16 x 240	5-8 x 9 1/2	27.75
15 x 180	19-32 x 7	18.00	10 x 255	3-8 x 10	14.70
16 x 180	5-8 x 7	20.85	12 x 255	15-32 x 10	18.70
8 x 190	5-16 x 7 1/2	8.25	13 x 255	1-2 x 10	20.00
10 x 190	3-8 x 7 1/2	11.00	15 x 255	19-32 x 10	25.50
11 x 190	7-16 x 7 1/2	12.35	16 x 255	5-8 x 10	29.00
12 x 190	15-32 x 7 1/2	13.90	11 x 305	7-16 x 12	19.50
13 x 190	1-2 x 7 1/2	15.15	13 x 305	1-2 x 12	24.00

## Helios Cored Carbons.

## Alternating.

Millimeters	Inches.	Price.	Millimeters	Inches.	Price.
11 x 240	7-16 x 9 1/2	\$19.00	15 x 150	19-32 x 6	\$18.50
12 x 160	15-32 x 6.5-16	14.00	15 x 160	19-32 x 6.5-16	19.00
12 x 240	15-32 x 9 1/2	20.00	15 x 190	19-32 x 7 1/2	22.50
12 x 280	15-32 x 11	23.50	15 x 205	19-32 x 8	24.00
13 x 150	1-2 x 6	14.25	15 x 240	19-32 x 9 1/2	28.00
13 x 160	1-2 x 6.5-16	15.00	15 x 255	19-32 x 10	29.50
13 x 190	1-2 x 7 1/2	17.50	15 x 280	19-32 x 11	32.00
13 x 235	1-2 x 8	19.00	16 x 190	5-8 x 7 1/2	25.00
13 x 240	1-2 x 9 1/2	22.00	16 x 205	5-8 x 8	27.00
13 x 255	1-2 x 10	23.50	16 x 240	5-8 x 9 1/2	31.00
13 x 280	1-2 x 11	25.50	16 x 255	5-8 x 10	33.00
14 x 190	9-16 x 7 1/2	21.00	20 x 160	25-32 x 6.5-16	30.00
14 x 240	9-16 x 9 1/2	25.50	20 x 240	25-32 x 9 1/2	45.00





## Imported Carbons.

“Sun-Schmelzer-Nurnberg.”

### Cored Carbons for Direct Current.

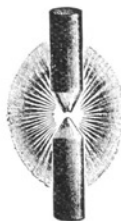
Code Word.	List No.	Diam. in MM.	Diam. in ins.	Length in ins.	List Price Per 1000
<i>Sandmyrtle</i>	21198	11	7-16	x 7 1-2	\$ 14.70
<i>Sandmartin</i>	21199	11	7-16	x 10	19.50
<i>Sandpaper</i>	21200	11	7-16	x 12	23.00
<i>Sandpaper</i>	21201	13	1-2	x 7 1-2	17.20
<i>Sandpride</i>	21202	13	1-2	x 10	23.50
<i>Sandrock</i>	21203	13	1-2	x 12	28.00
<i>Sandsmelt</i>	21204	14	9-16	x 7 1-2	19.00
<i>Sandstar</i>	21205	14	9-16	x 10	25.25
<i>Sandstone</i>	21206	14	9-16	x 12	30.30
<i>Sandstorm</i>	21207	15	19-32	x 6 1-2	18.60
<i>Sandtube</i>	21208	16	5-8	x 7	23.00
<i>Sandteasp</i>	21209	16	5-8	x 7 1-2	25.25
<i>Sandteich</i>	21210	16	5-8	x 10	33.80
<i>Sandteorn</i>	21211	16	5-8	x 12	40.50
<i>Sandteort</i>	21212	18	11-16	x 10	43.00

### Solid Carbons for Direct Current.

<i>Sandy</i>	21213	8	5-16	x 6	7.00
<i>Sane</i>	21214	8	5-16	x 7 1-2	8.80
<i>Saneless</i>	21215	8	5-16	x 9 1-2	11.20
<i>Sang</i>	21216	10	3-8	x 6	9.25
<i>Sangtree</i>	21217	10	3-8	x 6 1-2	9.70
<i>Sangfroid</i>	21218	10	3-8	x 7 1-2	11.60
<i>Sanguine</i>	21219	10	3-8	x 9 1-2	14.40
<i>Sangreal</i>	21220	11	7-16	x 6	10.35
<i>Sanguifer</i>	21221	11	7-16	x 7	12.00
<i>Sanguify</i>	21222	11	7-16	x 7 1-2	13.00
<i>Sanguinary</i>	21223	11	7-16	x 8 1-2	14.95
<i>Sanguine</i>	21224	11	7-16	x 9 1-2	16.50
<i>Sanguineless</i>	21225	11	7-16	x 12	20.90
<i>Sanguinely</i>	21226	13	1-2	x 6	12.50
<i>Sanguinity</i>	21227	13	1-2	x 7	14.50
<i>Sanketrim</i>	21228	13	1-2	x 7 1-2	15.75
<i>Santele</i>	21229	13	1-2	x 9 1-2	20.00
<i>Santes</i>	21230	13	1-2	x 12	25.00
<i>Santions</i>	21231	14	9-16	x 7	16.10
<i>Santirist</i>	21232	16	5-8	x 7	21.25

### Cored Carbons for Alternating Current.

<i>Sanitarium</i>	21233	13	1-2	x 7 1-2	21.25
<i>Sanitary</i>	21234	13	1-2	x 9 1-2	27.00
<i>Sanity</i>	21235	15	19-32	x 7 1-2	27.15
<i>Sanjek</i>	21236	15	19-32	x 9 1-2	34.50
<i>Sank</i>	21237	16	5-8	x 9 1-2	39.50



## Imported Carbons

Wertheim

Solid

Diam. Inches.	LENGTHS.						
	6 Inch per 1000	7 Inch per 1000	8 Inch per 1000	9 Inch per 1000	10 Inch per 1000	11 Inch per 1000	12 Inch per 1000
$\frac{1}{4}$	\$22.00	\$22.00	\$23.00	\$23.00	\$24.00	\$24.00	\$24.00
$\frac{3}{16}$	23.00	24.00	25.00	26.00	27.00	28.00	28.00
$\frac{1}{2}$	24.00	25.00	26.00	27.00	28.00	29.00	30.00
$\frac{5}{16}$	25.00	27.00	29.00	30.00	32.00	33.00	34.00
$\frac{3}{8}$	27.00	28.00	30.00	31.00	33.00	34.00	35.00
$\frac{7}{16}$	28.00	30.00	31.00	33.00	35.00	36.00	38.00
$\frac{1}{2}$	29.00	31.00	33.00	34.00	36.00	38.00	40.00
$\frac{5}{8}$	32.00	35.00	37.00	40.00	42.00	44.00	47.00

Soft Cored.

Diam. Inches.	LENGTHS.						
	6 Inch per 1000	7 Inch per 1000	8 Inch per 1000	9 Inch per 1000	10 Inch per 1000	11 Inch per 1000	12 Inch per 1000
$\frac{1}{4}$	\$22.00	\$22.00	\$23.00	\$24.00	\$25.00	\$25.00	\$26.00
$\frac{3}{16}$	24.00	25.00	26.00	27.00	28.00	29.00	30.00
$\frac{1}{2}$	25.00	26.00	27.00	28.00	29.00	30.00	32.00
$\frac{5}{16}$	27.00	28.00	30.00	31.00	33.00	34.00	35.00
$\frac{3}{8}$	28.00	29.00	31.00	32.00	34.00	35.00	37.00
$\frac{7}{16}$	29.00	31.00	32.00	34.00	36.00	38.00	39.00
$\frac{1}{2}$	30.00	32.00	34.00	36.00	38.00	40.00	42.00
$\frac{5}{8}$	33.00	36.00	38.00	41.00	43.00	46.00	48.00
$\frac{3}{4}$	36.00	39.00	42.00	45.00	48.00	50.00	53.00
$\frac{7}{8}$	37.00	40.00	43.00	47.00	50.00	53.00	56.00

## For Direct Current Arc Lamps.

Soft Cored Uppers.

Diam-eter	Length.	Per 1000.	Diam-eter	Length.	Per 1000.	Diam-eter	Length.	Per 1000.
$\frac{1}{2}$	x 7 $\frac{1}{2}$ in.	\$14.70	$\frac{3}{8}$	x 10 in.	\$19.70	$\frac{1}{2}$	x 12 in.	\$23.40
$\frac{3}{8}$	x 7 $\frac{1}{2}$ "	17.60	$\frac{1}{2}$	x 10 "	23.70	$\frac{3}{8}$	x 12 "	28.15
$\frac{1}{2}$	x 7 $\frac{1}{2}$ "	19.00	$\frac{5}{16}$	x 10 "	25.50	$\frac{1}{2}$	x 12 "	30.50
$\frac{3}{8}$	x 7 $\frac{1}{2}$ "	25.50	$\frac{3}{8}$	x 10 "	34.30	$\frac{3}{8}$	x 12 "	41.00
$\frac{1}{2}$	x 8 "	33.75	$\frac{1}{2}$	x 10 "	43.15			
$\frac{3}{8}$	x 8 "	44.00	$\frac{3}{8}$	x 10 "	53.75			

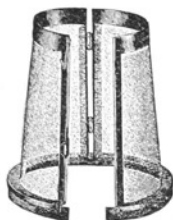
Solid Lower.

Diam-eter	Length.	Per 1000.	Diam-eter	Length.	Per 1000.	Diam-eter	Length.	Per 1000.
$\frac{3}{8}$	x 6 in.	\$ 7.00	$\frac{1}{2}$	x 7 in.	\$21.60	$\frac{3}{8}$	x 9 $\frac{1}{2}$ in.	\$11.15
$\frac{1}{2}$	x 6 "	9.30	$\frac{5}{16}$	x 7 $\frac{1}{2}$ in.	8.75	$\frac{1}{2}$	x 9 $\frac{1}{2}$ "	14.75
$\frac{3}{8}$	x 6 "	10.40	$\frac{1}{2}$	x 7 $\frac{1}{2}$ "	11.90	$\frac{3}{8}$	x 9 $\frac{1}{2}$ "	16.60
$\frac{1}{2}$	x 6 "	12.80	$\frac{7}{16}$	x 7 $\frac{1}{2}$ "	13.15	$\frac{1}{2}$	x 9 $\frac{1}{2}$ "	20.40
$\frac{3}{8}$	x 7 "	12.15	$\frac{1}{2}$	x 7 $\frac{1}{2}$ "	16.15	$\frac{3}{8}$	x 10 in.	17.70
$\frac{1}{2}$	x 7 "	14.90	$\frac{3}{8}$	x 8 "	15.40	$\frac{1}{2}$	x 10 "	21.50
$\frac{3}{8}$	x 7 "	16.25	$\frac{1}{2}$	x 8 "	17.20			

"Electra" Solid Carbons.

For Enclosed Arc Lamps.

		Per 1000			Per 1000
$\frac{1}{2}$	x 12 in.	\$37.90	$\frac{1}{2}$	x 12 in.	\$30.70
$\frac{3}{8}$	x 10 "	31.55	$\frac{3}{8}$	x 10 "	25.60
$\frac{1}{2}$	x 9 $\frac{1}{2}$ "	30.00	$\frac{1}{2}$	x 9 $\frac{1}{2}$ "	24.30
$\frac{3}{8}$	x 7 $\frac{1}{2}$ "	23.60	$\frac{3}{8}$	x 6 "	15.20
$\frac{1}{2}$	x 6 "	19.00	$\frac{1}{2}$	x 4 $\frac{1}{2}$ "	12.15
$\frac{3}{8}$	x 5 $\frac{1}{2}$ "	17.40	$\frac{1}{2}$	x 12 "	28.20
$\frac{1}{2}$	x 5 "	15.85	$\frac{3}{8}$	x 6 "	15.20
$\frac{1}{2}$	x 4 $\frac{1}{2}$ "	14.30			

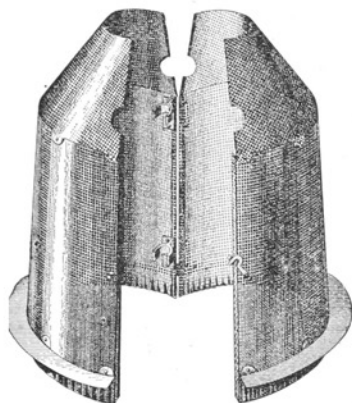


No. 21355.

### Spark Arresters.

Arrester No. 21355, made with heavy frame and fine wire gauze. Hinges at back and fitted with latch in front. Standard size 12 inches high; diameter at bottom 10 inches; diameter at top 6 $\frac{1}{4}$  inches.

Code Word.	List No.	List Price.
<i>Sarcophagus</i>	21355	Each. \$4.00



No. 21267.

### Spark Arresters.

#### Perforated.

These Arresters are made of perforated steel sheet, with a rim of thin iron sheet which rests upon the globe of the lamp. They swing open with hinges at the back. Made in three different sizes adapting them for use on Western Electric Arc Lamps. With slight alterations they can be used on Arc Lamps of other standard makes.

Approved by the Board of Underwriters and are especially indorsed as being a perfect safeguard against fire and insects.

They are thoroughly Japanned.

When ordering specify style of lamp on which these Arresters are to be used.

<i>Sapindus</i>	21267	Each	2.60
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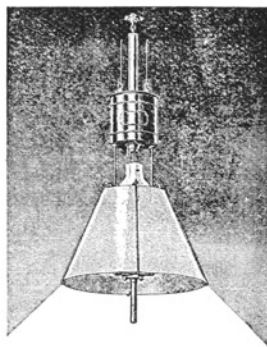
No. 8725.



No. 8726.

### Carbon Bags.

<i>East</i>	8725	Tin Carbon Case	3.00
<i>Ebenzer</i>	8726	Extra Heavy Leather Carbon Case	4.25



No. 21055.

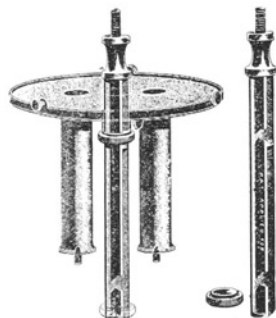
### Rae Store Reflector.

For T.-H. Double Carbon Lamps.

Has a special opal shade which concentrates the bulk of the light on the goods, thus utilizing the light commonly wasted on the ceiling. Combines the intensity of the arc-lamp with a uniform and effective distribution of the light. Also has a clear glass chimney (with opal ventilating top) which serves as a spark arrester, thus making a complete fitting for Arc Lamps in store or show windows.

Does not interfere with the trimming of the lamp.  
Approved by New York and Chicago underwriters.

Code Word.	List No.	List Price, Each.
<i>Samba</i>	21055 Complete.....	\$5.00



No. 21056.

### Cutter's Globe Holder.

For T.-H. Arc Lamps.

"A Time Saver and a Globe Saver."

Takes the place of the sliding tube and set-screw formerly used. It has no tube to dent and crack, and no screw to jam or bend. A quarter turn of the ring allows the globe to be lowered or raised, and another quarter turn removes it entirely. It is simple, strong and positive in its action. The globe is held securely when raised, yet can be instantly lowered without the use of tools.

<i>Samba</i>	21056 Rod and Ring complete .....	.30
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No. 21057.

### Pattee Lamp-Hour Recorder.

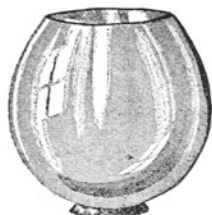
"A Common Sense Meter for Arc Lamps."

(PATENTED.)

Has a fifteen day clock movement which is controlled by an electro-magnet so as to keep an accurate count of the burning hours. Needs re-winding but once a month (when the readings are taken). The magnets consume an inappreciable amount of energy and the reading is easily checked by comparison with a watch, so that there can be no complaints from the consumer.

It is simple, well built and practical.

<i>Samba</i>	21057 Complete.....	12.00
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No 626.

## Arc Lamp Globes.

Our Arc Globes are of the best quality of glass and uniform in appearance. They are carefully packed, but shipped only at owner's risk. Two dozen globes are packed in regular size cask, for which we charge \$1.50 extra net.

## Clear.

Code Word.	List No.	Diameter, Inches.	Height, Inches.	Top Opening, Inches.	Bottom Opening, Outside Diam. Inches.	List Price Per Dozen
<i>Kissed</i>	626	12	12	6	2½	\$11.00
<i>Kissing</i>	627	12	12	8	3½	11.00
<i>Kitchen</i>	628	12	12	8	5	11.00
<i>Kite</i>	629	12	12	7½	3½	11.00
<i>Kitting</i>	630	12	10	8	4	11.00
<i>Kitten</i>	631	12	12	8	5	11.00
<i>Knack</i>	632	12	12	8	2½	11.00
<i>Knackish</i>	633	12	11	9	4½	11.00
<i>Knave</i>	634	11	12	8	4½	11.00
<i>Knavery</i>	635	11	12	8	4½	11.00

## Opal.

<i>Knarish</i>	636	12	12	6	2½	12.00
<i>Knarishly</i>	637	12	12	8	3½	12.00
<i>Knarishness</i>	638	12	12	8	5	12.00
<i>Knee</i>	639	12	12	7½	3½	12.00
<i>Kneel</i>	640	12	10	8	4	12.00
<i>Kneeled</i>	641	12	12	8	5	12.00
<i>Kneeler</i>	642	12	12	8	2½	12.00
<i>Kneeling</i>	643	12	11	9	4½	12.00
<i>Kneelingly</i>	644	11	12	8	4½	12.00
<i>Kneepan</i>	645	11	12	8	4½	12.00

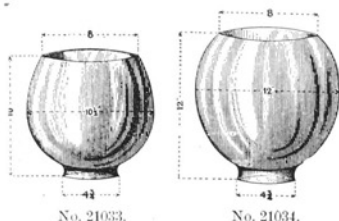
## Ground.

<i>Knell</i>	646	12	12	6	2½	12.00
<i>Knelt</i>	647	12	12	8	3½	12.00
<i>Knight</i>	648	12	12	8	5	12.00
<i>Knighted</i>	649	12	12	7½	3½	12.00
<i>Knighthood</i>	650	12	10	8	4	12.00
<i>Knighting</i>	651	12	12	8	5	12.00
<i>Knightless</i>	652	12	12	8	2½	12.00
<i>Knightly</i>	653	12	11	9	4½	12.00
<i>Knit</i>	654	11	12	8	4½	12.00
<i>Knitter</i>	655	11	12	8	4½	12.00

## Arc Lamp Globes.—(Continued.)

## Globes for Western Electric Arc Lamps.

Arc Light Globes can be furnished in colors, but prices are governed by the quantity. In handling Arc Light Globes extra charge is made for packing when orders are less than original packages.



No. 21033.

No. 21034.

## Clear.

Code Word.	List No.	Diam. in ins.	Height in ins.	Top Opening in ins.	Bottom Opening in ins.	List Price Per doz.
<i>Salutiferous</i>	21033	10 1/2	10	8	4 3/4	\$11.00
<i>Salcability</i>	21034	12	12	8	4 1/4	11.00
<i>Salcable</i>	21035	12	14	7 3/4	3 1/2	14.00
<i>Salcableness</i>	21036	12 3/4	14	7 3/4	3 1/4	14.00

## One-Quarter or One-Half Ground.

<i>Salenge</i>	21037	10 1/2	10	8	4 3/4	12.00
<i>Salcatella</i>	21038	12	12	8	4 3/4	12.00
<i>Salention</i>	21039	12	14	7 3/4	3 1/2	16.00
<i>Salentory</i>	21040	12 3/4	14	7 3/4	3 3/4	16.00

## Full Ground or Opal.

<i>Salce</i>	21041	10 1/2	10	8	4 3/4	13.00
<i>Salcer</i>	21042	12	12	8	4 3/4	13.00
<i>Salcershaped</i>	21043	12	14	7 3/4	3 1/2	18.00
<i>Sali</i>	21044	12 3/4	14	7 3/4	3 3/4	18.00

## Alabaster.

<i>Salcife</i>	21046	7	10	7	7	20.00
<i>Salco</i>	21047	7	4 3/8	7	7	20.00

No. 21033 is for the old style, low tension Western Electric Arc Lamps.

No. 21034 is for both the wide and narrow frame Western Electric Standard Lamps; also for either the Monitor or Duplex Lamps, both wide and narrow frame, and the old style double Carbon lamps.

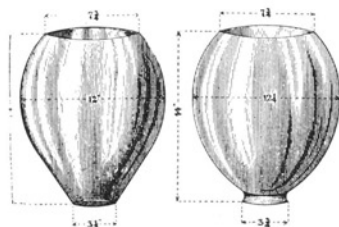
No. 21035 is for the ornamental series lamps and the ornamental constant potential lamps.

No. 21036 is for the encased single lamps and new style double Carbon lamps, narrow frame.

No. 21016 is for ornamental series single Carbon lamp fitting above the regular globe.

No. 21017 is for the ornamental constant potential lamp fitting above the regular globe.

Both No. 21046 and 21047 act in a measure as spark arresters, as all of the working parts, the carbons and carbon rods are within an enclosed space. The use of these globes meets the approval of the underwriters.

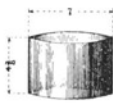


No. 21035.

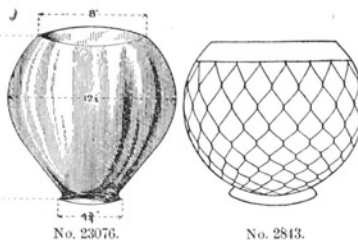
No. 21036.



No. 21046.



No. 21047.



No. 23076.

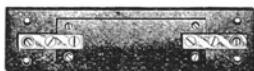
No. 2843.

**Arc Light Globes—(Continued.)**

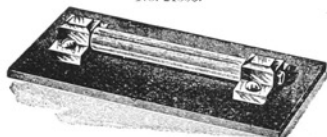
**Globes for Western Electric Arc Lamps—(Continued.)**

Code Word.	List No.	Diam. in ins.	Height in ins.	Top Opening in ins.	Bottom Opening in ins.	List Price per doz.
<i>Silty</i>	23076	12 1/2	12	8	4 1/4	16.00

Above Globe for Western Electric Focusing Chain Lamp.



No. 21353.



No. 21354.

**Globe Nets.**

<i>Bagerness</i>	2843	Arc Globe Net, copper, each	.....	.40
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**Static Arresters.**

Electric discharge from belts will often perforate the insulating material of a dynamo or of cables connected thereto. Our arresters form a high resistance path for the electrical discharge from the frame of the dynamo to ground. They are made in two styles, No. 1 Graphite, No. 2 Liquid.

<i>Sarcodern</i>	21353	Graphite, each	.....	1.40
<i>Sarcoid</i>	21354	Liquid " "	.....	1.70

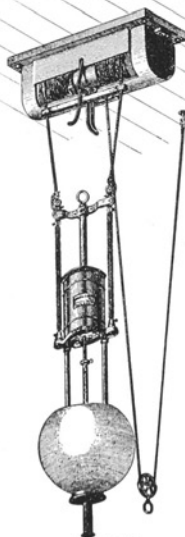
**Improved Adjustable Lamp Hanger.**

This Hanger is designed for use with any form of arc lamp, either high or low tension, and is well adapted for operation of arc lamps upon incandescent circuits.

The important features in connection with this hanger are the suspension of the lamps by the conducting cords direct, insuring perfect electrical contacts and adequate support. The ratchet and arm are so combined with the rope used in raising and lowering the lamp, that breakage of the rope or careless handling cannot cause the lamp to fall. The automatic switch so constructed that when the lamp is lowered it is completely disconnected from the circuit and when raised to the proper height it is again placed in circuit—this being done automatically insures absolute safety for the attendant and avoids interference with other lamps on the same circuit.

These Hangers are mounted upon slate bases, equipped with brass terminals having perfect electrical connection with the roller mechanism and switch. The roller is made of cast iron and coated with glazed enamel, then covered with sheet asbestos, thus forming a positive insulation. An enameled iron cover is provided which adds to the appearance and serves as a protection to the cords and working parts. Conducting cords of any desired length within the capacity of the roller will be supplied, adapting the hanger for use on ceilings varying in height twenty-five feet down, or to be readily adjusted to different heights as circumstances may require.

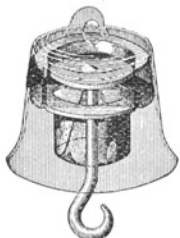
This hanger has been approved by the Board of Underwriters.



No. 21360.  
Showing Lamp attached.

<i>Sarcology</i>	21360	Complete, with cord	.....	30.00
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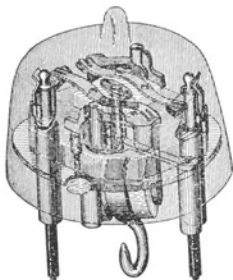
### Bell Hanger.



No. 23077.

The use of "Bell Hangers" for Arc Lamps used outside is becoming general, and is quite necessary when Arc machines of from 60 to 125 lights capacity are used. The ordinary form of lamp suspension has not sufficient insulation where such high voltages are used, and we have designed this type of hanger with a view to overcoming such troubles as are caused by poor insulation, insufficient support and contact at connections to circuit.

Code Word.	List No.	List Price.
<i>Silure</i>	23077 Bell Hanger .....	Each. \$1.40

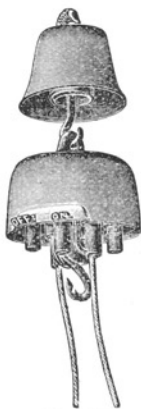


No. 21358.

### Cut-Off Switch.

The complete Cut-off Switch is mounted on slate, and contacts are so arranged that no arc can be made in throwing on or off. The lamp is suspended from the hook in center, and is not in any manner dependent on the circuit wires for support, connection being made with circuit by means of plugs and suitable spring jacks, enabling the removal of the lamp from the circuit in less time than one-half minute, and with no personal danger. The casing and bell covering insulator are of metal, and render all the contacts thoroughly waterproof.

<i>Sarcologic</i>	21358 Complete, with plugs and cords.....	8.00
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No. 21359.

### Bell Hanger and Cut-Off Switch Combined.

It is advisable in case of high voltage to use the Bell Hanger in connection with the Cut-off Switches to insure perfect safety. This combination is shown in illustration No. 21359.

<i>Sarcologicist</i>	21359 Complete, with bell hanger.....	9.40
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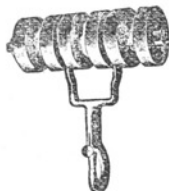
No. 8703.

## Fletcher Insulating Arc Lamp Hangers.

(PATENTED.)

Are not only convenient for attaching lamps to their fastenings in all positions, but save loss of current from any and all conditions to which lamps may be subjected.

Code Word.	List No.	List Price Each.
<i>Eeliptic</i>	8703 Each	\$0.35



No. 20895.

## Fletcher Insulating Lamp Hanger.

Three Knobs.

(PATENTED.)

Same as No. 8703, with the addition of a knob on each side, to which current wires may be attached before entering binding posts of arc lamps. Especially useful where commercial lamps are placed in front of or inside stores, hotels, theatres, etc.

<i>Salicine</i>	20895 Complete	.40
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No. 20777.

## Cutter Revolute Insulator.

For Arc Lamps.

Has the insulating knob mounted on a porcelain base so as to turn freely, and is secured to the ceiling by two screws. Makes a firm support with a double insulation between the wire and the ceiling.

The insulating knob can be easily removed and the wire placed above it, taking the weight off the tie wire.

<i>Safconduct</i>	20777 Complete, each	.12
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No. 20896.

## Cutter Ceiling Hook.

For Arc Light Wiring.

A simple, compact and strong insulator for supporting indoor arc lamps. The shell and hook are of malleable iron, while the porcelain is solid at the back so as to exclude moisture. The hook is so shaped that the lamp cannot be accidentally lifted off it in trimming.

<i>Saliconia</i>	20896 Complete	.30
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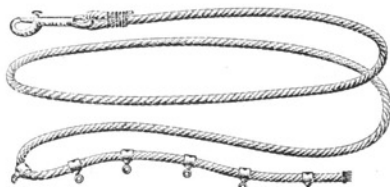
No. 20776

### Cutter Arc Insulator.

It will insulate the frame of the lamp from the hoisting rope or suspension hook.

Made with a double petticoat hard rubber bell, which forms an effective watershed.

Code Word.	List No.	List Price. Each.
<i>Safe</i>	<b>20776</b> Complete .....	\$ .40

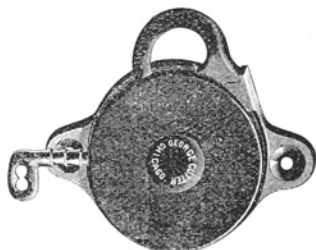


No. 20897.

### Cutter Trimmer's Snap Rope.

Consists of a 30-foot length of half-inch rope with a snap hook at one end and six rings clamped to the rope near the other end. This is used with hoisting ropes ending in a ring at the pole hook, and is carried by the trimmer on his rounds. The rings on the rope can readily be set at any desired points so as to vary the length of the "snap rope" to suit the varying height of lamps at different crossings.

<i>Saltylet</i>	<b>20897</b> Complete .....	1.25
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No. 20898.

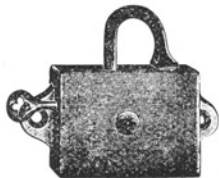
### Cutter Pole Lock.

(PATENT APPLIED FOR.)

A weather-proof lock for securing the end of the hoisting rope, as used with arc or incandescent suspension lamps. Is quickly put up and prevents tampering with the rope.

Has the back curved to fit the pole, is strong and perfectly weather-proof. The only pole lock adapted for electric light suspensions.

<i>Saltylet</i>	<b>20898</b> Complete .....	.40
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No. 20899.

### Fletcher Improved Pole Padlock.

Very necessary for use where flexible iron cord is used with ring attachment at end. By using this Padlock the trimmer needs only a bridle-snap and piece of rope of sufficient length to lower his lamps.

<i>Saltileco</i>	<b>20899</b> Complete .....	30
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No. 2852.

**Lamp Cross Arm.**

Code Word.	List No.	List Price.
<i>Economy</i>	<b>2852</b> Each .....	<b>\$ 0.25</b>



No. 20778. \*

**Cutter Combination Cross Arm.**

Combines the fine and weatherproof Cutter's Arc Insulator, with a spreader cross-arm for the line wires. The cross-arm is of enameled wood, tipped with metal ferrules to prevent splitting.

<i>Safeguard</i>	<b>20778</b> Complete .....	<b>.60</b>
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No. 20879.

**Fletcher Insulated Cross-Arm.**

<i>Safeguard</i>	<b>20879</b> Each.....	<b>.60</b>
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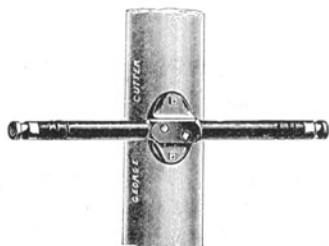
No. 20779.

**Cutter Featherweight Spreader.**

**For Arc Light Wires.**

Is readily fastened to the wires running to suspension lamps so as to keep them at a distance of seventeen inches from each other. Made of enameled wood, metal tipped with porcelain insulators. Weighs less than eight ounces.

<i>Safeguard</i>	<b>20779</b> Complete, per 100 .....	<b>15.00</b>
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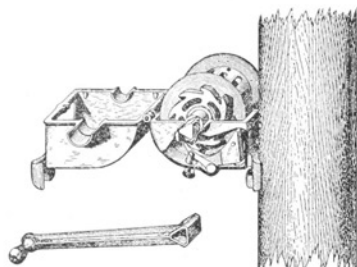


No. 20880.

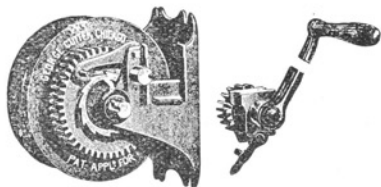
**Cutter Brace Arm.**

This Brace Arm consists of an insulating arm securely bolted to a specially designed plate which fits the pole. It is more easily and more quickly put on than the ordinary cross arm with its pins and insulators, besides making a much neater job.

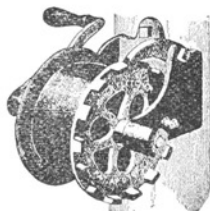
	Each.	
<i>Safeguard</i>	<b>20880</b> Complete .....	<b>.35</b>



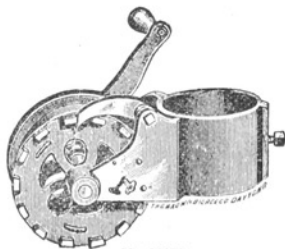
No. 20865.



No. 20868 and No. 20869.



No. 8802.



No. 20870.

## Windlasses.

### Western Electric.

The Western Electric Windlass was designed for a quick-raising, self-locking and absolutely safe windlass. The drum is large and entirely enclosed, except a slot at the top for the wire to pass through, and it is thoroughly sleet-proof.

The self-locking device on the side makes it impossible to release without the aid of the special crank.

It is light, compact and durable, and is easy to put in service and will fit any size of pole.

Code Word.	List No.	List Price. Each.
<i>Sake</i>	20865 Complete .....	\$3.10
<i>Sacker</i>	20866 Without handle.....	2.50
<i>Sackeret</i>	20867 Handle only.....	.60

### Cutter Combination.

Combines the extra leverage of a geared windlass with the safety of a locking windlass, and the low cost of a plain windlass. The pinion is detachable, and is secured to the light handle, which also operates the locking cam. One of these pinion handles is sufficient for all the windlasses on a trimmer's route.

You can use this device as a plain windlass for quick lowering, and then use the gearing in raising the lamp. This windlass will take fifty feet of five-sixteenth inch cable, or forty feet of three-eighth inch.

<i>Saki</i>	20868 Without Handle .....	2.75
<i>Sak</i>	20869 Pinion Handle.....	1.00

### The Fletcher Safety.

#### For Wood Poles.

#### With Lock and Key.

<i>Edda</i>	8802 Fletcher's Safety Windlass (takes 35 feet iron flexible cord) .....	2.50
<i>Eddy</i>	8803 Fletcher's Safety Windlass (takes 75 feet flexible iron cord, or 40 feet rope) .....	3.00
<i>Eden</i>	8804 Handle (or Crank) for either above Windlasses.	1.00

#### For Iron Poles.

<i>Saltram</i>	20870 Windlass (takes 35 feet iron flexible cord).....	3.50
<i>Salable</i>	20871 Windlass (takes 75 feet iron cord or 35 feet half-inch rope).....	4.00
<i>Salably</i>	20872 Handle (or crank) for above.....	1.00



No. 8805.

### Fletcher Sleet-proof Pulleys.

Code Word	List No.	List Price, Each.
<i>Edger</i>	8805 Medium, for 1½-inch rope.....	\$ .75
<i>Edge</i>	8806 Midget, " 1¼-inch rope.....	.50
<i>Edgerise</i>	8807 Jumbo, " 1-inch rope.....	1.00



Fig. 1.

Shows position of cord when lamp is being drawn into suspension.



Fig. 2.

Shows position of cord when lamp is in suspension, with Fletcher's Insulating Lamp Hanger attached. Lamp Hanger is not a requisite part of the arrangement, and is only furnished when specially ordered.

### Fletcher "Sure Grip" Sleet-proof Pulley.

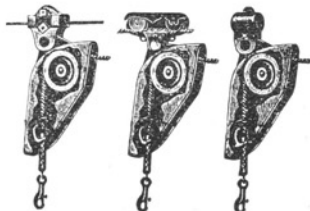
The danger and expense incident to the falling of arc lamps from defects in pulleys used with rope or cord suspension, has suggested the need of a good sustaining pulley which, when lamp is drawn up, would hold it rigidly in position. The Fletcher "Sure Grip" Sleet-proof Pulley does this in a simple, effective manner.

No care is required on the part of the trimmer, nor is any extra weight added to weight of lamp when going into suspension; when lamp is in place high winds cannot release it, and trimmer is required to use only the ordinary amount of exertion in lowering it.

No. 960.

*Edible*

960 Fletcher "Sure Grip" Sleet-proof Pulley (takes 1½-inch rope).....	1.50
Includes everything necessary except rope.	



No. 20886.

No. 20887.

No. 20888.

### Fletcher Automatic Pulleys.

<i>Salarial</i>	20886 Automatic Suspension Pulley.....	1.00
<i>Salary</i>	20887 Automatic Traveling and Suspension Pulley.....	1.35
<i>Sala</i>	20888 Automatic Mast Arm Pulley.....	1.10

### Fletcher "Safety Lamp Support."

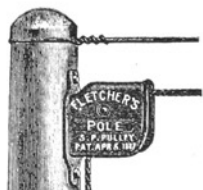
Designed especially to be used where Pulleys are already up; can be used with any Pulley, either Sleet-proof or open, and saves the lamp from falling should ropes become worn or otherwise imperfect.



No. 958.

*Solebrons*

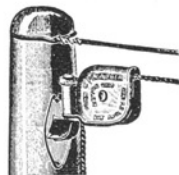
958 Fletcher's Safety Lamp Support.....	.75
(Above price does not include Pulley.)	



No. 8808.

### Fletcher Sleet-proof Pole Pulley.

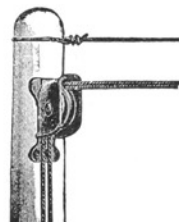
Code Word.	List No.	List Price, Each.
<i>Edict</i>	8808 Jumbo (takes 1-inch rope) .....	\$0.75
<i>Edifice</i>	8809 Sleet-proof Pole Pulley (takes $\frac{1}{2}$ inch rope) .....	.35



No. 20884.

### Fletcher Swivel Pole Pulley.

<i>Salamanca</i>	20884 Each .....	.35
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No. 8810.

### Fletcher Double Wheel Sleet-Proof Pole Pulleys.

<i>Edify</i>	8810 Takes $\frac{1}{2}$ -inch rope .....	.75
<i>Edifying</i>	8811 Jumbo (takes 1-inch rope) .....	1.00



No. 8704.

### Fletcher Duplex Sleet-proof Pulley.

With Two Wheels.

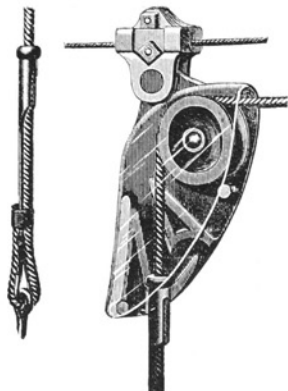
<i>Edith</i>	8704 Takes $\frac{1}{2}$ inch rope .....	1.00
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No. 20885.

### Fletcher Twin Sleet-proof Pulley.

<i>Salimstone</i>	20885 Takes $\frac{1}{2}$ -inch rope .....	1.00
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No. 20889.

### Cutter Lamp Supporting Pulley.

A really weatherproof pulley for arc lamps. Entirely automatic, with no cams or pawls to get out of order. Catches the lamp when raised, releases it when about to be lowered, and never fails. There is a dead stop to the rope in each case so that you cannot pull it too far.

Code Word.	List No.	List Price. Each.
<i>Salep</i>	20889 $\frac{1}{2}$ Complete, with Hook Knob.....	\$ .80



No. 20890.

### Cutter Swivel Pole Pulley.

Is swiveled so that it can swing sideways and keep in line with the hoisting rope. The supporting plate is made of malleable iron and curved to fit the pole. This pulley avoids all chafing of the rope on the edge of the casing and thus saves the wear on the rope.

<i>Salesman</i>	20890 Complete .....	.40
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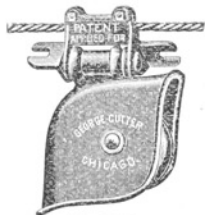
No. 20891.

### Cutter Mast Arm Pulley.

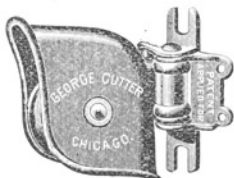
This is a form of the lamp-supporting pulley with a special clamp to fit iron pipe  $1\frac{1}{4}$  or  $1\frac{1}{2}$  in. inside diameter, as commonly used for mast arms.

Has all the good feature of the regular lamp supporting pulley, and has holes in the head-piece so that the strain rods can be run direct to this.

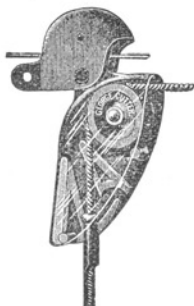
<i>Saleswork</i>	20891 Complete .....	.90
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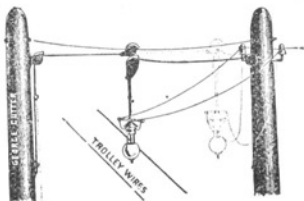
No. 20892.



No. 20893.



No. 20894.



## Cutter Interchangeable Pulley.

(PATENT APPLIED FOR.)

A thoroughly weatherproof pulley which will fit anything from a 3-16 inch suspension wire to an 8 inch pole. Has a double-grooved clamp to fasten it to the suspension wire, when it is used as a center pulley. By opening out the clamp it forms a pole-plate which fits the carved surface of the pole and which makes a fine swivel pole pulley.

Strongly made with malleable iron clamp.

Code Word.	List No.	List Price Each.
<i>Salient</i>	20892 Center Pulley, complete.....	\$ .40
<i>Salic</i>	20893 Pole Pulley, " .....	.40

## Cutter Running Pulley.

(PATENTED.)

The only safety pulley made for use over trolley wires. Holds the lamp securely when raised and allows it to be lowered close to the pole without interfering with the trolley or guard wires.

Furnished complete with covered "traveler" sheave, malleable iron hook knob and adjustable clamp stop.

<i>Salicous</i>	20894 Complete .....	1.20
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## Arc Light Supplies.—(Continued).

## Cutter Outrigger.

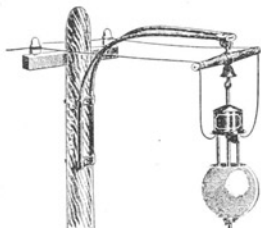


No. 20881.

Has a head piece of malleable iron with a double petticoat hard rubber bell insulating the lamp from the outrigger. This head piece forms a cap for the wrought iron outrigger, which can be shortened by removing the cap and cutting off the extra length.

The wood cross-arms carrying the line wire insulators are waterproofed with a baked enamel, and tipped with metal ferrules to prevent splitting. The inner one is supported by a malleable iron sleeve which can be clamped at any desired point so as to clear signs or projections in the building.

Code Word.	List No	List Price, Each.
<i>Salamander</i>	20881	Complete as per cut (6 foot overhang) \$1.50



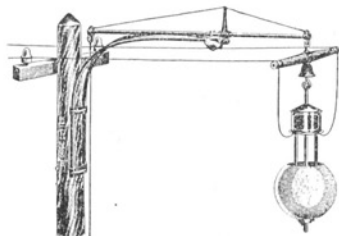
No. 20882.

## Cutter Pole Arc Fixture.

Supports the lamp three feet from the pole, so as to bring it out of the line of the shade trees. Can be fastened at any desired height from the top of the pole, fits any size of pole and is more easily put up than a poletop fixture.

Is built of wrought iron with malleable iron fittings, making a very strong, firm and neat fixture. This is assembled before shipping so as to be readily bolted in place. Furnished with "combination cross-arm" for insulating the line wires from the fixture and from the lamp frame.

<i>Salamander</i>	20882	Complete.....	2.50
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No. 20883.

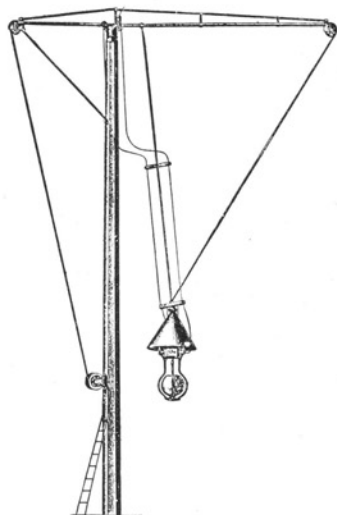
## Cutter Swinging Arc Fixture

Consists of the Pole Arc Fixture with an extension to bring the lamp five feet from the pole. The extension arm is pivoted so that it will swing down within reach of the pole when the lamp is to be trimmed. After trimming the extension is drawn back to place by the wire rod which hooks into a special socket bolted to the pole (but not shown in the cut).

Wrought iron tubing, malleable iron fittings and steel strain rods give the fixture ample strength and firmness, while the "combination cross-arm" insures proper insulation.

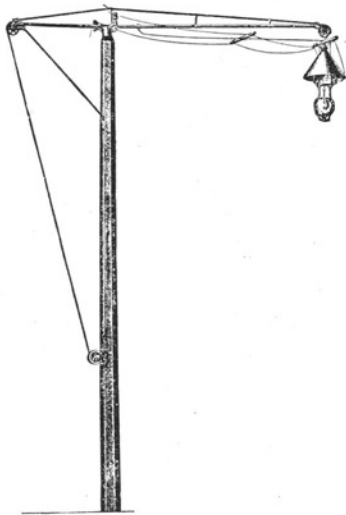
<i>Salamander</i>	20883	Complete.....	3.50
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## The Brady Mast Arm.



No. 2849.

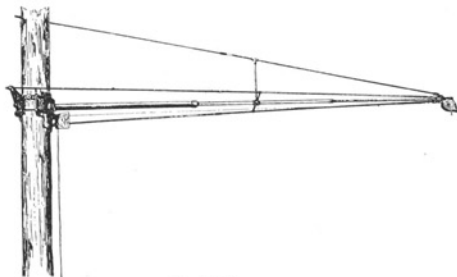
*Ear* 2849 15 Foot Extension, each..... \$14.00  
Each additional foot ..... .75



No. 2848.

*Eagle* 2848 15 Foot Extension, each..... \$14.00  
Each additional foot..... .75

## Western Electric Mast Arm.

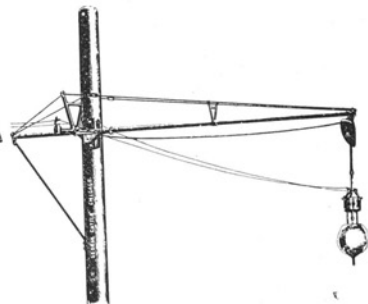


No. 23086.

*Silverless* 23086 10 Foot Mast Arm, including  
two covered pulleys..... \$12.00  
Each additional foot..... .75

Windlass for Mast Arm extra.

## Cutter Mast Arm.



No. 23087.

*Silverly* 23087 12 Foot Cutter Mast Arm complete with lamp supporting pulley at outer end and covered pulley at pole, \$12.00  
Each additional foot..... .75

Windlass for Mast Arm extra.

## Incandescent Arc Lamps.

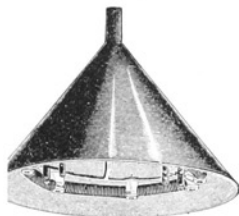
### For Continuous Current.



No. 21085.



No. 21087.



No. 21090.

The advantages of operating arc lamps on incandescent circuits as a matter of convenience, has of late years been fully realized.

The lamps are placed two in series on a circuit of 110 volts, and are adjusted to consume 10 amperes of current. Each lamp requires 45 volts to maintain a nominal 2000 candle power and the necessary amount of resistance is placed in circuit to compensate for the volts above the number used by the two lamps in series.

By dispensing with the ordinary series magnet in the lamp, and providing the feed magnet with cut-out device adapted to switch the feed magnet out of circuit automatically when the carbons are consumed to a certain point, any possibility of a burn out in a lamp is avoided.

The electrical and mechanical arrangement of the lamp is such that the carbons cannot become short-circuited while the lamp is in operation. Thus when a number of lamps are operated in series on the same circuit, they must necessarily be of the same candle power.

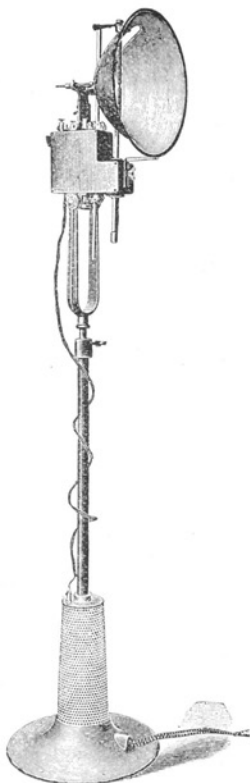
The resistance used with the lamp is connected directly to it as shown in the illustrations, and obviates the disfigurement of the lamp structure. It also facilitates the hanging of the lamp, and overcomes the objections made by the Fire Underwriters to the ordinary form of resistances which are inclosed in boxes placed upon the wall. This resistance may be varied according to the volts lost in the wiring. When it is not convenient to have the resistance connected directly to the lamp we can furnish resistance boxes in place of the coils.

Code Word.	List No.	List Price. Each.
<i>Sauvesson</i>	21085	Plain, with resistance coils..... \$34.00
<i>Sauvignon</i>	21086	Plain, without resistance coils..... 30.00
<i>Sa</i>	21087	Ornamented, with resistance coils..... 48.00
<i>Sauerkraut</i>	21088	Ornamented, without resistance coils..... 44.00
<i>Saul</i>	21089	Resistance Box, only..... 22.00

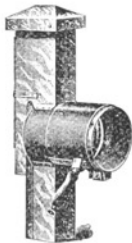
## Hood for Incandescent Arc Lamp.

### With Resistance.

<i>Sauie</i>	21090	Complete.....	10.00
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No. 20873.



No. 20875

## The Kreuger Theater Arc Lamps.

This lamp was designed and is especially adapted for use in theaters, halls and public buildings, and is without question the best means for obtaining brilliant lighting effects for stage work. It takes the place of the calcium light, and is far superior to it in many respects. It is easier to transport, is less dangerous, more reliable, and far more economical.

In the accompanying cut the lamp is shown attached to its supporting stand, equipped with a silvered parabolic reflector, but the lamp is so arranged that the reflector can be quickly and easily removed, and a lens box or Boomerang substituted for it, making it possible to use a single lamp for varied effects.

The illuminating power of the lamp is equal to 3,000 candles, and owing to the simple but ingenious regulating mechanism, the light is maintained at a very constant strength. The lamp is practically noiseless in its operation, and owing to the entire absence of any devices depending upon gravitation in the regulating mechanism, the lamp can be inclined to any desired angle without interfering with its operation and without re-adjustment.

In operating the lamp, connection can be made direct to the supply wires of a 110 volt constant potential lighting system, observing that the current passes downward through the carbons, and under these conditions the rheostat in the perforated cone at the base of the lamp will restrict the current passing through the lamp to the proper strength.

## Attachments for Kreuger Theater Lamp.

The lens box is used when it is desired to concentrate the rays of light more or less according to adjustment. It is very useful in cases where it is desired to throw a strong stream of light upon a moderate sized object upon the stage, or to follow an object in its movements.

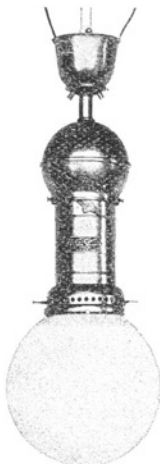
The Boomerang is used when a uniform dispersion of light over a considerable area is desired, which, result is secured by means of a ground glass front. In front of the ground glass is provided a color frame, open at both sides so that frames can be slid through in succession and the colors changed without showing the white light.

These lamps and attachments are carried in stock and can be supplied promptly on receipt of order.

Code Word.	List No.	List Price, Each.
<i>Sabuctions</i>	20873	Lamp, Stand and Rheostat ..... \$90.00
<i>Sabuctionsly</i>	20874	Portable Lamp Rheostat ..... 25.00
<i>Sabucity</i>	20875	Lens Box ..... 24.60
<i>Sabud</i>	20876	Single Boomerang ..... 80.00
<i>Sabude</i>	20877	Double Boomerang ..... 140.00
<i>Sabuding</i>	20878	Glass Lined Reflector ..... 48.00
<i>Saucily</i>	21082	Enamelled Copper Reflector ..... 10.00
<i>Sauciness</i>	21083	Reflector Front ..... 2.10
<i>Saucisse</i>	21084	Set of 5 Colors ..... 12.60
<i>Saintologist</i>	20862	Plugs and Receptacle ..... 3.20



Adapted for Outdoor Use.



Adapted for Indoor Use.

### Western Electric Long-Burning Enclosed Arc Lamp.

The first illustration shows the lamp arranged for outdoor use. The bell which encloses the rheostat is turned down. The position of the bell can be changed to that shown in the illustration of lamp for indoor use. The stem of the lamp can be made any length to suit the height of the ceiling.

The third illustration shows the manner in which the globe is handled and the lamp trimmed. The globe is lowered and is held in position as shown by the construction of the lower portion of the carbon holder or side arm.

The lamp requires half-inch carbons, one 12 inches long and one 5 inches long.

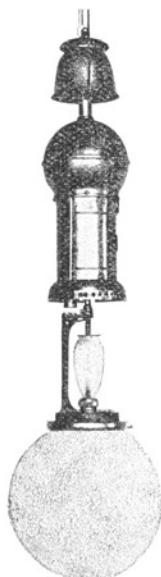
The fourth illustration shows the mechanism in plain view, and in order to get at this mechanism all that is necessary is to slip the shell down. The switch is of a quick break pattern and can be reached and manipulated easily from the ground with a pole. The switch handle is just above the name plate as shown in the illustration. The lower carbon holder and enclosing globe are made removable, simplifying the trimming. The clutch mechanism requires the least amount of energy to operate it, roller bearings being used to lessen the friction.

There is no shadow cast by the globes. They are a true sphere in shape and closed at the bottom.

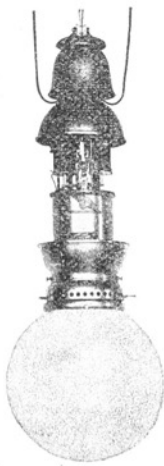
The lamps can be operated singly on 110 volts, two in series on 220 volts, or five in series on 550 volts. They distribute light uniformly, burn steadily, are noiseless, and the mechanism is simple and strong.

The standard lamps are of a dark or oxidized copper finish.

An ornamental brass lamp can be furnished and also other finishes upon special orders.



Showing Globe lowered ready for trimming.



Showing Mechanism.

Prices on Arc Lamps quoted on Application.

## The Rushmore Projectors and Search-Lights.

### Type "A" Projector.

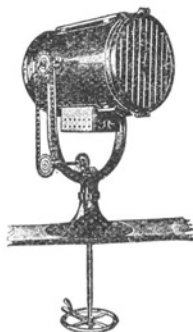


Type "A."

This is a high power Projector, possessing all the advantages of the best lights formerly used in the Navies, giving an intensity estimated at one million candle power per ampere in the arc, and is entirely free from the complicated mechanism which has made it necessary for every warship to carry a corps of "Search Light Experts" to keep them in working order. The apparatus consists essentially of a cylinder which is entirely empty except for the slender carbon holders which cast no shadow, and the lamp is placed in a small case below the cylinder. In the rear cover is mounted the new lens mirror, and the arrangement, as will be seen by the following illustrations, is such that all the light from the carbons is thrown upon it. There is no light lost, and by reason of the central position of the carbons it is possible with the new lens to cause the light to be projected in a narrow beam, spreading to but 100 feet at a mile distance, or to spread it out as wide as desired for making landings, etc., which is accomplished by simply turning a small hand wheel shown on the lower lamp case. This device dispenses with the heavy and costly double diverging lenses placed in the front of the old navy lights, which are a constant expense and annoyance by breaking.

This type projector is designed particularly for the largest steamships, but is made in all sizes down to the smallest yacht light, as will be seen by price list.

Diameter inches	Amperes	Plain Iron Japanned	Iron Frame Polished Brass Cylinder	Black Brass Frame Polished Cylinder	All Brass Polished All Over.	Height to Center of Cylinder Inches.	Weight Complete Lbs
10	5 to 10	.....	\$375 00	\$405 00	\$445 00	18	55
14	10	\$375 00	400 00	440 00	490 00	27	80
14	20	385 00	410 00	450 00	500 00	27	80
14	25	395 00	420 00	460 00	510 00	27	80
18	35	470 00	505 00	565 00	625 00	30	165
18	45	495 00	530 00	590 00	650 00	30	165
26	60	900 00	960 00	.....	.....	58	365
26	80	975 00	1095 00	.....	.....	58	365
34	100	1500 00	1600 00	.....	.....	58	450



Type "D."

### Pilot House Projector. Type "D."

This apparatus is the same as the Type "A" Projector just described, but mounted in a special U frame, adapting it for use on the roof of the pilot house. A controlling shaft arrangement, as shown, extends below, by means of which the light is readily thrown in any direction by the man at the wheel. With this arrangement it may be controlled with even greater ease than can the deck lights, as the operator is away from the glare of the intense beam, and the light being overhead can be directed with perfect accuracy.

## The Rushmore Projectors and Search-Lights. (Continued.)



Type "D."—Open.

### Pilot House Projector. Type "D."—(Continued.)

Illustration shows the projector with front and back doors opened, and it will be readily seen that anyone can place the carbons in the holders, and should they not be of proper length for focus of the light, the lamp may be instantly shifted to bring it to focus, and thus it is not necessary to have the carbons of an exact length. This will be appreciated by those who have used the old style search lights which it was necessary to take to pieces to replace the carbons and which could never be trimmed in the dark as is often required where the apparatus has been neglected by day.

Other forms of this projector have means of controlling the light when placed away from the pilot house.

Diameter, inches.	Amperes	Plain Iron Japanned	Plain Iron Polished Brass Cylinder	All Brass Polished Cylinder	All Brass Polished All Over	Height to Center of Cylinder, Inches.	Weight Complete, Lbs
10	5 to 10	...	\$475 00	\$505 00	\$545 00	18	65
14	10	\$475 00	500 00	540 00	590 00	27	100
14	20	485 00	510 00	550 00	600 00	27	100
14	25	495 00	520 00	560 00	610 00	27	100
18	35	570 00	605 00	665 00	725 00	33	190
18	45	595 00	630 00	690 00	750 00	33	190
26	60	1000 00	1060 00	...	...	38	325
26	80	1075 00	1195 00	...	...	38	325
34	100	1600 00	1700 00	...	...	40	480

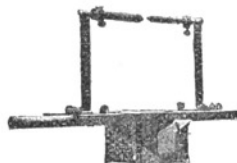


### The Lens.

An important feature of the projectors is the new corrective Aplanatic Lens which differs from all other lenses previously used, in that it has a corrective principle which compensates for the area of the carbons. In the common mirror the actual focus is an infinite point, but as the large carbons have a crater of considerable area, such lenses cannot give a perfectly straight beam. By the new design this difficulty is largely overcome. The lenses are of wonderfully strong focus. They are made of a special grade of glass and the latest type machinery is used for their finishing.

### The Concentric Lamp.

The new Concentric Lamp has but a single spool magnet and two gear wheels. It feeds with a power of over thirty pounds at all angles or vertically and its adjustment is permanent and simple.



### Projectors in the Fog.

The light is concentrated to a single narrow beam which causes very little reflection to annoy the pilot, but in real fog a light, no matter how powerful, if thrown horizontally, is worse than useless, as it can penetrate but a short distance, and by its reflection serves only to blind those on watch. It is well known that fog lies close to the water and, to take advantage of this fact, the projectors are constructed to throw a light in a vertical direction when required. In this way the beam easily

## The Rushmore Projectors and Search-Lights. (Continued.)

### Projectors in the Fog.—(Continued.)

penetrates the layer of mist and throws a bright, round spot on the sky which is readily seen by other vessels, and by a suitable switch the light may be flashed to give any signals desired.

### Search Lights for Electric Railways.

As an advertising device there is nothing so successful as the Electric Search Light, particularly where the object is not to attract people merely by curiosity, but for the purpose of viewing the effects at a distance.

Nearly all electric railways have extended their lines to some popular resort, or have established parks of their own. These are usually on high ground, and in such cases one of the most attractive features that could be added is a powerful search light. This apparatus when so ordered, is built to work on the regular power circuits and is not affected by fluctuations in the voltage common at the end of trolley lines. It has been found that where this apparatus has been installed for this purpose it has in a short time more than paid for itself by increased receipts.

### Plain Reflector Lights. Type "B."

Old style common reflector search light. It is radically different from the projectors, as it has a silver-plated sheet copper reflector of the locomotive type. The construction is very simple. The lamp movement is similar to that used in the projectors and has permanent adjustment. It is easily cleaned and supplied with new carbons and is intended for rough service and short range work.

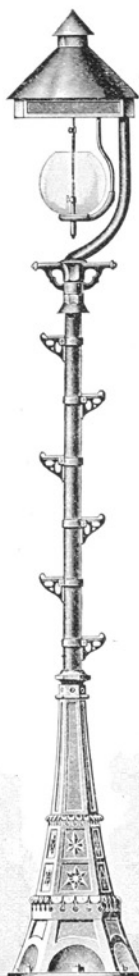
Diameter inches	Amperes	Plain Iron Japanned	Plain Iron Polished Brass Cylinder	All Brass Polished Cylinder	All Brass Polished All Over	Height to Center of Cylinder Inches	Weight Complete Lbs.
18	10 to 25	\$260 00	\$300 00	\$360 00	\$420 00	30	150
26	30 to 40	370 00	430 00	.....	.....	38	250

### Plain Pilot House Reflector Light. Type "C."

This apparatus is the same as Type "B," mounted in a special U frame, adapting it for use on top of pilot house. See description of Type "D."

Diameter inches	Amperes	Plain Iron Japanned	Plain Iron Polished Brass Cylinder	All Brass Polished Cylinder	All Brass Polished All Over	Height to Center of Cylinder Inches	Weight Complete Lbs.
18	10 to 25	\$340 00	\$390 00	\$450 00	\$510 00	33	180
26	30 to 40	448 00	510 00	.....	.....	38	280





## The Columbian Street Lamp Post.

PATENTED

For supporting arc lights for street illumination a demand has arisen for a post which, in addition to filling the well-known electrical and mechanical requirements, shall present a symmetrical and pleasing appearance to the eye. A glance at the accompanying illustration will show the success that has attended our efforts in this direction.

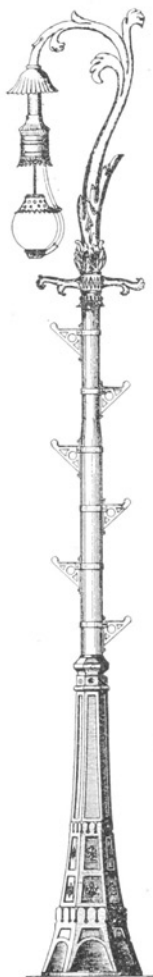
The lower part of this post, which is of cast-iron, has a broad circular base, which, when bolted to the sidewalk, gives the post great stability. Above the base the post assumes a hexagonal form and arises in graceful curved faces, paneled and ornamented in a tasteful manner. One of the panels is hinged so that it may be opened to give access to the switch. The wooden portion of the post extends downward through the cast-iron base to the sidewalk, and above the base is provided with neat malleable iron steps, while at its upper extremity is carried a single side-arm lamp support equipped with switchboard and hood. The cover of the hood can be placed at any angle so that the street names will be parallel with the intersecting streets. The height over all is about 21 feet.

There are about 1,500 posts similar to this now in use on the Electric Light plant of the city of Chicago.

We manufacture these posts with ornamental supporting arm for the lamp in place of the ordinary street hood, for boulevards and parks.

In addition to the Columbian Lamp Posts we are prepared to furnish posts of special designs to suit the purchaser. We will submit drawings on application.

Code Word.	List No.	List Price, Each.
<i>Sandalid</i>	21168	Post, complete, without lamp . . . . . \$110.00
<i>Sandaliform</i>	21169	Extra Switches . . . . . 4.50
<i>Sandarae</i>	21170	Extra Doors and Locks . . . . . 4.50
<i>Sandarach</i>	21171	Extra Steps, without ring . . . . . .40



## Boulevard Lamp Post.

For boulevard street lighting we manufacture an ornamental lamp post as shown in the accompanying cut.

This post is thoroughly made, electrically and mechanically, and is graceful in design. It is provided with a cast iron pedestal similar to that furnished with the Columbian lamp post. The cast iron top for supporting the lamp extends over the street in order to afford a good distribution of light, but at the same time the lamp is easily reached from the post for trimming. The wooden portion of the post, which supports the steps, is made to extend through the cast iron pedestal to the ground giving a substantial construction. The post is also made with a top that curves out more than the one shown in the cut, making a post desirable for alley lighting. A switch is placed in the pedestal and is accessible by a hinged panel.

Prices on application.

# MARINE.

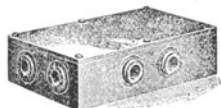


No. 8815.



No. 50965.

No. 50966.



No. 50973.



No. 20858.

Code Word.	List No.		List Price.
<i>Harm</i>	8815	1 Ampere, each.....	\$0.50
<i>Harmed</i>	8816	2 " " .....	.50
<i>Harmful</i>	8817	3 " " .....	.50
<i>Harmfully</i>	8818	5 " " .....	.50
<i>Harming</i>	8819	8 " " .....	.50
<i>Harmless</i>	8820	10 " " .....	.50

## Glass Fuses.

## Marine Sockets.

<i>Catholical</i>	50965	Keyless, Edison Base, each.....	60
<i>Catkin</i>	50966	Key, Edison Base, each.....	.75

## Junction Boxes.

<i>Lounger</i>	50972	Search-light Junction Box, each.....	6.00
<i>Loeable</i>	50973	Feeder Junction Box, each.....	8.00
<i>Loeless</i>	50967	Four-way Branch Junction Box, each.....	8.00
<i>Loelily</i>	63766	Key for Removing Covers of Catalogue Nos. 50972, 50973 and 50967, each.....	.60

## Bryant Waterproof Marine Switch.

This Switch is designed for marine work or for use in damp places. The wires enter through stuffing boxes having soft rubber packing. They are extensively used on transatlantic steamers.

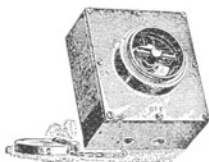
<i>Saintism</i>	20858	10 Ampere, Single Pole, each.....	\$5.00
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### Marine Switches.



No. 63758.

Code Word.	List No.	List Price
<i>Loveliness</i>	63758	Water-tight Switch and Receptacle, capacity 5 amperes, each. . . . . \$6.50
<i>Lovelorn</i>	63759	Water-tight Switch Receptacle and Junction Box, each. . . . . 10.00
<i>Lovely</i>	63756	Single Pole Water-tight Switch, capacity 5 amperes, each. . . . . 5.00
<i>Lower</i>	63763	Double Pole Water-tight Switch, capacity 25 amperes, each. . . . . 7.00



No. 63764.

<i>Lovesome</i>	63764	Double Pole Water-tight Switch, capacity 40 amperes, each. . . . . 14.00
<i>Lower</i>	63757	Single Pole, not Water-tight Switch, capacity 25 amperes, each. . . . . .60



No. 50974.

<i>Lowered</i>	50974	Protective Deck Wire Stuffing Tube, each. . . . . 8.00
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No. 50970.

<i>Lowering</i>	50970	Main Deck Wire Stuffing Tube, each. . . . . 6.00
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No. 50971.

<i>Lowland</i>	50971	Bulkhead Deck Wire Stuffing Tube, each. . . . . 1.00
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No. 64109.

<i>Mildew</i>	64109	Water-tight Receptacle, with Attaching Plug, capacity 5 amperes, each. . . . . 5.00
<i>Mitoge</i>	64110	Attaching Plug for No. 64109, each. . . . . 1.10
<i>Military</i>	64111	Not Water-tight Receptacle, each. . . . . 30
<i>Militia</i>	64112	Attaching Plug for No. 64111, each. . . . . 5.00
<i>Milk</i>	64113	Search-light Receptacle, with Plug, each. . . . . 19.00

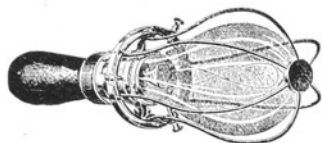


No. 9121.

<i>Lotion</i>	9121	Portable Lamp, each. . . . . 6.00
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### Portable Lamp Guards.

Portable Lamp Guards—(Continued).



No. 4974.

Code Word.	List No.	List Price.
<i>Lottery</i>	4974	Portable Lamp Guard, safety hand key socket, each..... \$1.25
<i>Lotus</i>	4975	Portable Lamp Guard, safety hand keyless socket, each..... 1.00



No. 8913.

<i>Loud</i>	8913	Brewer's Portable Lamp Guard, each..... 2.50
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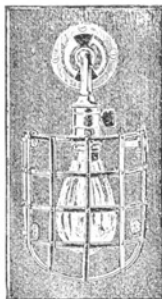
No. 9118.

<i>Miff</i>	9118	Battle Lantern, without Shield, each..... 12.00
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No. 9119.

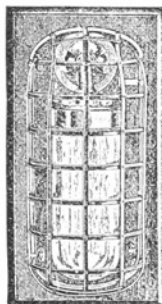
<i>Miff</i>	9119	Battle Lantern, with Shield, each..... 12.00
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No. 9123.

## Fixtures.

Code Word.	List No.	List Price.
<i>Mighty</i>	9123	Half Wire Guard, each.....\$4.50



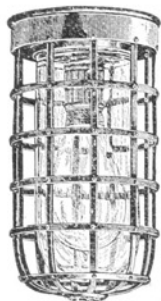
No. 9124.

<i>Mighty</i>	9124	Full Wire Guard, each..... 7.00
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No. 9122.

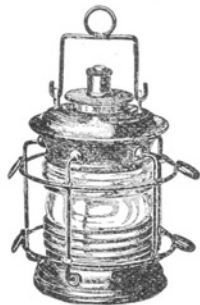
<i>Loudly</i>	9122	Steam-tight Globe, each..... 6.50
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No. 9125.

Fixtures—(Continued).

Code Word.	List No.	List Price.
<i>Loudness</i>	9125	Steam-tight Globe, with Guard, each.....\$7.00



No. 9120.

<i>Lounge</i>	9120	Navy Signal Lantern, each..... 30.00
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No. 9140.






<i>Mesh</i>	9140	Ceiling Fixture, each..... 8.00
<i>Lactean</i>	8821	Shade, each..... 1.00
<i>Lactic</i>	8822	Rubber Gasket, each..... .50



No. 9141.

<i>Meshed</i>	9141	Ceiling Fixture, each.....11.00
<i>Lactine</i>	8823	Shade, each..... 1.00
<i>Lactic</i>	8822	Rubber Gasket, each..... .50

## Fixtures—(Continued).

	Code Word.	List No.	List Price.
	<i>Meshing</i>	9126	Portable Guarded Freight or Cargo Lantern, with Guard, each . . . . . \$35.00
	<i>Ladder</i>	8824	Portable Guarded Freight or Cargo Lantern, no Guard, each. . . . . 27.50
No 9126			
	<i>Merry</i>	9136	Ceiling Fixture, complete, no Lamp, each. . . . . 4.00
No. 9136.			
	<i>Merriness</i>	9134	Ceiling Fixture, complete, no Lamp, each. . . . . 3.50
No. 9134.			
	<i>Migrate</i>	9135	Wall Bracket, each. . . . . 7.50
No. 9135.			
	<i>Migrating</i>	9137	Wall Bracket, each. . . . . 7.50
No. 9137.			



Fixtures—(Continued).



No. 9138.

Code Word.	List No.	List Price.
<i>Mild</i>	9138	Wall Bracket, each..... \$10.00



No. 9130.

<i>Migration</i>	9130	Desk Lamp, each..... \$12.00
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No. 9129.

<i>Meriting</i>	9129	2 Light Electrolier, with Oil Lamp, each..... 35.00
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No. 9131.

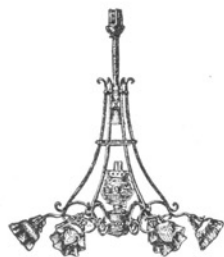
<i>Mermaid</i>	9131	2 Light Electrolier, with Oil Lamp, each..... 30.00
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No. 9128.

## Fixtures—(Continued).

Code Word.	List No.	List Price.
<i>Merrily</i>	9128	6 Light Electrolier, each.....48.00



No. 9127

<i>Merriment</i>	9127	6 Light Electrolier, with Oil Lamp, each..... 60.00
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No. 9132.

<i>Milder</i>	9132	3 Light Electrolier, each..... 6.00
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No. 9133.

<i>Mildest</i>	9133	2 Light Electrolier, with Oil Lamp, each..... 26.00
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# SHADES.

## Porcelain Shades.



No. 2700.



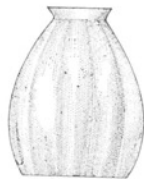
No. 2704.



No. 2706.



No. 2714.



No. 2719.



No. 2720.

Code Word.	List No.		List Price. Per doz.
<i>Dealing</i>	2700	5 inch, Fan Shaped, Flat	\$ 2.25
<i>Deanery</i>	2701	6 " " "	2.50
<i>Deborah</i>	2702	7 " " "	2.75
<i>Delia</i>	2703	8 " " "	3.10
<i>Simony</i>	23104	10 " " "	3.60
<i>Simon</i>	23105	12 " " "	7.80
<i>Absalom</i>	2704	5 inch, Plain, Flat	2.00
<i>Abscess</i>	2705	6 " " "	2.00
<i>Abscond</i>	2706	7 " " "	2.25
<i>Absconded</i>	2707	8 " " "	2.50
<i>Absolutely</i>	2708	10 " " "	2.75
<i>Absoluti</i>	2725	12 " " "	5.50
<i>Absolce</i>	2726	14 " " "	6.25
<i>Absolcer</i>	2727	16 " " "	8.75
<i>Absolcing</i>	2728	18 " " "	15.00
<i>Simious</i>	23106	20 " " "	17.00
<i>Simper</i>	23107	22 " " "	26.00
<i>Simpever</i>	23108	24 " " "	32.00
<i>Denis</i>	2709	5 inch, Deep, Fan Shape	2.25
<i>Depress</i>	2710	6 " " "	2.50
<i>Depression</i>	2711	7 " " "	2.75
<i>Deprize</i>	2712	8 " " "	3.00
<i>Depricing</i>	2713	10 " " "	6.00
<i>Doudness</i>	2714	5 inch, Plain, Deep	2.00
<i>Doof</i>	2715	6 " " "	2.25
<i>Doofen</i>	2716	7 " " "	2.50
<i>Doofness</i>	2717	8 " " "	2.75
<i>Doof</i>	2718	10 " " "	5.00
From No. 2714 to No. 2718, made in both plain and beaded edge. In ordering state plain or beaded edge as desired.			
<i>Lignite</i>	2719	Melon, Opal, for 2½ inch Holder	3.00
<i>Absount</i>	2720	5 inch, Scalloped	2.00
<i>Absorb</i>	2721	6 " " "	2.25
<i>Absorbent</i>	2722	7 " " "	2.50
<i>Absorbing</i>	2723	8 " " "	2.75
<i>Absorption</i>	2724	10 " " "	5.00



No. 2731.

### Porcelain Shades—(Continued).

Code Word.	List No.	List Price.
<i>Lighter</i>	2729 $\frac{1}{2}$ 8 inch, White Porcelain, Deep Cone, per dozen..	\$3.75
<i>Lighterage</i>	2730 10 " " " " " " ..	4.00
<i>Lightness</i>	2731 7 " Green " " " " ..	11.25
<i>Lightly</i>	2732 10 " " " " " " ..	22.50



No. 8712.

### Etched Electric Globes—Glass.

*Livelihood* 8712  $7\frac{1}{2}$  in. diam.,  $2\frac{1}{4}$  in. high,  $2\frac{1}{2}$  in. holder, per doz... 10.00



No. 8878.

*Litmus* 8878  $7\frac{1}{2}$  in. diam.,  $3\frac{1}{2}$  in. high,  $2\frac{1}{2}$  in. holder, per doz... 4.00



No. 8770.

*Liturgy* 8770 5 in. diam., 4 in. high,  $2\frac{1}{2}$  in. holder, per dozen 4.75



No. 8771.

*Litter* 8771  $5\frac{1}{2}$  in diam., 4 in. high,  $2\frac{1}{2}$  in. holder, per dozen 3.75



No. 8773.

*Littoral* 8772 Per dozen..... 3.50

Etched Electric Globes—Glass—(Continued).



No. 8773.

Code Word.	List No.	List Price.
<i>Littleness</i>	8773 Per dozen.....	\$3.50



No. 8825.

<i>Littering</i>	8825 Per Dozen.....	375
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No. 8765.

<i>Lusterless</i>	8765 5½ in. diameter, 4 in. high, 2½ in. holder, per doz..	6.50
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No. 8766.

<i>Luster</i>	8766 5 in. diameter, 4 in. high, 2½ in. holder, per doz..	7.50
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No. 8767.

<i>Lustrousness</i>	8767 5½ in. diameter, 4 in. high, 2½ in. holder, per doz..	8.00
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No. 8768.



No. 8769.



No. 8826.



No. 8827.



No. 8828.



No. 8829.

## Etched Electric Globes—Glass—(Continued).

Code Word.	List No.	List Price.
<i>Lusciously</i>	8768	5½ in. diameter, 4 in. high, 2½ in. holder, per doz. \$8.50
<i>Luscious</i>	8769	5 in. diameter, 4 in. high, 2½ in. holder, per doz. 15.00
<i>Coruscate</i>	8826	Per dozen..... 4.00
<i>Lurch</i>	8827	5 in. diameter, 3½ in. high, 2½ in. holder, per doz. 12.50
<i>Lurching</i>	8828	5 in. diameter, 4 in. high, 2½ in. holder, per doz. 15.00
<i>Lurid</i>	8829	5½ in. diameter, 4½ in. high, 2½ in. holder, per doz. 4.75



No. 8876.

Etched Electric Globes—Glass—(Continued).

Code Word.	List No.		List Price.
<i>Lurking</i>	8876	5½ in. diameter, 4 in. high, 2½ in. holder, per doz.	\$2.25



No. 8877

<i>Luring</i>	8877	6 in diameter, 4 in. high, 2½ in. holder, per doz.	5.00
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No. 8857.

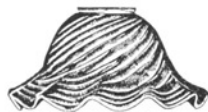
Colored Electric Globes—Glass.

			Inch Diam.	Inch High.	Inch Holder.	Per Doz.
<i>Lividness</i>	8857	Pink opalescent,	5½	4½	2½	7.50
<i>Lively</i>	8858	Ruby "	5½	4½	2½	7.50
<i>Livory</i>	8859	Light blue "	5½	4½	2½	3.75
<i>Livid</i>	8860	Flint "	5	4½	2½	3.75
<i>Lividness</i>	8861	Amber "	5½	4½	2½	3.75



No. 8862.

<i>Living</i>	8862	Pink opalescent,	4½	5	2½	7.50
<i>Lizard</i>	8863	Ruby "	4½	5	2½	7.50
<i>Loadstone</i>	8864	Flint "	4½	5	2½	3.50
<i>Loofer</i>	8865	Light blue "	4½	5	2½	3.50
<i>Loafing</i>	8866	Amber "	4½	5	2½	3.50



No. 8867.

<i>Loam</i>	8867	Flint opalescent,	5	3½	2½	4.38
<i>Loathful</i>	8868	Ruby "	5	3½	2½	8.75
<i>Loathness</i>	8869	Flint "	6	3½	2½	3.75
<i>Loathsome</i>	8870	Ruby "	6	3½	2½	7.50
<i>Locality</i>	8871	Flint "	7	3½	2½	4.90
<i>Locally</i>	8872	Ruby "	7	3½	2½	9.25



No. 8873.

<i>Loate</i>	8873	Ruby opalescent,	4	6½	3½	12.00
<i>Louty</i>	8874	Flint "	4	6½	3½	5.63
<i>Loateness</i>	8875	Crystal "	4	6½	3½	5.00



No. 23109.



No. 23110.



No. 23111.



No. 23112.



No. 23113.



No. 23114.



No. 23115.

## New Patterns in Standard Shades.

### W. A. Fluted Etched Shade.

Code Word. List No. List Price.  
*Simple* 23109 Shade 4 x 4 in. for 2½ in. holder... \$5.30  
 Per Doz

### W. A. Electric.

*Simpless* 23110 3¾ in. high, 4½ in. wide, for 2½ in.  
 holder..... 5.00

### Diamond Etched.

*Simpler* 23111 4 in. high, 5½ in. wide, for 2½ in.  
 holder..... 9.00

*Simpless* 23112 4 in. high, 4½ in. wide, for 2½ in.  
 shade holder..... 9.00

*Simpler* 23113 4½ in. high, 4½ in. wide, for 2½ in.  
 shade holder..... 9.00

*Simplify* 23114 4½ in. high, 5 in. wide, for 2½ in.  
 shade holder..... 9.00

### Rough Etched Maple Leaf.

*Simplest* 23115 4½ in. high, 5½ in. wide, for 2½ in.  
 shade holder..... 7.00

The black background on shades represents  
 clear glass.



## Shades

## Etched Shades.



No. 21729.

Code Word	List No.		List Price, Per Doz.
<i>Segregate</i>	21729	Etched .....	\$3.00



No. 21730.

<i>Seigneurial</i>	21730	Pearl Etched .....	4.50
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No. 21731.

<i>Seignior</i>	21731	Pearl Etched .....	4.50
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No. 21732.

<i>Seignory</i>	21732	Pearl Etched, ribbed .....	4.50
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No. 21733.

<i>Seine</i>	21733	Pearl Etched .....	4.50
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No. 21734.

<i>Seize</i>	21734	Pearl Etched .....	4.50
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No. 21735.



No. 21736.



No. 21737.

## Shades

## Roughed Inside.

Code Word.	List No.		List Price. Per Doz.
<i>Seldom</i>	21735	4½ in. diam. 5½ in. high, crimped top	\$7.50
<i>Select</i>	21736	4½ " 5½ "	7.00
<i>Selectman</i>	21737	3¾ " 5½ "	6.00

## Silver Etched.

<i>Self</i>	21738	3¾ in. diam. 5½ in. high, scalloped top,	18.00
<i>Selfish'</i>	21739	3¾ " 5½ " plain top	15.00
<i>Selfsame</i>	21740	4½ " 5½ " scalloped top,	18.00
<i>Selouge</i>	21741	4½ " 5½ " plain top	15.00
<i>Semaphone</i>	21742	3¾ " 5½ " twist ruby	9.00
<i>Semblance</i>	21743	3¾ " 5½ " twist flint opalescent	6.00



No. 21739.



No. 21740.



No. 21743.



No. 21744.



No. 21745.



No. 21746.

<i>Seminary</i>	21744	5½ in. diam. 4 in. high, etched pan	5.00
<i>Semitic</i>	21745	4½ " 4½ " silver etched, plain top	9.00
<i>Semitone</i>	21746	5½ in. diam. 4 in. high, etched pan	5.00

## Crimped.



No. 21747.



No. 21748.



No. 21749.

<i>Sempstress</i>	21747	5 in. diam. 4¾ in. high, etched	7.50
<i>Senate</i>	21748	5½ " 4½ " " "	5.00
<i>Senator</i>	21749	5 " 4½ " roughed inside	7.00



No. 21750.



No. 21751.



No. 21752.

<i>Senatorial</i>	21750	4½ in. diam. 5½ in. high, silver etched scalloped top	12.00
<i>Senile</i>	21751	4½ in. diam. 4 in. high, rich cut	114.00
<i>Senility</i>	21752	4½ " 5½ " silver etched plain top	16.00

## Rich Cut.

<i>Senior</i>	21753	4½ in. diam. 5½ in. high	54.00
<i>Seniority</i>	21754	4½ " 5½ "	60.00
<i>Sensation</i>	21755	4½ " 5 "	44.00



No. 21753.



No. 21754.



No. 21755.

All Shades on this page for 2½ in. holder.



No. 21756.



No. 21757.

**Silver Etched, Scalloped Top.**

Code Word.	List No.	List Price.
		Per Doz.
<i>Sense</i>	21756 5 in. diam, 3½ in. high.....	\$17.00

**Silver Etched and Cut, Beveled Top.**

<i>Sensibility</i>	21757 5¼ in. diam, 4 in. high.....	20.00
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No. 21758.



No. 21759.

**Silver Etched, Plain Top.**

<i>Sensible</i>	21758 4¾ in. diam, 4¼ in. high.....	17.00
<i>Sensitive</i>	21759 5 " 4½ " .....	18.00



No. 21760.



No. 21761.

**Silver Etched and Rich Cut, Scalloped Top.**

<i>Sensorial</i>	21760 5¼ in. diam, 4 in. high.....	24.00
<i>Sensorium</i>	21761 5¼ " 4 " .....	24.00



No. 21762.

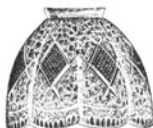


No. 21763.

**Cut and Etched.**

<i>Sensory</i>	21762 Scalloped Top, 6 in. diam, 4 in. high...	24.00
<i>Sentence</i>	21763 " 5¼ " 3½ " .....	14.50
<i>Sententious</i>	21764 Plain Top, 5¼ " 3½ " .....	12.50

No. 21764 is the same in finish as No. 21763.



No. 21765.



No. 21766.

**Cut and Etched.**

<i>Sentient</i>	21765 Melon Beaded Top, 5 in. diam, 4 in. high,	32.00
<i>Sentiment</i>	21766 Corrugated, Scalloped Top, 5 in. diam.,	
	3½ in. high.....	32.00



No. 21767.



No. 21768.

**Rich Cut, Scalloped Top.**

<i>Sentimental</i>	21767 5 in. diam., 4¾ in. high.....	50.00
<i>Sentinel</i>	21768 4¼ " 4¼ " .....	30.00



No. 21769.



No. 21770.



No. 21771.



No. 21772.



No. 21773.



No. 21778.



No. 21779.



No. 21780.



No. 21781.



No. 21782.

## Rich Cut, Scalloped Top.

Code Word.	List No.	List Price.
<i>Sentry</i>	21769 4 in. diam., 5 in. high, per doz. ....	\$55.00
<i>Separable</i>	21770 Melon, 5 in. diam., 5 in. high, per doz. ...	28.00

## Rich Cut, Scalloped Top.

<i>Separatist</i>	21771 4½ in. diam., 4 in. high, per doz. ....	56.00
<i>Septuagint</i>	21772 4½ " " 4½ " " " ....	48.00

## Rich Cut and Etched Ball.

<i>Septennial</i>	21773 6-inch, 3¼ inch holder, each .....	6.25
<i>Sepulcher</i>	21774 7-inch, 3½ " " " .....	7.50
<i>Sepulchral</i>	21775 8-inch, 3½ " " " .....	8.50
<i>Sepulture</i>	21776 10-inch, 3½ " " " .....	13.00
<i>Sequeacious</i>	21777 12-inch, 3½ " " " .....	20.00

## Rich Cut Bulb.

<i>Sequel</i>	21778 5½ in. diam., 5½ in. length, 3¼ in. holder, per doz. ....	120.00
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## Rich Cut Bulbs

<i>Sequence</i>	21779 4 in. diam., 5½ in. length, 3¼ in. holder, per doz. ....	75.00
<i>Sequester</i>	21780 4 in. diam., 5½ in. length, 3¼ in. holder, per doz. ....	60.00

## Rich Cut.

<i>Sequestrate</i>	21781 Bulb, 4 in. diam., 5½ in. length, 3¼ in. holder, per doz. ....	50.00
<i>Sequestration</i>	21782 Stalactite, 4 in. diam., 5½ in. length, 3¼ in. holder, per doz. ....	45.00



No. 21819.



No. 21821.



No. 21822.



No. 21824.



No. 21825.



No. 21826.



No. 21827.



No. 21828.

## Shades

### Twist Stalactites.

Code Word.	List No.	Price List, Per doz.
<i>Security</i>	21819	Flint Opalescent, 7 in. diam., 9 in. length, 5 in. holder..... \$12.00
<i>Sever</i>	21820	Crystal, 7 in. diam., 9 in. length, 5 in. holder..... 12.00

### Plain Stalactite, Roughed Inside.

<i>Scrtle</i>	21821	7 in. diam., 10 in. length, 4 in. holder, 24.00
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### Rich Cut Bulb.

<i>Scrtou</i>	21822	Large, 4½ in. diam., 6 in. length, 3½ in. holder..... 50.00
<i>Shobby</i>	21823	Small, 4 in. diam., 5½ in. length, 3½ in. holder..... 45.00
<i>Shoikle</i>	21824	4 in. diam., 5½ in. length, 3½ in. holder, 52.00


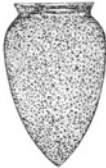








### Rich Cut Stalactite.

<i>Shodow</i>	21825	4 in. diam., 8 in. length, 3½ in. holder, 60.00
<i>Shofft</i>	21826	4 " 8 " 3½ " 75.00

### Rich Cut Stalactite.

<i>Shoy</i>	21827	Silver Etched, 4½ in. diam., 8½ in. length, 3½ in. holder..... 24.00
<i>Shoggy</i>	21828	4½ in. diam., 8½ in. length, 3½ in. holder, 75.00

## Shades—

		Etched.		List Price. Per doz.
	Code Word.	List No.		
				
No. 21783.				
				
No. 21784.				
				
No. 21785.				
				
No. 21786.				
				
No. 21787.				
				
No. 21788.				
				
No. 21789.				
				
No. 21793				
				
No. 21795.				
				
No. 21796				
			<b>Etched Stalactite.</b>	
	<i>Seraphic</i>	21783	Rich cut, 4½ in. diam., 6½ in. length, 3¼ in. holder.....	\$ 22.00
	<i>Seraglio</i>	21784	Stalactite, 4½ in. diam., 6½ in. length, 3¼ in. holder.....	9.00
			<b>Etched Stalactite.</b>	
	<i>Seraphic</i>	21785	Rich cut, 5 in. diam., 6½ in. length, 3¼ in. holder.....	32.00
	<i>Seraphim</i>	21786	Melon, 5 in. diam. 6½ in. length, 3¼ in. holder.....	10.00
			<b>Etched Stalactite.</b>	
	<i>Serapis</i>	21787	Melon, 5 in. diam., 6½ in. length, 3¼ in. holder.....	12.00
	<i>Serenade</i>	21788	Rich cut, 4½ in. diam., 6½ in. length, 3¼ in. holder.....	20.00
			<b>Twist Melon Bulb.</b>	
	<i>Serene</i>	21789	Flint Opalescent, 5½ in. diam., 6¼ in. length, 3½ in. holder.....	8.00
	<i>Serenity</i>	21790	Crystal, 5½ in. diam., 6¼ in. long, 3½ in. holder.....	7.50
			<b>Twist Bulb.</b>	
	<i>Serf</i>	21792	Ruby, 5½ in. diam. 6½ in. length, 3¼ in. holder.....	13.00
	<i>Sergeant</i>	21793	Flint Opalescent, 5½ in. diam., 6¼ in. length, 3¼ in. holder.....	6.00
	<i>Seriol</i>	21794	Crystal, 5½ in. diam., 6¼ in. length, 3¼ in. holder.....	5.50
			<b>Rich Cut.</b>	
	<i>Serious</i>	21795	Bulb, 5 in. diam., 6¼ in. length, 3¼ in. holder.....	22.00
	<i>Serjeant</i>	21796	Stalactite, 4½ in. diam., 6¼ in. length, 3¼ in. holder.....	28.00



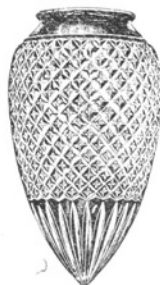
No. 21797.



No. 21798.

Code Word.	List No.		Price List.
<i>Sermon</i>	21797	4 in. diam. 8 in. length, 3¼ in. holder, per doz.	\$26.00
<i>Serons</i>	21798	with dish, 4 in. diam. 8 in. length, 3¼ in. holder, per doz.	120.00
<i>Serpentine</i>	21799	without dish, 4 in. diam. 8 in. length, 3¼ in. holder, per doz.	70.00

**Rich Cut Stalactites.**



No. 21800.



No. 21801.

<i>Serrate</i>	21800	4½ in. diam. 8¼ in. length, 3¼ in. holder, per doz.	62.50
<i>Serum</i>	21801	4½ in. diam. 8¼ in. length, 3¼ in. holder, per doz.	90.00

**Rich Cut Stalactites.**



No. 21802.

<b>Silver Etched Ball.</b>			
<i>Servant</i>	21802	6-inch, per doz.	17.00
<i>Serve</i>	21803	7-inch, "	24.00
<i>Service</i>	21804	8-inch, "	30.00
<i>Sereile</i>	21805	10-inch, "	40.00
<i>Sereitor</i>	21806	12-inch, "	70.00
<i>Sereitude</i>	21807	14-inch, "	100.00
<i>Session</i>	21808	16-inch, "	150.00

**Crackle. Rich Cut Ball.**

<i>Sesspool</i>	21809	6-inch, each.	5.50
<i>Selacious</i>	21810	7-inch, "	7.50
<i>Sete</i>	21811	8-inch, "	10.00
<i>Settee</i>	21812	10-inch, "	16.00
<i>Setor</i>	21813	12-inch, "	22.00



No. 21809.

<b>Crackle, No Cutting.</b>			
<i>Settler</i>	21814	6-inch, each.	2.50
<i>Sever</i>	21815	7-inch, "	3.00
<i>Severall</i>	21816	8-inch, "	3.75
<i>Severally</i>	21817	10-inch, "	6.00
<i>Severs</i>	21818	12-inch, "	9.00

**Crackle, No Cutting.**



No. 21829.

## Silver Etched Bowl.

Code Word.	List No.	List Price.
<i>Shak</i>	21829 12½-inch, each	\$10.00
<i>Shake</i>	21830 14-inch, "	12.50
<i>Shole</i>	21831 15-inch, "	17.50
<i>Shallop</i>	21832 16-inch, "	25.00
<i>Shallow</i>	21833 18-inch, "	40.00



No. 21834.

## Rich Cut Bowl, "Jewel."

<i>Sham</i>	21834 10-inch, each	18.00
<i>Shamble</i>	21835 12½-inch, "	30.00
<i>Shame</i>	21836 14-inch, "	45.00
<i>Shaming</i>	21837 16-inch, "	75.00

## Aluminum Lined Reflectors.

These Reflectors are made of tin, japanned a dark green on the outside, and lined with a sheet of polished aluminum. The tin forms a strong, stiff support for the thin aluminum, the two being wired or seamed together at the top and bottom edges.

The aluminum is very highly polished, and being almost chemically pure, it will not tarnish by exposure to the atmosphere and moisture. It therefore forms an ideally perfect reflecting surface of the highest efficiency and durability.

The Reflectors are fluted by an improved method, the curvature of the flutings in each style being carefully calculated so as to produce a uniform intensity of light over the area to be lighted, without wasting any portion of it by double reflection, or by throwing it where it will be of no use.

These Reflectors are unbreakable, and they are much lighter in weight than glass.



PAT. APPLIED FOR.

No. 23079.



PAT. APPLIED FOR.

No. 23081.

<i>Silet</i>	23079 No. 101 10-inch, to fit 2½ holder, each	.90
<i>Siletite</i>	23081 No. 201 10-inch, " 2½ " " "	.80





No. 21838.



Code Word.	List No.	List Price. Per Doz.
<i>Shampoo</i>	21838	5½ in diam. 2 in. deep..... \$10.00



No. 21839.



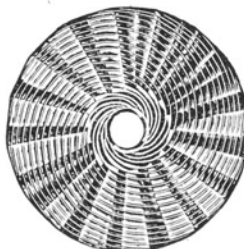
<i>Shank</i>	21839	6½ in. diam. 2½ in. deep..... 10.00
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No. 21840.



<i>Shant</i>	21840	7 in. diam. 1½ in. deep..... 11.25
Adapted for ceiling and wall lighting.		



No. 21841.

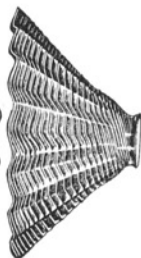


<i>Shatter</i>	21841	8 in. diam..... 13.35
<i>Shave</i>	23842	10 in. diam..... 17.50

<i>Shaver</i>	21843	6 in. diam. 3¾ in. deep..... 10.00
<i>Shawl</i>	21844	7 " 4 "..... 11.25
<i>Sheaf</i>	21845	8 " 5 "..... 13.25
<i>Shear</i>	21846	10 " 5½ "..... 17.50



No. 21843.



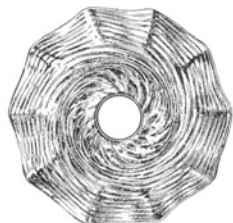
### Flat Reflectors.

With Twist or Straight Ribs.

<i>Shirts</i>	21847	10 in. diam. 2½ in. holder..... 13.75
<i>Sheath</i>	21848	12 " 2½ "..... 16.25
<i>Sheath</i>	21849	14 " 2½ "..... 20.00
<i>Shekinah</i>	21850	16 " 3½ "..... 27.50
<i>Sheen</i>	21851	18 " 3½ "..... 35.00



No. 2355.



No. 2363.



No. 2366.

## Silvered Glass Reflectors.

### Flat Spiral Corrugated.

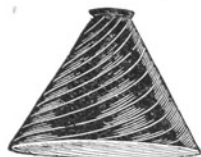
Code Word.	List No.		List Price.
<i>Logical</i>	2355	8 inch diameter, 2½ inch holder, per dozen	\$8.00
<i>Logically</i>	2356	10 " " " 2½ " " "	9.00
<i>Logician</i>	2357	12 " " " 2½ " " "	13.75
<i>Logwood</i>	2358	14 " " " 2½ " " "	17.50
<i>Lois</i>	2359	16 " " " 2½ " " "	20.00
<i>Loiter</i>	2360	18 " " " 2½ " " "	26.25
<i>Loneliness</i>	2361	20 " " " 2½ " " "	37.50
<i>Lonely</i>	2362	22 " " " 2½ " " "	45.00

### Scalloped Silvered Shade.

<i>Lonesome</i>	2363	7 inch diameter, 2½ inch holder, per dozen	9.00
<i>Looming</i>	2364	8 " " " 2½ " " "	10.00
<i>Loom</i>	2365	10 " " " 2½ " " "	12.00

### Radial Fluted.

<i>Loose</i>	2366	7 inch diameter, 2½ inch holder, per dozen	9.00
<i>Loosely</i>	2367	8 " " " 2½ " " "	10.00
<i>Loosen</i>	2368	10 " " " 2½ " " "	12.00



Silvered Glass Reflectors—(Continued).

Deep Spiral Corrugated.



No. 2369.

Code Word.	List No.		List Price
<i>Loosness</i>	2369	7 inch diameter, 2½ inch holder, per dozen	\$8.00
<i>Loosning</i>	2370	10 " " " 2½ " " " "	12.00



No. 2733.

McCreary Standard Reflector Shade.

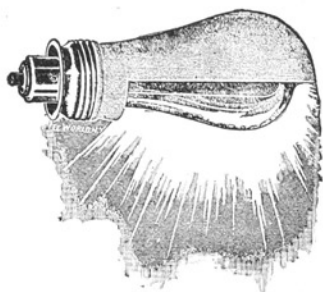
<i>Lintel</i>	2733	7 inch Shade; size of opening at top, 2½ inches; requires a 3½ inch holder; will take a 16, 20 or 24 candle-power lamp, per dozen	18.00
<i>Lioness</i>	2734	8 inch shade; size of opening at top, 2½ inches; requires a 3½ inch holder; will take a 16, 20 or 24 candle-power lamp, per dozen	21.00
<i>Lionize</i>	2735	9 inch Shade; size of opening at top, 3½ inches; requires a 4 inch holder; will take a 32 candle-power lamp, per dozen	33.00
<i>Liquidate</i>	2736	12 inch Shade; size of opening at top, 3½ inches; requires a 4 inch holder; will take a 50 candle-power lamp, per dozen	51.00

In ordering, state kind of lamp to be used and candle-power.



No. 3997.

<i>Liquidated</i>	2779	Shade Holder for Standard Shade, Edison Socket, per dozen	2.25
<i>Liquidating</i>	2779B	Shade Holder for Standard Shade, Westinghouse Socket, per dozen	3.00
<i>Liquor</i>	2780	Mica Dust Protector for 7 and 8 inch Standard Shades, per dozen	.75
<i>Liabon</i>	2781	Mica Dust Protector for 9 and 12 inch Standard Shades, per dozen	1.50
<i>Lightening</i>	3997	Opaque Green, with Ground Glass Bottom, 3¼ x 8 inches, per dozen	21.00



No. 2737.

### McCreary Half Reflector Shade.

For 16 Candle-Power Lamps.

Code Word.	List No.		List Price.
<i>Lingo</i>	2737	Opal, per dozen.....	\$6.00
<i>Lingual</i>	2738	Silvered " .....	8.00
<i>Linguisit</i>	2739	Colored " .....	7.00
<i>Liniment</i>	2740	Aluminum " .....	8.00

Including Metal Tops.

For 32 Candle-Power Lamps.

<i>Linking</i>	2741	Opal, per dozen.....	7.00
<i>Linnet</i>	2742	Silvered " .....	10.00
<i>Linseed</i>	2778	Colored " .....	8.00

Including Metal Tops.



No. 2777.

### "Cartwright" Paper Waterproof Lamp Shade.

For Any Socket.

These are made with the white and green surface, and can be washed in either cold or lukewarm water without destroying the texture of the fibre, the fibre being thoroughly impregnated with a waterproof material. Any dust or fly specks that can be removed from any surface can be removed from this Lamp Shade without injury to the surface or fibre of same.

<i>Lingering</i>	2777	"Cartwright" Paper Shades, per dozen.....	4.80
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No. 8731.

### Utility Shades.

Made of Celluloid or Cardboard.

<i>Hostiness</i>	8731	10 inch, Cardboard, per dozen.....	2.00
<i>Hasty</i>	8732	8 inch, Cardboard, per dozen.....	1.80
<i>Hatchway</i>	8734	8 inch, Celluloid, single sheet, polished two sides, per dozen.....	4.80
<i>Hateful</i>	8735	8 inch, Celluloid, opaque, white lined, per dozen .....	7.20
<i>Hatefully</i>	8736	8 inch, Celluloid, transparent, white lined, per dozen .....	7.80



No. 8732.



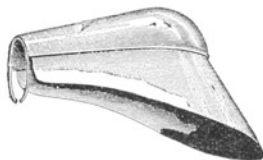
No. 8737.



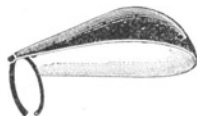
No. 8747.



No. 2798.



No. 2792.



No. 2793.

Utility Shades—(Continued).

Code Word.	List No.	List Price.
<i>Hatefulness</i>	8737	10 inch, Cardboard, per dozen ..... \$2.00
<i>Hated</i>	8739	10 inch, Celluloid, single sheet, polished two sides, per dozen ..... 5.00
<i>Hatcock</i>	8740	10 inch, Celluloid, opaque, white lined, per dozen ..... 8.00
<i>Haughtiness</i>	8741	10 inch, Celluloid, transparent, white lined, per dozen ..... 8.50
<i>Haughty</i>	8747	12 inch, Cardboard, per dozen ..... 3.00
<i>Haunt</i>	8748	12 " Celluloid, opaque, white lined, per dozen ..... 13.00

Prices include Shade Holder.

FULL CONE.

<i>Accomplishment</i>	25484	8 inch, Cardboard ..... 2.00
<i>Account</i>	25485	8 " Celluloid, white lined, green ..... 7.50
<i>Accoutrements</i>	25486	10 inch, Cardboard ..... 2.50
<i>Accoy</i>	25487	10 " Celluloid, green, white lined ..... 10.00

Miscellaneous Metal Shades.

Bowling Alley Shade.

This Shade is suspended from a fixed point by the incandescent conducting cord, as shown in the cut. The cord, after leaving the socket, passes around the edge and through a metal slide which travels from center of Shade to the upper edge on the wire strip. By moving this slide either to the right or left the position of the Shade is regulated.

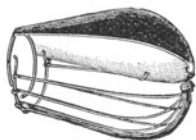
<i>Lignitic</i>	2798	Japanned Green, each ..... 1.25
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Billiard Shades.

<i>Likelihood</i>	2792	Extra Deep, each ..... .70
<i>Likeness</i>	2797	" with Combination Holder (see No. 2743), each ..... .80

Metal Half Shades.

<i>Likening</i>	2793	Japanned Green Outside, White Enamel Inside, each ..... .40
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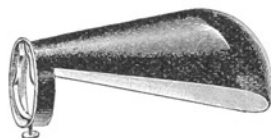


No. 2794.

## Miscellaneous Metal Shades—(Continued).

## Metal Half Shades—With Wire Guard.

Code Word.	List No.	List Price.
<i>Likewise.</i>	2794	Japanned Green Outside, each.....\$0.50



No. 2800.

## Metal Half Shade—With Combination Holder.

<i>Liking</i>	2800	Japanned Green, per dozen..... 5.00
<i>Lilac</i>	2801	“ “ with Wire Guard, per dozen... 8.00

See cut of Shade No. 2743, which shows manner in which it is used.

Only one set-screw used. Saves time in adjusting socket.

## Metal Shades and Reflectors.

## "Marten" Combination Shade and Holder.

(Patented.)

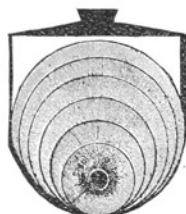


No. 2743.

<i>Abyss</i>	2743	6 inch, Flat, Green and White Enamel, per doz. 2.35
<i>Accede</i>	2744	7 " " " " " " " " 2.35
<i>Acceded</i>	2745	8 " " " " " " " " 2.35
<i>Criminal</i>	2746	10 " " " " " " " " 2.85
<i>Criminalate</i>	2747	12 " " " " " " " " 3.60
<i>Criminating</i>	2748	14 " " " " " " " " 4.35
<i>Cuthbert</i>	2749	16 " " " " " " " " 5.60
<i>Cynthia</i>	2750	18 " " " " " " " " 6.60
<i>Acceding</i>	2751	8 in., Half Deep, Green and White Enamel, per doz. 2.35
<i>Accelerate</i>	2752	10 " " " " " " " " 2.85
<i>Accession</i>	2753	12 " " " " " " " " 3.60
<i>Cricketer</i>	2754	14 " " " " " " " " 4.35
<i>Crier</i>	2755	16 " " " " " " " " 5.60
<i>Crime</i>	2756	18 " " " " " " " " 6.60
<i>Accidental</i>	2757	8 in., Full Cone, Green and White Enamel, per doz. 2.85
<i>Acclaim</i>	2758	10 " " " " " " " " 3.60
<i>Acclamation</i>	2759	12 " " " " " " " " 4.60

Only one set-screw used instead of (4) four, as in ordinary Holders heretofore sold.

## Metal Shades and Reflectors—(Continued).



No. 2760.

Flat Tin Shades.		List Price.
Code Word.	List No.	
<i>Abstain</i>	2760	6 inch, Japanned Green Outside, Enameled White Inside, per dozen . . . . . \$1.75
<i>Absterge</i>	2761	7 inch, Japanned Green Outside, Enameled White Inside, per dozen . . . . . 1.75
<i>Abstract</i>	2762	8 inch, Japanned Green Outside, Enameled White Inside, per dozen . . . . . 1.75
<i>Absurd</i>	2763	10 inch, Japanned Green Outside, Enameled White Inside, per dozen . . . . . 2.25
<i>Absurdity</i>	2764	12 inch, Japanned Green Outside, Enameled White Inside, per dozen . . . . . 3.00
<i>Harmlessly</i>	2765	14 inch, Japanned Green Outside, Enameled White Inside, per dozen . . . . . 3.75
<i>Harmlessness</i>	2766	16 inch, Japanned Green Outside, Enameled White Inside, per dozen . . . . . 5.00
<i>Harmonic</i>	2767	18 inch, Japanned Green Outside, Enameled White Inside, per dozen . . . . . 6.00

Fitted for 2½ inch and 3½ inch Holders, and Edison Holder. Other sizes to order.

Any of the above Shades fitted with ½ x ½ inch pipe connections for bracket work at 10 cents each, net, extra.

## Half Deep Tin Shades.

SIMILAR TO NO. 2760, BUT A LITTLE DEEPER.



No. 2768.

<i>Absurdly</i>	2768	8 inch, Japanned Green Outside, Enameled White Inside, per dozen . . . . . 1.75
<i>Abundance</i>	2769	10 inch, Japanned Green Outside, Enameled White Inside, per dozen . . . . . 2.25
<i>Abusing</i>	2770	12 inch, Japanned Green Outside, Enameled White Inside, per dozen . . . . . 3.00
<i>Abusive</i>	2771	14 inch, Japanned Green Outside, Enameled White Inside, per dozen . . . . . 3.75
<i>Costellated</i>	2772	16 inch, Japanned Green Outside, Enameled White Inside, per dozen . . . . . 5.00
<i>Castle</i>	2773	18 inch, Japanned Green Outside, Enameled White Inside, per dozen . . . . . 6.00

Fitted for 2½ inch and 3½ inch Holders, and Edison Holder. Other sizes to order.

We can also furnish any of the above Japanned White Enamel both sides.

## Cone Tin Shades.

<i>About</i>	2774	8 inch, Japanned Green Outside, Enameled White Inside, per dozen . . . . . 2.25
<i>Aboutment</i>	2775	10 inch, Japanned Green Outside, Enameled White Inside, per dozen . . . . . 3.00
<i>Abutting</i>	2776	12 inch, Japanned Green Outside, Enameled White Inside, per dozen . . . . . 4.00

Fitted for 2½ inch and 3½ inch Holders. Other sizes to order.



No. 2774.



No. 21862.

Code Word.

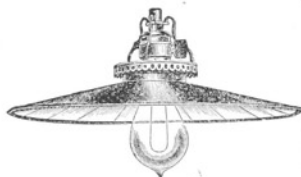
List No.

Price List  
Each.

<i>Sherbet</i>	21862	No. 121	7-inch, to fit 2½ holder	.....	\$ 1.00
<i>Sheriff</i>	21863	No. 122	10-inch, " " "	.....	1.05
<i>Sherry</i>	21864	No. 123	12-inch, " " "	.....	1.25

**Flat Cone.**

For use where it is desired to spread the light. Its silver-plated mirror-plate lining makes it most effective and pleasing, and always as good as new.



No. 21865.

<i>Shee</i>	21865	No. 131	10-inch, to fit 2½ holder	.....	.90
<i>Sheen</i>	21866	No. 132	12-inch, " " "	.....	1.00
<i>Shibboleth</i>	21867	No. 133	14-inch, " " "	.....	1.25
<i>Shield</i>	21868	No. 134	16-inch, " " "	.....	1.65
<i>Shiftless</i>	21869	No. 135	18-inch, " " "	.....	2.10

**Convex.**

Reflecting slightly below the horizontal in all directions.

Used in stores, etc., for general illumination.



No. 21870.

<i>Shilling</i>	21870	No. 141	10-inch, to fit 2½ holder	.....	.90
<i>Shilby</i>	21871	No. 142	12-inch, " " "	.....	1.00
<i>Shilly</i>	21872	No. 143	14-inch, " " "	.....	1.25
<i>Shimmer</i>	21873	No. 144	16-inch, " " "	.....	1.65
<i>Shin</i>	21874	No. 145	18-inch, " " "	.....	2.10

**For Incandescent Clusters.**

Style No. 158.



No. 21875.

<i>Shingle</i>	21875	No. 151	20-in. Reflector only, fits ¾ iron pipe	.....	3.00
<i>Shinney</i>	21876	No. 152	24-in. Reflector only, fits 1 iron pipe	.....	4.50
<i>Shinto</i>	21877	No. 153	30-in. Reflector only, fits 1½ iron pipe	.....	7.00
<i>Shire</i>	21878	No. 154	35-in. Reflector only, fits 1½ iron pipe	.....	10.00
<i>Shirk</i>	21879	No. 155	20-in. complete, 3 lights, wired	.....	6.00
<i>Shirred</i>	21880	No. 156	24-in. " 4 " " "	.....	7.75
<i>Shirting</i>	21881	No. 157	30-in. " 6 " " "	.....	10.75
<i>Shive</i>	21882	No. 158	35-in. " 8 " " "	.....	14.00



## Frink's Patent Reflectors,

For Electric Lights in Churches, Halls, Banks, Stores, Store Windows, Schools, Hospitals, Office Buildings, Factories, Etc.

### Frink's Deep Reflecting Shade.

Enamelled dark green outside, lined with Silvered Corrugated, mirror or opal glass. To throw the light downward. Adapted for stores, store windows, desks and places where a number of lamps are scattered over the ceiling or in clusters; the shade reflects the light down where needed, and greatly increases the light at a minimum of expense.



No. 25498.

Code Word.	List No.	F No	Diam. in In.	Glass	For Holder.	List Price Each.
<i>Accrue</i>	25498	2495	8	Mirror	2½ inch	\$1.35
<i>Accruent</i>	25499	2496	8	Corrugated	2½ "	1.45
<i>Accubation</i>	25500	2397	10	Mirror	2½ "	1.50
<i>Accubitus</i>	25501	2396	10	Corrugated	2½ "	1.70
<i>Accumb</i>	25502	2445	12	Mirror	2½ "	1.80
<i>Accumbency</i>	25503	2446	12	Corrugated	2½ "	2.00

### Frink's Flat Reflecting Shade.

For stores, factories, workshops, ceiling lights and general use.



No. 25501.

<i>Accumbent</i>	25504	2399	10	Mirror	2½ inch	1.00
<i>Accumulation</i>	25505	2398	10	Corrugated	2½ "	1.10
<i>Accumulative</i>	25506	2459	12	Mirror	2½ "	1.30
<i>Accumulatively</i>	25507	2460	12	Corrugated	2½ "	1.60
<i>Accumulator</i>	25508	2463	14	Mirror	2½ "	1.60
<i>Accurately</i>	25509	2464	14	Corrugated	2½ "	1.80
<i>Accursed</i>	25510	2465	14	Mirror	3½ "	1.60
<i>Accusable</i>	25511	2466	14	Corrugated	3½ "	1.80
<i>Accusat</i>	25512	2467	16	Mirror	2½ "	2.25
<i>Accusative</i>	25513	2468	16	Corrugated	2½ "	2.60
<i>Accusatively</i>	25514	2469	16	Mirror	3½ "	2.25
<i>Accusatorin</i>	25515	2470	16	Corrugated	3½ "	2.60
<i>Accuse</i>	25516	2473	18	Mirror	3½ "	2.75
<i>Accusie</i>	25517	2474	18	Corrugated	3½ "	3.15
<i>Accentric</i>	25518	2497	20½	Mirror	3½ "	3.50
<i>Acaphal</i>	25519	2498	20½	Corrugated	3½ "	4.00

Lined with opal glass, when ordered, at same price as for mirror.

Ten inch flat and deep shades furnished for Edison sockets without holders when so ordered.

### Frink's Convex Reflecting Shade.



No. 25520.

<i>Acaphalan</i>	25520	2475	10	Mirror	2½ inch	1.25
<i>Acaphali</i>	25521	2476	10	Corrugated	2½ "	1.40
<i>Acaphalist</i>	25522	2479	12	Mirror	2½ "	1.50
<i>Acaphalons</i>	25523	2480	12	Corrugated	2½ "	1.70
<i>Acapoint</i>	25524	2483	14	Mirror	2½ "	1.80
<i>Acav</i>	25525	2484	14	Corrugated	2½ "	2.00
<i>Acavb</i>	25526	2485	14	Mirror	3½ "	1.80
<i>Acavbata</i>	25527	2486	14	Corrugated	3½ "	2.00
<i>Acavie</i>	25528	2489	16	Mirror	3½ "	2.25
<i>Acavose</i>	25529	2490	16	Corrugated	3½ "	2.60
<i>Acavrons</i>	25530	2493	18	Mirror	3½ "	2.75
<i>Acavrote</i>	25531	2494	18	Corrugated	3½ "	3.15

### Frink's Combination Cluster Reflector.

Length, 30 inches, wired, without sockets or lamps.

Code Word.	List No.	F. No.	Diam. Reflector in In.	Entire Spread in In.	Glass	List Price Each.
<i>Acroftion</i>	25532	2524	20½	23	Silvered Corrugated.	\$13.50
<i>Acertose</i>	25533	2525	20½	23	Best Mirror.	13.00
<i>Acereence</i>	25534	2526	20½	23	Opal	13.00

The above are with four gas burners and wired for four sockets, if ordered for more or less sockets, add or deduct fifteen cents, each.



No. 25532.

### Frink's Sectional Glass Electric Cluster Reflectors.

With 3 to 8 lights, lined with Frink's silver-plated corrugated glass. Should be generally used for lighting stores, banks, waiting-rooms, depots, hospitals, schools, offices, factories, etc.

To obtain best results from cluster lights, use 20½-inch reflectors.

Reflector with cluster and stem 18 inches long, wired, but without sockets,

<i>Acereency</i>	25535	2500	18	Silvered Corrugated.	\$6.75
<i>Acroftablet</i>	25536	2501	20½	" "	7.50

Reflector only, with four-lighted cluster, nipples and holder to receive ¼-inch iron or ½-inch brass pipe.

<i>Acroftablet</i>	25537	2502	18	Silvered Corrugated.	4.75
<i>Acroftablet</i>	25538	2503	20½	" "	5.50

Reflector with cluster and stem 18 inches long, wired, without sockets.

<i>Acroftablet</i>	25539	2504	18	Silvered Corrugated.	8.00
<i>Acroftablet</i>	25540	2505	20½	" "	9.00

Reflector only, with four-light cluster, nipples and holder to receive ¼-inch iron or ½-inch brass pipe.

<i>Acroftablet</i>	25541	2506	18	Silvered Corrugated.	6.00
<i>Acroftablet</i>	25542	2507	20½	" "	7.00

Reflector with cluster and stem 18 inches long, wired, without sockets.

<i>Acroftablet</i>	25543	2508	18	Best Mirror.	6.25
<i>Acroftablet</i>	25544	2509	20½	" "	7.00

Reflector only, with four-light cluster, nipples and holder to receive ¼-inch iron or ½-inch brass pipe.

<i>Acroftablet</i>	25545	2510	18	Best Mirror.	4.25
<i>Acroftablet</i>	25546	2511	20½	" "	5.00

Wired for four sockets; if ordered for more or less sockets, add or deduct fifteen cents each, list.

These reflectors have solid metal frames, and are lined with silver-plated corrugated, mirror or opal glass in sections, rigidly held in place.

Reflector with cluster and stem 18 inches long, wired, without sockets.



No. 25535.



No. 25540.



No. 25544.

**Frink's Sectional Glass Electric Cluster Reflectors.**

—Continued.

Code Word.	List No.	F No.	Diam. in ins.	Glass.	Price List Each.
<i>Achean</i>	25547	2512	18.....	Best Mirror	\$7.50
<i>Acheense</i>	25548	2513	20½.....	" "	8.00

Reflector only, with four-light cluster, nipples and holder to receive ½-inch iron or ½-inch brass pipe.

<i>Acherset</i>	25549	2514	18.....	Best Mirror	5.50
<i>Achivement</i>	25550	2515	20½.....	" "	6.50

Reflector with cluster and stem 18 inches long, wired, without sockets.

<i>Achiever</i>	25551	2516	18.....	Opal.....	6.25
<i>Achiate</i>	22552	2517	20½.....	" "	7.00

Reflector only, with four-light cluster, nipples and holder to receive ½-inch iron or ½-inch brass pipe.

<i>Achor</i>	25553	2518	18.....	Opal.....	4.25
<i>Achromatic</i>	25554	2519	20½.....	" "	5.00

Reflector with cluster and stem 18 inches long, wired, without sockets.

<i>Acidiferous</i>	25555	2520	18.....	Opal.....	7.50
<i>Acidifiable</i>	25556	2521	20½.....	" "	8.00

Reflector only, with four-light cluster, nipples and holder to receive ½-inch iron or ½-inch brass pipe.

<i>Acidification</i>	25557	2522	18.....	Opal.....	5.50
<i>Acidifer</i>	25558	2523	20½.....	" "	6.50

Wired for four sockets; if ordered for more or less sockets, add or deduct 15 cents each, list.

**Frink's Suspended Reflecting Chandelier.**

Double cone silver-plated corrugated glass, brass frame reflecting chandelier for electric light, for lighting churches, halls, theatres and public buildings. Trimmed with one row cut glass prisms, finished with brass crown bands and having outside lights.

Code Word.	List No.	Diam. in Inches.	Number of Electric Lamps.	Price with Prisms.	Price without Prisms.
<i>Acidulate</i>	25563	25	10.....	\$60.00	50.00
<i>Acidulated</i>	25564	30	14.....	75.00	62.00
<i>Acidulous</i>	25565	35	16.....	95.00	80.00
<i>Aciform</i>	25566	40	18.....	115.00	95.00
<i>Acinaceous</i>	25567	50	27.....	145.00	115.00
<i>Acinaces</i>	25568	60	36.....	190.00	150.00
<i>Acinaciform</i>	25569	72	45.....	250.00	200.00
<i>Aciniform</i>	25570	84	60.....	325.00	265.00

These reflectors will be made up in opal, instead of silver-plated corrugated glass, if preferred, at same price.

Price includes wiring, but no sockets or lamps.



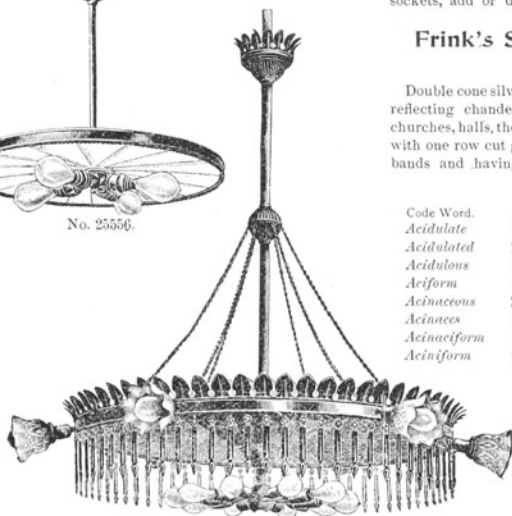
No. 25548.



No. 25552.



No. 25556.



## Store Window Lighting.

Ninety nine per cent. of store windows are imperfectly lighted, and especially so where electric lamps are used. Most of the lamps are scattered on the bottom and at the sides of the windows where they can be seen and where they attract more attention to themselves than to the goods they are imperfectly lighting. The ideal window light should light the goods and not be seen while doing so.

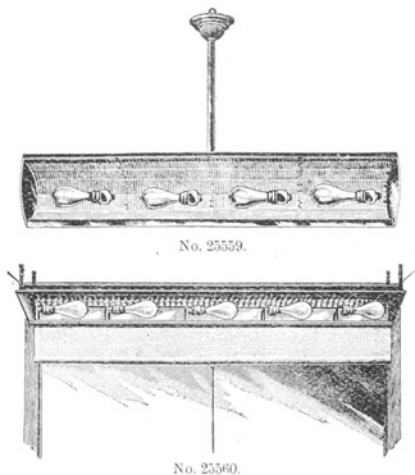
## Frink's Special Patent Window Reflector,

for Electric Light, lined with silver-plated Corrugated Glass, is placed in top of window near the front glass, reflecting the light inward and downward. This makes a very desirable window reflector, as the reflectors are out of the way and concealed from view, at the same time concealing the direct light from the eyes of the observer, and giving a strong, even light where wanted, thus doing away with the annoyance of a dazzling light in the eyes. It is used also largely for lighting art galleries, pictures, stock exchange boards, border lights, telephone switch boards, etc.

To get best results, reflectors should be used entire width of window with lamps 9 or 12 inches apart, as desired.

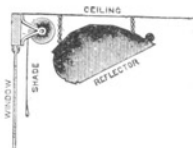
These fixtures are wired but do not include sockets and lamps—these are extra.

Suspended from ceiling with one or more stems as required.

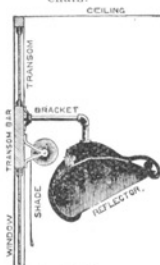


No. 25559.

No. 25560.



No. 25561.  
With loops to attach to ceiling with chain.



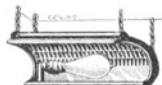
No. 25562.  
With brackets to attach to the transom bar.

Code Word.  
*Acidify*  
*Acidmeter*  
*Acidimetry*

List No	List Price per Running Foot.
25559	2415 Lined with silver-plated Corrugated Glass ..... \$4.00
25560	2415A Lined with silver-plated Corrugated Glass ..... 4.00
25561	2415B Lined with silver-plated Corrugated Glass ..... 4.00

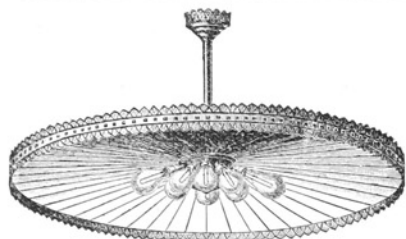
To get the best results, reflectors should be used the entire width of windows, with lamps 9 or 12 inches apart as desired. When ordering please state if style No. 25559, No. 25560 or No. 25561 is desired.

## Frink's Special Patent Single Lamp Window Reflector.



*Acidness*      25562      2499 Lined with silver-plated corrugated glass, ready for sockets and lamps ... \$3.00

Each



No. 21883.



No. 21891.



No. 21892.



No. 21893.



No. 21894.

## Silver-Plated Mirror Reflectors.

For Incandescent Cluster.

Style No. 168.

Code Word.	List No.	List Price Each.
<i>Shiver</i>	21883 No. 161 20-in. reflector only (fits $\frac{3}{4}$ iron pipe).	\$5.75
<i>Shoot</i>	21884 No. 162 24-in. " " " $\frac{1}{2}$ " "	7.50
<i>Shoot</i>	21885 No. 163 30-in. " " " $\frac{1}{2}$ " "	10.50
<i>Shoot</i>	21886 No. 164 35-in. " " " $\frac{1}{2}$ " "	14.00
<i>Shock</i>	21887 No. 165 20-in. complete, 3 light wired	8.75
<i>Shoddy</i>	21888 No. 166 24-in. " 4 " "	10.75
<i>Shone</i>	21889 No. 167 30-in. " 6 " "	14.25
<i>Shook</i>	21890 No. 168 35-in. " 8 " "	18.00

Green Outside. Glossy Enamel White Inside.

Code Word.	List No.	Per doz.	Price
<i>Shoot</i>	21891 No. 319 7-in. diam, height $6\frac{1}{2}$ ins., per doz	4.00	

## Foot Light Reflector.

Green Outside. Bright Tin Inside.

<i>Shore</i>	21892 For $2\frac{1}{4}$ inch holder, per doz.	6.00
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## Pulpit Hood.

Bronze outside. White Enamel Inside.

<i>Shote</i>	21893 For $2\frac{1}{4}$ inch holder, each,	3.00
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## Billiard Reflector.

Green outside. White Enamel inside.

<i>Shout</i>	21894 For $2\frac{1}{4}$ inch holder, per doz.	6.00
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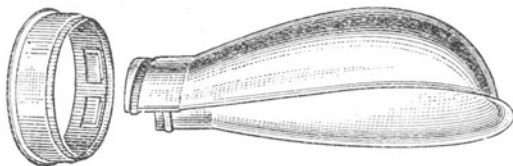
No. 21852.

### The Crescent Shade.

This Shade has been designed to meet all the requirements of the users of Tin Shades. It is made of heavy tin, and the corrugation and shape are so arranged as to give the greatest reflecting power.

Code Word.	List No	List Price Per Doz.
<i>Sheep</i>	21852	Enameled White inside, Green outside... \$2.00
<i>Sheepish</i>	21853	Bright Tin inside, Imitation Brass " ... 1.50

### Aluminum Half-Shape Shade.



No. 21854.

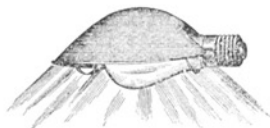
The shape of this half shade is such as to reflect the greatest possible light. The new patented holder also shown on the above cut, in which only one set screw is used, can be furnished when desired.

We have a new process of treating aluminum which gives it a silver finish, making it very much more beautiful in effect and softening the reflector. This new treatment of aluminum in electric shade, to the best of our knowledge and belief, has been discovered by us, and from all that we can learn, has never been used heretofore on any electrical shades. The shades can be furnished green outside, polished inside or polished both sides, or with the new process of treating aluminum, called silverreen finish.



No. 21857.

<i>Sheer</i>	21854	Complete with Collar, Green outside, polished inside .....	8.00
<i>Sheet</i>	21855	Complete with Collar, polished both sides .....	10.00
<i>Sheik</i>	21856	Complete with Collar, Silver finish .....	10.00
<i>Shkel</i>	21857	Patent Shade Holder, with collar for Shade per doz. ....	.60



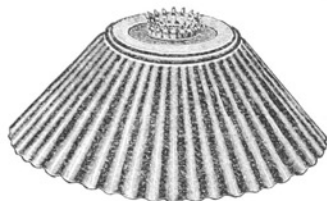
No. 21858

### Parabolic Reflector.

#### Aluminum.

Green outside, polished inside. Fits lamp without shade holder.

<i>Shelter</i>	21858	For 16 c. p. lamp.....	7.50
<i>Shlce</i>	21859	For 32 c. p. lamp.....	11.50



Deep Cone Form,  
No. 21860.

*Sheol*

### Cutter Combination Shades.

#### Deep Cone Form.

Save the cost of a shadeholder. Grip the socket squarely and firmly. Throw the light where it is wanted. 25,000 now in use.

Green on top, white or bright inside.

Fit the standard socket shells.

For use in offices, factories and shops.

21860 Per doz..... \$3.00



No. 21861.

*Shepherd*

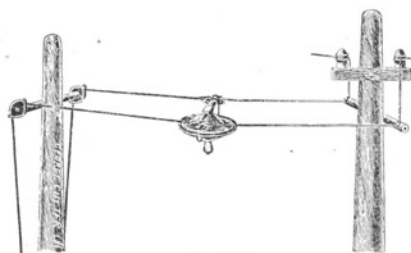
#### Flat Form.

Has an improved clamp which grips any beaded socket, so that no shadeholder is required. Is quickly put on or taken off, and has no fingers to bend out of shape or break off.

Always hangs level and firm, and is the most durable reflector made for halls, shops or stores.

Green on top, bright tin or white enameled inside.

21861 Per doz..... 1.80

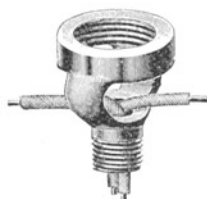


No. 23075.

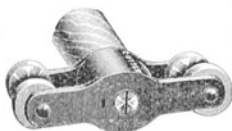
### Cutter "Always Level" Suspension Streethood.

It is the only suspension streethood that will stay level in windy weather. The two wires leading to the hood make up one side of the suspension, while cords passing over covered pulleys form the other side so that the hood is supported from four points.

Both the wires and the cords are insulated from the cross arm by means of the special spreader tips. The pulleys are mounted on a wrought iron bracket, while a wrought iron brace arm is used at the other pole. These parts are assembled before shipment so that they can be quickly screwed in place. Then an adjusting clamp is placed near the end of each cord so that these cords can be independently drawn up taut and then locked together.

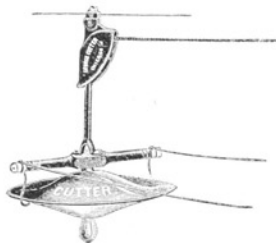


Streethood Nozzle.



"Always Level" Spreader Tip.

*Sitt* 23075 Complete with multiple socket... 3.00

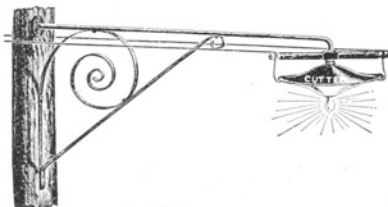


Nos. 20773 and 20773.

### Cutter Petite Pulley and Hood.

Is a smaller form of the lamp supporting pulley, adapted for use with streethoods. This style of suspension is still a favorite with many stations, and the cross arm for this purpose has a special knob bolted securely to it.

Code Word.	List No	List Price. Each.
<i>Sadr</i>	20772 Hood with cross arm, socket and pulley.....	\$1.75
<i>Sudly</i>	20773 Petite Pulley .....	.50

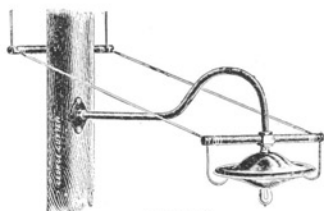


No. 20774.

### Cutter Boulevard Streethood.

Is an ornamental form designed for use on fine residence streets. The cut shows this as made with a five-foot bracket arm; other lengths and special designs will be furnished on short notice.

<i>Sadness</i>	20774 Complete with socket .....	3.00
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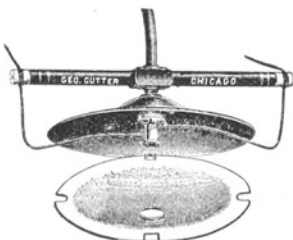


No. 20775.

### Cutter Standard Streethood.

Is the outcome of an eight years' experience in designing and building incandescent street fixtures. The hood proper is seamless and bell-shaped for neatness and strength. The reflector has a white enamel paint baked on it so as to resist the weather, and is so curved as to scatter the light evenly over a wide area. The receptacle socket furnished with the hood for use on multiple circuits can be more quickly wired than any other socket.

The iron supporting bracket or "gooseneck" is extra heavy, and fits a special pole-plate which is bolted to the pole

No. 20775.  
Hood Opened.

<i>Sadr</i>	20775 Complete with brace arm and socket .....	2.25
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**Metal Hoods.**

**The New Suburban Hood.**

This fixture excels in simplicity of construction. The iron canopy is made with slots to take wires, and linemen can easily and quickly adjust the hoods by this method, thus saving vexatious delays. Any size Hoods made to order at small advance.



No. 2799.

Code Word.	List No.	List Price
<i>List</i>	2799 Each	\$3.00

Price includes Bracket.

**The Tidnam Hood.**

JAPANNED GREEN ON TOP, WHITE ENAMEL REFLECTOR.



No. 2782.

<i>Listed</i>	2782 16 Inch, each	1.60
<i>Listed</i>	2783 18 " "	2.25
<i>Listed</i>	2784 20 " "	2.50

Adapted for Weather-proof Globe. In ordering, state size of socket— $\frac{1}{4}$  inch or  $\frac{1}{2}$  inch.

**The Marten Hood.**

ALL PARTS INTERCHANGEABLE.



No. 2785.

<i>Listed</i>	2785 16 Inch, each	2.00
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Socket protected by the Reflector, the Lamp only being exposed.

**The Chapin Hood.**



No. 2786

<i>Listed</i>	2786 16 Inch, each	1.25
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Socket protected by the Reflector, the Lamp only being exposed.

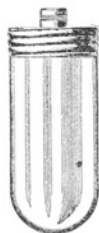
**The Columbian Hood**



No. 2787.

<i>Listed</i>	2787 18 Inch, each	1.50
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Socket protected by the Reflector, the Lamp only being exposed.



No. 2060.

No. 2069.



No. 2078.



No. 2087.

## Weather-proof Globes.

## Weather-proof, for 16 Candle-power Lamp.

Code Word.	List No.	List Price.
<i>Lillian</i>	2060 Crystal, with Cap, each.....	\$1.00
<i>Lily</i>	2061 " Globe only, " .....	.50
<i>Limber</i>	2062 Blue, with Cap, " .....	1.25
<i>Limberness</i>	2063 " Globe only, " .....	.75
<i>Limékila</i>	2064 Green, with Cap, " .....	1.25
<i>Limestone</i>	2065 " Globe only, " .....	.75
<i>Limit</i>	2066 Ruby, with Cap, " .....	1.88
<i>Limitable</i>	2067 " Globe only " .....	1.38
<i>Limitation</i>	2068 Cap only for above " .....	.50

## Weather-proof, for 32 Candle-power Lamp.

SAME PATTERN AS NO. 2060.

<i>Limited</i>	2069 Crystal, with Cap, each.....	1.88
<i>Limitless</i>	2070 " Globe only, " .....	.88
<i>Limpid</i>	2071 Blue, with Cap, each .....	2.50
<i>Limpidity</i>	2072 " Globe only, " .....	1.50
<i>Limpidness</i>	2073 Green, with Cap, " .....	2.50
<i>Limpy</i>	2074 " Globe only " .....	1.50
<i>Linch</i>	2075 Ruby, with Cap, " .....	3.13
<i>Linchpin</i>	2076 " Globe only " .....	2.13
<i>Linage</i>	2077 Caps only for above, each.....	1.00

## Weather-proof, for 16 Candle-power Lamp.

<i>Lineal</i>	2078 Crystal, with Cap, each.....	1.00
<i>Lineality</i>	2079 " Globe only, " .....	.50
<i>Lineament</i>	2080 Blue, with Cap, each, .....	1.25
<i>Linear</i>	2081 " Globe only, " .....	.75
<i>Lineation</i>	2082 Green, with Cap " .....	1.25
<i>Line</i>	2083 " Globe only, " .....	.75
<i>Loftiness</i>	2084 Ruby, with Cap, " .....	1.88
<i>Lofty</i>	2085 " Globe only, " .....	1.38
<i>Logic</i>	2086 Cap only for above, each.....	.50

## Vapor-proof, for 16 Candle-power Lamp.

<i>Locating</i>	2087 Crystal, with Cap, each.....	1.88
<i>Locket</i>	2088 " Globe only, " .....	.88
<i>Locksmith</i>	2089 Blue, with Cap, each .....	2.88
<i>Lodge</i>	2090 " Globe only, " .....	1.88
<i>Lodged</i>	2091 Green, with Cap, " .....	2.88
<i>Lodging</i>	2092 " Globe only, " .....	1.88
<i>Lodgment</i>	2093 Ruby, with Cap, " .....	3.50
<i>Loft</i>	2094 " Globe only, " .....	2.50
<i>Loftily</i>	2095 Cap only for above, each.....	1.00

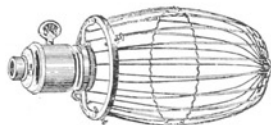


No. 2803

Code Word. *Deaconess*  
*Deaden*

List No.	List Price
2803 Polished Brass, per dozen.....	\$1.75
2804 Tinned, per dozen.....	1.50

Wire Guards.

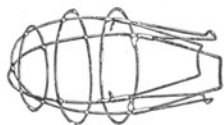


No. 2806.

*Deadly*

2806 Tinned, per dozen.....	1.75
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For 3½ inch Holder only.



No. 2807.

*Acclamatory*  
*Acclivity*

2807 Polished Brass, per dozen.....	2.00
2808 Tinned, per dozen.....	1.50

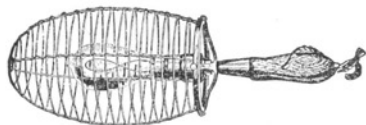


No. 2809

*Accompany*

2809 Galvanized Iron, each.....	.20
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For 3½ inch Holder only.

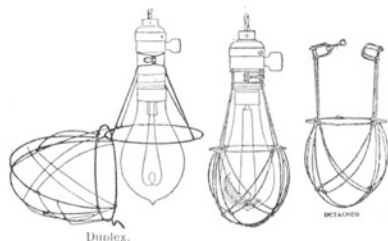


No. 2858.

<i>Linger</i> 2058 Guard No. 2809, Complete with Handle, Hook and Holder, each	.45
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<i>Restate</i> 8725 ½ Handle, with Hook, each.....	.20
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The "Perfection" Guard.



The "Perfection" Guard is made of bright tinned wire, silver finish. It is easily clamped to socket. When attached it is firm and rigid and will protect the lamp from breakage when subjected to the roughest usage. It is made in two styles, one plain and one which opens, as shown in illustration, for removing the lamp without removing the guard.

<i>Accessence</i> 25490 Perfection Plain Lamp Guard per doz.	1.25
<i>Acinous</i> 25572 " Duplex " " "	1.50

# Station, Testing and Measuring Instruments



No. 2281.

## Voltmeter.

A voltmeter specially designed for use on dynamo switchboards. It has no springs nor permanent magnets, is practically dead beat and reliable within one per cent.

The instrument is protected by a substantial bronze case fastened to its base by sealed screws so that it cannot be removed without showing the fact.

Code Word.	List No.	List Price.
<i>Mazy</i>	2281 120 Volts, each.....	\$50.00
<i>Mead</i>	2282 150 " " .....	55.00
<i>Meadow</i>	2283 200 " " .....	60.00
<i>Meager</i>	2284 220 " " .....	65.00
<i>Meagerness</i>	2285 250 " " .....	65.00
<i>Meal</i>	2286 400 " " .....	70.00
<i>Mealiness</i>	2287 500 " " .....	75.00
<i>Mean</i>	2288 600 " " .....	75.00

## Ammeter.

Our improved Magnetic Vane Ammeter has no springs or permanent magnets, is a purely gravity instrument, nearly dead beat, and yet sensitive to small changes of current. Made in sizes varying in range up to a maximum of 600 amperes.

A heavy bronze case with sealed fastenings is used, so that the instrument cannot be tampered with without showing it.

This instrument is adapted to be placed directly in a circuit, no shunts or other devices being used in connection with it.

<i>Meander</i>	2289	5 Amperes, each.....	16.50
<i>Meaning</i>	2290	10 " " .....	18.00
<i>Meaningly</i>	2291	20 " " .....	18.00
<i>Meanly</i>	2292	30 " " .....	18.00
<i>Meanness</i>	2293	50 " " .....	20.00
<i>Measles</i>	2294	90 " " .....	20.00
<i>Lampoon</i>	3373	120 " " .....	20.00
<i>Lampooned</i>	3374	150 " " .....	21.00
<i>Lance</i>	3375	200 " " .....	21.00
<i>Lanced</i>	3376	300 " " .....	21.00
<i>Lanceet</i>	3377	400 " " .....	22.00
<i>Land</i>	3378	500 " " .....	24.00
<i>Landau</i>	3379	600 " " .....	30.00
<i>Landed</i>	3380	750 " " .....	30.00
<i>Landholder</i>	3381	1000 " " .....	40.00
<i>Landlady</i>	3382	1500 " " .....	45.00
<i>Landlock</i>	3383	2000 " " .....	55.00



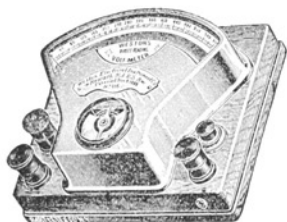
No. 3373.

## Weston Standard Portable Direct Reading Voltmeters.

The following is a list of the Standard Voltmeters kept in stock. Calibrating coils and contact keys are attached to instruments only when so stated. The scales for these instruments are of uniform length, and are divided into 120 or 150 parts, the value of each division being the proportional part of the maximum scale value.

Instruments provided with contact key can be kept permanently in circuit by depressing the key and giving it a quarter turn. All instruments are provided with rubber-covered binding posts.

Code Word.	List No.	List Price.
<i>Betrayal</i>	<b>2609</b> No. 1. Scale 0 to 150 volts by single volt divisions, readable to tenths, each.....	<b>\$55.00</b>
<i>Betrayal</i>	<b>2610</b> No. 2. Scale 0 to 150 volts by single volt divisions, readable to tenths; contact key and calibrating coil, each.....	<b>60.00</b>
<i>Betraying</i>	<b>2611</b> No. 3. Scale 0 to 150 volts and 0 to 5 volts; scale of double values with a ratio of 30. Each division on upper scale values is one volt, readable to tenths; each division on lower scale values $\frac{1}{30}$ of a volt, readable to $\frac{1}{300}$ ; contact key, each.....	<b>75.00</b>
<i>Betsy</i>	<b>1179</b> No. 3 $\frac{1}{2}$ . Scale 0 to 150 volts and 0 to 3 volts; scale of double values with a ratio of 50. Each division on upper scale values is one volt, readable to tenths; each division on lower scale values $\frac{1}{50}$ of a volt, readable to $\frac{1}{500}$ ; contact key, each.....	<b>75.00</b>
<i>Betroth</i>	<b>2612</b> No. 4. Scale 0 to 150 volts and 0 to 15 volts; scale of double values with ratio of 10. Each division on upper scale values is one volt, readable to tenths; each division on lower scale values is $\frac{1}{10}$ of a volt, readable to $\frac{1}{100}$ ; contact key, each.....	<b>75.00</b>
<i>Betrothal</i>	<b>2613</b> No. 5. Scale 0 to 300 volts by 2 volt divisions, readable to $\frac{1}{2}$ volt; circuit key and calibrating coil, each.....	<b>65.00</b>
<i>Betrotting</i>	<b>1178</b> No. 6. Scale 0 to 450 volts by 3 volt divisions, readable to $\frac{1}{3}$ volt; contact key and calibrating coil, each.....	<b>70.00</b>
<i>Admiralty</i>	<b>3045</b> No. 7. Scale 0 to 600 volts by 5 volt divisions, readable to $\frac{1}{2}$ volt, each.....	<b>65.00</b>
<i>Admiralton</i>	<b>3046</b> No. 8. Scale 0 to 600 volts by 5 Volt divisions, readable to $\frac{1}{2}$ volt; contact key and calibrating coil, each.....	<b>70.00</b>



No 3046.

## Weston Standard Portable Direct Reading Voltmeters—(Continued).

Code Word.	List No.	List Price.
<i>Bespeaking</i>	<b>1180</b>	No. 9. Scale 0 to 600 volts and 0 to 150 volts; scale of double values with ratio of 4, reading by 4 volt divisions, readable to $\frac{1}{4}$ volt on upper scale values, and by single volt divisions readable to $\frac{1}{16}$ on lower scale values; contact key, each..... <b>\$80.00</b>
<i>Bespoke</i>	<b>1193</b>	No. 9 $\frac{1}{2}$ . Scale 0 to 750 volts and 0 to 150 volts; scale of double values with ratio of 5, reading by 5 volt divisions, readable to $\frac{1}{5}$ volt on upper scale values, and by single volt divisions readable to $\frac{1}{16}$ volt on lower scale values; contact key, each..... <b>80.00</b>
<i>Bestain</i>	<b>1194</b>	No. 10. Scale 0 to 600 volts and 0 to 300 volts; scale of double values with ratio of 2. Reading by 4 volt divisions, readable to $\frac{1}{4}$ volt on upper scale values, and by 2 volt divisions, readable to $\frac{1}{8}$ volt on lower scale values; contact key, each..... <b>80.00</b>
<i>Bestir</i>	<b>1195</b>	No. 11. Scale 0 to 750 volts by 5 volt divisions, readable to $\frac{1}{5}$ volt, each..... <b>70.00</b>
<i>Bestow</i>	<b>1196</b>	No. 12. Scale 0 to 1,500 volts by 10 volt divisions, readable to single volts, each..... <b>80.00</b>

Voltmeters of other ranges, with one or more scale values, will be made on special order.

## High Range Voltmeters

In which part of the resistance is contained in a separate box specially designed to obtain high insulation. No calibrating coil or contact key.

<i>Bestowing</i>	<b>1197</b>	No. 13. Range 0 to 2,250 volts and 0 to 150 volts. No. 1 Voltmeter, with scale from 0 to 150 volts and a special resistance box multiplying the value of the scale divisions by 15, each..... <b>100.00</b>
<i>Bestride</i>	<b>1198</b>	No. 14. Range 0 to 3,000 volts and 0 to 150 volts. No. 1 Voltmeter, with scale from 0 to 150 volts and a special resistance box multiplying the value of the scale divisions by 20, each..... <b>105.00</b>
<i>Bestriding</i>	<b>1199</b>	No. 15. Range 0 to 3,750 volts and 0 to 150 volts. No. 1 Voltmeter, with scale from 0 to 150 volts and a special resistance box multiplying the value of the scale divisions by 25, each..... <b>115.00</b>
<i>Bestake</i>	<b>1183</b>	No. 16. Range 0 to 4,500 volts and 0 to 150 volts. No. 1 Voltmeter, with scale from 0 to 150 volts and a special resistance box multiplying the value of the scale divisions by 30, each..... <b>125.00</b>

### High Range Voltmeters—(Continued).

Code Word.	List No.	List Price.
<i>Betaken</i>	1184	No. 17. Range 0 to 5,250 volts and 0 to 150 volts. No. 1 Voltmeter, with scale from 0 to 150 volts and a special resistance box multiplying the value of the scale divisions by 35, each. . . . \$135.00
<i>Betroy</i>	3047	No. 18. Range 0 to 6,000 volts and 0 to 150 volts. No. 1 Voltmeter, with scale from 0 to 150 volts and a special resistance box multiplying the value of the scale divisions by 40, each. . . . \$145.00

The above listed High Range Voltmeters graduated to read in lamps, in addition to the graduation in volts, showing by simple inspection the number of arc lamps burning on the circuit, additional, each, \$5.00.

### Reversing Keys.

For the convenience of those who have occasion to make many and rapid tests of the distribution of potential on electric circuits of unknown polarity, a Reversing Key may be applied, when specially ordered, to any of our voltmeters. This Key enables the user to open the circuit by turning the milled head through an angle of 45 degrees, or to reverse the direction of the current in the instrument by an additional movement of 45 degrees. An arrow cut on the head of the Key points towards the side of the instrument at which the current enters, when the needle is deflected over the scale. Price, extra, \$2 50.

### Milli Voltmeters.

#### A. Low Resistance Instruments, Wound with Copper Wire.

<i>Clarion</i>	2594	No. 1. Scale 0 to $\frac{3}{16}$ volt by 100 divisions, each readable to tenths, each. . . . .50.00
<i>Clarinet</i>	2595	No. 2. Scale 0 to $\frac{1}{16}$ volt, right and left, by 100 divisions, each division representing $\frac{1}{16000}$ of a volt, each. . . . .50.00
<i>Clarissa</i>	2596	No. 3. Scale 0 to $\frac{1}{16}$ volt, right and left, by 100 divisions; supplied with contact key, reducing sensibility 10 times, each. . . . .55.00

#### B. High Resistance Instruments, Wound with Special Alloy, Compensated for Temperature.

<i>Commute</i>	3677	No. 4. Scale 0 to .2 volts in 100 divisions, readable to .0002 of a volt, each. . . . .50.00
<i>Commuted</i>	3678	No. 5. Scale 0 to .3 volts in 150 divisions, readable to .0002 of a volt, each. . . . .50.00

### Volt Ammeters.

It is frequently of great advantage to be able to determine the amount of current used, as well as the voltage employed, as is the case when testing incandescent lamps or in determining the internal resistance of telegraph batteries. Where the current is small it is quite possible to combine the two instruments in one with excellent results, provided the proper care is taken to avoid making a wrong connection when using the instrument.

Code Word.	List No.	List Price.
Class	2597 No. 1. Scales 0 to 150 volts and 0 to 1.5 amperes, reading to 150 volts by single volt divisions, or to 1½ amperes by 1½ ampere divisions, each.	\$75.00

Other combinations will be made on special order, but they are not recommended in connection with high voltage or heavy currents.

### Weston Standard Direct Reading Mil Ammeters and Ammeters.

#### Mil Ammeters.

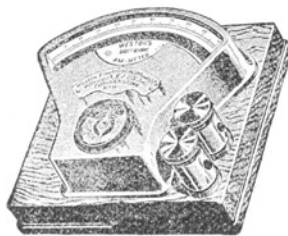
Clashing	2598 No. 0. 150 mil ampere scale; single scale divisions 1 mil ampere, readable to 1/10 mil ampere, each.	50.00
Class	2599 No. 1. 300 mil ampere scale; single scale divisions 2 mil amperes, readable to 1/2 mil ampere, each.	50.00
Classed	2600 No. 2. 600 mil ampere scale; single scale divisions 5 mil amperes, readable to 1/2 mil ampere, each.	50.00
Classic	2601 No. 3. 1,000 mil ampere scale; single scale divisions 10 mil amperes, readable to mil amperes, each.	50.00
Classical	2602 No. 4. 1,500 mil ampere scale; single scale divisions 10 mil amperes, readable to mil amperes, each.	55.00



No. 2598.  
One-quarter Size.

#### Ammeters.

Classify	2603 No. 1. 5 ampere scale; single scale divisions 1/3 of an ampere, readable to 2/10 of an ampere, each.	65.00
Clatter	2604 No. 2. 15 ampere scale; single scale divisions 1/10 of an ampere, readable to 1/10 of an ampere, each.	65.00
Clatterer	2605 No. 3. 25 ampere scale; single scale divisions 1/10 of an ampere, readable to 1/10 of an ampere, each.	65.00
Claude	2606 No. 4. 50 ampere scale; single scale divisions 1/4 of an ampere, readable to 1/10 of an ampere, each.	65.00
Claudia	2607 No. 5. 100 ampere scale; single scale divisions 1 ampere, readable to 1/10 of an ampere, each.	70.00
Clause	2608 No. 6. 150 ampere scale; single scale divisions 1 ampere, readable to 1/10 of an ampere, each.	75.00
	No. 7. 200 ampere scale, each.	80.00
	No. 8. 250 " " " "	80.00
	No. 9. 300 " " " "	80.00
	No. 10. 400 " " " "	90.00
	No. 11. 500 " " " "	90.00



No. 2607.  
One-quarter Size.





No. 3047

### Leather Cases for Weston Portable Volt and Ammeters.

For those electricians who have occasion to travel and carry an instrument with them, a very neat and convenient Sole Leather Case, stiffened, lined with velvet, and supplied with shoulder strap, lock and key, has been devised, and is recommended as giving increased protection against accidental injury to the instrument. Price, when ordered instead of the usual wooden case, extra, \$3.50.

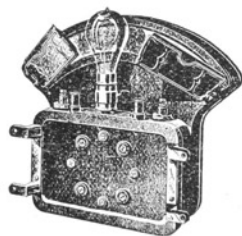
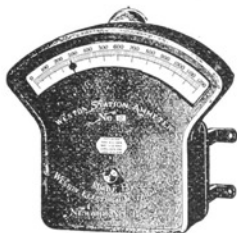
Code Word.	List No.	List Price.
<i>Admittance</i>	3047 $\frac{1}{2}$ Each	\$4.00

### Weston Illuminated Dial Station Ammeters.

We furnish the cases in two different styles, as follows:  
 No. 2 Finish.—Border of case and face of letters nickel plated and polished; background of letters, and back case dead black japan. This is a neat and durable finish, and one we highly recommend for general use.

No. 3 Finish.—Border of front and face of letters nickel plated and polished; background of letters dead nickel matt; all parts of back case in sight nickel plated and polished.

Each instrument has attached to it a lamp socket and binding posts for connecting the scale lamp to the circuit. It is also provided with a pair of thin wire leads, with suitable terminals for connecting the instrument to the main or shunt. With each instrument there is sent a pair of detachable mirror supports and detachable mirrors.



### Combined Instruments and Shunts.

<i>Adelucible</i>	3067	Finish No. 2, 0 to 200 amp. in 2 amp. divisions	79.50
<i>Adept</i>	3068	" " 3, 0 " 200 " 2 "	84.00
<i>Commenteri</i>	2120	" " 2, 0 " 250 " 2 "	79.50
<i>Comminted</i>	2121	" " 3, 0 " 250 " 2 "	84.00
<i>Comb</i>	2104	" " 2, 0 " 300 " 2 "	79.75
<i>Combat</i>	2105	" " 3, 0 " 300 " 2 "	84.25
<i>Adhesive</i>	3070	" " 2, 0 " 400 " 4 "	80.00
<i>Adipose</i>	3071	" " 3, 0 " 400 " 4 "	84.50
<i>Combustible</i>	2110	" " 2, 0 " 500 " 5 "	81.00
<i>Comedian</i>	2111	" " 3, 0 " 500 " 5 "	85.50
<i>Arjective</i>	3073	" " 2, 0 " 600 " 5 "	82.00
<i>Arjojn</i>	3074	" " 3, 0 " 600 " 5 "	86.50
<i>Comfort</i>	2116	" " 2, 0 " 750 " 5 "	83.00
<i>Comfortable</i>	2117	" " 3, 0 " 750 " 5 "	87.50
<i>Adjuygment</i>	3076	" " 2, 0 " 1,000 " 10 "	84.00
<i>Adjudicote</i>	3077	" " 3, 0 " 1,000 " 10 "	88.50
<i>Command</i>	2122	" " 2, 0 " 1,200 " 10 "	85.00
<i>Commander</i>	2123	" " 3, 0 " 1,200 " 10 "	89.50
<i>Commence</i>	2125	" " 2, 0 " 1,500 " 10 "	90.75
<i>Commencing</i>	2126	" " 3, 0 " 1,500 " 10 "	95.25

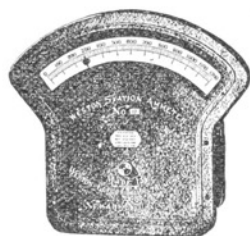
## Weston Illuminated Dial Station Ammeters—

(Continued)

Code Word.	List No.		Finish No.	2, 0 to 2,000 amp. in 20 amp. divisions	List Price.
<i>Adjunction</i>	3079	"	"	"	\$95.25
<i>Adjunctive</i>	3080	"	"	"	99.75
<i>Commission</i>	2134	"	"	"	96.75
<i>Commit</i>	2135	"	"	"	101.25
<i>Committal</i>	2137	"	"	"	99.00
<i>Committed</i>	2138	"	"	"	103.50
<i>Commandant</i>	2140	"	"	"	102.00
<i>Committable</i>	2141	"	"	"	106.50
<i>Commix</i>	2143	"	"	"	106.50
<i>Commixion</i>	2144	"	"	"	111.00
<i>Commodious</i>	2146	"	"	"	114.00
<i>Commodity</i>	2147	"	"	"	118.50
<i>Commoner</i>	2149	"	"	"	121.50
<i>Commonly</i>	2150	"	"	"	126.00
<i>Categorize</i>	1128	"	"	"	129.00
<i>Category</i>	1129	"	"	"	133.50
<i>Catenary</i>	1130	"	"	"	136.50
<i>Catenarian</i>	1137	"	"	"	141.00
<i>Clayed</i>	1138	"	"	"	151.50
<i>Careful</i>	1139	"	"	"	156.00
<i>Code</i>	1138½	"	"	"	166.50
<i>Colery</i>	1239½	"	"	"	171.00

## Weston Illuminated Dial Station Ammeters.

Combined Instruments and Shunts—Flush Pattern.



No. 2197.

<i>Comical</i>	2120½	Finish No. 2, 0 to 200 amp. in 2 amp. divisions	79.50
<i>Comically</i>	2121½	" " 3, 0 " 200 " 2 "	84.00
<i>Cone</i>	3068½	" " 2, 0 " 250 " 2 "	79.50
<i>Coning</i>	3067½	" " 3, 0 " 250 " 2 "	84.00
<i>Commanding</i>	2124	" " 2, 0 " 300 " 2 "	79.75
<i>Comment</i>	2127	" " 3, 0 " 300 " 2 "	84.25
<i>Commerce</i>	2130	" " 2, 0 " 400 " 5 "	80.00
<i>Commercial</i>	2131	" " 3, 0 " 400 " 5 "	84.50
<i>Commingle</i>	2132	" " 2, 0 " 500 " 5 "	81.00
<i>Commisary</i>	2133	" " 3, 0 " 500 " 5 "	85.50
<i>Commitment</i>	2136	" " 2, 0 " 600 " 5 "	82.00
<i>Committee</i>	2139	" " 3, 0 " 600 " 5 "	86.50
<i>Committing</i>	2142	" " 2, 0 " 750 " 5 "	83.00
<i>Commode</i>	2145	" " 3, 0 " 750 " 5 "	87.50
<i>Commodore</i>	2148	" " 2, 0 " 1,000 " 10 "	84.00
<i>Conspire</i>	2194	" " 3, 0 " 1,000 " 10 "	88.50
<i>Conspiringly</i>	2197	" " 2, 0 " 1,200 " 10 "	85.00
<i>Constancy</i>	2200	" " 3, 0 " 1,200 " 10 "	89.50
<i>Constantly</i>	2203	" " 2, 0 " 1,500 " 10 "	90.75
<i>Constituent</i>	2206	" " 3, 0 " 1,500 " 10 "	95.25

Weston Illuminated Dial Station Ammeters—

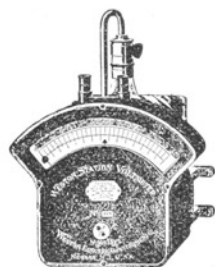
(Continued).

Code Word	List No.	Finish No.	2, 0 to 2,000 amp	in 20 amp. divisions	List Price.
<i>Colloquial</i>	2160		2, 0 to 2,000 amp	in 20 amp. divisions	\$95.25
<i>Collusive</i>	2163		3, 0 " 2,000	" 20 "	99.75
<i>Colonist</i>	2166		2, 0 " 2,500	" 20 "	96.75
<i>Colony</i>	2169		3, 0 " 2,500	" 20 "	101.25
<i>Colorless</i>	2172		2, 0 " 3,000	" 20 "	99.00
<i>Claying</i>	2173		3, 0 " 3,000	" 20 "	103.50
<i>Careless</i>	2176		2, 0 " 3,500	" 20 "	102.00
<i>Carelessly</i>	2179		3, 0 " 3,500	" 20 "	106.50
<i>Caresaced</i>	2182		2, 0 " 4,000	" 30 "	106.50
<i>Dialogue</i>	2185		3, 0 " 4,000	" 30 "	111.00
<i>Diameter</i>	2188		2, 0 " 4,500	" 40 "	114.00
<i>Diamond</i>	2189		3, 0 " 4,500	" 40 "	118.50
<i>Luckily</i>	2190		2, 0 " 5,000	" 50 "	121.50
<i>Luckiness</i>	2191		3, 0 " 5,000	" 50 "	126.00
<i>Luckless</i>	2192		2, 0 " 6,000	" 50 "	129.00
<i>Lucklessly</i>	2193		3, 0 " 6,000	" 50 "	133.50
<i>Lucky</i>	470		2, 0 " 7,000	" 50 "	136.50
<i>Lucratite</i>	471		3, 0 " 7,000	" 50 "	141.00
<i>Litigant</i>	472		2, 0 " 8,000	" 100 "	151.40
<i>Litigate</i>	473		3, 0 " 8,000	" 100 "	156.00
<i>Litu</i>	472½		2, 0 " 10,000	" 100 "	166.50
<i>Litudone</i>	473½		3, 0 " 10,000	" 100 "	171.00

Extra Shunts for Illuminated Dial Station Ammeters.

<i>Ardiron</i>	9400	0 to 200 amp. in	2 amp. divisions	3.00
<i>Andesen</i>	9400½	0 " 250	" 2 "	3.00
<i>Anemone</i>	9402	0 " 400	" 5 "	3.50
<i>Angel</i>	9403	0 " 500	" 5 "	4.50
<i>Angling</i>	9404	0 " 600	" 5 "	5.50
<i>Angry</i>	9405	0 " 750	" 5 "	6.50
<i>Angular</i>	9406	0 " 1,000	" 10 "	7.50
<i>Angus</i>	9407	0 " 1,200	" 10 "	8.50
<i>Ann</i>	9408	0 " 1,500	" 10 "	14.25
<i>Announce</i>	9410	0 " 2,000	" 20 "	18.75
<i>Inbrication</i>	9411	0 " 2,500	" 30 "	20.25
<i>Lucil</i>	9412	0 " 3,000	" 30 "	22.50
<i>Lucidity</i>	9413	0 " 3,500	" 20 "	25.50
<i>Lucifer</i>	9414	0 " 4,000	" 30 "	30.00
<i>Lumping</i>	9415	0 " 4,500	" 40 "	37.50
<i>Lumpish</i>	9416	0 " 5,000	" 50 "	45.00
<i>Lumpishly</i>	9417	0 " 6,000	" 50 "	52.50
<i>Literature</i>	9418	0 " 7,000	" 50 "	60.00
<i>Lithograph</i>	9419	0 " 8,000	" 100 "	75.00
<i>Litugun</i>	9419½	0 " 10,000	" 100 "	90.00

## Weston Illuminated Dial Station Voltmeters.



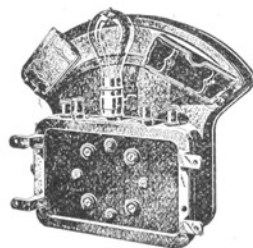
No. 2164.

## Style "A," or Smaller Sized.

Code Word.	List No.	Scale 0 to	85 volts in single volt divisions, finish No.	List Price.
<i>Collided</i>	2152	0 to 85	2555.00	
<i>Collier</i>	2153	0 " 85	" " " " " "	" " 3 57.50
<i>Collision</i>	2155	0 " 100	" " " " " "	" " 2 56.00
<i>Collocate</i>	2156	0 " 100	" " " " " "	" " 3 58.50
<i>Colloquy</i>	2158	0 " 125	" " " " " "	" " 2 58.00
<i>Collusion</i>	2159	0 " 125	" " " " " "	" " 3 60.50
<i>Colon</i>	2161	0 " 135	" " " " " "	" " 2 60.00
<i>Colonel</i>	2162	0 " 135	" " " " " "	" " 3 62.50
<i>Colonizing</i>	2164	0 " 150	" " " " " "	" " 2 62.00
<i>Colonnade</i>	2165	0 " 150	" " " " " "	" " 3 64.50
<i>Color</i>	2167	0 " 250	two " " " "	" " 2 64.00
<i>Colorable</i>	2168	0 " 250	" " " " " "	" " 3 66.50
<i>Colossal</i>	2170	0 " 300	" " " " " "	" " 2 66.00
<i>Colt</i>	2171	0 " 300	" " " " " "	" " 3 68.50



No. 3043—Front.



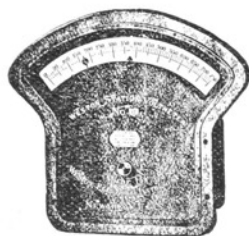
No. 3043—Rear.

## Style "B," or Larger Sized.

Code Word.	List No.	Scale 0 to	125 volts in single volt divisions, finish No.	List Price.
<i>Emersion</i>	2174	0 to 125	2 75.00	
<i>Emetic</i>	2175	0 " 125	" " " " " "	" " 3 79.50
<i>Emigrant</i>	2177	0 " 150	" " " " " "	" " 2 76.00
<i>Emigrate</i>	2178	0 " 150	" " " " " "	" " 3 80.50
<i>Emigration</i>	2180	0 " 175	" " " " " "	" " 2 77.00
<i>Emile</i>	2181	0 " 175	" " " " " "	" " 3 81.50
<i>Embossed</i>	2183	0 " 250	two " " " "	" " 2 78.00
<i>Embossment</i>	2184	0 " 250	" " " " " "	" " 3 82.50
<i>Embottle</i>	2186	0 " 300	" " " " " "	" " 2 79.00
<i>Embottled</i>	2187	0 " 300	" " " " " "	" " 3 83.50
<i>Adjured</i>	3040	0 " 600	five " " " "	" " 2 80.00
<i>Adjurer</i>	3041	0 " 600	" " " " " "	" " 3 84.50
<i>Adjust</i>	3043	0 " 750	" " " " " "	" " 2 81.00
<i>Adjusted</i>	3044	0 " 750	" " " " " "	" " 3 85.50

NOTE.—For higher ranges, extra multipliers are furnished.  
Prices quoted on application. In placing order, please give style  
of lamp socket.

## Weston Illuminated Dial Station Voltmeters.



No. 2118.

Code Word.	List No.	Flush Pattern.	List Price.
<i>Columbine</i>	2100	Scale 0 to 125 volts in single volt divisions, finish No. 2	\$75.00
<i>Column</i>	2101	" 0 " 125 " " " " " " "	3 79.50
<i>Cona</i>	2102	" 0 " 150 " " " " " " "	2 76.00
<i>Comatose</i>	2103	" 0 " 150 " " " " " " "	3 80.50
<i>Combatant</i>	2106	" 0 " 175 " " " " " " "	2 77.00
<i>Combinable</i>	2107	" 0 " 175 " " " " " " "	3 81.50
<i>Combination</i>	2108	" 0 " 250 " two " " " " "	2 78.00
<i>Combine</i>	2109	" 0 " 250 " " " " " " " "	3 82.50
<i>Comedy</i>	2112	" 0 " 300 " " " " " " " "	2 79.00
<i>Comet</i>	2113	" 0 " 300 " " " " " " " "	3 83.50
<i>Cometary</i>	2114	" 0 " 600 " five " " " " " "	2 80.00
<i>Comfit</i>	2115	" 0 " 600 " " " " " " " "	3 84.50
<i>Comforted</i>	2118	" 0 " 750 " " " " " " " "	2 81.00
<i>Comic</i>	2119	" 0 " 750 " " " " " " " "	3 85.50

NOTE—For higher ranges, extra multipliers are furnished. Prices quoted on application. In placing order, please give style of lamp socket.

## Weston Potential Indicators.

In the Potential Indicator a modification is made in the interior part of the instrument for the purpose of securing a much larger movement of the index for a single volt. In an instrument having a range of 130 volts we can secure a movement of the index equal to about one-third of an inch for a change of one volt in pressure; but this instrument would only begin to read at 90 volts. The instruments are so constructed that the index will be very near the centre of the scale for the normal voltage. The scale is figured in two ways: (1) in volts only, or (2) two sets of figures are given, one set giving the actual voltage, and the other set indicating the number of volts above or below the normal voltage, which is marked zero. The prices for these instruments are the same as for corresponding ranges of Style "B" Illuminated Dial Station Voltmeters.



ILLUMINATED DIAL, FLUSH PATTERN.



ILLUMINATED DIAL, STANDARD.

## Weston Railway, Isolated Plant and Feeder Voltmeters.

FOR DIRECT CURRENT CIRCUITS ONLY.

### Round Pattern.

Code Word.	List No.		List Price.
<i>Herbert</i>	1185	No. 1, 3 Volt Scale. Scale of 150 divisions, each division equal to .02 of a volt and readable to tenths of a division, or .002 volts in any part of the scale, each. . . . .	\$25.00
<i>Horatio</i>	1187	No. 2, 6 Volt Scale. Scale of 120 divisions, each division equal to .05 of a volt and readable to tenths of a division, or .005 volts in any part of the scale, each. . . . .	25.00
<i>Hardness</i>	1188	No. 3, 15 Volt Scale. Scale of 150 divisions, each division equal to .1 of a volt and readable to tenths of a division, or .01 volt in any part of the scale, each. . . . .	25.00
<i>Hardship</i>	1189	No. 4, 25 Volt Scale. Scale of 125 divisions, each division equal to .2 of a volt and readable to tenths of a division, or .02 volt in any part of the scale, each. . . . .	26.00
<i>Haretip</i>	1190	No. 5, 50 Volt Scale. Scale of 100 divisions, each division equal to .5 of a volt and readable to tenths of a division, or .05 volt in any part of the scale, each. . . . .	26.50
<i>Haretopped</i>	1940	No. 6, 75 Volt Scale. Scale of 150 divisions, each division equal to .5 of a volt and readable to tenths of a division, or .05 volt in any part of the scale, each. . . . .	27.25
<i>Harem</i>	1941	No. 7, 125 Volt Scale. Scale of 125 divisions, each division equal to 1 volt and readable to tenths of a division, or .1 volt in any part of the scale, each. . . . .	28.25
<i>Harcot</i>	1942	No. 8, 150 Volt Scale. Scale of 150 divisions, each division equal to 1 volt and readable to tenths of a division, or .1 volt in any part of the scale, each. . . . .	29.50
<i>Hairent</i>	1942½	250 Volt Scale. Scale of 125 Divisions, each division equal to 2 volts and readable to tenths of a division or .1 volt in any part of the scale, each. . . . .	31.50
<i>Harlequin</i>	1943	No. 9, 300 Volt Scale. Scale of 150 divisions, each division equal to 2 volts and readable to tenths of a division, or .2 volt in any part of the scale, each. . . . .	32.50
<i>Adjuster</i>	3050	No. 10, 600 Volt Scale. Scale of 120 divisions, each division equal to 5 volts and readable to tenths of a division, or .5 volt in any part of the scale, each. . . . .	35.00
<i>Adjustive</i>	3051	No. 11, 750 Volt Scale. Scale of 150 divisions, each division equal to 5 volts and readable to tenths of a division, or .5 volt in any part of the scale, each. . . . .	37.00



No. 1942.

**Weston Railway, Isolated Plant and Feeder  
Ammeters.**

FOR DIRECT CURRENT CIRCUITS ONLY.

		Round Pattern.	
Code Word.	List No.		List Price.
<i>Hosea</i>	<b>1944</b>	No. 1, 1 Ampere Scale. Instrument combined with shunt. Scale of 100 divisions, each division equal to .01 of an ampere, readable to tenths of a division, or .001 ampere in any part of the scale, each.....	<b>\$25.00</b>
<i>Hugh</i>	<b>1945</b>	No. 2, 5 Ampere Scale. Instrument combined with shunt. Scale of 100 divisions, each division equal to .05 of an ampere, readable to tenths of a division, or .005 ampere in any part of the scale, each.....	<b>25.00</b>
<i>Huldan</i>	<b>1946</b>	No. 3, 10 Ampere Scale. Instrument combined with shunt. Scale of 100 divisions, each division equal to .1 of an ampere, readable to tenths of a division, or .01 ampere in any part of the scale, each.....	<b>25.00</b>
<i>Humphrey</i>	<b>1947</b>	No. 4, 15 Ampere Scale. Instrument combined with shunt. Scale of 150 divisions, each division equal to .1 of an ampere, readable to tenths of a division, or .01 ampere in any part of the scale, each.....	<b>25.00</b>
<i>Bigot</i>	<b>1999</b>	No. 5, 25 Ampere Scale. Instrument combined with shunt. Scale of 125 divisions, each division equal to .5 of an ampere, readable to tenths of a division, or .05 ampere in any part of the scale, each.....	<b>25.00</b>
<i>Bigoted</i>	<b>2000</b>	No. 6, 50 Ampere Scale. Instrument combined with shunt. Scale of 100 divisions, each division equal to .5 of an ampere, readable to tenths of a division, or .05 ampere in any part of the scale, each.....	<b>25.50</b>
<i>Bigotry</i>	<b>1080</b>	No. 7, 75 Ampere Scale. Instrument combined with shunt. Scale of 150 divisions, each division equal to .5 of an ampere, readable to tenths of a division, or .05 ampere in any part of the scale, each.....	<b>26.00</b>
<i>Adjutage</i>	<b>2678</b>	No. 8, 100 Ampere Scale. Instrument with separate shunt. Scale of 100 divisions, each division equal to 1 ampere, readable to tenths of a division, or .1 ampere in any part of the scale, each.....	<b>26.50</b>
<i>Adjutant</i>	<b>3081</b>	No. 9, 150 Ampere Scale. Instrument with separate shunt. Scale of 150 divisions, each division equal to 1 ampere, readable to tenths of a division, or .1 of an ampere in any part of the scale, each.....	<b>27.00</b>

## Weston Railway, Isolated Plant and Feeder Ammeters—(Continued).



No. 3085.

Code Word.	List No.	List Price.
<i>Adjutrix</i>	<b>3082</b>	No. 10, 200 Ampere Scale. Instrument with separate shunt. Scale of 100 divisions, each division equal to 2 amperes, readable to tenths of a division, or .2 ampere in any part of the scale, each..... <b>\$28.00</b>
<i>Administer</i>	<b>3083</b>	No. 11, 250 Ampere Scale. Instrument with separate shunt. Scale of 125 divisions, each division equal to 2 amperes, readable to tenths of a division, or .2 ampere in any part of the scale, each..... <b>28.25</b>
<i>Admirable</i>	<b>3084</b>	No. 12, 300 Ampere Scale. Instrument with separate shunt. Scale of 150 divisions, each division equal to 2 amperes, readable to tenths of a division, or .2 ampere in any part of the scale, each..... <b>28.25</b>
<i>Admiral</i>	<b>3085</b>	No. 13, 400 Ampere Scale. Instrument with separate shunt. Scale of 80 divisions, each division equal to 5 amperes, readable to tenths of a division, or .5 ampere in any part of the scale, each..... <b>28.50</b>
<i>Clausure</i>	<b>1088</b>	No. 14, 500 Ampere Scale. Instrument with separate shunt. Scale of 150 divisions, each division equal to 5 amperes, readable to tenths of a division, or .5 ampere in any part of the scale, each..... <b>29.50</b>
<i>Clawed</i>	<b>1089</b>	No. 15, 600 Ampere Scale. Instrument with separate shunt. Scale of 120 divisions, each division equal to 5 amperes, readable to tenths of a division, or .5 ampere in any part of the scale, each..... <b>30.50</b>
<i>Clawing</i>	<b>1092</b>	No. 16, 750 Ampere Scale. Instrument with separate shunt. Scale of 150 divisions, each division equal to 5 amperes, readable to tenths of a division, or .5 ampere in any part of the scale, each..... <b>31.50</b>
<i>Clawless</i>	<b>1093</b>	No. 17, 1,000 Ampere Scale. Instrument with separate shunt. Scale of 100 divisions, each division equal to 10 amperes, readable to tenths of a division, or 1 ampere in any part of the scale, each..... <b>32.50</b>
<i>Clay</i>	<b>1094</b>	No. 18, 1,200 Ampere Scale. Instrument with separate shunt. Scale of 120 divisions, each division equal to 10 amperes, readable to tenths of a division, or 1 ampere in any part of the scale, each..... <b>33.50</b>



### Weston Railway Isolated Plant and Feeder Ammeters—(Continued.)

Code Word.	List No.	List Price. Each.
<i>Sarcopus</i>	21361	No. 19, 1500 Ampere Scale, instrument with separate shunt, scale with 150 divisions, each division equal to 10 amperes; readable to tenths of a division or 1 ampere in any part of the scale, each ..... \$39.25
<i>Sarcomatus</i>	21362	No. 20, 2000 Ampere Scale instrument with separate shunt, scale with 100 divisions, each division equal to 20 amperes; readable to tenths of a division or 2 amperes in any part of the scale; each ..... 43.75
<i>Sarcophagan</i>	21363	No. 21, 2500 Ampere Scale, instrument with separate shunt, scale with 125 divisions, each division equal to 20 amperes, readable to tenths of a division or 2 amperes in any part of the scale, each ..... 45.25

### Differential Volt Meters.

In order to obviate the observing of two independent instruments and the incidental reading errors when bringing up dynamos to the normal voltage for throwing in on bus bar, an illuminated dial differential voltmeter has been devised. There is a difference in construction in these instruments for either two wire or three wire systems.

#### Two Wire System.

<i>Sarcophagus</i>	21364	Scale 130-0-130 volts in 2 divisions, No. 2 finish, 85.00
<i>Sarcophay</i>	21365	" 500-0-500 " 10 " No. 2 " 90.00
<i>Sarcorampus</i>	21366	" 600-0-600 " 10 " No. 2 " 95.00

#### Three Wire System.

<i>Sarcosis</i>	21367	Scale 130-0-130 volts in 2 divisions, No. 2 finish, 85.00
<i>Sarcotic</i>	21368	" 500-0-500 " 10 " No. 2 " 90.00
<i>Sarculation</i>	21369	" 600-0-600 " 10 " No. 2 " 95.00

No. 2 finish is dead-black japan with nickel trimming.

No. 3 finish, which is all nickel plated, brass or copper finish, is \$4.50 extra.

## Weston Portable Standard Direct Reading Volt- meters for Alternating and Direct Current Circuits.

Each instrument is enclosed in a leather case, supplied with shoulder strap, lock and key and furnished with a pair of flexible connecting cords, for both of which no extra charge is made.



No. 2614.

### Single Scale Instruments.

Code Word.	List No.	Description	List Price.
<i>Cleansed</i>	2614	No. 1. Scale 1.5 to 7.5 volts, from 1.5 volt up in $\frac{1}{15}$ volt divisions; best range 2.5 to 6.5 volts, within that range readable to $\frac{1}{750}$ of a volt, each .....	\$60.00
<i>Clearance</i>	2615	No. 2. Scale 1.5 to 10 volts, from 1.5 volt up in $\frac{1}{15}$ volt divisions; best range 4 to 9 volts, within that range readable to $\frac{1}{150}$ of a volt, each .....	60.00
<i>Cleared</i>	2616	No. 3. Scale 2 to 12 volts, from 2 volts up in $\frac{1}{15}$ volt divisions; best range 5 to 11 volts, within that range readable to $\frac{1}{150}$ of a volt, each .....	60.00
<i>Clearing</i>	2617	No. 4. Scale 3 to 15 volts, from 3 volts up in $\frac{1}{15}$ volt divisions; best range 5.5 to 12 volts, within that range readable to $\frac{1}{150}$ of a volt, each .....	60.00
<i>Clearness</i>	2618	No. 5. Scale 3 to 20 volts, from 3 volts up in $\frac{1}{15}$ volt divisions; best range 7 to 18 volts, within that range readable to $\frac{1}{150}$ of a volt, each .....	60.00
<i>Cleavage</i>	2619	No. 6. Scale 10 to 60 volts, from 10 volts up in $\frac{1}{2}$ volt divisions; best range 25 to 55 volts, within that range readable to $\frac{1}{25}$ of a volt, each .....	60.00
<i>Clevo</i>	2620	No. 7. Scale 15 to 75 volts, from 15 volts up in $\frac{1}{2}$ volt divisions; best range 30 to 65 volts, within that range readable to $\frac{1}{25}$ of a volt, each .....	60.00
<i>Cleared</i>	2621	No. 8. Scale 20 to 120 volts, from 20 volts up in 1 volt divisions; best range 50 to 110 volts, within that range readable to $\frac{1}{15}$ of a volt, each .....	65.00
<i>Clears</i>	2622	No. 9. Scale 30 to 150 volts, from 30 volts up in 1 volt divisions; best range 70 to 125 volts, within that range readable to $\frac{1}{15}$ of a volt, each .....	67.50
<i>Clef</i>	2623	No. 10. Scale 60 to 300 volts, from 60 volts up in 2 volt divisions; best range 140 to 250 volts, within that range readable to $\frac{1}{2}$ of a volt, each .....	70.00
<i>Clement</i>	2624	No. 11. Scale 100 to 600 volts, from 100 volts up in 5 volt divisions; best range 250 to 550 volts, within that range readable to $\frac{1}{2}$ of a volt, each .....	80.00

**Weston Portable Standard Direct Reading Voltmeters for Alternating and Direct Current Circuits—(Continued)**

**High Range Voltmeters with Extra Multipliers.**

		<b>Single Scale Instruments.</b>		
Code Word.	List No.			List Price.
<i>Cleaned</i>	<b>2625</b>	No. 12. Scale 200 to 1,200 volts; scale like No. 8 with ten times the value (10 volts) per division, each .....		<b>\$ 90.00</b>
<i>Clearly</i>	<b>2626</b>	No. 13. Scale 300 to 1,500 volts; scale like No. 9 with ten times the value (10 volts) per division, each .....		<b>97.50</b>
<i>Cleanness</i>	<b>2627</b>	No. 14. Scale 400 to 2,400 volts; scale like No. 8 with twenty times the value (20 volts) per division, each .....		<b>100.00</b>
<i>Cleanse</i>	<b>2628</b>	No. 15. Scale 600 to 3,000 volts; scale like No. 10 with ten times the value (20 volts) per division, each .....		<b>110.00</b>

**Double Scale Instruments.**

In ordering double scale instruments it is necessary to choose the ratio of the two scales, as 1 to 2 for self-contained instruments, since it is not feasible to have the temperature regulator answer for two scales of greater ratio. If a higher range is desired to be obtained by means of a separate multiplier the ratio is not compulsory, since the temperature regulator then answers for the range of the instrument self-contained, while the dimension of the wire in the multiplier is so chosen that temperature corrections for the multiplier are not necessary if the instrument is kept in circuit for only a short time. A self-contained instrument, with single or double scale, can thus be supplied with three or more scale values. For most practical and all laboratory purposes we recommend the double scale instruments as affording a wider range of greater accuracy.

<i>Clergy</i>	<b>2636</b>	No. 16. Scale 3 to 15 volts and 1.5 to 7.5 volts; upper scale like No. 4, lower scale like No. 1, each .....		<b>70.00</b>
<i>Clerical</i>	<b>2637</b>	No. 17. Scale 3 to 20 volts and 1.5 to 10 volts; upper scale like No. 5, lower scale like No. 2, each .....		<b>70.00</b>
<i>Clinic</i>	<b>2638</b>	No. 18. Scale 20 to 120 volts and 10 to 60 volts, upper scale like No. 8, lower scale like No. 6, each .....		<b>70.00</b>
<i>Cliff</i>	<b>2639</b>	No. 19. Scale 30 to 150 volts and 15 to 75 volts; upper scale like No. 9, lower scale like No. 7, each .....		<b>75.00</b>
<i>Climite</i>	<b>2640</b>	No. 20. Scale 30 to 200 volts and 15 to 100 volts, upper scale like No. 5, lower scale like No. 2, with ten times the value per division, each .....		<b>75.00</b>
<i>Climatic</i>	<b>2641</b>	No. 21. Scale 60 to 300 volts and 30 to 150 volts, upper scale like No. 10, lower scale like No. 9, each .....		<b>80.00</b>
<i>Climax</i>	<b>2642</b>	No. 22. Scale 100 to 600 volts and 50 to 300 volts, upper scale like No. 11, lower scale like No. 10, each .....		<b>90.00</b>

## Weston Portable Standard Direct Reading Voltmeters for Alternating and Direct Current Circuits—(Continued).



No. 3679.



No. 3684.



No. 3683.

### Inspectors' Pattern Voltmeters.

Under the name of "Inspectors' Pattern" we furnish the Voltmeters in a highly polished mahogany box, into which the instrument is permanently fastened. All of these instruments are provided with a reversing key. Instead of the regular binding posts, contact pins are provided, on which contact is made by means of contact cups fastened to flexible cords. The flexible cord is either furnished with plain pins or it may be provided with a contact plug to fit our lamp adapters.

#### For Direct Current Circuits.

Code Word.	List No.	List Price.
<i>Community</i>	<b>3679</b> Style No. 1. Highly polished mahogany box with lock and key, flexible connecting cord. Additional to listed price, each.....	<b>\$4.00</b>
<i>Florà</i>	<b>3684</b> Style No. 3. Highly polished mahogany box, with lock and key; compartment with set of four lamp adapters (Edison, Thomson-Houston, Westinghouse, Weston); flexible connecting cord with plug contact to fit lamp adapters. Additional to listed prices, each...	<b>10.00</b>

#### For Alternating Current Circuits.

<i>Fergus</i>	<b>3683</b> Style No. 1. Highly polished mahogany box, with compartment box with lock and key. The compartment is intended for the reception of the flexible connecting cord and one or more lamp adapters. Additional to listed price, each.....	<b>2.50</b>
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### Plugs, Cords and Lamp Adapters.

The cut shows the flexible conductor, with plug contact for inserting in the Adapters and for quickly reversing the current. These Lamp Adapters are made in four styles—viz., for Edison, Thomson-Houston, Westinghouse and Weston sockets.

Code Word.	List No.	List Price.
<i>Clayish</i>	2629	Price of Single Lamp Adapters, each..... \$1.25
<i>Claymore</i>	2630	Flexible Connecting Cord, with plug contact, if ordered separately, each..... 1.25
<i>Clean</i>	2631	Flexible Connecting Cord, with plain contact, if ordered separately, each..... 1.25
<i>Ferdinand</i>	3685	Mahogany Box with set of 4 Adapters and Flexible Cord, each..... 7.50

### Whitney Electrical Measuring Instruments.

It is important in ordering instruments to state whether they are to be used in a vertical or horizontal position.

#### Whitney Voltmeters for Continuous Currents

##### Class A.

<i>Measly</i>	2295	No. 1.	Scale 0 to 15 volts in $\frac{1}{10}$ volt div., each	20.00
<i>Measure</i>	2296	" 9.	" 0 " 100 " 1 " " "	23.00
<i>Measured</i>	2297	" 15.	" 0 " 150 " 1 " " "	25.00

NOTE—These instruments will heat if left too long in circuit.

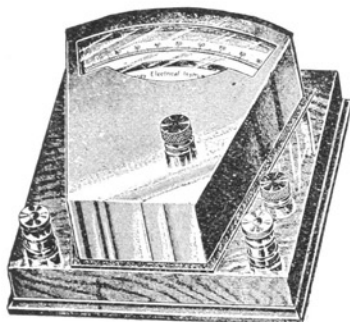
##### Class B.

<i>Measuring</i>	2298	No. 2.	Scale 0 to 15 volts in $\frac{1}{10}$ volt div., each	25.00
<i>Meat</i>	2299	" 10.	" 0 " 100 " 1 " " "	28.00
<i>Mechanic</i>	2304	" 16.	" 0 " 150 " 1 " " "	30.00
<i>Mechanics</i>	2305	" 21.	" 0 " 300 " 2 " " "	40.00
<i>Mechanism</i>	2306	" 25.	" 0 " 600 " 5 " " "	50.00
<i>Medalet</i>	2307	" 27.	" 0 " 750 " 5 " " "	60.00

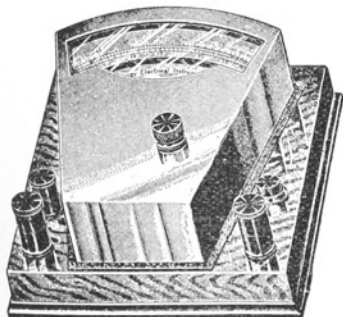
NOTE—These instruments may be left continuously in circuit by giving the contact button a quarter turn.

#### Whitney Voltmeters for Alternating Currents.

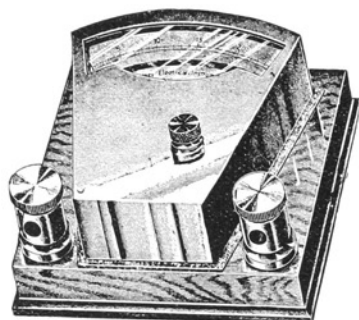
<i>Medalist</i>	2307 $\frac{1}{2}$	Scale 0 to 75 volts, reading from 15 to 20 volts, in 1 volt divisions, from 20 to 75 volts in $\frac{1}{2}$ volt divisions, each.....	40.00
<i>Medallion</i>	2308	Scale 0 to 150 volts, reading from 30 to 40 volts in 2 volt divisions, from 40 to 150 volts in 1 volt divisions, each.....	45.00



No. 2296.



No. 2307  $\frac{1}{2}$



No. 2309.

### Whitney Ammeters for Continuous Currents.

Code Word.	List No.	No. 31.	Scale 0 to	10 amp. in	$\frac{1}{16}$ amp. div., each	List Price.
<i>Medicinal</i>	2309	No. 31.	Scale 0 to	10 amp. in	$\frac{1}{16}$ amp. div., each	\$21.00
<i>Medicine</i>	2310	" 39.	" 0 " 25	" $\frac{1}{8}$ "	" "	23.00
<i>Meditat</i>	2311	" 43.	" 0 " 50	" $\frac{1}{4}$ "	" "	24.00
<i>Meditated</i>	2312	" 47.	" 0 " 100	" 1 "	" "	28.00
<i>Medium</i>	2313	" 51.	" 0 " 150	" 1 "	" "	30.00
<i>Medley</i>	2314	" 55.	" 0 " 280	" 2 "	" "	35.00
<i>Medusa</i>	2315	" 61.	" 0 " 400	" 5 "	" "	45.00
<i>Meek</i>	2316	" 65.	" 0 " 500	" 5 "	" "	50.00
<i>Meekly</i>	2317	" 66.	" 0 " 600	" 5 "	" "	55.00
<i>Meekness</i>	2318	" 67.	" 0 " 700	" 7 "	" "	60.00
<i>Meerschau</i>	2319	" 68.	" 0 " 800	" 10 "	" "	65.00
<i>Meeting</i>	2320	" 69.	" 0 " 1000	" 10 "	" "	70.00

### Whitney Ammeters for Alternating Currents.

<i>Mellow</i>	2321	Scale 0 to 5 amperes, from 1 to 5 amperes in $\frac{1}{16}$ ampere divisions, each.....	45.00
<i>Melody</i>	2322	Scale 0 to 25 amperes, from 5 to 25 amperes, in $\frac{1}{4}$ ampere divisions, each.....	50.00
<i>Melon</i>	2323	Scale 0 to 50 amperes, from 10 to 50 amperes, in $\frac{1}{4}$ ampere divisions, each.....	55.00
<i>Melt</i>	2324	Scale 0 to 100 amperes, from 10 to 100 amperes, in 1 ampere divisions, each.....	60.00
<i>Melted</i>	2325	Scale 0 to 150 amperes, from 15 to 150 amperes, in 1 ampere divisions, each.....	65.00
<i>Melting</i>	2326	Scale 0 to 200 amperes, from 20 to 200 amperes, in 2 ampere divisions, each.....	70.00
<i>Member</i>	2327	Scale 0 to 300 amperes, from 30 to 300 amperes, in 2 ampere divisions, each.....	75.00
<i>Membrane</i>	2328	Scale 0 to 400 amperes, from 40 to 400 amperes, in 4 ampere divisions, each.....	80.00
<i>Memento</i>	2329	Scale 0 to 500 amperes, from 50 to 500 amperes, in 5 ampere divisions, each.....	85.00



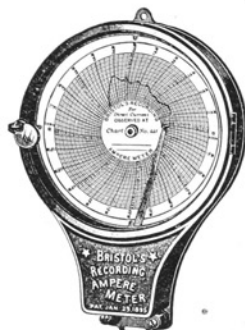
No. 2330.

### Carrying Cases for Whitney Instruments.

<i>Memoir</i>	2330	Wooden Carrying Case, with handle, each.....	1.00
<i>Memorial</i>	2331	Leather Carrying Case, with handle and shoulder strap, each.....	4.00



No. 2331.



No. 21370.

### Bristol's Recording Ampere Meters.

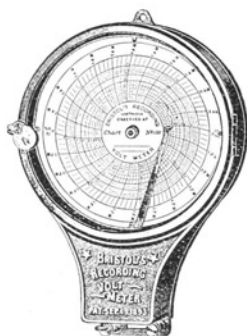
#### For Direct Current.

<i>Sard</i>	21370	Working range to 12 amperes, 24-hour chart, total range 0 to 15 amperes.....	60.00
<i>Sornlachote</i>	21371	Working range to 25 amperes, 24-hour chart, total range 0 to 30 amperes.....	60.00
<i>Sardau</i>	21372	Working range to 50 amperes, 24-hour chart, total range 0 to 60 amperes.....	60.00
<i>Sardel</i>	21373	Working range to 165 amperes, 24-hour chart, total range 0 to 180 amperes.....	60.00
<i>Sorline</i>	21374	Working range to 270 amperes, 24-hour chart, total range 0 to 300 amperes.....	80.00
<i>Sardins</i>	21375	Working range to 550 amperes, 24-hour chart, total range 0 to 600 amperes.....	80.00
<i>Satchel</i>	21425	Working range to 1100 amperes, 24-hour chart, total range 0 to 1200 amperes.....	80.00
<i>Sote</i>	21426	Working range to 2200 amperes, 24-hour chart, total range 0 to 2400 amperes.....	90.00
<i>Sateless</i>	21427	Working range to 3300 amperes, 24-hour chart, total range 0 to 3600 amperes.....	100.00

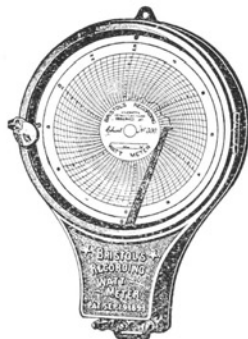
#### For Alternating Current.

<i>Satellite</i>	21428	For 8400 Alts. per minute, working range to 8 amperes, 24-hour chart, total range 0 to 10 amperes.....	60.00
<i>Satchtions</i>	21429	For 15000 Alts. per minute, working range to 80 amperes, 24-hour chart, total range 0 to 100 amperes.....	60.00
<i>Acop</i>	25591	For 15000 Alternations per minute, working range to 20 Amperes 24 hours chart.....	60.00
<i>Acopic</i>	25592	For 15000 Alternations per minute, working range to 30 Amperes, 24 hours chart.....	60.00
<i>Acoraed</i>	25593	For 7200 Alternations per minute, working range to 130 Amperes, 24 hour chart.....	60.00

Ink and 100 charts with each instrument. Meters for other ranges made to order.



No. 21379.



No. 21893.

## Bristol's Recording Voltmeters.

### For Direct Current.

Code Word.	List No.		List Price. Each.
<i>Sardinian</i>	21376	Working range to 5 volts, 24-hour chart, total range 0 to 6 volts .....	\$60.00
<i>Sardoia</i>	21377	Working range to 25 volts, 24-hour chart, total range 0 to 25 volts .....	60.00
<i>Sardonie</i>	21378	Working range to 55 volts, 24-hour chart, total range 0 to 60 volts .....	60.00
<i>Sardonyz</i>	21379	Working range to 110 volts, 24-hour chart, total range 0 to 120 volts .....	60.00
<i>Saree</i>	21380	Working range to 120 volts, 24-hour chart, total range 0 to 130 volts .....	60.00
<i>Sargosso</i>	21381	Working range to 130 volts, 24-hour chart, total range 0 to 140 volts .....	60.00
<i>Sari</i>	21382	Working range to 260 volts, 24-hour chart, total range 0 to 280 volts .....	60.00
<i>Sarigne</i>	21383	Working range to 275 volts, 12-hour chart, total range 0 to 300 volts .....	60.00
<i>Sark</i>	21384	Working range to 550 volts, 24-hour chart, total range 0 to 600 volts .....	60.00
<i>Sarbac</i>	21385	Working range to 550 volts, 12-hour chart, total range 0 to 600 volts .....	60.00
<i>Sarlyk</i>	21386	Working range to 600 volts, 24-hour chart, total range 0 to 650 volts .....	60.00

### For Alternating Current.

<i>Sarking</i>	21387	Working range to 60 volts, 24-hour chart, total range 0 to 65 volts .....	60.00
<i>Sarmotic</i>	21389	Working range to 110 volts, 24-hour chart, total range to 120 volts .....	60.00
<i>Sarment</i>	21390	Working range to 120 volts, 24-hour chart, total range to 130 volts .....	60.00
<i>Sarmentatus</i>	21391	Working range to 150 volts, 24-hour chart, total range 0 to 160 volts .....	60.00

## Bristol's Recording Watt Meters.

### For Direct Current.

<i>Sarmentose</i>	21392	Working range to 5 K-W, all voltages, 24-hour chart, total range 0 to 6 Kilo Watts .....	70.00
<i>Sarn</i>	21393	Working range to 15 K-W, all voltages, 24-hour chart, total range 0 to 18 Kilo Watts .....	70.00
<i>Sarony</i>	21394	Working range to 25 K-W, all voltages, 24-hour chart, total range 0 to 30 Kilo Watts .....	70.00
<i>Saros</i>	21395	Working range to 75 K-W, all voltages, 24-hour chart, total range 0 to 90 Kilo Watts .....	85.00
<i>Sarplar</i>	21396	Working range to 150 K-W, all voltages, 12-hour chart, total range 0 to 180 Kilo Watts ..	85.00

Ink and 100 charts with each instrument. Meters for other ranges made to order.





No. 6843.

### Thompson Recording Watt Meters.

The Thompson Recording Watt Meter is a motor meter and measures accurately the amount of power consumed in the circuit upon which it is placed. It is designed for use on both alternating and direct currents, and for the measurement of light or power energy in either large or small quantities. The following are the standard sizes and net prices:

#### TWO WIRE, 50 VOLTS.

Code Word.	List No.	Ampers.	Lamps 16 C. P.	List Price. Each.
<i>Nabob</i>	6843	10	10	25.00
<i>Nacere</i>	6540	15	15	30.00
<i>Nacrite</i>	6541	25	25	36.00
<i>Naidid</i>	6542	50	50	45.00
<i>Naidor</i>	6542½	75	75	55.00
<i>Nail</i>	6543	100	100	70.00
<i>Nailing</i>	6544	150	150	80.00
<i>Nailed</i>	6950	300	300	110.00
<i>Naively</i>	6951	600	600	150.00
<i>Naked</i>	6964	1,200	1,200	250.00
<i>Nob</i>	6964½	2,500	2,500	330.00
<i>Nabit</i>	6965½	5,000	5,000	370.00
<i>Nablam</i>	6968½	8,000	8,000	400.00

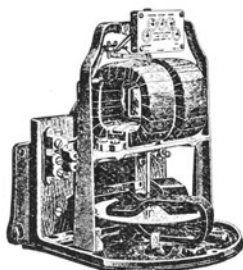
Thirty Volt Meters for use in connection with Constant Potential Arc Lighting Circuits will be furnished at the price of the same Ampere capacity of 50 Volt Meters.

#### TWO WIRE, 100 TO 110 VOLTS.

<i>Nankeen</i>	6935	5	10	27.50
<i>Nope</i>	6734	10	20	30.00
<i>Napha</i>	6565	15	30	33.00
<i>Napkin</i>	6566	25	50	45.00
<i>Napless</i>	6567	50	100	50.00
<i>Nacarot</i>	6567½	75	150	70.00
<i>Nappy</i>	6568	100	200	80.00
<i>Narcissus</i>	6569	150	300	100.00
<i>Nach</i>	6569½	200	400	110.00
<i>Narcotic</i>	6954	300	600	130.00
<i>Nacker</i>	6954½	450	900	160.00
<i>Narrative</i>	6955	600	1,200	190.00
<i>Narrow</i>	6965	1,200	2,400	320.00
<i>Saprot</i>	6966	2,500	5,000	380.00
<i>Sapsogo</i>	6967	5,000	10,000	425.00
<i>Sapskull</i>	6968	8,000	16,000	460.00

#### THREE WIRE, 220 VOLTS.

<i>Narrowing</i>	6735	7½	33	35.00
<i>Narrower</i>	6563	15	66	50.00
<i>Nasal</i>	6597	25	110	60.00
<i>Natal</i>	6570	50	220	75.00
<i>Narcous</i>	6570½	75	300	85.00
<i>Nation</i>	6571	100	440	100.00
<i>Nattee</i>	6572	150	60	125.00



No. 6948.

## Thomson Recording Watt Meters—(Continued.)

## For Power Service.

## Two Wire, 220 Volts.

Code Word.	List No.	Amperes.	Horse-power.	List Price. Each.
<i>Naticely</i>	6948	5	1½	\$ 36.50
<i>Nativity</i>	6538	15	3½	50.00
<i>Natural</i>	6555	25	7	60.00
<i>Naturalist</i>	6556	50	15	70.00
<i>Nashub</i>	6556½	75	20	85.00
<i>Naturalize</i>	6557	100	25	100.00
<i>Nature</i>	6558	150	40	120.00
<i>Nadir</i>	6558½	200	50	135.00
<i>Nausea</i>	6813	300	80	150.00
<i>Nadelstein</i>	6813½	450	125	190.00
<i>Nace</i>	6814	600	160	220.00
<i>Navigable</i>	6966 ½	1,200	320	300.00
<i>Nacee</i>	6966½	2,500	700	425.00
<i>Naceous</i>	6970½	5,000	1,400	475.00
<i>Nafe</i>	6971½	8,000	2,200	520.00

## Two Wire, 500 Volts.

<i>Astride</i>	6949	3	1½	\$ 40.00
<i>Naff</i>	6950½	10	5	55.00
<i>Astringe</i>	6539	15	7½	60.00
<i>Astringency</i>	6559	25	15	65.00
<i>Astringent</i>	6560	50	30	85.00
<i>Nag</i>	6560½	75	50	100.00
<i>Astringing</i>	6561	100	60	110.00
<i>Astrology</i>	6562	150	100	125.00
<i>Naggy</i>	6562½	200	120	150.00
<i>Astronomer</i>	6815	300	200	175.00
<i>Nagor</i>	6815½	450	300	225.00
<i>Astute</i>	6816	600	400	275.00
<i>Astutely</i>	6967 ½	1,200	800	375.00
<i>Nivaut</i>	6973½	2,500	1,600	450.00
<i>Nais</i>	6974½	5,000	3,200	500.00
<i>Naisf</i>	6975½	8,000	5,400	550.00

## Primary Circuits

## 1,000 to 2,000 Volts. Prices include Transformer.

	Amperes.	
<i>Nailball</i>	6572½	10..... 80.00
<i>Navigably</i>	6573	20..... 90.00
<i>Navigate</i>	6574	30..... 100.00
<i>Navigator</i>	6575	60..... 125.00
<i>Navigation</i>	6576	120..... 160.00
<i>Nel</i>	6577	300..... 210.00
<i>Nailbrush</i>	6577½	600..... 300.00

## Portable Meters for Street Car Testing, Etc.

## 500 Volts.

<i>Nailer</i>	21000	1½ H. P., 3 Amp.....	55.00
<i>Naileress</i>	21001	7½ " 15 " .....	70.00
<i>Nailer</i>	21002	15 " 25 " .....	85.00
<i>Nailhead</i>	21003	30 " 50 " .....	100.00

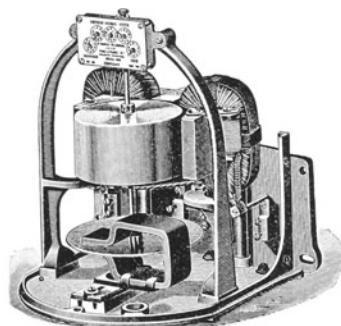
## Thomson Recording Watt Meters—(Continued.)

## Arc Circuit Meters.

Code Word.	List No.		List Price. Each.
<i>Nainsook</i>	21004	4 lights, 6 $\frac{3}{10}$ Amp	65.00
<i>Nainssant</i>	21005	4 " 10 "	65.00
<i>Naincel</i>	21006	8 " 6 $\frac{3}{10}$ "	75.00
<i>Naincete</i>	21007	8 " 10 "	75.00

## Arc Circuit Station Meters.

<i>Namelessly</i>	21008	35 lights, 6 $\frac{3}{10}$ Amp	110.00
<i>Nameplate</i>	21009	35 " 10 "	110.00
<i>Namingly</i>	21010	50 " 6 $\frac{3}{10}$ "	125.00
<i>Non</i>	21011	50 " 10 "	125.00
<i>Nandor</i>	21012	65 " 6 $\frac{3}{10}$ "	135.00
<i>Nandu</i>	21013	65 " 10 "	135.00
<i>Nantes</i>	21014	80 " 6 $\frac{3}{10}$ "	150.00
<i>Nap</i>	21015	80 " 10 "	150.00



No. 21401.

## The Scheeffer Recording Watt Meter.

## For Alternating Circuits.

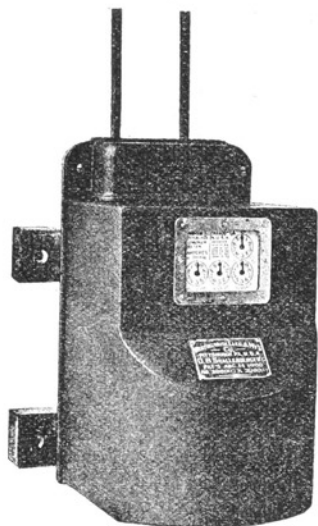
LIGHTS RATED ON A BASIS OF 50 WATTS PER LAMP.

## 50 Volts.

<i>Sartorial</i>	21404	10 Lights, 10 Amperes	\$25.00
<i>Sartorious</i>	21405	15 " 15 "	30.00
<i>Sary</i>	21406	20 " 20 "	34.00
<i>Sash</i>	21407	30 " 30 "	37.00
<i>Sashorn</i>	21408	40 " 40 "	41.00
<i>Sasin</i>	21409	50 " 50 "	45.00
<i>Sassafra</i>	21410	75 " 75 "	55.00
<i>Sassanage</i>	21411	100 " 100 "	70.00
<i>Sasse</i>	21412	150 " 150 "	80.00
<i>Sassolin</i>	21413	300 " 300 "	110.00

## 100 to 110 Volts.

<i>Sassoral</i>	21414	10 Lights, 5 Amperes	27.00
<i>Sassoralla</i>	21415	20 " 10 "	30.00
<i>Sassybark</i>	21416	30 " 15 "	33.00
<i>Sastra</i>	21417	40 " 20 "	41.00
<i>Sat</i>	21418	50 " 25 "	45.00
<i>Satan</i>	21419	60 " 30 "	47.00
<i>Satanic</i>	21420	70 " 35 "	48.00
<i>Satanical</i>	21421	100 " 50 "	50.00
<i>Satanism</i>	21422	150 " 75 "	70.00
<i>Satanist</i>	21423	200 " 100 "	80.00
<i>Satanophony</i>	21424	300 " 150 "	100.00



### The Shallenberger Meter.

#### For Alternating Current.

The meter is a direct reading instrument, recording the amount of current which has passed through it, on a dial (herewith illustrated) presenting much the same appearance as that of an ordinary gas meter. The unit of measurement is the "ampere hour."

Code Word.	List No.	List Price Each.
<i>Sarptier</i>	21397 5 Amperes	\$13.75
<i>Sarvasia</i>	21398 10 "	15.00
<i>Sarva</i>	21399 20 "	18.75
<i>Sarvaspavilla</i>	21400 40 "	22.50
<i>Sarva</i>	21401 80 "	31.25
<i>Sarvaet</i>	21402 120 "	43.75
<i>Sarv</i>	21403 160 "	50.00

### Duncan Alternating Current Recording Meters

#### For Lamp Hours or Ampere Hours.

Code Word.	List No.	For 50 Volt Lamps.		List Price Each.
		Capacity	Amperes	
<i>Scout</i>	21645	5 16 c. p. Lamps	5 Amperes	\$25.00
<i>Scout</i>	21646	10 "	"	25.00
<i>Scrabble</i>	21647	15 "	"	30.00
<i>Scrag</i>	21648	20 "	"	33.00
<i>Scramble</i>	21649	25 "	"	36.00
<i>Scrap</i>	21650	30 "	"	38.00
<i>Scrape</i>	21651	40 "	"	41.00
<i>Scratch</i>	21652	50 "	"	45.00
<i>Scrawl</i>	21653	60 "	"	50.00
<i>Scrawl</i>	21654	80 "	"	60.00
<i>Scroam</i>	21655	100 "	"	70.00
<i>Screech</i>	21656	120 "	"	80.00
<i>Screech</i>	21657	160 "	"	100.00
<i>Scribble</i>	21658	200 "	"	120.00

#### For 100 Volt Lamps.

<i>Scrive</i>	21659	10 16 c. p. Lamps	Capacity or 5 Amperes	28.00
<i>Scrimp</i>	21660	20 "	"	30.00
<i>Scrip</i>	21661	30 "	"	33.00
<i>Script</i>	21662	40 "	"	37.00
<i>Scripture</i>	21663	50 "	"	41.00
<i>Scrivener</i>	21664	60 "	"	45.00
<i>Scryful</i>	21665	80 "	"	50.00
<i>Scroll</i>	21666	100 "	"	55.00
<i>Scrub</i>	21667	120 "	"	60.00
<i>Scruple</i>	21668	160 "	"	75.00
<i>Scruting</i>	21669	200 "	"	85.00
<i>Scrutaire</i>	21670	240 "	"	95.00
<i>Sond</i>	21671	320 "	"	115.00
<i>Scuffle</i>	21672	400 "	"	135.00

#### Primary Meters for 1,000 or 2,000 Volt Currents.

<i>Scull</i>	21673	5 Amperes	26.50
<i>Scullery</i>	21674	10 "	30.00
<i>Scullion</i>	21675	15 "	36.00
<i>Sculpture</i>	21676	20 "	40.00
<i>Scum</i>	21677	25 "	43.00





## Duncan Alternating Current Recording Meters (Continued.)

### Primary Meters for 1,000 or 2,000 Volt Currents—(Continued.)

Code Word.	List No.		Price List. Each.
<i>Scupper</i>	21678	30 Amperes	46.00
<i>Scurf</i>	21679	40 "	49.00
<i>Scurrilous</i>	21680	50 "	54.00
<i>Scurry</i>	21681	60 "	60.00
<i>Scutcheon</i>	21682	80 "	72.00
<i>Scuttle</i>	21683	100 "	84.00
<i>Scythe</i>	21684	120 "	96.00
<i>Sea</i>	21685	160 "	120.00
<i>Seaboard</i>	21686	200 "	144.00

## Duncan Recording Wattmeters for Alternating Currents.

Lamp Rating based upon 50 Watt Lamps.

### For 50 Volt Circuits.

		5 16 c. p. Lamps Capacity or	5 Amperes	
<i>Seafarer</i>	21687	10	10	\$25.00
<i>Seal</i>	21688	15	15	25.00
<i>Seam</i>	21689	20	20	30.00
<i>Seaman</i>	21690	25	25	33.00
<i>Seamstress</i>	21691	30	30	36.00
<i>Seap</i>	21692	35	35	38.00
<i>Seash</i>	21693	40	40	41.00
<i>Season</i>	21694	50	50	45.00
<i>Seaworthy</i>	21695	60	60	50.00
<i>Seal</i>	21696	80	80	60.00
<i>Seabous</i>	21697	100	100	70.00
<i>Seant</i>	21698	120	120	80.00
<i>Seede</i>	21699	160	160	100.00
<i>Seckel</i>	21700	200	200	120.00

### For 100 Volt Circuits.

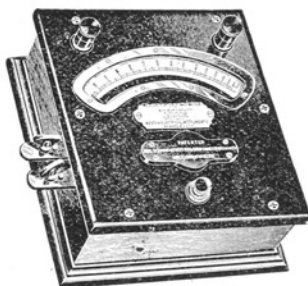
		10 16 c. p. Lamps Capacity or	5 Amperes	
<i>Seclude</i>	21701	10	10	28.00
<i>Second</i>	21702	15	15	30.00
<i>Seeret</i>	21703	20	20	33.00
<i>Seeretary</i>	21704	25	25	37.00
<i>Seerde</i>	21705	30	30	41.00
<i>Seet</i>	21706	35	35	45.00
<i>Seettle</i>	21707	40	40	50.00
<i>Seetion</i>	21708	50	50	55.00
<i>Seetor</i>	21709	60	60	60.00
<i>Seetor</i>	21710	80	80	75.00
<i>Seetore</i>	21711	100	100	85.00
<i>Seetru</i>	21712	120	120	95.00
<i>Seelate</i>	21713	160	160	115.00
<i>Seelutice</i>	21714	200	200	135.00

### For Primary Circuits, 1,000 or 2,000 Volts.

(Price includes Transformer.)

		5 Amperes	
<i>Seclentary</i>	21715		75.00
<i>Seclge</i>	21716	10	80.00
<i>Secliment</i>	21717	15	85.00
<i>Seclition</i>	21718	20	90.00
<i>Seclure</i>	21719	25	95.00
<i>Seclutions</i>	21720	30	100.00
<i>Secl</i>	21721	40	110.00
<i>Seclly</i>	21722	50	118.00
<i>Secl</i>	21723	60	125.00
<i>Seclm</i>	21724	80	140.00
<i>Seclmly</i>	21725	100	150.00
<i>Secln</i>	21726	120	160.00
<i>Seclr</i>	21727	160	175.00
<i>Seclthe</i>	21728	200	190.00

## Weston Portable Wattmeters.



No 3686

Code Word.	List No.	No.	0 to 150 watts in 1 watt divisions, 2 amperes, 150 volts, each	Maximum Current.	Maximum Voltage.	List Price.
<i>Ladyism</i>	3686	No.	0 to 150 watts in 1 watt divisions, 2 amperes, 150 volts, each			\$70.00
<i>Ladylike</i>	3687	{	" 1A 0 " 75 " 1/2 "	2 "	75 "	75.00
			" 0 " 150 " 1 "	2 "	150 "	
<i>Lacerta</i>	3688 1/2	No. 1B,	0 to 150 watts in 1 watt divisions, for inspectors, sales agents and manufacturers of incandescent lamps, especially designed for ready connections to any lamp socket of any system. In a highly polished carrying case of cherry are contained the Wattmeter, a set of four lamp adapters, etc., same as furnished with the No. 3683 Inspectors' Voltmeter.			85.00
<i>Lacertian</i>	3689	No. 2.	0 to 1,500 watts in 10 watt divisions, 10 amperes, 150 volts, each			70.00
<i>Lacertilian</i>	3690	{	" 2A. 0 " 750 " 5 "	10 "	75 "	75.00
			" 0 " 1,500 " 10 "	10 "	150 "	
<i>Lacertine</i>	3691	" 3	0 " 3,750 " 25 "	25 "	150 "	75.00
<i>Lacuna</i>	3692	{	" 3A. 0 " 1,500 " 10 "	25 "	75 "	80.00
			" 0 " 3,000 " 20 "	25 "	150 "	
<i>Laetuca</i>	3693	" 4.	0 " 7,500 " 50 "	50 "	150 "	75.00
<i>Lacunar</i>	3694	{	" 4A. 0 " 3,750 " 25 "	50 "	75 "	80.00
			" 0 " 7,500 " 50 "	50 "	150 "	
<i>Laminata</i>	3695	" 5	0 " 15,000 " 100 "	100 "	150 "	80.00
<i>Lanary</i>	3695 1/2	{	" 5A. 0 " 7,500 " 50 "	100 "	75 "	85.00
			" 0 " 15,000 " 100 "	100 "	150 "	
<i>Lamellar</i>	3697	" 6	0 " 30,000 " 200 "	200 "	150 "	85.00
<i>Lamelliform</i>	3698	{	" 6A. 0 " 15,000 " 100 "	200 "	75 "	90.00
			" 0 " 30,000 " 200 "	200 "	150 "	

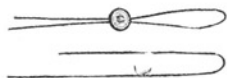
The above prices include a Carrying Case of polished cherry. For all ranges from No. 3 upwards this Carrying Case contains a separate compartment for linen covered flexible cables furnished with the instrument. These cables are provided with special terminals to insure good contacts on the instruments, and are of sufficiently large cross-section to carry the maximum current for which the instrument is designed.



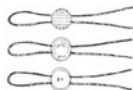
No. 6699.



No. 6970.



No. 6705.



No. 6968.

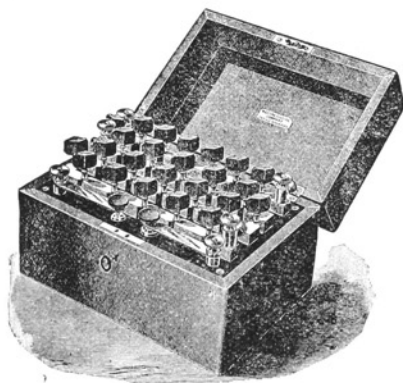
**Meter Sealing Tools.**

Code Word.	List No.	List Price.
<i>Atlantic</i>	<b>6699</b>	Large Size Sealing Tool, each..... <b>\$9.50</b>

<i>Atlantic</i>	<b>6970</b>	Small Pocket Sealing Tool, each..... <b>2.75</b>
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<i>Atlas</i>	<b>6705</b>	Lead Seals and Wires for large tool, per 1,000..... <b>8.50</b>
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<i>Atmosphere</i>	<b>6968</b>	Lead Seals and Wires for Pocket Tool, per 1,000..... <b>8.50</b>
		Meter Reading Books, each..... <b>1.35</b>
		Meter Rate Chart, each..... <b>1.85</b>



No. 2254.

**Post Office Bridge and Rheostat.**

<i>Michael</i>	<b>2255</b>	Same, without galvanometer..... <b>100.00</b>
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No. 2261.

## Combination Bridge, Rheostat and Galvanometer.

### Improved Form with Revolving Galvanometer.

This instrument consists of a sensitive Detector Galvanometer and an improved form of Wheatstone Bridge, with Rheostat, all arranged in one case so as to form a complete and perfect portable apparatus for measuring resistance.

We manufacture two sizes: No. 1 measures from one-hundredth of an ohm to 111,000 ohms. It has on each arm bridge coils of 10 ohms, 100 ohms and 1,000 ohms. The Rheostat consists of three rows of ten coils each, the first row being coils of one ohm each, designated "units," the second of ten ohms each, designated "tens," and the third of 100 ohms each, designated "hundreds."

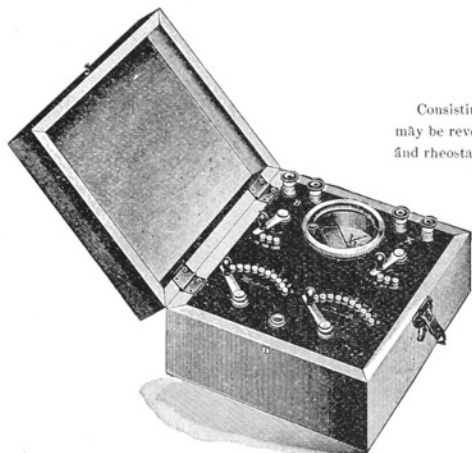
The case is of polished mahogany, measuring  $8\frac{1}{4} \times 8\frac{1}{4} \times 5\frac{1}{2}$  inches.

Code Word.	List No.	List Price. Each.
<i>Midship</i>	2260 No. 1 Instrument.....	\$ 75.00
<i>Midst</i>	2261 No. 2 " .....	85.00

No. 2 measures from one hundredth of an ohm to 1,110,000 ohms. The construction is the same as No. 1, but there is an additional row of ten one thousand ohm coils in the Rheostat. The size of the same is  $8\frac{1}{4} \times 10 \times 5\frac{1}{2}$  inches.

The arrangement of coils is such that one plug only is used to each row, thus avoiding the multiplicity of bad connections on account of ill-fitting plugs, and making the reading as simple as possible. If, for instance, in balancing the bridge, it is required to put the plug of the "hundreds" row into "seven," of "tens" row into "five," and of units row into "three," instead of adding up the coils, one reads direct 753 ohms.





No. 25076.

### Wheatstone Bridge.

Consisting of a detector galvanometer so constructed that it may be revolved independently of the case; Wheatstone Bridge and rheostat in case with hard rubber engraved face.

A card of instructions accompanies each instrument.

Code Word.	List No.	List Price.
<i>Somnific</i>	<b>25076</b>	Each..... <b>\$80.00</b>



### Adjustable Transformer.

This Transformer is for use where the alternating current alone is available. It will give an alternating current of one to twenty amperes up to 30 volts pressure, and is particularly well adapted for hospital and dental work, where heavy currents are frequently used for cauterizing and operating lamps.

Prices on application.



No. 23084.



No. 3680 with No. 3681.



No. 3446.



No. 9061.

## The Queen Decade Testing Set

Code Word.	List No.	Price List. Each.
<i>Silverbush</i>	23084 T 464, Queen "Decade" Portable Testing Set.....	\$125.00
<i>Silverbush</i>	23085 T 465, Queen "Decade" Portable Testing Set, without Galvanometer and Battery	100.00

The above Testing Set is recommended to such electricians as prefer the "Decade" plan of resistance coils.

The Wheatstone Bridge, Rheostat, D'Arsonval Galvanometer and Battery are contained in a finely polished mahogany box with carrying strap. Outside dimensions, 12 x 6½ x 5¼ ins. Range .001 to 9,999,000 ohms.

## "Acme" Portable Testing Set.

The component parts are Wheatstone Bridge, Rheostat, D'Arsonval Galvanometer, Battery, and Double Contact Key, in a mahogany case, having outside dimension 9 x 5½ x 5 ins., and weighing only seven pounds.

The bridge coils are six in number and admit of a ratio of one to one thousand on either arm.

The Rheostat has a total resistance of 11,110 ohms, hence the possible range of measurement is from .001 to 11,110,000 ohms.

Measurements can be made under all conditions of practical work close to dynamos, in large factories or on shipboard.

<i>Francis</i>	3680 T 460, "Acme" Portable Testing Set.....	100.00
<i>Francis</i>	3681 T 461, Leather Carrying Case, with shoulder strap.....	5.00
<i>Frederick</i>	3682 T 462, Flexible Contact Clutches for heavy conductors.....	5.00
<i>Detection</i>	3700 T 963, Tripod, with Clamp, to support in street work.....	7.50

## Weston Circuit Tester and Ground Detector.

The Weston Ground Detector is an instrument for simply and quickly indicating the existence of grounds, and also for showing the insulation resistance of the circuits from hour to hour and day to day, and thus indicating any changes that may take place in the insulation resistance of the circuits.

<i>Coolly</i>	3446 Weston Circuit Tester and Ground Detector, for two-wire circuits, including computing device for quickly determining the insulation resistance without necessity of calculation.....	65.00
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## Weston Portable Galvanometer.

<i>Negative</i>	9061 No. 1, giving 1 millimeter scale deflection with 1 volt through 500,000 ohms, resistance 250 ohms.....	35.00
<i>Negative</i>	9063 Leather Carrying Case for same, velvet lined, with handle and shoulder strap, lock and key.....	3.50

### Queen-Wirt Ammeters and Voltmeters.



Queen-Wirt Meters are calibrated for either direct or alternating current circuits. When ordering instruments for alternating current, state the product of the number of pole of the generator by the number of revolutions per minute.

All instruments are Dead-Beat and this enables them to follow continual changes in the current or voltage without constant swinging. The circuit may be rapidly made or broken without driving the pointer violently to one side and probably injuring the instrument or throwing it out of calibration.

The front is of bronze with bright letters and scroll raised on a dead black ground.

Voltmeters for constant potential circuits have their scale divisions wider at the normal running point. Scales on other meters are nearly uniform.

Range.	Ammeters.	
	Direct.	Alternating.
1 to 10 amperes.....	\$22.00	\$24.00
2 to 15 " ".....	22.00	24.00
3 to 30 " ".....	22.00	24.00
5 to 50 " ".....	22.00	24.00
8 to 75 " ".....	22.00	24.00
10 to 100 " ".....	22.00	24.00
12 to 125 " ".....	24.00	26.00
15 to 150 " ".....	24.00	26.00
20 to 200 " ".....	26.00	28.00
25 to 250 " ".....	26.00	28.00
30 to 300 " ".....	26.00	28.00
40 to 400 " ".....	28.00	30.00
50 to 500 " ".....	28.00	30.00
60 to 600 " ".....	28.00	30.00
100 to 1000 " ".....	28.00	30.00

Range.	Voltmeters.	
	Direct.	Alternating.
2 to 15 volts.....	24.00	26.00
3 to 25 " ".....	24.00	26.00
8 to 75 " ".....	24.00	26.00
80 to 130 " ".....	24.00	26.00
15 to 150 " ".....	24.00	26.00
30 to 300 " ".....	26.00	28.00
60 to 600 " ".....	28.00	30.00

### Portable Instruments.

These instruments are light and small, weighing about three pounds each and measuring 6½ x 6½ x 3 inches over all. The cases are of mahogany. The instruments are dead-beat.

In ordering Portable Meters for alternate current circuits follow previous instructions given for switchboard meters.

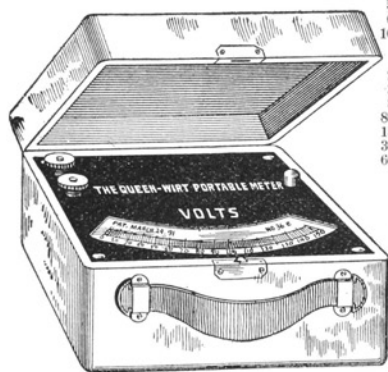
Range.	Ammeters.	
	Direct.	Alternating.
2 to 15 amperes.....	28.00	30.00
10 to 100 " ".....	30.00	32.00
15 to 150 " ".....	32.00	34.00

Range.	Voltmeters.	
	Direct.	Alternating.
15 to 150 volts.....	30.00	32.00
30 to 300 " ".....	32.00	34.00
60 to 600 " ".....	35.00	37.00

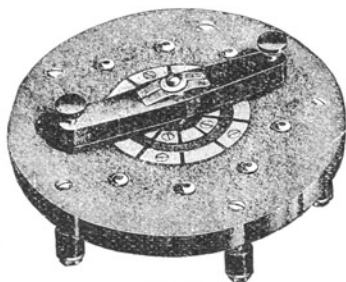
Leather carrying case with shoulder-strap for Portable Voltmeter or Ammeter..... 5.00

The prices on double instruments are governed by the combination selected and will be furnished on application.



## Voltmeter Switches.

### Western Electric Switch.

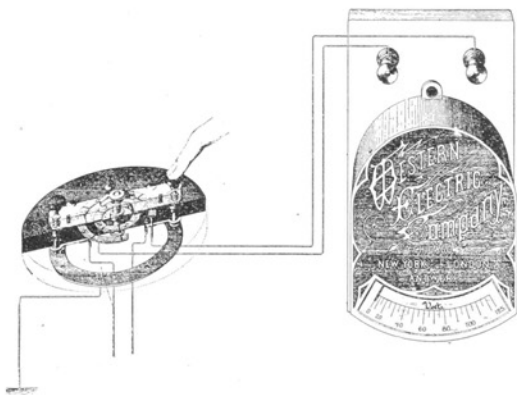


No. 5720.

This Switch is used for connecting a voltmeter across the mains of any number of dynamos or circuits without danger of reversing the polarity through the instrument. It is also provided with a ground test for each side of the different circuits, which measures with the voltmeter the number of volts lost to ground by simply pressing one of the buttons, from which reading the actual resistance in ohms to ground of the circuit may be determined. Switches of this design are made for any number of circuits or dynamos lettered and numbered as desired.

Code Word.	List No.	List Price
<i>Simon</i>	23098	4 Point, each .. \$13.00
<i>Similar</i>	23099	6 " " .. 14.50
<i>Simmer</i>	23100	8 " " .. 16.00
<i>Simnel</i>	23101	10 " " .. 18.00
<i>Simonite</i>	23102	12 " " .. 20.00
<i>Simonist</i>	23103	14 " " .. 24.00
<i>Julia</i>	8720	16 " " .. 30.00

### Diagram of Connections for a Western Electric Voltmeter Switch.

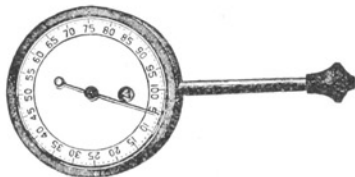


The size of the hard rubber base for a 2 point Voltmeter Switch is 2 x 5 ins. For a 4 to 14-point the base is round and is 6½ in. diameter. For a 16 to 24-point switch it is 10½ in. diameter.

A similar instrument is also made for connecting polarity indicators, calibrating ammeters or other series instruments in arc circuits.

## Speed Indicators.

### The "Lightning" Speed Indicator.

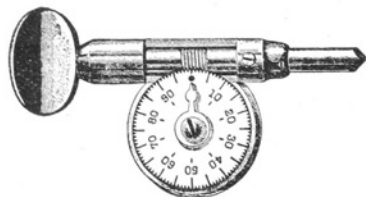


No. 3673.

It registers as high as 1,000, as seen by the cut. The body constitutes the handle. Has a rubber tip on the spindle, and the face covered with a watch crystal. Will stand over 15,000 rotations per minute.

Citron 3673 Each..... 3.00

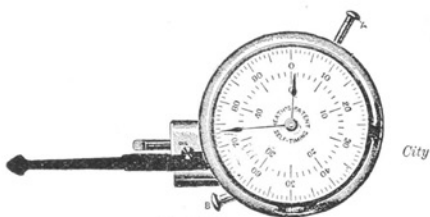
## Speed Indicators—(Continued).



No. 3674.

## Universal Speed Indicator.

Code Word.	List No.	List Price.
Citizen	3674	Single Indicator, each.....\$1.00



No. 2051.

## Heath Speed Indicator.

2051	Heath Self-Timing, Self-Registering Speed Indicator, each .....	20.00
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No. 2050.















## Standard Portable Tachometer.

The scales on the dial are graduated as follows: 40 to 200, 120 to 600, and 600 to 3,000, which gives a maximum range of 40 to 3,000 turns per minute. Thus it is possible to measure directly both high and low speeds with the same instrument.

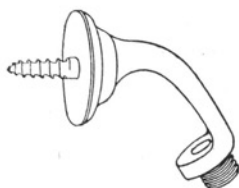
Cited	2050	Standard Portable Tachometer, range 40 to 3 000 revolutions, each.....	60.00
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# FIXTURES.

## Bracket Tubes.

	Code Word.	List No.	List Price. Per 100.
 No. 21895.	 No. 21899.	<i>Shore</i> 21895 4 inch .....	\$14.00
		<i>Shooter</i> 21896 6 " .....	16.00
		<i>Shooter</i> 21897 8 " .....	20.00
		<i>Shred</i> 21898 10 " .....	23.00
 No. 21900.	 No. 21902.	<i>Shree</i> 21899 45 degree rigid, ball joint.....	17.00
		<i>Shrood</i> 21900 6 inch .....	26.00
		<i>Shrick</i> 21901 10 " .....	33.00
 No. 21903.	 No. 21905.	<i>Shrill</i> 21902 Curve Nipple .....	10.00
 No. 21906.	 No. 21910.	<i>Shrine</i> 21903 6 inch .....	36.00
		<i>Shrink</i> 21904 10 " .....	43.00
 No. 21914.	 No. 21915.	<i>Shrinkage</i> 21905 Extends 8 inches .....	35.00
		<i>Shrinker</i> 21906 4 inches .....	14.00
		<i>Shrinkingly</i> 21907 6 " .....	16.00
		<i>Shrite</i> 21908 8 " .....	20.00
		<i>Shrictely</i> 21909 10 " .....	23.00
 No. 21916.	 No. 21917.	<i>Shrive</i> 21910 4 inch .....	14.00
		<i>Shried</i> 21911 6 " .....	16.00
		<i>Shreer</i> 21912 8 " .....	20.00
		<i>Shreing</i> 21913 10 " .....	23.00
		<i>Shriff</i> 21914 Extends 3 1/4 inches .....	30.00
		<i>Shriffage</i> 21915 90 degree Bracket.....	16.00
 No. 21918.	 No. 21919.	<i>Shrood</i> 21916 Turkey neck Bracket.....	35.00
		<i>Shroud</i> 21917 Snake Bracket .....	35.00
		<i>Shrouding</i> 21918 Swan Bracket.....	35.00
		<i>Shroudless</i> 21919 Duck neck Bracket.....	35.00

Nos. 21899, 21902 and 21915 are of the same size tubing as the other brackets listed.



No. 21921.

Code Word.	List No.	List Price.
<i>Shroudplate</i>	21920	Rough brass, per 100 ..... \$11.00
<i>Shroudy</i>	21921	Polished brass, lacquered, per 100 ..... 22.00

**Fixtures.—(Continued.)**

**Electric Brackets.**

**Screw Bracket.**

This is a short screw bracket, very strong, makes a convenient bracket for window lighting, border or ceiling work. Extends from wall one and five-eighths inches.



No. 21922.

**Partition Bracket.**

For attaching to back of partitions, etc., includes flange. The socket, shade and shade-holder are extra.

<i>Shrowz</i>	21922	Partition Bracket, polished brass, each ..... .70
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No. 21923.

**Shelf Bracket,**

With wall plate, has six inch drop to socket nozzle. The socket, shade and shade holder are extra.

<i>Shrowtide</i>	21923	Shelf Bracket, polished brass, each ..... .75
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No. 21924.

**Special Shelf Bracket.**

For attaching underneath a shelf, furnished with wall plate. Socket, shade and shade holder extra.

<i>Shrowing</i>	21924	Special Shelf Bracket, polished brass, each .... .60
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No. 21928.



No. 21931.



No. 21932.



No. 21933.



No. 21934.



No. 21935.

### Fixtures.—(Continued.)

#### Almond Flexible Bracket.

These prices include bracket only

Code Word.	List No.	List Price. Each.
<i>Shrove</i>	21925 6 inches long .....	\$0.54
<i>Shroud</i>	21926 9 " " .....	.60
<i>Shrub</i>	21927 12 " " .....	.75
<i>Shrubbery</i>	21928 15 " " .....	.90
<i>Shrubbiness</i>	21929 18 " " .....	1.11
<i>Shrubby</i>	21930 24 " " .....	1.50

#### Electric Wall Brackets.

<i>Shrubless</i>	21931 1 light, with canopy and crowfoot .....	2.00
<i>Shruff</i>	21932 2 " " " " .....	3.00

Socket, shade and shade holder are extra.

#### Switchboard Bracket.

Includes canopy and nuts for attaching. The socket, shade and shadeholder are extra.

<i>Shrug</i>	21933 1 light.....	1.25
<i>Shrunken</i>	21934 2 " .....	1.75

#### Hall Bracket.

Including canopy and crowfoot. Socket, shade and shadeholder are extra.

<i>Shru</i>	21935 1 light bracket.....	1.50
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No. 21949.



No. 21950.



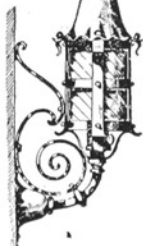
No. 21951.



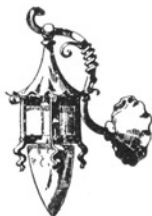
No. 21952.



No. 21953.



No. 21954.



No. 21955.

Fixtures—(Continued.)

Ornamental Brackets.

Brass Brackets.

With Husks.

Code Word.	List No.	List Price. Each.
<i>Shunt</i>	21949 2 light, polished brass or rich gilt	\$18.00
<i>Shut</i>	21950 1 light, polished brass or rich gilt	7.00
<i>Shute</i>	21951 1 light, polished brass or rich gilt	10.00

Iron Brackets.

For Interior or Exterior Use.

<i>Shutter</i>	21952 1 light bracket, black iron finish, with flint opalescent ball	10.00
<i>Shuttered</i>	21953 1 light bracket, black iron finish, with flint opalescent ball	8.00
<i>Shuttle</i>	21954 1 light bracket, black iron finish, flint opalescent glass cylinder	27.00
<i>Shuttlebox</i>	21955 1 light bracket, black iron finish, flint opalescent glass stalactite	20.00

## Fixtures—(Continued.)

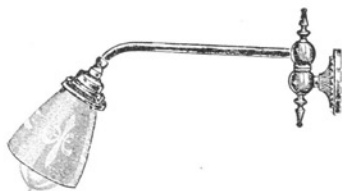
## Swing Brackets.

Shades, shade holders and sockets are not included in the price of the brackets. Canopy and crow foot are furnished with each bracket. Brackets are polished brass.



No. 21941.

Code Word.	List No.	List Price Each.
<i>Shuffleboard</i>	21941	1 light Electric Swing Bracket..... \$4.00



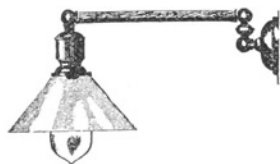
No. 21942.

<i>Shufflerap</i>	21942	1 light single swing, extends 12 inches... 1.20
<i>Shuffler</i>	21943	1 light double swing, extends 24 inches.. 1.70



No. 21944.

<i>Shuffling</i>	21944	1 light single swing, extends 12 inches... 1.20
<i>Shug</i>	21945	1 light double swing, extends 24 inches.. 2.40



No. 21946.

<i>Shumac</i>	21946	1 light Electric single swing bracket, extends 12 inches..... 1.50
<i>Shua</i>	21947	1 light Electric double swing bracket, extends 24 inches ..... 3.00



No. 21948.

## Two-Light Electric Bracket.

Two arms, single swing, spread 24 inches.

<i>Shuntless</i>	21948	2 light Electric bracket..... 5.50
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No. 21936.

**Fixtures—(Continued.)**

**Electric Brackets.**

Sockets, shades and shadeholders are extra:

Code Word.	List No.	List Price. Each.
<i>Shade</i>	21936	1 light Bracket with wall plate... Extends 10 inches. <b>\$1.80</b>

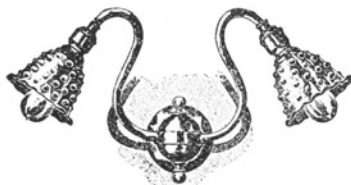


No. 21937.

**Two-Light Wall Brackets.**

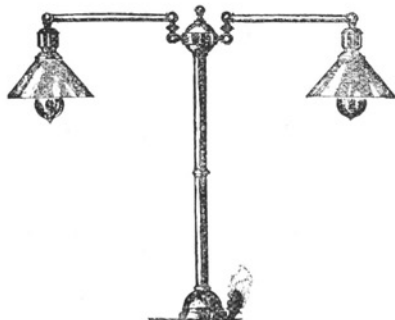
Including canopy and crowfoot.

<i>Shutter</i>	21937	2 light bracket, polished brass.....	3.50
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No. 21938.

<i>Shade</i>	21938	2 light bracket, polished brass.....	2.50
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No. 21940.

**Swing Standards.**

Standards are furnished without shade, shadeholder or socket.

<i>Shuffle</i>	21939	1 light, single swing standard.....	3.25
<i>Shuff</i>	21940	2 light, " " ".....	4.75

The arms extend 12 inches.

This fixture is well adapted for banks and counting houses.

The Standards will be furnished wired for 25 cents extra for each arm.



No. 759.



No. 21960.

### Fixtures—(Continued.)

#### Desk Portables.

Code Word	List No.	List Price, Each.
<i>Evang</i>	759 Extension Portable.....	\$4.00
	Height, 24 inches. Extension 12 inches.	

The arm can be moved up and down, in and out, and from side to side.



No. 21961.



No. 21962.

#### Plain Standard Portable.

Brass finish. Height, 24 inches.

<i>Shgly</i>	21960 Portable, only, without shade.....	3.00
<i>Shgnzss</i>	21961 " " " " .....	3.00
<i>Syn</i>	21962 Portable, only.....	1.50

#### Flexible Portable.

<i>Depth</i>	8689 With Brass Stand.....	3.00
	Attachment plugs, cord, shade and socket are extra.	



No. 8089.

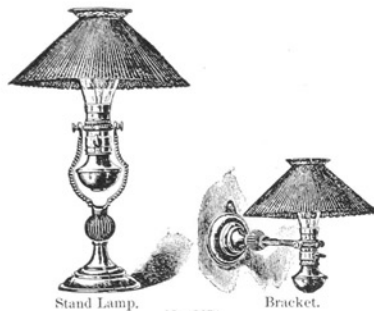


No. 21963.

#### Adjustable Portable and Bracket.

Is furnished with a key switch at the base, and has an adjustable attachment at the top so that the socket may be moved from side to side.

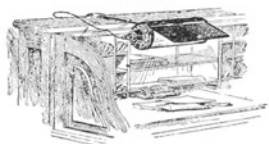
<i>Si</i>	21963 Complete, as shown in cut.....	10.00
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Stand Lamp.

Bracket.

No. 2371.



No. 2386.



No. 22045.



No. 21958.



No. 21959.

Fixtures.—(Continued.)

Combined Portable and Bracket.

This is an ornamental and convenient desk lamp. It is furnished complete with six feet of cotton covered lamp cord, a special Bryant attachment plug, a socket for a T. H. or Westinghouse base lamp, and a paper or celluloid shade. The Portable is of polished brass and, including the lamp, stands about 13 inches high.

When used as a bracket it extends about 8 inches.

Code Word.	List No.		List Price. Each.
<i>Equibuss</i>	2371	Polished Brass, complete.....	\$5.00
<i>Equation</i>	2372	Old Copper, " .....	6.00
<i>Equinox</i>	2373	Oxidized Silver " .....	7.00
<i>Equity</i>	2374	Shade only, Green.....	1.00
<i>Equivalent</i>	2375	" " Red.....	1.00
<i>Equivalent</i>	2376	" " Blue.....	1.00
<i>Eradicate</i>	2377	" " White.....	1.00
<i>Eradicated</i>	2378	" " Yellow.....	1.00
<i>Eradicating</i>	2379	" " Pink.....	1.00

The Kinsman Desk Light.

This Desk Light is clamped on the desk as shown, without marring or interfering with the desk in any way; has an adjustable arm by which the cylinder can be pulled back or drawn forward as desired. The inner glass cylinder is so arranged that it will give a bright light, or by a slight touch it can be modified to suit.

<i>Erased</i>	2386	Each, nickel plated.....	6.00
<i>Side-sid</i>	22044	Each; dark Green, enamel .....	3.75

Kinsman Portable.

<i>Side-man</i>	22045	Kinsman No. 1, Portable, nickel.....	8.00
<i>Side-table</i>	22046	" " No. 1, " " dark Green, enamel .....	5.00
<i>Side-taking</i>	22047	Kinsman No. 2, Portable, nickel.....	7.00

Polished brass can be furnished instead of nickel if specified.

Specify style of socket when ordering.

Ornamental Electric Portables.

One light, finished in rich gilt or polished brass.

<i>Shuttlecase</i>	21958	Portable, without shade.....	6.70
<i>Shy</i>	21959	" " with opal shade.....	17.00

## Fixtures.—(Continued.)

## Ornamental Ceiling Fixtures.

## Husks.



No. 21964



No. 21965.



No. 21966.



No. 21967.

Code Word	List No.	List Price. Each.
<i>Sialogue</i>	21964 1 light, polished brass or rich gilt.....	\$3.50
<i>Siamese</i>	21965 1 " " " " .....	3.50

<i>Sib</i>	21966 1 light, polished brass .....	4.50
<i>Siberian</i>	21967 1 " " " " .....	11.25



No. 21968.



No. 21969.

## Ceiling Globes and Balls.

<i>Siberite</i>	21968 1 light, Black iron, Flint Opalescent Globe,	17.00
<i>Sibilance</i>	21969 1 " Polished brass, " " Ball,	6.00

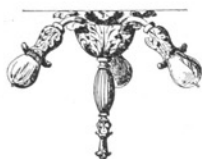


No. 21970.



No. 21971.

<i>Sibilant</i>	21970 1 light, Polished Brass, Flint Opalescent Ball,	10.00
<i>Sibilation</i>	21971 1 " " " " Inside Roughed Ball,	17.00



No. 21972.



No. 21975.



No. 21979.



No. 21980.



No. 21984.

## Fixtures—(Continued.)

## Ornamental Ceiling Clusters.

## With Husks.

Code Word.	List No.		List Price. Each.
<i>Sibilate</i>	21972	3 lights, Polished or Rich Gilt.	\$13.40
<i>Sibillatory</i>	21973	3 " " " "	16.00

## With Husks.

<i>Sibilonis</i>	21974	3 light, Polished Brass or Rich Gilt.	12.00
<i>Sibyl</i>	21975	4 " " " "	13.40
<i>Sibylline</i>	21976	5 " " " "	14.70

A Flint Opalescent Ball is included with Fixtures Nos. 21977, 21975 and 21976.

## Without Husks.

<i>Sibyllist</i>	21977	2 light, Rich Gilt or Polished Brass.	6.35
<i>Sic</i>	21978	3 " " " "	7.70
<i>Sicamore</i>	21979	4 " " " "	9.00

Shades for Fixtures Nos. 21977, 21978 and 21979 are extra.

## With Husks.

<i>Sicca</i>	21980	6 light, Polished Brass or Rich Gilt.	47.00
<i>Siccate</i>	21981	8 " " " "	60.00
<i>Siccation</i>	21982	12 " " " "	74.00

## With Husks.

<i>Siccotice</i>	21983	3 light, Polished Brass or Rich Gilt.	30.00
<i>Siccific</i>	21984	4 " " " "	35.00
<i>Siccety</i>	21985	5 " " " "	43.50
<i>Sice</i>	21986	6 " " " "	50.00

## Fixtures—(Continued.)

## W. E. Clusters.

These clusters, owing to their construction, are a handy and neat device. Fig. 2 is a detachable base, so that the cluster is open at both ends. The piece shown at the top of the shade is made for a shade holder, and will hold the shade firmly and rigidly to its proper place.

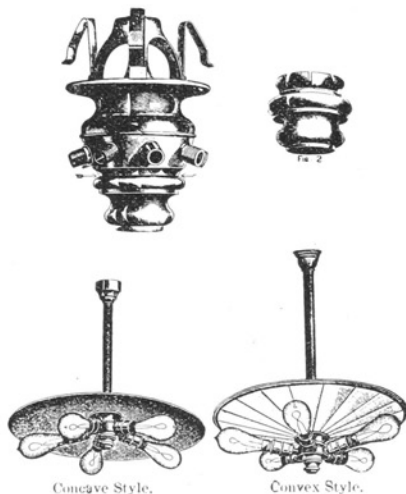
These clusters are furnished in polished brass. An additional charge of 20 cents will be made for Nickel or Baure Barf finish. The following prices are for the Cluster Balls only. Shades, pendants, canopies and crowfoots extra.

## Concave Style.

Code Word.	List No.		List Price. Each.
<i>Sickishly</i>	22001	3 light Cluster.....	\$1.12
<i>Sickishness</i>	22002	4 " " .....	1.18
<i>Sickle</i>	22003	5 " " .....	1.24
<i>Sicklot</i>	22004	6 " " .....	1.28
<i>Sicklemun</i>	22005	8 " " .....	1.40
<i>Sickler</i>	22006	10 " " .....	1.80
<i>Sickless</i>	22007	12 " " .....	2.70

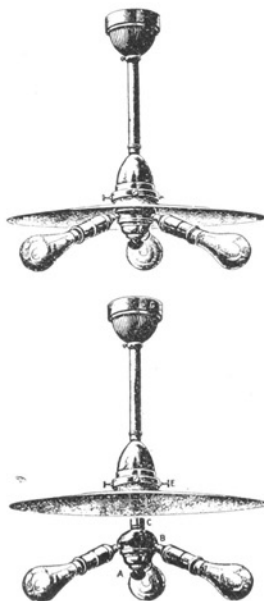
## Convex Style.

<i>Sicklerort</i>	22008	3 light Cluster.....	1.35
<i>Sicklied</i>	22009	4 " " .....	1.40
<i>Sickliness</i>	22010	5 " " .....	1.45
<i>Sicklist</i>	22011	6 " " .....	1.50
<i>Sickly</i>	22012	8 " " .....	1.62



Concave Style.

Convex Style.



## Dale Detachable Ceiling Cluster with Switch.

Cluster Body is detachable, so that the porcelain reflector may be put up or removed without interfering with the wiring or taking down the fixture.

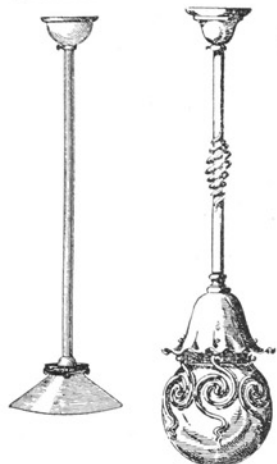
A switch is placed in the bottom of the cluster body to turn off and on the lights, thus avoiding running wires from the ceiling outlet to the side wall.

Wired complete, excepting shade and sockets.

A Switch to turn off and on lights.	E Holder for Reflector.
B Cluster Body.	F Brass Stem.
C Connecting Plug.	G Canopy covering Crowfoot.
D Receptacle for Plug C.	

<i>Sickeringly</i>	21996	2 light .....	4.00
<i>Sicker</i>	21997	3 " .....	4.40
<i>Sickerly</i>	21998	4 " .....	4.80
<i>Sickerness</i>	21999	5 " .....	5.20
<i>Sickish</i>	22000	6 " .....	5.60





No. 21980.

No. 21994.

Fixtures.—(Continued.)

Electric Pendants.

Plain straight Pendants made of polished brass, with crowfoot and canopy, as per the following list:  
Sockets, shades and shade holder extra.

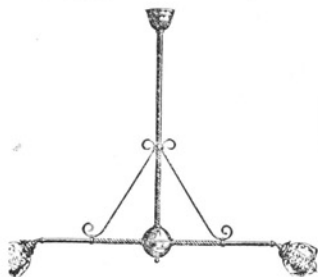
K. W. bracket cut-out, which can be used instead of canopy and crowfoot will be furnished if specified.

Code Word.	List No.	List Price. Each.
<i>Sich</i>	21987 Pendant 1 foot long.....	\$ .60
<i>Sieilian</i>	21988 " 2 " .....	.90
<i>Sick</i>	21989 " 3 " .....	1.20
<i>Sy</i>	21990 " 4 " .....	1.50
<i>Sickboy</i>	21991 " 5 " .....	1.80
<i>Sickbed</i>	21992 " 6 " .....	2.10

Ornamental Pendants.

Finished in black iron, and includes canopy, crowfoot and flint opalescent ball. An extra charge is made for the socket.

<i>Sickberth</i>	21993 Pendant 2 feet long.....	30.00
<i>Sickbrainted</i>	21994 " 3 " .....	31.00
<i>Sickra</i>	21995 " 4 " .....	32.00



No. 22013.

Hall Fixtures, Plain.

Polished Brass. Crowfoot and canopy furnished with fixture.

Shade, shadeholder and socket extra.

Code Word	List No.	List Price. Each.
<i>Sickness</i>	22013 2 light.....	\$5.60
<i>Sickroom</i>	22014 3 " .....	7.25
<i>Sicle</i>	22015 4 " .....	9.00



No. 22016.

Bed Room Fixtures, Ornamental.

Polished brass, rich gilt, including canopy and crowfoot.

Sockets, shades and shadeholders extra.

<i>Siddot</i>	22016 2 light.....	14.75
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## Fixtures—(Continued.)

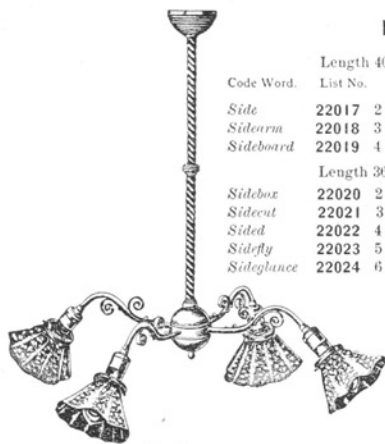
## Electroliers.

Length 40 inches. Spread 24 inches.

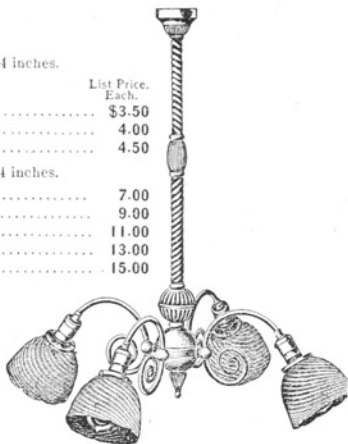
Code Word.	List No.	List Price. Each.
<i>Side</i>	22017 2 light .....	\$3.50
<i>Sideturn</i>	22018 3 " .....	4.00
<i>Sideboard</i>	22019 4 " .....	4.50

Length 36 inches. Spread 24 inches.

<i>Sidebox</i>	22020 2 light .....	7.00
<i>Sidecut</i>	22021 3 " .....	9.00
<i>Sided</i>	22022 4 " .....	11.00
<i>Sidefly</i>	22023 5 " .....	13.00
<i>Sideglance</i>	22024 6 " .....	15.00



No. 22019.



No. 22022.

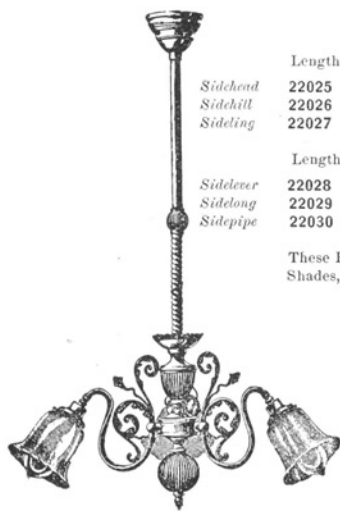
Length 40 inches. Spread 24 inches.

<i>Sidehead</i>	22025 2 light .....	6.75
<i>Sidehill</i>	22026 3 " .....	8.00
<i>Sideling</i>	22027 4 " .....	9.40

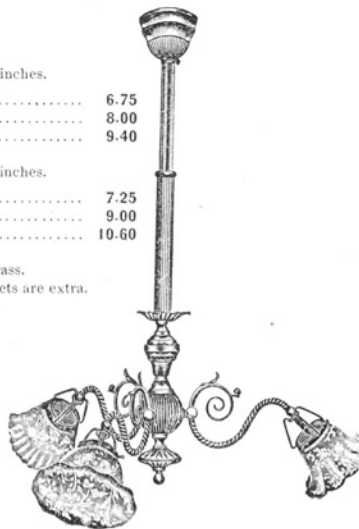
Length 36 inches. Spread 24 inches.

<i>Sideteer</i>	22028 2 light .....	7.25
<i>Sidelong</i>	22029 3 " .....	9.00
<i>Sidepipe</i>	22030 4 " .....	10.60

These Fixtures are polished brass.  
Shades, shadeholders and sockets are extra.



No. 22026.



No. 22029.

Fixtures—(Continued.)

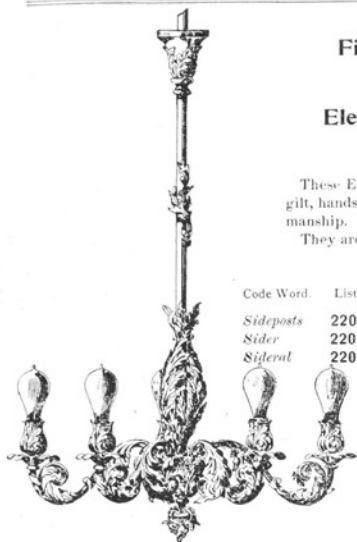
Electroliers—(Continued.)

These Electroliers are of polished brass or rich gilt, handsome in design and of the finest workmanship.

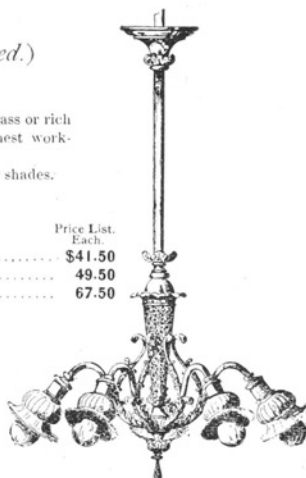
They are furnished without sockets or shades.

Electrolier, with Husks.

Code Word.	List No.		Price List. Each.
<i>Sideposts</i>	22031	3 light.....	\$41.50
<i>Sider</i>	22032	4 ".....	49.50
<i>Sideral</i>	22033	6 ".....	67.50



No. 22032.



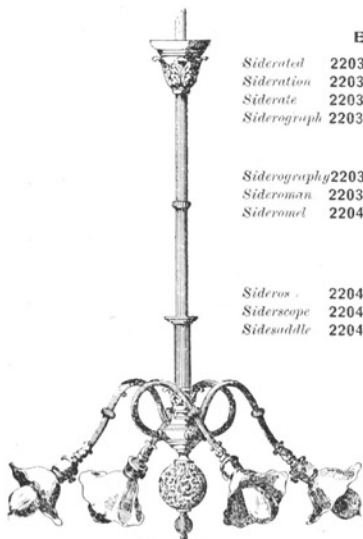
No. 22036.

Electroliers, without Husks.

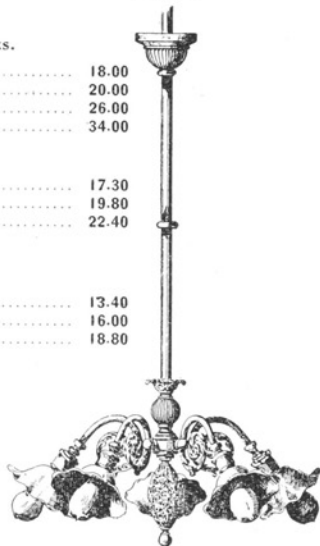
<i>Siderated</i>	22034	2 light.....	18.00
<i>Sideration</i>	22035	3 ".....	20.00
<i>Siderate</i>	22036	4 ".....	26.00
<i>Siderograph</i>	22037	6 ".....	34.00

<i>Siderograph</i>	22038	2 light.....	17.30
<i>Sideroman</i>	22039	3 ".....	19.80
<i>Sideromet</i>	22040	4 ".....	22.40

<i>Sideros</i>	22041	2 light.....	13.40
<i>Sideroscope</i>	22042	3 ".....	16.00
<i>Siderosulle</i>	22043	4 ".....	18.80

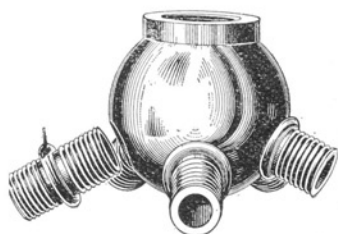


No. 22039.



No. 22043.

We are prepared to furnish other designs in Fixtures than those shown in this Catalogue.



No. 3491.

Code Word.	List No.		List Price Each.
<i>Alabaster</i>	3489	2 Light, each	.40
<i>Alacrity</i>	3490	3 " "	.50
<i>Alarm</i>	3491	4 " "	.60
<i>Alas</i>	3492	5 " "	.70
<i>Albitros</i>	3493	6 " "	.80

## Clusters.

### Cluster Balls.



No. 6790.

Code Word.	List No.		List Price Each.
<i>Erecting</i>	6786	Standard Box Cluster, Brass, 2 light, each	1.00
<i>Ermine</i>	6787	" " " " 3 " "	1.10
<i>Erode</i>	6788	" " " " 4 " "	1.25
<i>Eroded</i>	6789	" " " " 5 " "	1.40
<i>Eroding</i>	6790	" " " " 6 " "	1.50
<i>Erosion</i>	6791	" " " " 8 " "	1.75

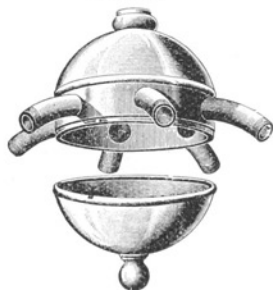
### Box Clusters.



No. 23092.

Code Word.	List No.		List Price Each.
<i>Silcern</i>	23088	2 Light, each	.50
<i>Silcery</i>	23089	3 " "	.60
<i>Sima</i>	23090	4 " "	.70
<i>Simgre</i>	23091	5 " "	.80
<i>Simar</i>	23092	6 " "	.90
<i>Simare</i>	23093	8 " "	1.00

### Separable Box Clusters.



No. 617.

Code Word.	List No.		List Price Each.
<i>Landlord</i>	613	2 Light, each	1.25
<i>Landman</i>	614	3 " "	1.35
<i>Landmark</i>	615	4 " "	1.55
<i>Landroll</i>	616	5 " "	1.85
<i>Landscape</i>	617	6 " "	2.00
<i>Landslide</i>	618	7 " "	2.35
<i>Landsman</i>	619	8 " "	2.55
<i>Landspring</i>	620	9 " "	2.85
<i>Landward</i>	621	10 " "	3.25
<i>Lane</i>	622	11 " "	3.65
<i>Langwoige</i>	623	12 " "	3.90
<i>Languid</i>	624	14 " "	4.75
<i>Languidly</i>	625	16 " "	6.55

### Separable Ball Cluster.

Diameter, 3 inches.

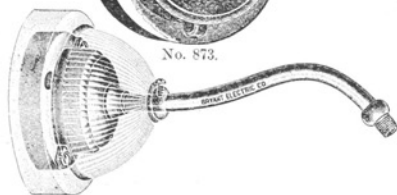
Bottom ornament is removable, and may be replaced by a nipple, so that another light may be added. We furnish an extra nipple for this purpose.



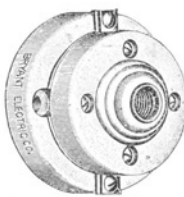
No. 604.



No. 873.



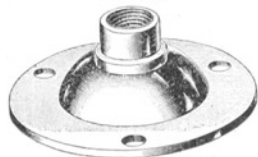
No. 25496.



No. 23094.



No. 2380.



No. 2382.

### Cluster Fixture Complete.

Prices given are for stem up to 12 inches in length.  
Prices for extra lengthening, 40 cents per foot list.

Code Word,	List No.		Price List Each.
<i>Lugger</i>	600	2 Light, each	\$2.50
<i>Lugging</i>	601	3 " "	2.60
<i>Loire</i>	602	4 " "	2.80
<i>Loity</i>	603	5 " "	3.10
<i>Loub</i>	604	6 " "	3.25
<i>Loubkin</i>	605	7 " "	3.60
<i>Loublike</i>	606	8 " "	3.80
<i>Loument</i>	607	9 " "	4.10
<i>Loumentable</i>	608	10 " "	4.50
<i>Loumentably</i>	609	11 " "	4.90
<i>Loumentation</i>	610	12 " "	5.25
<i>Loumentel</i>	611	14 " "	6.10
<i>Loumenting</i>	612	16 " "	7.90

Bottom ornament on cluster is detachable. We furnish with each fixture a brass nipple to take the place of the ornament, so that another light may be added on the bottom.

### Bracket Cut-Outs.

Both the K. W. and B. E. Rosettes are made in the form of Bracket Cut-Outs for fixture work, and are adapted for use with any standard bracket made from 3/4 inch brass tubing. Both styles of caps are interchangeable, and will fit any of their respective bases.

The cut shows a very neat Fixture, made of No. 873 Bracket Cut-Out, No. 9392 Canopy and No. 21910 tube. It can also be used without the Canopy.

#### K. W. Bracket Cut-Out.

Patented July 16, 1880, and July 1, 1890.

#### Type "A," with Brass Face Plates.

Code Word.	List No.	List No.	List Price.
<i>Erratic</i>	873	873	For Concealed Work.....\$0.32
<i>Accrescent</i>	25491	1176	For Cleat Work......32
<i>Accretion</i>	25492	1177	Square Base for Moulding Work. .32

#### Type "B," with Brass Thimble.

<i>Vagrancy</i>	23094	1073	For Concealed Work..... .24
<i>Accrete</i>	25493	1178	For Cleat Work......24
<i>Accretive</i>	25494	1179	Square Base for Moulding Work .24

#### B. E. Bracket Cut-Outs.

Patented September 13, 1887; April 30, 1889, and April 23, 1895.

<i>Accrimation</i>	25495	1130	For Cleat Work..... .20
<i>Accroach</i>	25496	1131	For Cleat Work......20
<i>Accroachment</i>	25497	1132	Square Base for Moulding Work .20

### Wall Plates or Electric Bracket Backs.

Also made with Male Thread for Direct Attachment to Socket.

<i>Errosment</i>	2382	2 inch, Female Thread, each	.65
<i>Errosing</i>	2383	2 " Male " "	.65
<i>Errosure</i>	2384	2 1/2 " Female " "	.75
<i>Erect</i>	2385	2 1/2 " Male " "	.75
<i>Erwise</i>	2380	3 " Female " "	.50
<i>Erused</i>	2381	3 " Male " "	.50

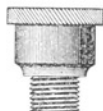
## Turned Brass Fittings.

Polished and Lacquered.



No. 23135.

Code Word.	List No.	List Price Per 100.
<i>Sawed</i>	23135 $\frac{3}{8} \times \frac{3}{8}$ .....	\$ 4.00



No. 23136.

Secret Nozzle.		
<i>Sinuous</i>	23136 $\frac{3}{8}$ brass to burner size.....	15.00



No. 23137.

Acorn Cap. (Iron Pipe Sizes.)		
<i>Sinergy</i>	23137 $\frac{1}{2}$ inch.....	15.00
<i>Sinful</i>	23138 $\frac{1}{4}$ ".....	15.00
<i>Sing</i>	23139 $\frac{3}{8}$ ".....	15.00



No. 23140.

Straight Nozzle. (Brass Tubing Sizes.)		
<i>Singe</i>	23140 $\frac{3}{8} \times \frac{3}{8}$ .....	6.00
<i>Singer</i>	23141 $\frac{7}{16} \times \frac{3}{8}$ .....	10.00
<i>Singte</i>	23142 $\frac{1}{2} \times \frac{3}{8}$ .....	10.00
<i>Singtin</i>	23143 $\frac{5}{8} \times \frac{3}{8}$ .....	12.50



No. 23144.

Elbow Nozzle. (Brass Tubing Sizes.)		
<i>Singlo</i>	23144 $\frac{3}{8} \times \frac{3}{8}$ .....	12.50
<i>Singly</i>	23145 $\frac{7}{16} \times \frac{3}{8}$ .....	12.50
<i>Singsony</i>	23146 $\frac{1}{2} \times \frac{3}{8}$ .....	12.50

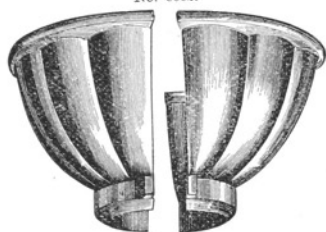


No. 23147.

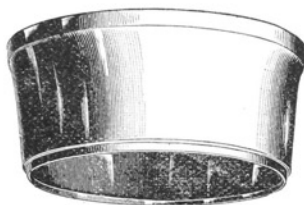
Brass Bushing. (Iron Pipe Sizes.)		
<i>Singtor</i>	23147 $\frac{1}{2} \times \frac{1}{2}$ .....	5.00
<i>Singular</i>	23148 $\frac{3}{4} \times \frac{1}{2}$ .....	6.50
<i>Singult</i>	23149 $\frac{1}{2} \times \frac{3}{4}$ .....	8.70
<i>Sinical</i>	23150 $\frac{3}{4} \times \frac{1}{2}$ .....	15.65
<i>Sinister</i>	23151 $1 \times \frac{3}{4}$ .....	24.35



No. 8882.



Split Canopy



No. 23095.



No. 9388.



No. 9386.

### Kerosene Lamp Attachment.

Code Word.	List No.	List Price.
<i>Erected</i>	8882 Plain, each.....	\$0.70
<i>Eminence</i>	8883 Insulated, each.....	.70

### Canopies.

We carry in stock a large variety of Fixture Canopies, finished in polished brass. Other finishes will be furnished when specified.

### Split Canopies.

Canopies of any style illustrated in this catalogue will be furnished split, at double the printed list prices, subject to regular discounts.

### Extension Ring.

For Canopies 4 inches in diameter.

<i>Simblat</i>	23095	1 inch deep .....	.30
<i>Simia</i>	23096	1½ " " .....	.35
<i>Simile</i>	23097	2 " " .....	.40

Extension rings of greater depth or for canopies larger in diameter made to order.

### Canopies.

<i>Nemesis</i>	9388	¾ inch, Ring and Set Screw, each .....	.24
<i>Nerve</i>	9293	¾ " " " " .....	.24
<i>Nerveless</i>	9389	¾ " " " " .....	.26
<i>Nervine</i>	9391	1 " " " " .....	.26
<i>Nervous</i>	9386	¾ inch, Ring and Set Screw, each .....	.24
<i>Nervously</i>	9107	¾ " " " " .....	.24
<i>Nest</i>	9328	¾ " " " " .....	.26
<i>Nestle</i>	9387	1 " " " " .....	.26

Polished and Lacquered, 50 per cent. extra.



No. 9392.

## Canopies—(Continued).

Code Word.	List No.		List Price.
<i>Netting</i>	9392	$\frac{3}{8}$ inch, Ring and Set Screw, each.....	\$0.24
<i>Nettle</i>	9393	$\frac{1}{2}$ " " " " " " .....	.24
<i>Neural</i>	9394	$\frac{3}{8}$ " " " " " " .....	.26
<i>Neuralgia</i>	9395	1 " " " " " " .....	.26



No. 9290.

<i>Neuter</i>	9290	$\frac{3}{8}$ inch, Ring and Set Screw, each.....	.28
<i>Neutral</i>	9634	$\frac{1}{2}$ " " " " " " .....	.28
<i>Neutralise</i>	9683	$\frac{3}{8}$ " " " " " " .....	.30
<i>Neat</i>	9383	$\frac{1}{2}$ 1 " " " " " " .....	.30



No. 9508.

<i>Next</i>	9568	$\frac{3}{8}$ inch, Ring and Set Screw, each.....	.24
<i>Nibble</i>	9569	$\frac{1}{2}$ " " " " " " .....	.24
<i>Nibbler</i>	9570	$\frac{1}{2}$ " " " " " " .....	.26
<i>Nice</i>	9571	1 " " " " " " .....	.26



No. 9530.

<i>Nicely</i>	9530	$\frac{3}{8}$ inch, Ring and Set Screw, each.....	.26
<i>Nicety</i>	9531	$\frac{1}{2}$ " " " " " " .....	.26
<i>Niche</i>	9532	$\frac{3}{8}$ " " " " " " .....	.28
<i>Nick</i>	9533	1 " " " " " " .....	.28

Polished and Lacquered, 50% extra.





No. 9537.

Canopies—(Continued)

Code Word.	List No.		List Price.
<i>Nickel</i>	9537	$\frac{3}{8}$ inch, Ring and Set Screw, each	\$0.28
<i>Nicknacks</i>	9538	$\frac{1}{4}$ " " " " " "	.28
<i>Nickname</i>	9539	$\frac{3}{8}$ " " " " " "	.30
<i>Nictate</i>	9540	1 " " " " " "	.30



No. 9542.

<i>Nictitate</i>	9542	$\frac{3}{8}$ inch, Ring and Set Screw, each	.30
<i>Nictation</i>	9543	$\frac{1}{4}$ " " " " " "	.30
<i>Nictitation</i>	9544	$\frac{3}{8}$ " " " " " "	.32
<i>Nidification</i>	9545	1 " " " " " "	.32



No. 9547.

<i>Niece</i>	9547	$\frac{3}{8}$ inch, Ring and Set Screw, each.	.32
<i>Niggard</i>	9548	$\frac{1}{4}$ " " " " " "	.32
<i>Niggardly</i>	9549	$\frac{3}{8}$ " " " " " "	.34
<i>Nigh</i>	9550	1 " " " " " "	.34

Polished and Lacquered, 50¢ extra.



No. 9557.

## Canopies—(Continued).

Code Word.	List No.		List Price.
Nighness	9557	$\frac{3}{4}$ inch, Ring and Set Screw, each.....	\$0.42
Night	9558	$\frac{1}{2}$ " " " " .....	.42
Nightcap	9559	$\frac{1}{2}$ " " " " .....	.44
Nightfall	9560	1 " " " " .....	.44



No. 9552.

Nighthawk	9552	$\frac{3}{4}$ inch, Ring and Set Screw, each.....	.38
Nightingale	9553	$\frac{1}{2}$ " " " " .....	.38
Nightly	9554	$\frac{1}{2}$ " " " " .....	.40
Nightmare	9555	1 " " " " .....	.40



No. 9562.

Nightshade	9562	$\frac{3}{4}$ inch, Ring and Set Screw, each.....	.46
Nightwatch	9563	$\frac{1}{2}$ " " " " .....	.46
Nihilist	9564	$\frac{1}{2}$ " " " " .....	.48
Nimble	9565	1 " " " " .....	.48

Polished and Lacquered, 50¢ extra.

## Sunbeam Incandescent Lamps.



We are the exclusive agents for the Sunbeam Incandescent Lamp. This lamp was selected by us after very careful investigation on account of its high quality. The Sunbeam Lamp was first made in 1889, and during that whole period has had a most excellent reputation. It is a low-priced lamp if one is not blind to the question of quality. No better lamp can be purchased at the same price.

The frosted lamps have a smooth, satin finish.

The superficially colored (dipped) lamps can hardly be distinguished from the natural colored glass, and for most purposes are quite equal to them.

Particular attention is called to the 2 and 4 C. P. lamps for sign and decorative work, and which are also useful in residence lighting on account of the small amount of energy consumed. These lamps can be connected in multiple on the regular lighting circuits.

Special prices will be quoted according to quantity.



Hair Pin Filament.

### Pear Shape, Hair Pin Filament.

Furnished regularly for voltages from 45 to 90. Will be furnished for any voltage from 90 to 130 when specified.

Code Word.	List No.		Price List. Each.
<i>Sideseve</i>	22048	6 c. p., 25 watts	\$ 0.45
<i>Sidesealk</i>	22049	8 " 32 "	.40
<i>Sideseays</i>	22050	10 " 37 "	.40
<i>Sideseind</i>	22051	16 " 56 " (long life)	.40
<i>Sideseuse</i>	22052	16 " 50 " (high efficiency)	.40
<i>Sideseing</i>	22053	16 " 62 " (very long life)	.40
<i>Sidese</i>	22054	20 " 62 "	.40
<i>Sidese</i>	22055	25 " 75 "	.45
<i>Sidese</i>	22056	32 " 92 "	.60
<i>Sidese</i>	22057	50 " 145 "	1.00

Furnished in clear glass, frosted, opal, all natural colored glass and superficially colored.

NOTE.—Specify the base and voltage.



Coiled Filament.

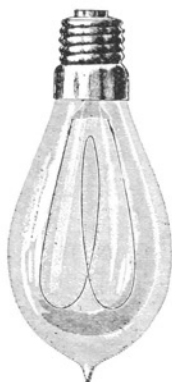
### Pear Shape, Coiled Filament.

Furnished for any voltage from 90 to 120.

<i>Sienna</i>	22058	8 c. p., 32 watts	.40
<i>Siennese</i>	22059	10 " 37 "	.40
<i>Sierra</i>	22060	16 " 56 " (long life)	.40
<i>Siesta</i>	22061	16 " 50 " (high efficiency)	.40
<i>Sieur</i>	22062	16 " 62 " (very long life)	.40
<i>Sieve</i>	22063	20 " 62 "	.40
<i>Sift</i>	22064	25 " 75 "	.45
<i>Sifter</i>	22065	32 " 92 "	.60

Furnished in clear glass, frosted, opal, all natural colored glass and superficially colored.

NOTE.—Specify the base and voltage.



High Voltage Lamp



Electric Street Railway Lamp.



Decorative Lamp.

## Incandescent Lamps--(Continued.)

## High Voltage Lamp.

Voltage 200 to 250.

Code Word.	List No.	List Price Each.
<i>Sig</i>	22066 16 c. p., 56 watts.....	\$0.50

Furnished in clear glass, frosted and superficially colored.  
Specify base and voltage.

## Electric Street Railway Lamp.

Has a tough filament and will stand a variation in voltage from 105 to 120. Will have a long life and excellent maintenance of candle power throughout its entire life. Electric cars will be found better lighted with this lamp than where others are used.

<i>Signaltion</i>	22067 16 c. p. ....	.40
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Furnished in clear glass, frosted, opal, all natural colored glass and superficially colored.  
Specify base and voltage.

## Decorative Lamp, Coiled Filament.

This lamp is offered for use in those places where a strong light is not required. The principal use for this lamp is in sign and decorative lighting; also in residence lighting.

The bases fit the standard sockets and the lamps are to be connected in multiple. The saving in energy over the lamp ordinarily used in sign work will amount to several times the cost of the lamp. For example: the saving in energy during its life of a 4 c. p. lamp over a 16 c. p. lamp will amount to \$2.00 or more.

<i>Sigh</i>	22068 2 c. p., 10 watts, voltage from 50 to 60.....	.60
<i>Sighborn</i>	22069 4 " 20 " " " 50 to 120.....	.55
<i>Sigher</i>	22070 10 " 37 " " " 50 to 120.....	.50
<i>Sighingly</i>	22071 16 " 56 " " " 50 to 120.....	.50

Furnished in clear glass, frosted and superficially colored.  
Specify base and voltage.



French Etched Lamp.



Engraved Lamp.



Candle Lamp.

## Incandescent Lamps—(Continued.)

### Fancy Lamps, French Etched.

For residences, clubs, hotels and such other places where handsome fixtures are used. Many of the shades now used with incandescent lamps will exclude from 30 to 50 per cent. of the light. These etched globes will pass all but 5 per cent. of the light. The French etched lamp is artistic, surpassing in beauty anything heretofore produced.

We have ten different designs.

Add to the list price of regular lamps, 30 cents each.

### Fancy Lamps, Engraved.

For residences, show windows, and other places where it is desired to have something more fancy than the plain lamp, our engraved lamps find favor.

We have ten different designs.

Add to the list price of regular lamps 15 cents each.

It is important that the style of base should be specified and the voltage given.

### Candle Lamps.

Furnished in any voltage from 48 to 120.

Furnished in clear glass, frosted, opal and superficially colored.

Code Word.	List No.	List Price. Each
<i>Sight</i>	22072 10 c. p., 37 watts.....	.60
<i>Sighted</i>	22073 16 " 56 " .....	.60

Specify the base and voltage.

## Incandescent Lamps—(Continued.)

### Porcelain Base for T. H. Lamps:

One of the recent developments in Incandescent Lamps is a base made entirely from porcelain, as shown by the illustration. It is artistic in finish, reasonable in price, and of high insulation.

On fine fixtures it adds greatly to the general effect, and always presents a neat appearance, as it can be cleaned whenever the lamp itself is polished.

An advantage claimed for a base of this description is that no metal extends beyond the edge of the socket, and consequently there is no danger of accidental contact with the lamp base. This is of importance where lamps are used in damp places as moisture may make a contact between the outer shell of the socket and the lamp base, thus causing a slight ground on the line.

This porcelain base is specially adapted for marine work, breweries, stock yards, refrigerators, basements, mines, or any other place where considerable moisture exists or gases and acid fumes of an injurious nature prevail. Moisture and gas attack metal and cause it to corrode, and in consequence in time to deteriorate. A hard, vitreous glazed porcelain, such as these bases are made of, is much less liable to the action of the atmosphere and noxious gases and does not cause any leak of current due to the accumulation of moisture.

The high degree of insulation makes it very desirable for out of door work, for 220 volt systems and street railway work.

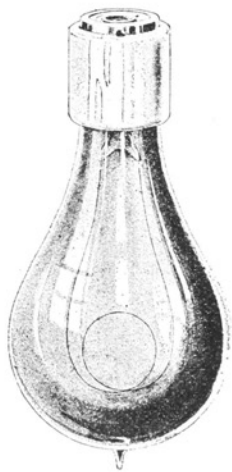
**These Bases are made for T. H. Base Lamps only.**

Our standard lamps are all supplied with regular metal bases, as illustrated on other pages of this catalogue.

The Porcelain Base is furnished only when specified in the order.

We do not sell the Bases separately but only on the lamp.

Prices quoted upon application for lamps of standard sizes with porcelain bases.





Edison.



Thomson-Houston.



Sawyer-Man.



Brush-Swan.



Perkins.



English-Swan.



United States.



Hawkeye.



Schaefer.

## Incandescent Lamps—(Continued.)

### Bases.

Lamps are furnished with bases suitable for all sockets, as shown below:

### Packages.

All lamps furnished in standard packages containing the following quantities: 12, 25, 50, 100, 150, 200, 250. A full barrel will contain 250 16 c. p.; 200 25 c. p.; 175 42 c. p.

Packages will be charged at cost, or as follows: 25 lamps or less, one box, 15c.

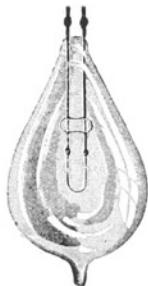
Over 25 to 50 lamps, two boxes, 30c.

More than 50 lamps put in barrels are charged at 35c. for each barrel.

Lamps in heavy pasteboard box, without the separating partitions, no charge for package; shipments in this shape must be entirely at customer's risk of breakage.

The weights, including packages, of lamps from 6 to 20 c. p., are approximately as follows: 50 lamps, 28 lbs.; 100 lamps, 42 lbs.; 200 lamps, 55 lbs.; 250 lamps, 60 lbs.

## Miniature Incandescent Lamps.



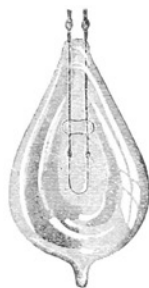
The range of our Lamps is: From  $\frac{1}{2}$  to 8 candle power, from 1 to 3 watts per c. p., from 2 to 60 volts, from .07 to 2.0 amperes.

They can be lit in series or in multiple, from batteries or on dynamo circuits. Following is an abridged table of c. p. voltage and current of our Lamps:

$\frac{1}{2}$ c. p. 2 volts, 1.5 amp.	1 c. p. 4 volts, .7 amp.	3 c. p. 6 volts, 1.2 amp.
3 " .8 "	6 " .4 "	4 c. p. 8 " 1.0 "
4 " .5 "	8 " .25 "	15 " .4 "
6 " .3 "	10 " .2 "	20 " .25 "
8 " .2 "	2 c. p. 4 " 1.5 "	6 c. p. 10 " .8 "
10 " .1 "	6 " .8 "	25 " .4 "
20 " .07 "	8 " .5 "	8 c. p. 40 " .4 "
1 c. p. 3 " 1.0 "	10 " .3 "	60 " .25 "
	20 " .1 "	

## Miniature Incandescent Lamps—(Continued.)

## Battery Lamps.



Code Word.	List No.		List Price Each.
<i>Sightful</i>	22074	½ c. p., with platinum loop terminals.....	\$ 0.75
<i>Sightfulness</i>	22075	1 " " " " .....	.75
<i>Sightless</i>	22076	2 " " " " .....	.75
<i>Sightlessly</i>	22077	3 " " " " .....	.75
<i>Sightly</i>	22078	4 " " " " .....	.75
<i>Sightsceing</i>	22079	6 " " " " .....	.75
<i>Sightseer</i>	22080	½ " without platinum loop terminals.....	.70
<i>Sightshop</i>	22081	1 " " " " .....	.70
<i>Sightstamou</i>	22082	2 " " " " .....	.70
<i>Sigel</i>	22083	½ " pear lamp.....	.85
<i>Sigillative</i>	22084	1 " " " .....	.85
<i>Sigma</i>	22085	2 " " " .....	.85
<i>Sigma</i>	22086	½ " grain lamp.....	1.00
<i>Sigmoid</i>	22087	1 " " " .....	1.00
<i>Sigmoidal</i>	22088	½ " pear lamp.....	1.25

Mounting on Screw Bases, 10 cents extra.

NOTE.—All our large sizes of Lamps of every kind, when not mounted on screw bases, are provided with platinum loop terminals, to which copper wires are fused on. This effectively prevents breaking off of wires.



## Special Series Lamps.

Mounted on either Edison, T.-H., or Sawyer-Man Standard Bases.

6 to 8 c. p. 20 to 30 volts. ....

<i>Sigmoidally</i>	22089	Accumulator Lamp, mounted.....	1.00
<i>Sigmoidly</i>	22090	Spherical Lamp.....	1.00

Specify candle power when ordering Nos. 22089 and 22090.

Mounted on Candelabra and Miniature Bases.

½ to 8 c. p.

<i>Sigs</i>	22091	½ to 4 c. p., 2 to 20 volts.....	80
<i>Sigant</i>	22092	4 c. p., 20 volts.....	80
<i>Sigalfire</i>	22093	4 " 30 " .....	80
<i>Sigalist</i>	22094	6 " 30 " .....	80
<i>Signality</i>	22095	8 " 40 " .....	80
<i>Signally</i>	22096	9 " 60 " .....	80

Specify candle power and voltage when ordering No. 22091.

With Coiled Carbons.

<i>Signment</i>	22097	4 to 8 c. p., 15 to 60 volts.....	.85
<i>Signation</i>	22098	Kinetscope 20 volt lamp.....	1.00
<i>Signatory</i>	22099	Stereopticon Lamp, 20 volts, 20 c. p.....	1.25

Specify candle power and voltage when ordering Nos. 22097, 22098 and 22099.

Mounting on Screw Bases, 10 cents extra.

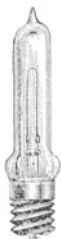




## Miniature Incandescent Lamps—(Continued.)



No. 23000.



No. 23006.



No. 23020.



No. 23014.



No. 23025.



No. 23030.

## Candle Lamps.

For Decorative Lighting.

Code Word.	List No.		List Price Each.
<i>Signator</i>	23000	2 c. p., 10 volts, without screw base	\$.70
<i>Signature</i>	23001	3 " 10 " " " "	.80
<i>Signatural</i>	23002	4 " 20 " " " "	.70
<i>Signboard</i>	23003	5 " 30 " " " "	.70
<i>Signer</i>	23004	6 " 50 " " " "	.70
<i>Signet</i>	23005	8 " 60 " " " "	.70
<i>Signeted</i>	23006	2 " 10 " " " "	.70
<i>Signetring</i>	23007	3 " 10 " " " "	.80
<i>Signifer</i>	23008	4 " 20 " " " "	.70
<i>Significance</i>	26009	5 " 30 " " " "	.70
<i>Significance</i>	23010	6 " 50 " " " "	.70
<i>Significant</i>	23011	8 " 60 " " " "	.70

Any other voltage furnished to suit requirements.

Mounting on Screw Bases, 10 cents extra.

## Candle Flame Lamps.

<i>Significantly</i>	23012	2 c. p., 10 volts, without screw base	.70
<i>Significate</i>	23013	3 " 10 " " " "	.70
<i>Signification</i>	23014	4 " 20 " " " "	.70
<i>Significative</i>	23015	5 " 30 " " " "	.70
<i>Significator</i>	23016	6 " 50 " " " "	.70
<i>Significavit</i>	23017	8 " 60 " " " "	.70

## Ellipse Lamps.

<i>Signify</i>	23018	2 c. p., 10 volts, without screw base	.70
<i>Signior</i>	23019	3 " 10 " " " "	.70
<i>Signiorize</i>	23020	4 " 20 " " " "	.70
<i>Signiorship</i>	23021	5 " 30 " " " "	.70
<i>Signiory</i>	23022	6 " 50 " " " "	.70
<i>Signimund</i>	23023	8 " 60 " " " " double carbon lamp	1.50

Any other voltage furnished to meet requirements.

Mounting on Screw Bases 10 cents extra.

## Bend Flame Lamps.

<i>Signor</i>	23024	2 c. p., 10 volts, without screw base	.90
<i>Signpost</i>	23025	3 " 10 " " " "	.90
<i>Sike</i>	23026	4 " 20 " " " "	.90
<i>Siker</i>	23027	5 " 30 " " " "	.90
<i>Sikerness</i>	23028	6 " 50 " " " "	.90
<i>Sikhs</i>	23029	8 " 60 " " " "	.90

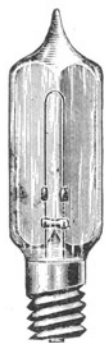
## Straight Flame Lamps.

<i>Sile</i>	23030	2 c. p., 10 volts, without screw base	.80
<i>Silence</i>	23031	3 " 10 " " " "	.80
<i>Silene</i>	23032	4 " 20 " " " "	.80
<i>Silent</i>	23033	5 " 30 " " " "	.80
<i>Silentiary</i>	23034	6 " 50 " " " "	.80
<i>Silently</i>	23035	8 " 60 " " " "	.80

Other voltages furnished when specified.

Mounting on Screw Bases, as shown in cut, 10 cents extra.

## Miniature Incandescent Lamps—(Continued.)



No. 23037.



No. 23038.

Code Word.	List No.	Price List. Each.
<i>Silence</i>	23036 Not mounted .....	\$0.90
<i>Silesia</i>	23037 Mounted .....	1.00

Style No. 23037 is made in sizes ranging from 2 to 8 c. p., and 20 to 60 volts.

When ordering specify candle power and voltage.

Style No. 23038 is broader and shorter than Style No. 23037. Can be made from  $\frac{1}{2}$  to 8 c. p., 2 to 60 volts. Coiled carbon taking the place of straight one for the higher pressures.

Specify candle power and voltage when ordering.

<i>Silesion</i>	23038. Not mounted .....	.90
<i>Silez</i>	23039 Mounted .....	1.00



No. 23040.



No. 23042.

<i>Silhouette</i>	23040 Not mounted .....	.70
<i>Silica</i>	23041 Mounted .....	.80

## Lance Tip Lamps.

Voltage same as that of Battery Lamps.

Made in sizes from  $\frac{1}{2}$  to 8 candle power.

Specify candle power and voltage when ordering.

## Corrugated Cylinder Lamps.

From  $\frac{1}{2}$  to 8 candle power. 2 to 40 volts.

Specify candle power and voltage when ordering.

<i>Silicate</i>	23042 Mounted on screw base .....	1.00
<i>Silicated</i>	23043 Not mounted .....	.90



No. 23044.



No. 23046.

<i>Silice</i>	23044 Mounted on screw base .....	1.00
<i>Silicons</i>	23045 Not mounted .....	.90
<i>Silicious</i>	23046 With straight stem .....	1.00

## Corrugated Cone Lamps.

From  $\frac{1}{2}$  to 8 candle power. The voltage the same as any other series or battery lamps as required.

Specify candle power and voltage when ordering.

Miniature Incandescent Lamps—(Continued.)

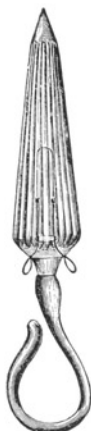
Corrugated Cone Lamps—(Continued.)

From ½ to 8 candle power. Voltage the same as any other series or battery lamps as required. Specify candle power and voltage when ordering.



No. 23047.

Code Word.	List No.	List Price. Each.
<i>Silicite</i>	23047 Plain platinum wire terminal.....	\$ .90
<i>Silicify</i>	23048 Loop terminals.....	.90
<i>Silicite</i>	23049 With hooked stem.....	1.00



No. 23049.



No. 23051.

Corrugated Sphere Lamps.

½ to 8 candle power. 2 to 40 volts. Specify candle power and voltage when ordering.

<i>Silicited</i>	23050 Mounted on screw base.....	1.00
<i>Silicite</i>	23051 Not mounted.....	.90



No. 23052A.



No. 23052B.

Tricolor Lamps.

Cone.

Globes striped red, blue and white (natural). ½ to 8 candle power. Voltage up to 60 volts. Specify candle power and voltage when ordering.

<i>Silicon</i>	23052 Mounted.....	1.10
<i>Silicule</i>	23053 Not mounted.....	1.00
<i>Silicula</i>	23054 With stems.....	1.10

The stripes are made in two styles as shown in the cuts, style A and style B.

Sphere.

½ to 8 candle power. Voltage up to 20 volts. Specify candle power and voltage when ordering.

<i>Silicue</i>	23055 Mounted.....	1.10
<i>Silk</i>	23056 Not mounted.....	1.00
<i>Silkcotton</i>	23057 With stems.....	1.10



No. 23056C.



No. 23057.

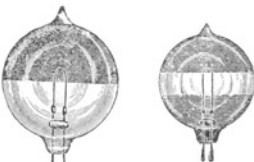


No. 23056D.



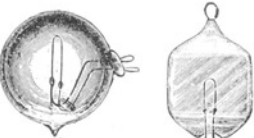
No. 20058.

No. 23060.



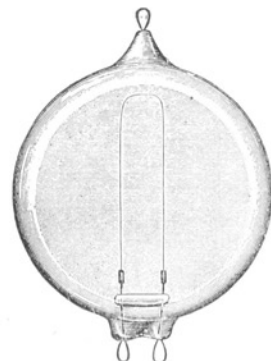
No. 23062.

No. 23063.



No. 23064.

No. 23066.



No. 23067.

## Miniature Incandescent Lamps—(Continued.)

### Lens Lamps.

The lenses are fused on the globe during the process of blowing. They are able to quadruple the amount of light emitted by a lamp through concentration into a beam. They can be used in microscopes, models, and for stage effects.

$\frac{1}{2}$  to 6 candle power. 2 to 20 volts. No higher voltage is possible on account of the small size of the globe.

Code Word.	List No.	List Price. Each.
<i>Silkem</i>	23058 Single Lens Lamp.....	\$ 1.25
<i>Silkgrass</i>	23059 Two " " .....	1.50
<i>Silkiness</i>	23060 Three " " .....	2.00
<i>Silkman</i>	23061 Single " " .....	1.00

Same Lamps with coiled carbons 25 cents extra.  
Mounting on Screw Bases or Glass Stems 10 cents extra.

### Zone Lamps.

These Lamps are especially suitable for such kinds of illumination where movable lights of constantly varying colors are required.

The Bulbs of these Lamps are made of combination of two or three of the following kinds of glass:

Crystal,	Milk,	Blue,	Amber,
Ruby	Green,	Violet,	
All colors are natural.			

<i>Silkwill</i>	23062 Lamps of two kinds of glass.....	1.50
<i>Silkness</i>	23063 " three " " .....	2.00

These Lamps can be furnished mounted for stage dress for 40 cents extra.

### Lantern Lamps.

$\frac{1}{2}$  to 8 candle power. 2 to 60 volts.  
Specify candle power and voltage when ordering.

These Lamps are suitable for Yacht, Carriage, Bicycle, Miners' and Doctors, Head and other Lanterns.

<i>Silkshog</i>	23064 Sphere Lamp with side connection. ....	1.25
<i>Silkweed</i>	23065 " " plain .....	.90
<i>Silkterran</i>	23066 Flat " .....	.90
<i>Silky</i>	23067 " " .....	1.25

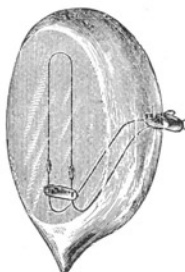
## Miniature Incandescent Lamps—(Continued)

## Lantern Lamps—Continued.

$\frac{1}{2}$  to 8 candle power. 2 to 60 volts.  
Specify voltage and candle power.



No. 23068.



No. 23069.

Code Word.	List No.	Price List. Each.
<i>Sill</i>	23068 Flat Lamp.....	\$ .90
<i>Silly</i>	23069 " " .....	1.50



No. 23070.

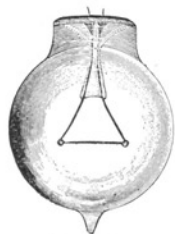
From 2 to 20 volts only.

$\frac{1}{2}$  to 8 candle power.

Specify voltage and candle when ordering.

<i>Sillock</i>	23070 Lantern Lamp.....	.75
<i>Sillon</i>	23071 Condenser Lamp .....	.85

No. 23071 Condenser Lamp is same pattern as No. 23070, but larger in size with a U shaped filament.



No. 23072.



No. 23074.

<i>Silly</i>	23072 Condenser Lamp .....	1.50
<i>Sillyhore</i>	23073 Railroad Lamp, single filament.....	1.50
<i>Silo</i>	23074 " " double " .....	2.00

## Colored Lamps.

All lamps here illustrated can be furnished in the following natural colors:

- |   |  |
|---|--|
| 1. Milk-white; Opaque, superior to frosted glass. | 5. Violet.   |
| 2. Ruby; Chloride of gold glass.                  | 6. Amber.  |
| 3. Blue.  | 7. Greenish-Yellow; Uranium, phosphorescing glass. |
| 4. Green.   |  |

For colors, 20 cents additional for each lamp.  
Frosting, 10 cents additional per lamp.

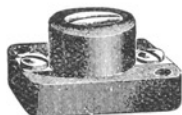


No. 13580.

### Receptacles for Candelabra Lamps.

#### Standard Round Candelabra Receptacle.

Code Word.	List No.	List Price. Each.
<i>Lancoboro</i>	13580 .....	\$ .30



No. 13581

#### Standard Flat-Base Candelabra Receptacle.

<i>Langdon</i>	13581 .....	.30
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No. 13582.

#### Candelabra Shade-Holder Receptacle.

<i>Langford</i>	13582 .....	.75
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No. 13583.

#### Star Shades with Colored Edging.

<i>Lansing</i>	13583 .....	1.00
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Receptacles for Miniature Lamps.



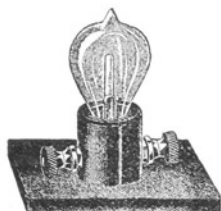
No. 13585.

Round Miniature Lamp Receptacle.

Code Word. List No.

List Price.  
Each.

*Lansingbury* 13585 ..... \$ .30



Square Miniature Lamp Receptacle.

*Laona* 13586 ..... .50



Miniature Shade-Holder Receptacle.

*Lapeer* 13587 ..... .75



No. 13588.

Shades for Miniature Lamps.

*Laramie* 13588 ..... .30

## Electric Cooking and Heating Apparatus.

### General Instructions as to installation and use of Cooking and Heating Devices.

In wiring for Electric Heating and Cooking Appliances, the capacity of conductors should be the same as for electric lights or motors using the same current.

Installations must be made in accordance with the rules of the Local Board of Underwriters applying to Electric Light, Heat and Power.

Special Plug Switches should be used, and the receptacle properly fused. Ordinary attaching plugs for lamp sockets must not be used; nor any appliances connected to a lamp socket, unless expressly specified.

Flexible Conductor Cord furnished with the apparatus should be used. This cord is made expressly for the purpose; is water and fire-proof, and has been specifically approved by the Board of Underwriters.

In ordering always state voltage required. All our apparatus will work on either the direct or alternating current.

All articles are marked for the volts required; under no circumstances should the apparatus be used on circuits of different voltage.

In the event of failure of any article to operate properly, notify the agent from whom you purchased the device, explaining the nature of the failure as you understand it, but do not take the article apart.

When using the cooking utensils always prepare the

food before turning on the electricity; and if the vessel is to hold a liquid, be sure that some liquid is in it before the current is turned on, and that the supply is not exhausted while the utensil is in use.

Never empty a vessel while the current is turned on.

Articles should never be taken apart nor immersed in water, unless intended for that purpose.

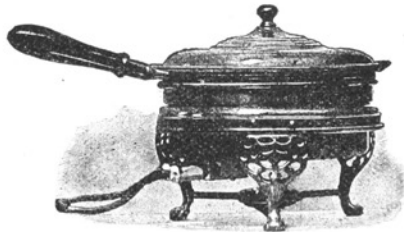
Appliances for heating water in which the heating apparatus is enclosed in a coiled copper tube, should be always kept supplied with sufficient water to cover the coil.

Always turn the current off when the apparatus is not in use. As this rule is observed, it is cheaper or dearer than coal.

Suspend the conductor cords of laundry irons by spiral springs or rubber bands over the work tables. This will keep the wires away from the work. Smoothing irons heat rapidly when on the stand with the current on. Don't pull the utensils around by the connecting cords.

Smoothing irons, portable stoves and similar apparatus require from four to ten minutes to heat to their working temperature. Devices for boiling, such as tea kettles, chafing dishes, farina boilers, glue pots, etc., require from ten to twenty minutes to boil. Large uras, from thirty to forty minutes.

### Electric Chafing Dish.



No. 23152.

The use of a Chafing Dish has become well-nigh universal, but how frequently does it happen that when the guests are gathered at the table it is discovered that the alcohol is exhausted. The Electric Chafing Dish requires no alcohol, but is always ready for use. It is furnished in a graceful pattern, in the conventional form, of spun copper, highly finished in silver or nickel. A most acceptable present for any one. Adapted to any lighting circuit. Mention voltage.

Code Word.	List No.		Ampers at 110 volts.	List Price, Each.
<i>Sinisterly</i>	23152	Two quarts, nickel plated,	4	\$15.00
<i>Sinistral</i>	23153	Two quarts, silver plated,	4	20.00



## Electric Cooking and Heating Apparatus (Continued.)

### Farina Boiler.



No. 23154.

This very useful device has proved to be the most convenient for a great variety of uses. The outer vessel is of heavy copper, nickel plated, the inner being made entirely of porcelain, the heating coil (also nickeled) is in a water bath surrounding the porcelain pot in which the cooking is done. It is so constructed that all parts are easily separated.

Any little article of food prepared and served in an attractive manner is always more palatable, and this adds much to its enjoyment whether one is ill or well. For the many uses to which this boiler may be applied it is ideal. It is so designed that three divisions of heat may be obtained—the maximum, to quickly heat up the vessel; then a less amount may be used to do the cooking, or a still less amount to keep the contents of the vessel warm.

Made for direct or alternating current, the usual voltages used for lighting.

Code Word.	List No.	Amperes at 110 Volts.	Price List Each.
<i>Sinistrous</i>	23154	One quart, 3 heats, 4-2-1	12.00
<i>Sink</i>	23155	Two quarts, 3 heats, 6-3-2	13.50

### "Five O'clock Tea."

With this very handsome combination one can complete the furnishing of a tea table in keeping with its dainty silver, china and linen. The silent electric current quickly supplies the necessary heat without the use of alcohol, matches and flame, and also provides a stove (when the kettle is removed), on which to warm the wafers or crackers. It is artistic in design, highly finished in silver or nickel plate.

Made for any electric lighting circuit.



No. 23156.

Code Word.	List No.	Amperes at 110 Volts.	Price List Each.
<i>Sinker</i>	23156	One quart, nickel plated, 4	15.00
<i>Sinkhole</i>	23157	" " silver " 4	20.00

### Electric Stew Pan.

This is a universal utensil, very attractive in appearance, and one of the most salable of electric heating devices. The heater consists of a 4½ inch disc, to which is fitted an (removable) Aluminum Stew Pan, with capacity of ¾ of a quart. Just the thing to use in light-housekeeping, exactly what is wanted in a physician's office, drug store, hospital, the nursery, or where a little food is to be cooked, a hot drink made, or hot water used. Quick, clean and inexpensive. Connects to any lamp socket. Packed complete with cord and plug.

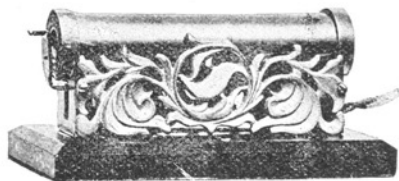


No. 23158.

Code Word.	List No.	Amperes at 110 Volts.	Price List Each.
<i>Sinless</i>	23158	Heater and Aluminum Stew Pan, 2	5.00

## Electric Cooking and Heating Apparatus (Continued.)

### Electric Curling Iron Heaters.



No. 23159.

This simple device has become a necessity in many homes, apartment houses, hotels, steamers, etc., where the incandescent lamp has displaced gas or lamps. It may be attached to any lamp socket, heats quickly, uses less current than a 16 c. p. lamp, and renders unnecessary candles or other more or less dangerous heating devices in the dressing room. The use of an always clean iron is of no little importance when just finishing the toilet. They are quite ornamental. The current is automatically cut off when the iron is removed. Made for direct or alternating current—52, 100 or 110 volts. Mention whether for Edison, Westinghouse or T. H. Sockets. One in a package, complete, ready for use.

Code Word.	List No.	Amperes of 110 Volts.	List Price Each
<i>Sinner</i>	23159 Automatic,	$\frac{1}{2}$	\$3.

Special Electric Heating Devices to order.

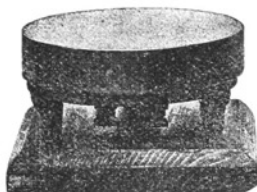
### Electric Heating Pad.

The perfection of this device is a very important step in electrical development. By its use heat may be applied in an ideal way to the body. In form it is similar to that of a piece of thick, soft felt. It is light (weighing but a few ounces), clean, safe, and free from all objectionable features of hot water bottles, poultices or other hot applications, and far more effective. It is always ready for use, wherever electric lights are used, costs very little to operate, is so constructed that it will last for many years, and the first cost is moderate. Its great value in the hospital and cases where hot applications are necessary to sustain life is evident. It is extremely useful as a foot warmer for invalids or elderly people, and proves to be a household necessity wherever used. Operates on any incandescent lighting circuit. State voltage and kind of lamp socket when ordering.

One-half amperes at 110 volts.

*Sinologue* 23160 12 x 15 inches, complete, with cord and plug.... 5.0

## Electric Cooking and Heating Apparatus —(Continued.)



No. 23162.

### Portable Stove.

This Electric Stove is 4½ inches in diameter, is mounted on enameled slate base, has five feet of flexible cord, with plug connection for lamp socket. The stove is "hot" in about two minutes from the time current is turned on. It is just the thing for warming milk, boiling an egg, quickly making a hot drink of any kind, and for a physician's office.

Code Word,	List No.	List Price Each.
<i>Sinter</i>	23162 Complete, 4 in. diam., ready for use.....	\$4.00
<i>Sintoe</i>	23163 " 7 in. " " " .....	7.00

The current required is 2 amperes at 110 volts. Made for 50, 100, 110 volts direct or alternating current.



No. 23171.

### Immersion Coil Heater.

This useful form of heater has many applications. It may be used for heating liquids contained in almost any kind of vessel, and has the advantage over any other form of liquid heater of communicating all the heat generated to the liquid. While shown coiled in cylindrical form, they can be furnished in flat coils or to conform to the shape of vessels in which they are to be used. These heaters are also made for three divisions of heat, controlled with a switch on the coil. The amounts are maximum, one-half and one quarter. By having this arrangement the highest economy is obtained in operation. The maximum being used to quickly heat up, and the minimum to maintain the temperature.

The coils consist of copper tubes, and are furnished either plain or nickled. They are made for 52 or 110 volts, alternating or direct current, of such capacity as desired.

		Price 1 heat.	If with 3 heats.
<i>Sipid</i>	23171 Capacity, 100 to 440 Watts.....	\$ 6.00	\$ 7.00
<i>Sipper</i>	23172 " 440 " 660 " .....	7.50	8.50
<i>Sipper</i>	23173 " 700 " 880 " .....	8.50	9.50
<i>Sippling</i>	23174 " 900 " 1100 " .....	10.00	11.00

State voltage when ordering

## Electric Cooking and Heating Apparatus (Continued.)

### Electric Glue Pot.



No. 23164.

No fire, no smoke, no dirt, no gases, no danger.

It is made entirely of burnished copper, and will last indefinitely. The water bath contains a relatively small amount of water, which is automatically replenished from a reservoir, heated by coil heater, arranged to give three divisions of heat. The maximum is used to quickly heat the glue, and the minimum is usually sufficient to maintain the glue at the proper consistency. Absolutely no fire risk as with pots heated by gas or gasoline. This advantage alone is enough to justify a change from the old to the new. Pots are made for 52, 100 or 110 volt circuits, either direct or alternating.

		Amperes at 110 volts.			
		Max.	Med.	Min.	
<i>Sinuate</i>	23164 1 pint .....	3	1.5	$\frac{3}{4}$	13.00
<i>Sinuation</i>	23165 1 quart .....	4	2.	1	14.00
<i>Sinuose</i>	23166 2 quarts .....	6	3	1½	16.00
<i>Sinuous</i>	23167 1 gallon .....	10	5.	2½	18.00

Other sizes to order. State voltage when ordering.

In addition to the special glue pot shown in cut, we also furnish them without the reservoir. The entire pot is of heavy copper, with coiled copper heater, being in every way as substantial and durable as is possible to construct such a device. With this pot it requires from 16 to 20 minutes to have the glue ready for use, starting with everything cold. Much less time is required for the special type. In no other particular are they superior, while the price is less. In all glue pots the minimum current is sufficient to maintain the glue in proper condition for work.

		Amperes at 110 volts.			
		Max.	Med.	Min.	
<i>Sip</i>	23168 1 pint .....	4	2.	1	10.00
<i>Sipa</i>	23169 1 quart .....	6	3.	1½	11.00
<i>Siphon</i>	23170 2 quarts .....	8	4.	2	12.50

## Electric Cooking and Heating Apparatus (Continued.)

### Electric Smoothing Irons.

Unlike all others, except in form, are always clean, polished, and permit of continuous use. No time is lost in changing, cleaning, or useless rubbing with a cold iron, for they produce a "live heat" which is continuous throughout the period of use. A greater amount of work can be done by an operator in a given time with more ease and comfort than is possible with any other iron. The ordinary iron when first taken from the stove is frequently scorching hot, and gradually cools until repeated rubbing is necessary, where one stroke would suffice if the iron was "just right." Electric irons remain "just right," and no hot coal or gas stoves are required. These irons have proven of great value in sewing rooms, laundries and manufacturing establishments, and are deemed indispensable by those who have them.

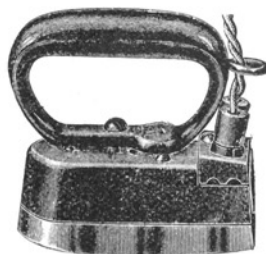
We call particular attention to the Small Seaming Iron, No. 23175, for apartment house use, as it is specially suitable for laces, handkerchiefs and all similar light goods. Can be attached to any lamp socket.

Each iron is supplied with a suitable stand on a slate base; also five feet of duplex conductor. For additional length add 15 cents per foot to cost of iron. Special forms for factory use, 50, 100 or 110 volts as required.



No. 23177.

Code Word	List No.	Amperes at 110 Volts.	List Price. Each.
<i>Sir</i>	23175	4½ lbs., Small Seaming, 2 Amp	\$5.00
<i>Sire</i>	23176	6½ " Light Domestic, 4 "	7.00
<i>Siren</i>	23177	7½ " Domestic, 5 "	7.50
<i>Sirene</i>	23178	9 " Heavy Laundry, 5 or 6 "	8.00



No. 23179.

### Polishing Irons.

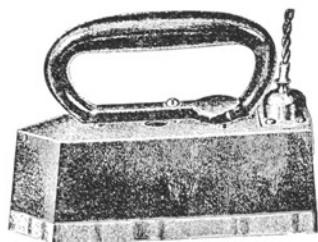
#### Regular Standard Sizes.

These irons have the regular polisher bottom and are usually installed where the electric sad iron is adopted. Made in one weight, about four pounds.

	Volts.	Amp. Consumpt.	Fuse required.	
<i>Sireneal</i>	50	3, 4, 4½, 5,	5 amp.	
<i>Sirenie</i>	110	1½, 2, 2½,	3 "	
	23179	50 Volts		6.00
	23180	110 "		6.00

## Electric Cooking and Heating Apparatus (Continued.)

### Goose Irons.



No. 23181.

*Sivisis*  
*Siritch*  
*Sirix*

These are essentially an industrial appliance. Their adoption has been so general that they may now be considered a fixture which no manager, seeking the most economical operation of his factory, can afford to overlook. Four people will easily do the work of five who use any other form of iron. One iron to each person is all that can be used. It is always ready for use and at hand; no walking half the length of the building to a stove to exchange irons with its consequent loss of time.

	Volts.	Amp. Consumpt.	Fuse Required.
12 and 18 lbs. {	50	7, 8, 9, 10	10 amp.
	110	3½, 4, 4½, 5	5 "
25 lbs. {	50	10, 12, 14, 16	16 "
	110	5, 6, 7, 8	8 "

23181	12 lb. Goose	.....	10.00
23182	18 lb. "	.....	11.00
23183	25 lb. "	.....	12.00

State voltage when ordering.



No. 23161.

### Electric Foot Warmer.

This device appeals at once to many who suffer with their head bursting from heat in a vain endeavor to keep warm. Improper distribution of heat, floor draughts, the temperature difference between the floor and a higher level, all combine to produce cold feet and, as a sequence, an uncomfortable condition generally. The electric foot warmer exactly supplies the remedy by producing a little heat just where it is wanted, and a high temperature in the room is unnecessary. It is made of cast-iron, in form to constitute a most desirable foot rest, finished in black japan, is guaranteed to last for many years, and may be left in circuit indefinitely—packed complete with cord and plug ready to connect to lamp socket. The current required is the same as for the usual (16-candle power) incandescent lamp. State voltage and kind of socket when ordering. Made for all incandescent lighting circuits.

*Simple*

23161	Foot Warmer, size 9 x 12 ins.	Amperes at 110 volts.	.....	6.00
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No. 23188.

## Electric Cooking and Heating Apparatus (Continued.)

### Disc Heaters.

The cut represents Disc Heater. The heating plate is 6½ inches in diameter and mounted on a cast iron base, neatly japanned.

An intense heat is made by turning the switch to the extreme right, when boiling, frying, etc. When switch is placed on middle contact the temperature is reduced one-half, where it may be maintained indefinitely. This feature makes the utensil valuable in the kitchen, sick room or nursery, where water may be heated or food quickly and easily prepared. This serviceable utensil is now in use in private families, hotels, restaurants, physicians' offices, match factories, furniture factories, printing offices, laboratories, smelting works, sugar refineries, etc., etc.

Disc Heaters 8 and 9 inches in diameter will be made to order in lots of not less than one half dozen. Apply for prices.

	Volts.	Amp. Consumption.	Fuse required,
	50	6, 8, 10,	10 amp.
	110	4,	4. "

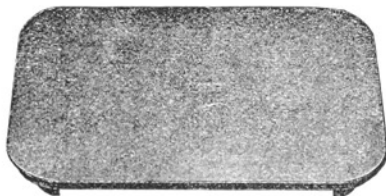
  

Code Word.	List No.	List Price.
<i>Sirapp</i>	23188 Disc Heater, 6 in. diameter.....	Each. \$7.50

### Pancake Griddles.

Griddles for Domestic use are made with one or with three polished circular heating plates on a cast iron frame or stand, neatly japanned. Their action is very quick, being ready to bake cakes within two minutes from the time the current is turned on.

The restaurant griddle, having one polished plate 12 x 18 in., is the largest size made. Three, four or more of these griddles side by side, may be operated at once or in units of one, two or three, according to the amount of work to be done, by which you pay for the actual amount of work done, instead of heating up a large griddle to do a small amount of work.



No. 23187.

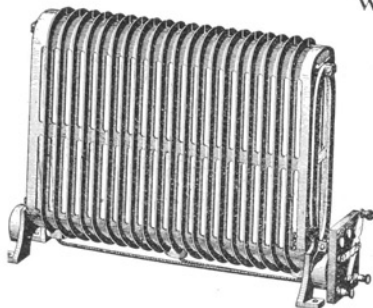
	Volts.	Amp. Consumpt.	Fuse Required.
1 Sec. {	50	4, 5, 6,	6 amp.
	110	2, 2½, 3,	3 "
12 x 18 {	50	30,	30 "
	110	15,	15 "

<i>Sirname</i>	List No.	Description	Price
<i>Sirname</i>	23185	One Section, for Domestic Use (Polished Surface),	7.50
<i>Sirrah</i>	23187	Restaurant Size, 12 x 18 (Polished Surface) .....	15.00

## Electric Air Heaters.

### Western Electric Company's Heater.



No. 23189.

Unless electricity is produced at very low cost, it is not commercially practicable to heat residences or large buildings. While this is true, the electric heater still has a wide field of application in heating small offices, bath rooms, snuggeries, cold corners of rooms, street railway waiting rooms, the summer villa on cool evenings, and in mild climates a still wider range. It has the peculiar advantage of being instantly available, and the amount of heat is regulated at will. The heaters are perfectly clean, do not vitiate the atmosphere, and are portable. No definite rule can be given to determine the amount of electricity necessary for heating a given space though approximate estimates can be made by allowing from 1 to 2 watts for each cubic foot of air space to be heated. The latter amount for well constructed buildings in cold weather, or for quickly heating a bath room. The electric heater is extremely valuable in the late spring, when furnace fires are not in use, and a sudden raw spell comes on—the electric current is immediately available and takes the chill from the rooms at a minimum expense and trouble.

The Western Electric Company's Heater, made in the shape of a small steam radiator is 14½ inches long, 3½ inches thick, and stands in height 12½ inches, is finished in black enamel or Japan. It is made for two adjustments, half capacity and full capacity; the switch indicates when the current is off, when half of the heater is used and when it is all in use.

Made for 50 or 100 volts. Specify in your order the voltage, and whether direct or alternating current.

Volts.	Amp. Consumption:	Fuse required.
100	14	20 amp.

Code Word.	List No.	List Price.
<i>Sereente</i>	23189 Western Electric Heater .....	Each. \$18.00

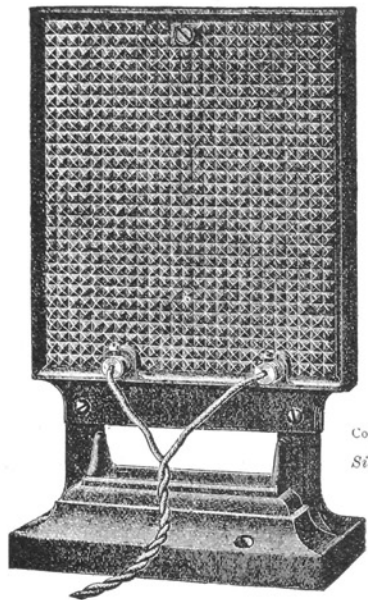
### American Heaters.

The Heaters are finished in Black Japan, and are usually arranged to give three different adjustments of heat. They are made for any circuit. State whether for direct or alternating, and voltage when ordering.

Code Word.	List No.	Length.	Height.	Width.	Max. Watt Capacity.	List Price. Each.
<i>Sisalgrass</i>	23190	26 in.	x 22 in.	x 2 in.	2,000	\$25.00
<i>Sisery</i>	23191	26 "	x 22 "	x 4 "	4,000	30.00
<i>Siskin</i>	23192	26 "	x 22 "	x 7 "	6,000	45.00
<i>Siskinitt</i>	23193	26 "	x 10½ "	x 2 "	1,200	15.00
<i>Siss</i>	23194	26 "	x 10½ "	x 4 "	2,400	20.00
<i>Sissoo</i>	23195	26 "	x 10½ "	x 7 "	3,500	30.00
<i>Sist</i>	23196	26 "	x 10½ "	x 10 "	4,500	40.00

Made in Gold Bronze or White Enamel for \$10.00 additional to List Prices.





No. 23107.

## Electric Air Heaters—(Continued.)

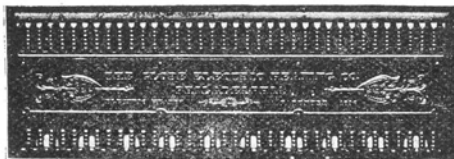
## Atmospheric Heater.

## Double.

This Heater is constructed with two heating plates, each 7 x 8 inches, supported on a neat base four inches high. In setting up, it can be so arranged that one or both plates may be used at the same time, and will be found very serviceable in small rooms or for other light work.

Volts.	Amp. Consumption.	Fuse Required.
50	17	18 amp.
110	8½	9 "

Code Word.	List No.	List Price, Each.
<i>Sister</i>	23197 Atmospheric Heater	\$12.00



No. 25589.

## Stationary Electric and Car Heater.

Each Heater consumes 1 ampere on 500 volts circuit, giving a temperature of 220 deg. Fahrenheit at Grate Opening.

Size Type B, 31 inches long, 10½ inches high, 2½ inches deep, Weight 22 pounds.

*Acornite* 25589 Type B, Car Heater 15.00



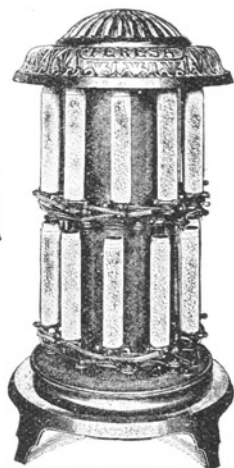
No. 25590.

Type C panel heater for side seat cars heating coils and current consumption same as type B.

*Acornite* 25590 Type C car heater. 15.00



No. 23199.



No. 23400.

Heater with Jacket removed  
Will work on either direct or  
alternating current.



No. 25588.

## Portable Electric Heater.

The smaller heater contains ten heating coils, each coil consuming .5 of 1 ampere on 110 volt circuit.

The larger heater contains twenty heating coils, each coil consuming .75 of ampere on 110 volt circuit.

To determine the heating capacity of these heaters figure 1 watt of electric energy to every two cubic feet of air space

This rule will hold good in well constructed buildings, with the outside temperature at 32 degrees Fahrenheit

Code Word	List No.	G No	List
<i>Sisterly</i>	23199	500	Height 19½ inches, diameter, 14 inches, weight, 28 pounds ..... \$2
<i>Sistrum</i>	23400	601	Height, 26 inches, diameter, 14 inches, weight 35 pounds ..... 3

## Electric Broiler.

Size 9 x 11 broiler, weight, 27 pounds,  
8 amperes, 110 volts.

Broils steaks, chops or chickens in six  
minutes.

There is no odor or smoke from this  
Broiler, as the heat is applied from the  
top. The juices of the meat are re-  
tained and a rich flavor imparted, which  
it is impossible to obtain by any other  
method.

Can be used in windows or on lunch  
counters by simply attaching to any  
electric light circuit.

Cannot be appreciated without a trial.

*Acolythist* 25588 Electrical Broiler..... 2

When ordering please state voltage.



No. 25473



No. 25474



No. 25475



No. 25476

*Accordion*

*Accordionist*

*Accordist*

*Accordist*  
*Accord*

*Accordist*

*Accountability*

*Accountableness*

*Accountably*

*Accountant*

*Accountantship*

### Electric Heating Irons.

These laundry irons, tailors' irons and curling iron heaters are noted for their excellent mechanical, as well as electrical design and they possess no parts that will easily get out of order.

The heating coils are made of the very best material obtainable, and will last for years when properly used. When ordering always state voltage.

#### Three Lb. Oval Shape Nursery Iron.

This iron is intended only for small and fine work, such as lace collars, fine handkerchiefs, baby dresses, etc.

It is wound for any voltage up to 125, direct or alternating, and can be attached to any ordinary lamp socket. Will get hot in less than 10 minutes.

25473 Consumes 240 watts..... \$6.00

#### Five Lb. V Shape Laundry Iron.

This size is best adapted for ordinary laundry work, where the iron is used constantly on the same grade of goods. It is not intended for heavy ironing.

Wound for any voltage up to 125, direct or alternating.

25474 Consumes 300 watts..... 7.00

#### Six and One-Half Lb. V Shape and Oval Shape Household Irons.

These two sizes will meet all requirements for regular household ironing. They will give sufficient heat for the heavy work, and are not too heavy for the small work. Wound for any voltage up to 250, direct or alternating.

25475 Consumes 600 watts..... 8.00

25476 Consumes 600 watts..... 8.00

#### Eight Lb. V Shape Laundry Iron.

This iron is constructed for constant heavy ironing and will give sufficient heat for the heaviest material.

Wound for any voltage up to 250, direct or alternating.

25477 Consumes 700 watts..... 10.00

#### Twelve and Sixteen Lb. Tailor Irons.

The electric tailors' irons can be depended on to give a steady uniform heat, and will always remain clean.

Wound for any voltage up to 250, direct or alternating.

25478 12 lb. consumes 530 watts, 9½ inches long; 3¼ inches wide..... 15.00

25479 16 lb. consumes 600 watts; 9¼ inches long; 3 inches wide..... 16.00

#### Twenty Lb. Tailor Iron.

This is the size mostly used by custom tailors. It is constructed on the same principle as the 12 and 16 lb. irons.

When ordering always state whether for custom tailors, or manufacturing clothes use.

Wound for any voltage up to 250, direct or alternating.

25480 Consumes 700 watts, length 11 in., width 3½ in. 18.00

#### Curling Iron Heater.

The heater is finished in bronze and made in shape of a dog, with opening at the mouth to admit curling iron. It is mounted on a handsome marbled base, always ready for use, giving out no odor or smoke. Wound for any voltage up to 125.

25481 Consumes 100 watts, large, with socket, lamp, and curling iron rest..... 6.00

25482 Small..... 4.00



No. 25481

## Electric Soldering Iron.

The advantages of an electric soldering iron over those heated by gas, gasoline, or charcoal, are numerous. The heat is constantly applied, the copper remains tinned much longer, and the operator can work right along with one iron, thus saving considerable time. In hot weather it is a great boon to discard the old time soldering-iron stove or furnace, and use an iron that emits no heat except at the point where wanted.

The irons are made in different sizes to meet all requirements. When ordering specify what kind of work the iron is to do.

Special irons made to order. Always state voltage.

### No. 2 Light.

This iron is made for very light work. It is a great time saver and a very convenient tool. Can be attached to an ordinary lamp socket. Wound for any voltage up to 125, direct or alternating.



No. 25169

Code Word.  
*Accomptable*

List No	Price
<b>25469</b> Weight, 1 lb. 6 oz.; length 13 in.; tip $\frac{3}{8}$ in. diameter. Consumes 135 watts . . . . .	<b>\$6.00</b>

### No. 2 Regular.

This size will do for any work requiring a medium hot iron, such as light tinsmith's work, lead glazing, soldering commutator connections and bands on small armatures, wire joints in ceilings, and places where the marks from a flame would be objectionable, etc. It is not intended for heavy work.



No. 25470

*Accomptant*

Wound for any voltage up to 125, direct or alternating.	
<b>25470</b> Weight, 1 lb. 10 oz.; length 13 $\frac{1}{2}$ in.; tip 1 in. diameter, either chisel shape or pointed. Consumes 155 watts . . . . .	<b>6.00</b>

### No. 3 Regular.

The iron is recommended for all-around work. It is heavy enough to do any ordinary soldering, and is not too heavy to be used on light work.

Will be found well adapted for banding armatures of of any size, electrotype soldering, regular tinsmith's work, etc.



No. 25471

*Accordable*

It is also made with a straight pointed tip,  $\frac{5}{8}$  inch diameter, known as No. 3 light. If anchored to the work bench, leaving both hands of the operator free to handle the work, it can be used to great advantage on toys, lamp cases, fuse plugs, etc., and will save time.

Wound for any voltage up to 250, direct or alternating.	
<b>25471</b> Weight, 2 lbs. 8 oz.; length 14 in.; tip 1 $\frac{1}{4}$ in. diameter, either chisel shape or pointed. Consumes 320 watts . . . . .	<b>7.00</b>

### No. 4 Regular.

This size is intended only for extra heavy work, and will get very hot. It is constructed on the same principal as the other sizes.

Wound for any voltage up to 250, direct or alternating.



No. 25472

*Accordancy*

<b>25472</b> Weight, 4 lbs. 4 oz.; length 15 in.; tip 1 $\frac{1}{2}$ in. diameter, either chisel shape or pointed. Consumes 550 watts . . . . .	<b>10.00</b>
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## Conduit and Conduit Fittings.

### Interior Conduit.

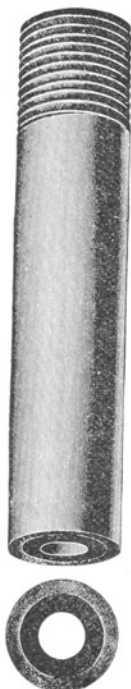
#### Iron Armored Conduit.

##### For Direct and Alternating Currents.

The Iron Armored Conduit possesses all the qualities of gas or water pipe, and can be installed with equal ease by the use of tools for cutting, threading, etc. In combination with the brass armored conduit it can be advantageously employed in construction work under concrete, tiled or mosaic floors, and other like places, without the expensive precautions for protection that are necessary in the use of plain or brass armored conduit.

Thickness of armor,  $\frac{1}{8}$  inch. All sizes supplied in ten foot lengths, each length having a coupling attached to one end. Tubes have straight threads at both ends, and in making joints these ends should be firmly butted in center of coupling to secure continuity of insulation.

Prices on all Iron Armored Conduit and fittings are subject to change, on thirty days' notice, on account of the fluctuation in prices of iron piping. Contractors are advised to obtain from us latest quotations before placing their orders.



Cross Section.

Code Word.	List No.			List Price Per 100 ft.
<i>Needle</i>	6710	$\frac{1}{2}$ in. inside diam.	.81 in. outside diam.	\$10.25
<i>Needless</i>	6711	$\frac{3}{8}$ " "	1.05 " "	13.00
<i>Needlessly</i>	6712	$\frac{9}{16}$ " "	1.315 " "	18.00
<i>Needlerock</i>	6713	$1\frac{1}{4}$ " "	1.66 " "	28.00
<i>Neglectet</i>	6714	$1\frac{1}{2}$ " "	1.90 " "	36.00
<i>Negotiate</i>	6715	$1\frac{8}{16}$ " "	2.375 " "	50.00
<i>Negro</i>	6716	$2\frac{1}{2}$ " "	2.875 " "	67.00
<i>Negus</i>	6717	$2\frac{8}{16}$ " "	3.50 " "	84.00

All elbows, nipples and special couplings, as well as tools necessary for use with Iron Armored Conduit, can be furnished by us, and prices on same may be had on application.

## Interior Conduit—(Continued.)

## Iron Armored Conduit—(Continued.)

## No. 519 Iron Covered S Elbow.



No. 6728.

Code Word.	List No.			List Price. Per 100.
<i>Nomadic</i>	6728	$\frac{1}{2}$ inch, inside diam.,	14 inches offset.....	\$41.00
<i>Nomenclature</i>	6729	$\frac{3}{8}$ " " " "	17 " " " "	62.00
<i>Nominal</i>	6730	$\frac{1}{2}$ " " " "	19 " " " "	76.00
<i>Nominate</i>	6731	$1\frac{1}{4}$ " " " "	23 " " " "	96.40
<i>Nonage</i>	6732	$1\frac{1}{16}$ " " " "	28 " " " "	182.00
<i>Nonconformis</i>	6833	$\frac{1}{2}$ " " " "	16 " " " "	42.70
<i>Nondescript</i>	6834	$\frac{3}{8}$ " " " "	19 " " " "	64.25
<i>Nones</i>	6835	$\frac{1}{2}$ " " " "	21 " " " "	79.10
<i>Nonpareil</i>	6736	$1\frac{1}{4}$ " " " "	25 " " " "	100.40
<i>Nonplus</i>	6737	$1\frac{1}{16}$ " " " "	30 " " " "	187.00
<i>Nonsense</i>	6738	$\frac{1}{2}$ " " " "	18 " " " "	44.40
<i>Nook</i>	6739	$\frac{3}{8}$ " " " "	21 " " " "	66.50
<i>Noon</i>	6740	$\frac{3}{8}$ " " " "	23 " " " "	82.20
<i>Nooday</i>	6741	$1\frac{1}{4}$ " " " "	27 " " " "	104.40
<i>Normal</i>	6742	$1\frac{1}{16}$ " " " "	32 " " " "	192.00



No. 6743.

## No. 512 Iron Covered Corner Elbow.

<i>Northerly</i>	6743	$\frac{1}{2}$ inch, inside diam.,	14 inches offset.....	41.00
<i>Northern</i>	6744	$\frac{3}{8}$ " " " "	17 " " " "	62.00
<i>Northernard</i>	6745	$\frac{1}{2}$ " " " "	19 " " " "	76.00
<i>Nosogy</i>	6746	$1\frac{1}{4}$ " " " "	23 " " " "	96.40
<i>Nosology</i>	6747	$1\frac{1}{16}$ " " " "	28 " " " "	182.00
<i>Nostrum</i>	6748	$\frac{1}{2}$ " " " "	16 " " " "	42.70
<i>Notable</i>	6749	$\frac{3}{8}$ " " " "	19 " " " "	64.25
<i>Notably</i>	6750	$\frac{1}{2}$ " " " "	21 " " " "	79.10
<i>Notarial</i>	6751	$1\frac{1}{4}$ " " " "	25 " " " "	100.40
<i>Notary</i>	6752	$1\frac{1}{16}$ " " " "	30 " " " "	187.00
<i>Notation</i>	6753	$\frac{1}{2}$ " " " "	18 " " " "	44.40
<i>Notch</i>	6754	$\frac{3}{8}$ " " " "	21 " " " "	66.50
<i>Note</i>	6755	$\frac{3}{8}$ " " " "	23 " " " "	82.20
<i>Notebook</i>	6756	$1\frac{1}{4}$ " " " "	27 " " " "	104.40
<i>Noted</i>	6757	$1\frac{1}{16}$ " " " "	32 " " " "	192.00

## No. 416 Long Insulating Elbows.

No. 416 Elbow corresponds in style with No. 116 Brass' Armored Elbow.

INSIDE DIAMETER.	OFF-SET.					
	$\frac{1}{2}$	$\frac{7}{16}$	$\frac{5}{8}$	1	$1\frac{1}{16}$	$\frac{1}{2}$ inch Elbow, $6\frac{3}{4}$ inches.
Length, 10 inches..... Per 100	\$23 00	\$28 00	\$40 00	.....	.....	$\frac{7}{16}$ " " " " 7 "
" 12 " " " " "	25 00	30 50	41 00	.....	.....	" " " " 8 $\frac{1}{2}$ "
" 14 " " " " "	27 00	33 00	48 00	\$58 00	\$106 00	" " " " 10 $\frac{1}{2}$ "
" 16 " " " " "	29 00	35 50	48 00	63 00	114 00	" " " " 12 "
" 18 " " " " "	31 00	38 00	52 00	68 00	114 00	" " " " 12 "

Interior Conduit—(Continued.)

Iron Armored Conduit—(Continued.)

No. 414 Short Insulating Elbows.



No. 6718.

Code Word.	List No.		List Price. Per 100.
Nocturnal	6718	$\frac{1}{2}$ inch, inside diameter.....	\$18.00
Nod	6719	$\frac{7}{16}$ " " " .....	23.00
Noddle	6720	$\frac{7}{16}$ " " " .....	30.00
Noddy	6721	$1\frac{1}{4}$ " " " .....	35.00
Node	6722	$1\frac{5}{16}$ " " " .....	60.00
Nodule	6723	$1\frac{7}{16}$ " " " .....	165.00
Noggin	6724	$2\frac{1}{2}$ " " " .....	240.00
Noise	6725	$2\frac{5}{16}$ " " " .....	350.00



No. 21475.

No. 418 Insulating Outlet Elbows.

Sauci	21475	$\frac{1}{2}$ inch .....	22.00
Saucy	21476	$\frac{7}{16}$ " .....	30.00
Sauerk	21477	$\frac{5}{16}$ " .....	40.00



No. 21478.

No. 419 Insulating Outlet Elbows.

Saupt	21478	$\frac{1}{2}$ inch inside diameter.....	20.00
Sawn	21479	$\frac{7}{16}$ " " " .....	27.00
Saurk	21480	$\frac{5}{16}$ " " " .....	35.00



No. 21481.

No. 580 Insulating Elbow Outlets.

Sauso	21481	$\frac{1}{2}$ inch inside diameter .....	25.00
Savob	21482	$\frac{7}{16}$ " " " .....	30.00
Sava	21483	$\frac{5}{16}$ " " " .....	38.00
Savagel	21484	$1\frac{1}{4}$ " " " .....	50.00



No. 21585.

No. 581 Insulating Elbow Outlets.

Savogen	21485	$\frac{1}{2}$ inch inside diameter.....	25.00
Savager	21486	$\frac{7}{16}$ " " " .....	30.00
Savagis	21487	$\frac{5}{16}$ " " " .....	38.00
Savanna	21488	$1\frac{1}{4}$ " " " .....	50.00



No. 284.

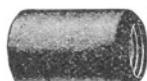
## Interior Conduit—(Continued.)

## Iron Amored Conduit—(Continued.)

## No. 284 Insulating Nipples.

## List Prices.

INSIDE DIAM.	LENGTH IN INCHES							PRICE, EACH		PRICE, EACH, OF EXTRA LONG.							
	Close.	Short	Long				Close Short.	Long.	5 in.	6 in.	7 in.	8 in.	9 in.	10 in.	11 in.	12 in.	
$\frac{1}{2}$	1 $\frac{1}{2}$	1 $\frac{1}{2}$	2	2 $\frac{1}{2}$	3	3 $\frac{1}{2}$	\$0 07	\$0 10	\$0 18	\$0 19	\$0 20	\$0 21	\$0 22	\$0 23	\$0 25	\$0 27	
$\frac{3}{8}$	1 $\frac{3}{8}$	2	2 $\frac{1}{2}$	3	3 $\frac{1}{2}$	4	09	11	20	21	22	23	25	27	29	31	
$\frac{1}{2}$	1 $\frac{1}{2}$	2	2 $\frac{1}{2}$	3	3 $\frac{1}{2}$	4	10	15	22	24	27	29	31	33	36	40	
$\frac{3}{4}$	1 $\frac{3}{4}$	2 $\frac{1}{2}$	3	3 $\frac{1}{2}$	4	4 $\frac{1}{2}$	14	20	29	31	33	35	38	40	43	46	
$1\frac{1}{8}$	1 $\frac{3}{4}$	2 $\frac{1}{2}$	3	3 $\frac{1}{2}$	4	4 $\frac{1}{2}$	17	25	36	38	40	42	45	48	51	55	
$1\frac{1}{4}$	2	2 $\frac{1}{2}$	3	3 $\frac{1}{2}$	4	4 $\frac{1}{2}$	25	35	44	49	54	59	64	69	74	79	
$1\frac{3}{8}$	2 $\frac{1}{2}$	3	3 $\frac{1}{2}$	4	4 $\frac{1}{2}$	5	56	75	75	80	85	91	1 00	1 10	1 20	1 30	
$2\frac{1}{8}$	2 $\frac{1}{2}$	3	3 $\frac{1}{2}$	4	4 $\frac{1}{2}$	5	75	95	95	1 00	1 06	1 15	1 24	1 34	1 44	1 55	



No. 21489.

Code Word.	List No.		List Price.
<i>Saxon</i>	21489	$\frac{1}{2}$ inch inside diameter, per 100.	\$7.00
<i>Sax</i>	21490	$\frac{3}{8}$ " " " " "	10.00
<i>Saxem</i>	21491	$\frac{1}{2}$ " " " " "	13.00
<i>Saxvi</i>	21492	1 $\frac{1}{2}$ " " " " "	17.00
<i>Saxing</i>	21493	1 $\frac{3}{8}$ " " " " "	21.00
<i>Saxingne</i>	21494	1 $\frac{1}{2}$ " " " " "	28.00
<i>Saxo</i>	21495	2 $\frac{1}{2}$ " " " " "	40.00
<i>Saxori</i>	21496	2 $\frac{3}{8}$ " " " " "	60.00

## No. 104 Right and Left Couplings.

<i>Saxori</i>	21497	$\frac{1}{2}$ inch inside diameter, per 100	11.00
<i>Saxorgl</i>	21498	$\frac{3}{8}$ " " " " "	15.00
<i>Saxul</i>	21499	$\frac{1}{2}$ " " " " "	20.00
<i>Saxdust</i>	21500	1 $\frac{1}{2}$ " " " " "	25.00
<i>Saxmill</i>	21501	1 $\frac{3}{8}$ " " " " "	30.00
<i>Saxepit</i>	21502	1 $\frac{1}{2}$ " " " " "	50.00
<i>Saxset</i>	21503	2 $\frac{1}{2}$ " " " " "	85.00
<i>Saxyer</i>	21504	2 $\frac{3}{8}$ " " " " "	120.00



No. 21505.

Code Word.	List No.		List Price.
<i>Saxrfrage</i>	21505	$\frac{1}{2}$ inch inside diameter, per 100	5.00
<i>Saxon</i>	21506	$\frac{3}{8}$ " " " " "	8.00
<i>Saxonism</i>	21507	$\frac{1}{2}$ " " " " "	11.00
<i>Saxob</i>	21508	1 $\frac{1}{2}$ " " " " "	15.00
<i>Saxbard</i>	21509	1 $\frac{3}{8}$ " " " " "	22.00
<i>Saxbed</i>	21510	1 $\frac{1}{2}$ " " " " "	30.00
<i>Saxbiness</i>	21511	2 $\frac{1}{2}$ " " " " "	50.00
<i>Saxby</i>	21512	2 $\frac{3}{8}$ " " " " "	80.00

## No. 583 Plugs. Cast Iron.



No. 21514.

<i>Scabious</i>	21513	$\frac{1}{2}$ inch, each	.04
<i>Scabrous</i>	21514	$\frac{3}{8}$ " " "	.05
<i>Skeaback</i>	24058	$\frac{3}{8}$ " " "	.06
<i>Skeabridge</i>	24059	1 $\frac{1}{2}$ " " "	.10
<i>Skear</i>	24060	1 $\frac{3}{8}$ " " "	.13
<i>Skear y</i>	24061	1 $\frac{1}{2}$ " " "	.20
<i>Skiff</i>	24082	2 $\frac{1}{2}$ " " "	.35
<i>Skidder</i>	24063	2 $\frac{3}{8}$ " " "	.50



# Conduit and Conduit Fittings.

## INTERIOR CONDUIT.

### New Iron Armored Insulating Conduit.

#### For Direct and Alternating Currents.

The New Iron Armored Insulating Conduit consists of the well known insulation still further improved within a wrought iron pipe, the thickness of the armor being about 1-16 inch. The outside diameters of commercial wrought iron gas pipe are maintained in the new system; a reduction in the thickness of the wall giving greater inside diameter. It is impossible to draw or force the insulating lining out of the pipe as it is placed there under high pressure, filling up the interstices, and leaving absolutely no air space between the insulation and the iron. The flexibility of the system is maintained by the use of junction boxes, fittings, etc.

The New Iron Armored Insulating Conduit possesses all the qualities of gas or water pipe, and can be installed with equal ease by the use of tools for cutting, threading, etc.

In combination with the Brass Armored Conduit it can be advantageously employed in construction work, under concrete, tiled or mosaic floors, and other like places, without the expensive precautions for protection that are necessary in the use of plain or Brass Armored Conduit.

A saving in labor is effected in installing the New Iron Armored Conduit, inasmuch as it can be installed in advance of the mason work, at the most advantageous time during the construction of a building, without fear of accident to it by masons, mechanics or other workmen.



Code Word.	List No.		List Price. Per 100 ft.
<i>Site</i>	24003	$\frac{1}{8}$ in. inside diam. .675 in. outside diam. . . .	\$ 9.25
<i>Sited</i>	24004	$\frac{3}{8}$ " " " .84 " " " . . . .	11.50
<i>Silfast</i>	24005	$\frac{3}{4}$ " " " 1.05 " " " . . . .	15.00
<i>Silk</i>	24006	1 " " " 1.315 " " " . . . .	21.00
<i>Sitology</i>	24007	1 $\frac{1}{4}$ " " " 1.66 " " " . . . .	27.00
<i>Sitta</i>	24008	1 $\frac{1}{2}$ " " " 1.90 " " " . . . .	34.00
<i>Sitter</i>	24009	2 " " " 2.375 " " " . . . .	47.00
<i>Sitting</i>	24010	2 $\frac{1}{2}$ " " " 2.875 " " " . . . .	67.00

All sizes supplied in ten-foot lengths, with a coupling for each length.

Tubes have slightly tapering threads at both ends, and in making joints these ends should be firmly abutted in center of coupling to secure continuity of insulation. Wherever the tube is cut the burr should be removed by using Butt Reamer.

Prices on all New Iron Armored Conduit and Fittings are subject to change without notice, on account of the fluctuation in prices of iron piping. Contractors are advised to obtain from us latest quotations before placing their orders.

## Interior Conduit—(Continued.)

## New Iron Armored Conduit—(Continued.)

## No. 1519 Iron Covered S Elbow.



No. 21027.

Code Word.	List No.		List Price Per 100.
<i>Size</i>	24027	$\frac{1}{2}$ inch, inside diam., 14 inches offset.	\$ 33.00
<i>Size</i>	24028	$\frac{3}{8}$ " " " 17 " "	41.00
<i>Size</i>	24029	$\frac{1}{2}$ " " " 19 " "	62.00
<i>Size</i>	24030	1 " " " 23 " "	76.00
<i>Size</i>	24031	$1\frac{1}{4}$ " " " 28 " "	96.00
<i>Size</i>	24032	$\frac{3}{4}$ " " " 16 " "	34.50
<i>Size</i>	24033	$\frac{1}{2}$ " " " 19 " "	42.70
<i>Size</i>	24034	$\frac{3}{8}$ " " " 21 " "	64.00
<i>Size</i>	24035	1 " " " 25 " "	79.00
<i>Size</i>	24036	$1\frac{1}{4}$ " " " 30 " "	100.00
<i>Size</i>	24037	$\frac{1}{2}$ " " " 18 " "	35.00
<i>Size</i>	24038	$\frac{3}{8}$ " " " 21 " "	44.40
<i>Size</i>	24039	$\frac{1}{4}$ " " " 23 " "	66.00
<i>Size</i>	24040	1 " " " 27 " "	82.00
<i>Size</i>	24041	$1\frac{1}{4}$ " " " 32 " "	104.00



No. 21042.

## No. 1512 Iron Covered Corner Elbow.

<i>Size</i>	24042	$\frac{1}{2}$ inch inside diam., 14 inches offset.	33.00
<i>Size</i>	24043	$\frac{3}{8}$ " " " 17 " "	41.00
<i>Size</i>	24044	$\frac{1}{2}$ " " " 19 " "	62.00
<i>Size</i>	24045	1 " " " 23 " "	76.00
<i>Size</i>	24046	$1\frac{1}{4}$ " " " 28 " "	96.00
<i>Size</i>	24047	$\frac{3}{8}$ " " " 16 " "	34.50
<i>Size</i>	24048	$\frac{1}{2}$ " " " 19 " "	42.70
<i>Size</i>	24049	$\frac{3}{4}$ " " " 21 " "	64.00
<i>Size</i>	24050	1 " " " 25 " "	79.00
<i>Size</i>	24051	$1\frac{1}{4}$ " " " 30 " "	100.00
<i>Size</i>	24052	$\frac{3}{8}$ " " " 18 " "	35.00
<i>Size</i>	24053	$\frac{1}{2}$ " " " 21 " "	44.40
<i>Size</i>	24054	$\frac{1}{4}$ " " " 23 " "	66.00
<i>Size</i>	24055	1 " " " 27 " "	82.00
<i>Size</i>	24056	$1\frac{1}{4}$ " " " 32 " "	104.00

## No. 1416 Long Insulating Elbows.

No. 1416 Elbow corresponds in style with No. 116 Brass Armored Elbow.

INSIDE DIAMETER.						OFFSET.	
	$\frac{1}{2}$	$\frac{3}{8}$	$\frac{1}{2}$	1	$1\frac{1}{4}$		
Length, 12 inches. Per 100	\$22.50	\$25.50	\$32.80	\$43.50	\$52.00	$\frac{3}{8}$ inch Elbow, 7 inches.	
" 14 " "	24.00	27.50	35.30	47.00	56.50	$\frac{1}{2}$ " " " 8 $\frac{1}{2}$ "	
" 16 " "	25.50	29.50	37.80	50.50	61.00	1 " " " 10 $\frac{1}{2}$ "	
" 18 " "	27.00	31.50	40.30	54.00	65.50	$1\frac{1}{4}$ " " " 12 " "	

## Interior Conduit—(Continued.)

(New Iron Armored Conduit—Continued.)



No. 24011.

## No. 1414 Short Insulating Elbows.

Code Word	List No.		List Price. Per 100
<i>Situate</i>	24011	$\frac{1}{8}$ inch, inside diameter	\$16.00
<i>Situation</i>	24012	$\frac{3}{8}$ " " "	18.00
<i>Situated</i>	24013	$\frac{1}{2}$ " " "	23.00
<i>Situs</i>	24014	1 " " "	30.00
<i>Sivan</i>	24015	1 $\frac{1}{2}$ " " "	35.00
<i>Sixer</i>	24016	1 $\frac{3}{4}$ " " "	60.00
<i>Sixfold</i>	24017	2 " " "	165.00
<i>Sixpence</i>	24018	2 $\frac{1}{2}$ " " "	240.00



No. 21430.

## No. 1418 Insulating Outlet Elbows.

<i>Satiat</i>	21430	$\frac{1}{8}$ inch	21.00
<i>Satiation</i>	21431	$\frac{3}{8}$ " "	24.00
<i>Satiety</i>	21432	$\frac{1}{2}$ " "	28.00



No. 21433.

## No. 1419 Insulating Outlet Elbows.

<i>Satin</i>	21433	$\frac{1}{8}$ inch inside diameter	18.00
<i>Satinet</i>	21434	$\frac{3}{8}$ " " "	20.00
<i>Satinflower</i>	21435	$\frac{1}{2}$ " " "	24.00

## No. 1580 Insulating Elbow Outlets.

<i>Satinspar</i>	21436	$\frac{1}{8}$ inch inside diameter	25.00
<i>Satinstone</i>	21437	$\frac{3}{8}$ " " "	30.00
<i>Satinwood</i>	21438	$\frac{1}{2}$ " " "	38.00
<i>Sating</i>	21439	1 " " "	50.00
<i>Sixpenny</i>	24019	1 $\frac{1}{2}$ " " "	70.00
<i>Sixscore</i>	24020	1 $\frac{3}{4}$ " " "	85.00
<i>Sixshooter</i>	24021	2 " " "	110.00
<i>Sixthly</i>	24022	2 $\frac{1}{2}$ " " "	150.00



No. 21436.

## No. 1581 Insulating Elbow Outlets.

<i>Station</i>	21440	$\frac{1}{8}$ inch inside diameter	25.00
<i>Satire</i>	21441	$\frac{3}{8}$ " " "	30.00
<i>Satiric</i>	21442	$\frac{1}{2}$ " " "	38.00
<i>Satirical</i>	21443	1 " " "	50.00
<i>Sixkrate</i>	24023	1 $\frac{1}{2}$ " " "	70.00
<i>Sixteth</i>	24024	1 $\frac{3}{4}$ " " "	85.00
<i>Sixoble</i>	24025	2 " " "	110.00
<i>Sixer</i>	24026	2 $\frac{1}{2}$ " " "	150.00



No. 21540.



No. 1284.

## Interior Conduit—(Continued.)

New Iron Amored Conduit—(Continued.)

## No. 1284 Insulating Nipples.

List Prices.

INSIDE DIAM.	LENGTH IN INCHES.						PRICE, EACH		PRICE, EACH, OF EXTRA LONG.									
	Inches.	Close.	Short	Long.			Close Short.	Long.	5 in.	6 in.	7 in.	8 in.	9 in.	10 in.	11 in.	12 in.		
$\frac{1}{8}$	1	$1\frac{1}{2}$	2	2 $\frac{1}{2}$	3	3 $\frac{1}{2}$	\$0 06	\$0 09	\$0 17	\$0 18	\$0 19	\$0 20	\$0 21	\$0 22	\$0 23	\$0 25		
$\frac{1}{4}$	1 $\frac{1}{2}$	1 $\frac{1}{2}$	2	2 $\frac{1}{2}$	3	3 $\frac{1}{2}$	07	10	18	19	20	21	22	23	25	27		
$\frac{3}{8}$	1 $\frac{1}{2}$	2	2 $\frac{1}{2}$	3	3 $\frac{1}{2}$	4	09	11	20	21	22	23	25	27	29	31		
1	1 $\frac{1}{2}$	2	2 $\frac{1}{2}$	3	3 $\frac{1}{2}$	4	10	15	22	24	27	29	31	33	36	40		
1 $\frac{1}{4}$	1 $\frac{1}{2}$	2 $\frac{1}{2}$	3	3 $\frac{1}{2}$	4	4 $\frac{1}{2}$	14	20	29	31	33	35	38	40	43	46		
1 $\frac{1}{2}$	1 $\frac{1}{2}$	2 $\frac{1}{2}$	3	3 $\frac{1}{2}$	4	4 $\frac{1}{2}$	17	25	36	38	40	42	45	48	51	55		
2	2	2 $\frac{1}{2}$	3	3 $\frac{1}{2}$	4	4 $\frac{1}{2}$	25	35	44	49	54	59	64	69	74	79		
2 $\frac{1}{2}$	2	3	3 $\frac{1}{2}$	4	4 $\frac{1}{2}$	5	56	75	75	80	85	91	1 00	1 10	1 20	1 30		



No. 21444.

Code Word.	List No.	Size	List Price.
<i>Satisfist</i>	21444	$\frac{1}{2}$ inch inside diameter, per 100	\$6.00
<i>Satirize</i>	21445	$\frac{3}{4}$ " " " " " "	7.00
<i>Satisfaction</i>	21446	1 " " " " " "	10.00
<i>Satisfactive</i>	21447	1 $\frac{1}{2}$ " " " " " "	13.00
<i>Satisfactorily</i>	21448	1 $\frac{1}{2}$ " " " " " "	17.00
<i>Satisfactory</i>	21449	1 $\frac{1}{2}$ " " " " " "	21.00
<i>Satisfiable</i>	21450	2 " " " " " "	28.00
<i>Satisfier</i>	21451	2 $\frac{1}{2}$ " " " " " "	40.00

## No. 1104 Right and Left Couplings.

<i>Satisfy</i>	21452	$\frac{1}{2}$ inch inside diameter, per 100	8.00
<i>Satise</i>	21453	$\frac{3}{4}$ " " " " " "	11.00
<i>Satrap</i>	21454	1 " " " " " "	15.00
<i>Satrapal</i>	21455	1 " " " " " "	20.00
<i>Satrapess</i>	21456	1 $\frac{1}{2}$ " " " " " "	25.00
<i>Satrapicent</i>	21457	1 $\frac{1}{2}$ " " " " " "	30.00
<i>Satrapy</i>	21458	2 " " " " " "	50.00
<i>Satrable</i>	21459	2 $\frac{1}{2}$ " " " " " "	85.00



No. 21460.

## No. 1582 Caps.

<i>Saturant</i>	21460	$\frac{1}{2}$ inch inside diameter, per 100	3.00
<i>Saturate</i>	21461	$\frac{3}{4}$ " " " " " "	5.00
<i>Saturation</i>	21462	1 " " " " " "	8.00
<i>Saturity</i>	21463	1 " " " " " "	11.00
<i>Saturn</i>	21464	1 $\frac{1}{2}$ " " " " " "	15.00
<i>Saturnalia</i>	21465	1 $\frac{1}{2}$ " " " " " "	22.00
<i>Saturnalian</i>	21466	2 " " " " " "	30.00
<i>Saturnaliar</i>	21466 $\frac{1}{2}$	2 $\frac{1}{2}$ " " " " " "	50.00

## No. 1583 Plugs. Cast Iron.

<i>Saturnian</i>	21467	$\frac{1}{8}$ inch, each	.03
<i>Saturnine</i>	21468	$\frac{1}{4}$ " " " "	.04
<i>Satyr</i>	21469	$\frac{1}{2}$ " " " "	.05
<i>Satyrlic</i>	21470	1 " " " "	.06
<i>Sauce</i>	21471	1 $\frac{1}{2}$ " " " "	.10
<i>Saucebozy</i>	21472	1 $\frac{1}{2}$ " " " "	.14
<i>Saucerx</i>	21473	2 " " " "	.20
<i>Saucilyx</i>	21474	2 $\frac{1}{2}$ " " " "	.35



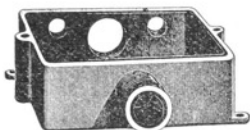
No. 21469.

## Iron Armored Insulating Conduit—(Continued.)

## Single Tube System for Direct or Alternating Currents.

## Plain Junction and Terminal Box.

If installation is to be made before partition walls are erected, we place the Outlets in order, to clear the thickness of Terra Cotta wall. If orders for special Boxes do not specify "Brick" or "Lath and Plaster," we make them for Brick Work.



No. 32502.

Code Word	List No	Dimensions: Outside length, 6 inches, width, 3 1/4 inches, depth 3 inches.....	List Price Each.
<i>Sketcher</i>	<b>32502</b>		<b>\$4.75</b>

We advise the use of Nipples, as they are fitted flush with inside of boxes before they are lined, thus keeping the insulating lining intact, which during installation, is liable to damage by screwing lengths of conduit too far into the Boxes.

## Porcelain Cut-Out for No. 32502.

<i>Sketchily</i>	<b>120 1/2</b>	Two Circuit Cut-Out .....	<b>1.80</b>
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## Covers for Box No. 32502.

DIMENSIONS OF BOXES OUTSIDE.	FINISH.	DESIGNS.	
		No. 32604.	No. 32606.
6 x 3 1/4	Bronze Polished.....	\$0 65	\$0 65
	Nickel ".....	55	60
	Galvanized.....	55	20
	Plain Iron.....	40	

## Double Tube System for Direct Current Only.

## Plain Junction Boxes for Double Tube Mains and Double Tube Branches.

They are made so that covers can be used.

Junction Boxes for Brick or Terra Cotta Work have the upper rim of holes parallel with and 3/8 inch from rim of box.

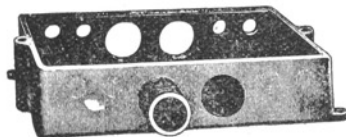
Junction Boxes for Lath and Plaster Work have the upper rim of holes parallel with and 1/2 inch from rim of box.

<i>Sketchy</i>	<b>32002</b>	Two Circuit, Main Line, for Brick; length, 8 1/2 ins.; width, 3 1/4 ins.; depth, 3 ins.....	<b>6.50</b>
<i>Sketch</i>	<b>32011</b>	Two Circuit, Main Line, for Lath and Plaster; length, 8 1/2 ins.; width, 3 1/4 ins.; depth, 3 1/4 ins.....	<b>6.75</b>

## Porcelain Cut-Out for Nos. 32002 and 32011.

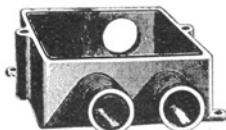
<i>Sketcharch</i>	<b>128 1/2</b>	Two Circuit Cut-out.....	<b>1.90</b>
		Porcelain, 1 inch thick.	

## Metal Covers for Junction Boxes.

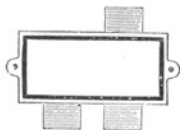


No. 32002.

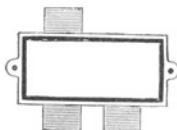
DIMENSIONS OF BOXES INSIDE.	FINISH.	DESIGNS.	
		No. 32602.	No. 32604.
8 1/2 x 3 1/4	Bronze Polished.....	\$0 85	\$0 75
	Nickel ".....	70	70.
	Galvanized.....	75	25
	Plain Iron.....	55	55



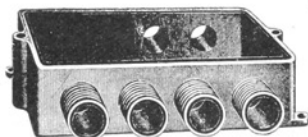
No. 32590.



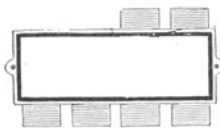
No. 32590—Right Hand.



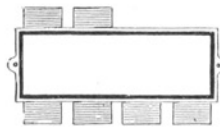
No. 32591—Left Hand.



No. 32091.



No. 32091—Right Hand.



No. 32090—Left Hand.

## Iron Armored Insulating Conduit—(Continued.)

### Feeder Terminal Junction Boxes for Single Tube System.

These Boxes are manufactured on the plans shown for the various circuits as described below; prices include Nipples.

#### Two Wire System.

Dimensions of Boxes inside—Length, 7½ inches; width, 3¾ inches.

Code Word.	List No.	List Price. Each.
<i>Sky</i>	32590	Right Hand, for Brick Work or Terra Cotta, depth 3 inches ..... \$4.25
<i>Skyblue</i>	32591	Left Hand, for Brick Work or Terra Cotta, depth 3 inches ..... 4.25
<i>Skycolor</i>	32592	Left Hand, for Lath and Plaster Work, depth 3½ inches ..... 4.60
<i>Skyed</i>	32593	Right Hand, for Lath and Plaster Work, depth 3½ inches ..... 4.60

Unless otherwise specified, Outlets are made for 1¼-inch Conduits for feeders, and 1-inch Conduits for distributors.

#### Porcelain Cut-Out for Above.

<i>Skygy</i>	6½	Two-Wire Feeder Terminal ..... 3.50
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### Feeder Terminal Junction Boxes, Double Tube System.

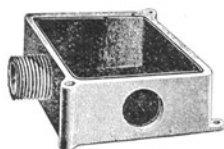
#### Two Wire System.

Dimensions of Boxes inside—Length, 8½ inches; width, 3¾ inches.

<i>Skyhigh</i>	32090	Left Hand, for Brick Work, depth 3 inches .... 6.50
<i>Skydark</i>	32091	Right Hand, for Brick Work, depth 3 inches ... 6.50
<i>Slavedriver</i>	32092	Left Hand, for Lath and Plaster Work, depth 3¾ inches ..... 6.75
<i>Slavholder</i>	32093	Right Hand, for Lath and Plaster Work, depth 3¾ inches ..... 6.75

Prices for Boxes include Nipples.

Unless otherwise specified, these Boxes are supplied with Nipples for Risers for 1-inch Conduit; Mains, for ½-inch Conduit.



No. 32964.

## Iron Armored Insulating Conduit—(Continued.)

## Feeder, Splicing, or "Pulling-in" Boxes for Single Tube System.

Unless otherwise specified in orders, Feeder Junction Boxes are furnished for 1½-inch Conduit.

## Two Wire System.

Code Word.	List No.		List Price, Each.
<i>Shoer</i>	32598	For Brick or Terra Cotta, 2 Outlet Nipples.....	4.10
<i>Slaterer</i>	32692	" " " 3 " .....	4.75
<i>Slateringly</i>	32696	" " " 2 " .....	4.10
<i>Slavery</i>	32690	" " " 3 " .....	4.75
<i>Slavship</i>	32694	" " " 2 " .....	4.10
<i>Slavtrade</i>	32698	" " " 3 " .....	4.75

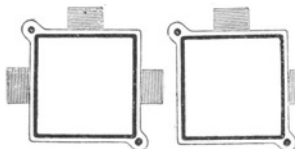
Nos. 32678, 32675, 32665, 32666, 32667, 32668 are for Lath and Plaster Work. For list prices of these add 50 cents to the above list.

Dimensions inside, for Brick or Terra Cotta Work: Length, 6½ inches; width, 6½ inches; depth, 2½ inches. Nipples are placed to allow for ¼ of an inch for Plaster.

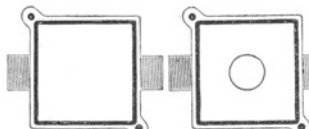
Dimensions inside, for Lath and Plaster Work: Length, 6½ inches; width, 6½ inches; depth, ¾ inches. Nipples are placed to allow for ¼ of an inch for Lath and Plaster.

Covers to fit these Boxes are listed on separate page, but are not included in these prices.

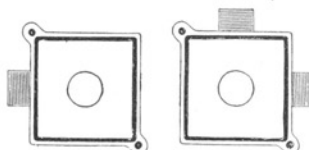
In ordering be careful to specify sizes of Conduit to be used, and if Cut-out will be required. Cut-outs for these Boxes are not carried in stock; but will be made to order at short notice, mounted on Marbleized Slate.



Nos. 32690, 32678, 32694 and 32675.



Nos. 32696, 32665, 32692 and 32666.



Nos. 32598, 32667, 32698 and 32668.

## Intersection or Splicing Boxes.

Diameter inside, 3¼ inches. Depth for Brick Work 1½ inches. Depth for Lath and Plaster 1¼ inches. Thickness of Walls, ⅝ inch. This Box is not intended to be used with a Cut-out.

Price includes Nipples.

## For Brick or Terra Cotta Work.

Code Word.	List No.	WITHOUT COVER.	List Price, Each.
<i>Slavic</i>	32252	3 Outlets, 2 Side, 1 Bottom .....	\$1.39
<i>Slavonic</i>	32273	2 " 2 Bottom .....	1.18
<i>Slavish</i>	32240	2 " 2 Side .....	1.18
<i>Slavishly</i>	32242	2 " 2 " .....	1.18
<i>Slavishness</i>	32250	2 " 1 " 1 Bottom .....	1.18
<i>Slavism</i>	32266	3 Outlets, 2 Side, 1 Bottom .....	1.49
<i>Slavocracy</i>	32274	2 " 2 Bottom .....	1.28
<i>Slavonian</i>	32260	2 " 2 Side .....	1.28
<i>Slaw</i>	32265	2 " 2 " .....	1.28
<i>Slay</i>	32267	2 " 1 " 1 Bottom .....	1.28

Outlets are placed ⅝ inch below rim of Box for Brick or Terra Cotta and ¼ inch for Lath and Plaster Work.

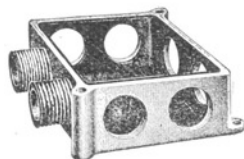
Nos. 32940,  
32990.Nos. 32942,  
32995.Nos. 32252, Nos. 32250, Nos. 32273,  
32266, 32267, 32274.

## Iron Armored Insulating Conduit—(Continued.)

## Splicing or "Pulling-in" Boxes.

## Double Tube System.

Dimensions for Brick or Terra Cotta: length, 6½ inches; width, 6½ inches; depth, 2½ inches For Lath and Plaster: length, 6½ inches; width, 6½ inches; depth, 3½ inches.



Nos. 32172 and 32173.

Nos. 32196,  
32165.Nos. 32192,  
32166.Nos. 32098,  
32167.Nos. 32198,  
32174.Nos. 32194,  
32175.Nos. 32190,  
32174.

## For Brick or Terra Cotta.

Code Word.	List No.		List Price. Each.
<i>Slayer</i>	32196	Two-wire System, without Cover	5.50
<i>Sleaziness</i>	32192	" " " "	7.00
<i>Sleazy</i>	32098	" " " "	5.50
<i>Slead</i>	32172	" " " "	8.50
<i>Sleadling</i>	32194	" " " "	5.50
<i>Sleek</i>	32198	" " " "	5.50
<i>Sleekly</i>	32190	" " " "	7.00

## For Lath and Plaster.

<i>Sleeky</i>	32165	Two-wire System, without Cover	5.75
<i>Sleekness</i>	32166	" " " "	7.25
<i>Sleekstone</i>	32167	" " " "	5.75
<i>Sleep</i>	32173	" " " "	8.75
<i>Sleeper</i>	32174	" " " "	5.75
<i>Sleepful</i>	32175	" " " "	5.75
<i>Sleepily</i>	32178	" " " "	7.25

Unless otherwise specified in orders, Feeder Junction Boxes for Double Tube System are furnished with Nipples.

Cut-outs for these Boxes are made only to order.

## Branch Circuit Junction Boxes.

## Large Size—Complete with Nipples.

## Single Tube System.

## For Brick or Terra Cotta.

<i>Sleepiness</i>	33132	3 Outlets, 1 Main, 2 Branch	\$3.75
<i>Sleeping</i>	33133	3 " 1 " 2 " R. or L.	3.75
<i>Sleepless</i>	33134	3 " 2 " 1 "	3.85
<i>Sleeplessly</i>	33136	4 " 2 " 2 "	4.35
<i>Sleepy</i>	33142	1 " " 1 "	2.75
<i>Sleet</i>	33144	2 " " 2 "	3.15

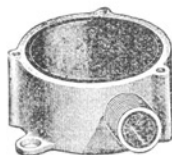
## For Lath and Plaster.

<i>Sleek</i>	33138	3 Outlets, 1 Main, 2 Branch	4.00
<i>Sleekness</i>	33139	3 " 1 " 2 "	4.00
<i>Sleeky</i>	33140	3 " 2 " 1 "	4.10
<i>Sleecefill</i>	33141	4 " 2 " 2 "	4.60
<i>Sleecehand</i>	33143	1 " " 1 "	3.00
<i>Sleeceless</i>	33145	2 " " 2 "	3.40

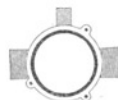
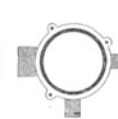
Dimensions for Brick or Terra Cotta Work, inside diameter, 4½ inches; depth, 2½ inches. For Lath and Plaster Work, inside diameter, 4½ inches; depth, 3 inches.

## D. P. Porcelain Cut-Out Blocks for Above.

<i>Sleid</i>	713½	Round Pattern special binding posts	2.05
<i>Sleight</i>	720½	" " plain "	1.35
<i>Sleighbing</i>	712½	Square " " "	1.05
<i>Sleight</i>	722½	" " special "	1.20



No. 33142 and 33143.

Nos. 33132,  
33138.Nos. 33134,  
33140.Nos. 33136,  
33141.Nos. 33133,  
33139.

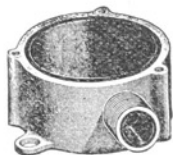


## Branch Circuit Junction Boxes.

## Single Tube System.

## Medium Size—Complete with Nipples.

## For Brick or Terra Cotta.



No. 32256, 32259.

## WITHOUT COVER.

Code Word.	List No.		List Price Each.
<i>Slit</i>	32244	3 Outlets, 2 Main, 1 Branch	1.39
<i>Slitless</i>	32247	4 " 2 " 1 "	1.64
<i>Slitless</i>	32257	3 " 1 " 2 "	1.30
<i>Slide</i>	32251	3 " 1 " 2 "	1.39
<i>Slidegroove</i>	32258	3 " 1 " 2 " Right	1.39
<i>Slider</i>	32254	3 " 1 " 2 " Left	1.39
<i>Sliderless</i>	32256	1 " 1 "	1.00
<i>Slidevalve</i>	32249	2 " 2 "	1.18

## For Lath and Plaster Work.

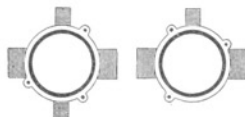
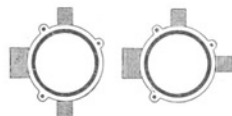
<i>Slitless</i>	32244	3 Outlets, 2 Main, 1 Branch	1.49
<i>Slide</i>	32245	4 " 2 " 2 "	1.74
<i>Slider</i>	32248	3 " 1 " 2 "	1.49
<i>Slotted</i>	32253	3 " 1 " 2 " Right	1.49
<i>Sloomb</i>	32255	3 " 1 " 2 " Left	1.49
<i>Slotted</i>	32259	1 " 1 "	1.10
<i>Slotted</i>	32075	2 " 2 "	1.28

Dimensions: For Brick or Terra Cotta Work, inside diameter,  $\frac{3}{4}$  inches; depth,  $1\frac{1}{2}$  inches. For Lath and Plaster Work, inside diameter,  $\frac{3}{4}$  inches; depth,  $1\frac{1}{4}$  inches.

The Threaded Outlets for both depth of Boxes are placed so as to allow for the embedding of Conduit  $\frac{1}{8}$  of an inch under the surface of plaster for Terra Cotta or Brick work, and  $\frac{1}{4}$  of an inch for Lath and Plaster.

## Porcelain Cut-Outs for Above.

<i>Slotted</i>	705½	Double Pole Cut-outs for Two Branch Circuits.	.90
<i>Slotted</i>	706½	Double Pole for One Branch Circuit only	.65

Nos. 32247,  
32245.Nos. 32241,  
32244.Nos. 32257,  
32248.Right, Nos. 32258,  
32253.Left, Nos. 32254,  
32255.

## Branch Circuit Junction Boxes.

## Single Tube System.

## Small Size—Complete with Nipples.

## For Brick or Terra Cotta Work.

## WITHOUT COVERS.

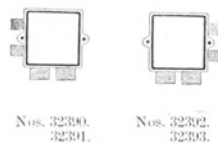
<i>Slotted</i>	32134	3 Outlets, 2 Mains, 1 Branch	1.20
<i>Slotted</i>	32136	4 " 2 " 2 "	1.45
<i>Sloomb</i>	32132	3 " 1 " 2 "	1.20
<i>Slotted</i>	32133	3 " 1 " 2 " Right	1.20
<i>Slotted</i>	32137	1 " 1 " 2 " Left	1.20
<i>Sloomb</i>	32046	1 " 1 "	.85
<i>Sloomb</i>	32048	1 " 2 "	1.10

## Iron Armored Insulating Conduit—(Continued.)

## Branch Circuit Junction Boxes—(Continued.)

## Small Size—Complete with Nipples.—(Continued.)

## For Lath and Plaster Work.

Nos. 32380,  
32381.Nos. 32382,  
32383.

Code Word.	List No.		List Price, Each.
<i>Sloathfully</i>	32140	3 Outlets, 2 Mains, 1 Branch	\$1.30
<i>Sloathfulness</i>	32141	4 " 2 " 2 "	1.50
<i>Sloathound</i>	32138	3 " 1 " 2 "	1.30
<i>Slotted</i>	32139	3 " 1 " 2 " Right	1.30
<i>Slottery</i>	32142	3 " 1 " 2 " Left	1.30
<i>Slouch</i>	32072	1 " 1 "	.95
<i>Slouching</i>	32074	1 " 2 "	1.20

For Brick or Terra Cotta Work, inside diameter,  $2\frac{1}{2}$  inches; depth,  $1\frac{1}{2}$  inches. For Lath and Plaster Work, inside diameter  $2\frac{1}{2}$  inches; depth,  $1\frac{1}{2}$  inches.

For Diagram of Outlets, see Branch Circuit Junction Boxes preceding page.

## Porcelain Cut-Outs for Above.

These Boxes being of small diameter, do not admit of using a Double Pole Cut-out for more than one Branch Circuit.

Nos. 32394,  
32395.Nos. 32396,  
32397.

<i>Slough</i>	710 $\frac{1}{2}$	Double Pole for 1 Circuit, right or left or straight through	.40
<i>Sloughy</i>	707 $\frac{1}{2}$	Double Pole for 1 Circuit, especially for right or left branches	.55

## Branch Circuit Junction Boxes.

## Double Tube System. Complete with Nipples.

## For Brick or Terra Cotta.

Nos. 32398,  
32399.

Code Word.	List No.		List Price, Each.
<i>Slightful</i>	32390	4 Outlets, 2 Main, 2 Branch	4.50
<i>Slightlyly</i>	32392	4 " 2 " 2 "	4.50
<i>Slightly</i>	32396	6 " 2 " 4 "	6.00
<i>Slender</i>	32400	6 " 2 " 4 "	6.00
<i>Slenderly</i>	32398	6 " 4 " 2 "	6.00
<i>Slenderness</i>	32402	6 " 2 " 4 "	6.00
<i>Slept</i>	32394	8 " 4 " 4 "	7.75

## For Lath and Plaster.

Nos. 32400,  
32401.Nos. 32402,  
32403.

<i>Sleuth</i>	32391	4 Outlets, 2 Main, 2 Branch	4.65
<i>Sleuthound</i>	32393	4 " 2 " 2 "	4.65
<i>Sleue</i>	32397	6 " 2 " 4 "	6.15
<i>Sleued</i>	32401	6 " 2 " 4 "	6.15
<i>Sley</i>	32399	6 " 4 " 2 "	6.15
<i>Slibber</i>	32403	6 " 2 " 4 "	6.15
<i>Slive</i>	32395	8 " 4 " 4 "	7.90

Inside Dimensions for Brick and Terra Cotta Work: length,  $4\frac{1}{2}$  inches; width,  $4\frac{1}{2}$  inches; depth,  $2\frac{1}{2}$  inches.

Inside Dimensions for Lath and Plaster Work: length,  $4\frac{1}{2}$  inches; width,  $4\frac{1}{2}$  inches; depth, 3 inches.

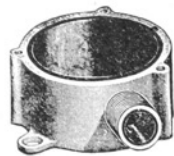
## Porcelain Cut-Out for Above.

<i>Slicer</i>	717 $\frac{1}{2}$	Complete with 6 Fuse Holders	2.05
<i>Slick</i>	716 $\frac{1}{2}$	Fitted with Binding Screws, no Fuse Holders	.90
<i>Slicking</i>	695 $\frac{1}{2}$	Fuse Holder, complete, extra heavy terminal, no fuse	.20
<i>Slickness</i>	690 $\frac{1}{2}$	Fuse Holder, complete, regular terminal, no fuse	.20

## Iron Armored Insulating Conduit--(Continued.)

## Outlet Boxes.

## With Fixture Support for Electric Only--Single Tube System.



Nos. 32046 and 32072.

## Small Size.

Code Word.	List No.	List Price. Each.
<i>Sloop</i>	<b>32046</b> 1/2 Outlet Box, 2 1/4 inches diameter, 1 1/2 inches deep, and Cover, No. 527	\$ 1.40
<i>Slop</i>	<b>32072</b> 1/2 Outlet Box, 2 1/4 inches diameter, and Cover, 524	1.40

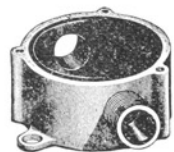
For Lath and Plaster add 8c. on 2 1/4-inch and 10c. on 3 1/4 inch. Lath and Plaster Boxes are made 1 1/2 inches deep.

## Porcelain Cut-Outs for Above.

<i>Slope</i>	<b>710</b> 1/2 Outlet or Tap Cut-out, without leads	.40
<i>Stopeness</i>	<b>770</b> 1/2 Double Pole Porcelain Cut-out, without leads	.65

## Outlet Boxes. Large Size.

<i>Sloperise</i>	<b>32246</b> Outlet Box, 3 1/4-inch diameter, and Cover, No. 528	1.60
<i>Sloping</i>	<b>32073</b> Outlet Box, 3 1/4-inch diameter, and Cover, No. 525	1.60



No. 32246 and 32073.

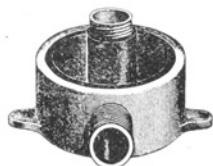
## Porcelain Cut-Outs for Above.

<i>Slopingly</i>	<b>705</b> 1/2 Double Pole Cut-Out for Two Branch Circuit	.90
<i>Stoppiness</i>	<b>706</b> 1/2 Double Pole for One Branch Circuit only, right * or left	.65

## Outlet Boxes.

<i>Sloppy</i>	<b>32075</b> 1/2 Outlet Box, 2 1/4 inches diameter, with Cover	1.40
<i>Slopy</i>	<b>32079</b> Outlet Box, 3 1/4 inches diameter, with Cover	1.55

The Box is made for Brick Work. For Lath and Plaster Work add 10 cents to the above list. The ordinary form of "Bug" Cut-out can be used in these Boxes.



No. 32075 and 32079.

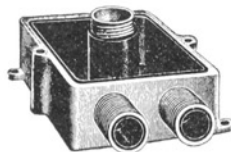
## Outlet Boxes.

## Outlet Box, Cover and Fixture Support--For Electric Only.

## Double Tube System.

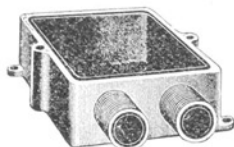
Dimensions of Boxes inside--Length, 3 1/4 inches; width, 3 1/4 inches.

<i>Slat</i>	<b>32478</b> Outlet Box for Brick or Terra Cotta Work, depth 1 1/2 inches	2.15
<i>Slate</i>	<b>32479</b> Outlet Box for Brick or Terra Cotta Work, depth 2 inches	2.25
<i>Sloth</i>	<b>32480</b> Outlet Box for Lath and Plaster Work, depth 2 inches	2.20
<i>Slothful</i>	<b>32481</b> Outlet Box for Lath and Plaster Work, depth 2 1/2 inches	2.30



No. 32478.

The Fixture Support is threaded to receive a 3/8 inch (inside) Brass Insulating Joint. When necessary to fuse in this Box the regular Bug Cut-out can be employed. Covers are not included in above prices. Price of Cover 65 cents each.



No. 32496.

## Iron Armored Insulating Conduit—(Continued.)

### Outlet Boxes.

#### Outlet Box, Cover and Fixture Support—For Electric Only. (Continued.)

##### Double Tube System.

Dimensions of Boxes inside—Length, 3½ inches, width, 2¼ inches.

Code Word.	List No		List Price Each
<i>Smarten</i>	32496	Outlet Box for Brick or Terra Cotta Work, depth 1½ inches.....	\$1.90
<i>Smartle</i>	32497	Outlet Box for Brick or Terra Cotta Work, depth 2 inches.....	2.00
<i>Smartly</i>	32498	Outlet Box for Lath and Plaster Work, depth 2 inches.....	1.95
<i>Smartness</i>	32499	Outlet Box for Lath and Plaster Work, depth 2¼ inches.....	2.05

Extra Outlets for these Boxes will be supplied to order at the following list price: 22 cts. each.

Covers are not included in above prices. Price of Cover, 60 cts. Unless otherwise specified in orders, Cover is supplied with Threaded Nipple for ¼-inch (Brass) Insulating Joint or Coupling.

##### Porcelain Cut-Outs for Above.

No. 770½, Porcelain Cut-Out, designed for a Ceiling Pendant, can be used in a side Outlet Box for Portable Fixture of Fan Motor. The Cut-Out is made in two parts. The base is supplied with heavy terminals, forming the contact pieces, into which are placed the Binding Screws. Fuse Leads are arranged on the Porcelain plug, which can be removed when fusing. Contacts are sliding, connections quickly and easily made, and the Cut-out is adapted to all 2¼-inch boxes. The price does not include Box.

<i>Smartceed</i>	770½	Double Pole Porcelain Cut-out, without leads..	.65
<i>Smash</i>	710½	Outlet or Tap Cut-out.....	.40

## Combination Gas and Electric Branch Circuit Box and Cut-Out.

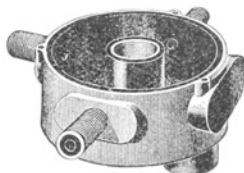
### Single Tube System.

This Box is designed especially for Hotels, Office Buildings, Apartment Houses and other Fire-proof Buildings, where the Feeders are run between the Terra Cotta and floor boards, direct from the Cut-out Cabinets or Junction Boxes, to a center of distribution. This center may be located at the largest or most convenient electrolier of a suite or section of rooms, and the Box attached thereto. It will then supply the electrolier and two branches which are run on ceiling for side lights. The box, being but five inches in diameter, admits the use of an ordinary size fixture shell.

Cut-out No. 715 has Binding Posts for supply, that will carry Conductors up to No. 4 B. & S. Gauge. The Branch Terminals have been tested up to fifteen amperes.

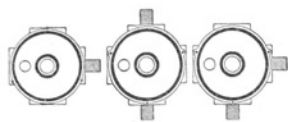
If over ten lights are required for an electrolier, we supply Porcelain Fuse Holders No. 636½, having double the carrying capacity and fit any of the Fuse Terminals. The Cut-out will fuse two Branch Circuits, which may be taken out at either side, or at right angles; at the same time fusing fixture. Unless otherwise specified in order, we supply Fuse Holder No. 630½.

Price includes Nipples.

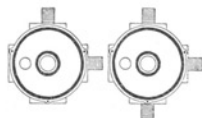


Iron Box No. 30917.

## Iron Armored Insulating Conduit—(Continued.)



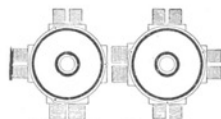
No. 30913. No. 30914. No. 30915.



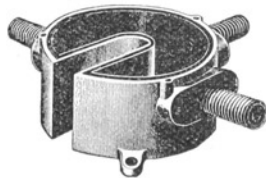
No. 30916. No. 30917.



No. 32486. No. 32488. No. 32490.



No. 32492. No. 32494.



No. 32495.

Combination Gas and Electric Branch Circuit Box and Cut-out  
Single Tube System.—(Continued.)

## Iron Box—Lined.

Diameter, 5½ inches; depth, 2½ inches. Diameter, Gas Outlet, 1½ inches.  
Diameter, Electric Outlet (inside) 1½ inches.

Code Word.	List No.		List Price. Each.
<i>Styboots</i>	30913	1 Main, 1 Outlet.....	\$1.75
<i>Styly</i>	30914	1 " 2 " .....	2.25
<i>Styness</i>	30915	1 " 2 " .....	2.25
<i>Smack</i>	30916	1 " 2 " .....	2.25
<i>Smacking</i>	30917	1 " 3 " .....	2.75

Other sizes of Outlets and combinations made to order.

## Porcelain Cut-Out.

Diameter, 4½ inches. Height, with Adjustable Fuses, 1½ inches.

<i>Smallage</i>	715½	Complete, with 6 Fuse Holders .....	2.05
<i>Smallish</i>	700½	Copper-tipped Fuses, 3 or 6 amperes.....	.05

Combination Gas and Electric Branch Circuit  
Box and Cut-Out.

## Branch Junction Box.—Double Tube System.

Diameter, 5½ inches; depth, 2½ inches. Diameter Gas Outlet, 1½ inches.

<i>Smallness</i>	32486	2 Mains, 2 Outlets .....	2.25
<i>Smallpor</i>	32488	2 " 4 " .....	2.75
<i>Smallts</i>	32490	2 " 4 " .....	2.75
<i>Smallly</i>	32492	2 " 4 " .....	2.75
<i>Smallt</i>	32494	2 " 6 " .....	3.25

Combination Gas and Electric Outlet Box  
with Cut-Out.

## Single Tube System.

This Box is designed to be used for side Outlets on walls or partitions the diameter being small, a 4-inch Fixture Shell will cover it. Cover admits of ready access to Box, and when in place it effectually closes the Outlet against moisture. Cut-out No. 718½ is designed to fuse two Branch Circuits, is fitted with the adjustable Fuse Holders, or will be supplied with Binding Screws only, so that the ordinary copper-tipped fuse may be employed.

If it is desired to fuse the fixture at which the box is located, the cover can be omitted, the ends of conduit sealed with compound, and the work thus made tight.

Specify in orders the size for Mains and Branches.

## Iron Box and Cover.

<i>Smalltine</i>	30911	As illustrated. Dimensions: Diameter, 3½ inches depth, 1½ inches .....	1.60
<i>Smarraydine</i>	30912	Plain Iron Cover, Insulated Lining .....	.25

## Porcelain Cut-Out.

<i>Smarraydite</i>	718½	Complete with four Adjustable Safety Fuses ..	1.65
<i>Smart</i>	719½	Cut-Out, without Adjustable Fuses, but having Binding Screws for Copper-tip Fuses .....	.85

## Iron Armored Insulating Conduit—(Continued.)

### Combination Gas and Electric Outlet Box with Cut-Out.

—(Continued.)

#### Double Tube System.

##### Iron Box and Cover.

Code Word.	List No.		List Price. Each.
<i>Smasher</i>	30920	Diameter, $3\frac{1}{2}$ inches; depth, $1\frac{1}{8}$ inches. With six Nipples.....	\$2.25
<i>Smatch</i>	30912	Plain Iron Cover, Insulated Lining .....	.25

#### Porcelain Cut-Out.

<i>Smatter</i>	718 $\frac{1}{2}$	Complete, with four Adjustable Safety Fuses..	1.65
<i>Smatterer</i>	719 $\frac{1}{2}$	Cut-out, without Adjustable Fuses, but having Binding Screws for Copper-tipped Fuses.....	.85

## Combination Gas and Electric Ceiling Outlet and Branch Circuit Boxes.

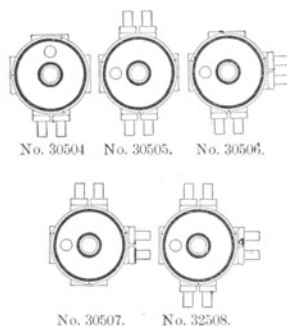
### Single Tube Iron—Double Tube Brass.

The Box is of Iron, Insulated and designed to be placed at a chandelier outlet, and fed from the floor above by a single tube of Iron Armored Conduit  $\frac{1}{2}$  of an inch inside diameter or less. Owing to the position and necessity of sinking the Box into the Terra Cotta ceiling, no threaded joint can be made, but an iron sleeve one inch in height is provided, into which the Conduit is inserted. The Center or Gas Outlet will admit the use of  $\frac{3}{4}$ -inch (inside diameter) gas pipe. The short Iron Nipples are threaded for  $\frac{3}{8}$ -inch coupling, on to which can be screwed combination coupling for  $\frac{3}{8}$  or  $\frac{1}{2}$ -inch Brass Armored Conduit.

Outside Dimensions—Diameter,  $5\frac{1}{4}$  inches; depth,  $2\frac{1}{4}$  inches. Diameter Gas Outlet,  $1\frac{1}{2}$  inches. Diameter Electric Outlet (inside),  $1\frac{1}{2}$  inches.

Diameter Porcelain Cut-out,  $4\frac{1}{2}$  inches; Height, with Adjustable Fuses,  $1\frac{1}{4}$  inches.

<i>Smattering</i>	30504	1 Main, 1 Electroliter and 2 Branches.....	2.05
<i>Smear</i>	30505	1 " 1 " 4 " .....	2.75
<i>Smearnob</i>	30506	1 " 1 " 4 " .....	2.75
<i>Smearny</i>	30507	1 " 1 " 4 " .....	2.75
<i>Smooth</i>	30508	1 " 1 " 6 " .....	3.45



## Combination Gas and Electric Outlet Box and Cut-Out.

### Double Tube Iron—Double Tube Brass.

For Direct Current Only.

#### Iron Box and Cover.

<i>Smelite</i>	32920	With four $\frac{3}{8}$ inch Combination Nipples and two $\frac{3}{8}$ inch Iron Insulated Nipples without cover	2.65
		Dimensions: Diameter, $3\frac{1}{2}$ inch; depth, $1\frac{1}{8}$ inch.	
<i>Smatch</i>	30912	Plain Iron Cover, Insulated Lining.....	.25

## Iron Armored Insulating Conduit—(Continued.)

## Combination System.

Using Both Iron and Brass Armored Conduit.

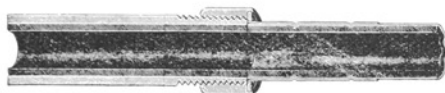


Illustration showing the application of the Combination Coupling or "Connecting Link" between the two systems—Iron Armored Conduit and Brass Armored Conduit. The union if properly made, by the use of white lead on the iron threads and the crimping tool on the brass coupling, will be a perfect joint.

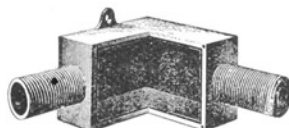
The illustration shows a Cross Section of Iron Armored Insulating Conduit and Brass Armored Conduit; the union being properly made. Both ends of insulation abut.

The demand for this system has arisen principally from its flexibility; also from the fact that the diameter of the Brass Armored Conduit is less than that of the Iron Armored. In modern fire-proof structures, the thickness of plaster ordinarily used on walls will always cover the  $\frac{1}{2}$ -inch Brass Conduit, and usually the  $\frac{3}{4}$ -inch, without having to channel the walls. This channeling being a considerable item in the general expense of the installation, the labor thus saved is an important consideration where the specifications do not provide for "Furring" or a sufficient thickness of plaster to cover the Iron Armored Conduit.

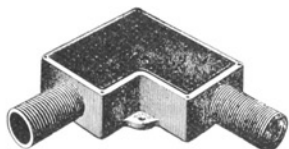
Combination Couplings are necessary in connecting the Brass Armored Double Tube System to the Single Tube Iron System, at Junction Boxes, Cut-out Cabinets, etc., and when the Feeders or Risers are run in separate Brass Armored Conduits on account of their size, or to avoid induction when the Alternating System is employed.



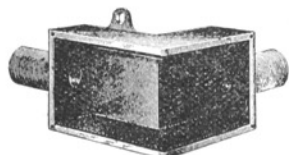
No. 205 1/2.  
Combination Coupling.



No. 32640.



No. 32641.



No. 32642.

## Combination Coupling.

Code Word.	List No.		List Price. Each.
<i>Snod</i>	205 1/2	3/4-inch Iron Nipple to 3/4-inch Brass Coupling	\$0.10
<i>Snood</i>	206 1/2	3/4-inch " " 3/4-inch "	.12
<i>Snook</i>	207 1/2	3/4-inch " " 3/4-inch "	.14
<i>Snooze</i>	208 1/2	1-inch " " 1-inch "	.17
<i>Snooze</i>	209 1/2	1 1/4-inch " " 1 1/4-inch "	.21
<i>Snooze</i>	210 1/2	1 1/2-inch " " 1 1/2-inch "	.27

## Angle and Corner Insulating Boxes.

## Single Tube System.

For Splicing or "Pulling-in" Conductors.

<i>Snort</i>	32640	Iron Insulated Box, with Two Nipples,.....	\$1.85
<i>Snorter</i>	32641	Iron Insulated Box, " " .....	1.85
<i>Snoot</i>	32642	Iron Insulated Box, " " .....	1.85

Above prices include Plain Iron Covers and Screws fitted; also Nipples. Specify size of Nipples.

## Iron Armored Insulating Conduit—(Continued.)

### Angle and Corner Insulating Boxes—(Continued.)

#### Single Tube System—(Continued.)

##### Dimensions.

No. 32640, inside, each angle, length, 3 ins.; width, 2½ ins.; depth, 1½ ins.
No. 32642, “ “ “ “ 3 “ “ 2½ “ “ 1½ “
No. 32641, “ “ “ “ 3¼ “ “ 2½ “ “ 1½ “

The above Boxes are made for Brick or Terra Cotta Work, the Nipples being placed  $\frac{1}{8}$  of an inch from rim of Box, to allow for plaster to cover Conduit. Covers are made of thin iron, and extend  $\frac{1}{2}$  of an inch over rim of Boxes.

#### Double Tube System—Double Iron.

##### For Splicing or “Pulling-in” Conductors.

Code Word.	List No.		List Price. Each.
<i>Snouty</i>	32643	Iron Insulated Boxes, with four Nipples. . . . .	\$2.25
<i>Snout</i>	32644	“ “ “ “ “ “ “ . . . . .	2.25
<i>Snoball</i>	32645	“ “ “ “ “ “ “ . . . . .	2.25

The above prices include Plain Iron Cover and Screws fitted. These Covers extend  $\frac{1}{2}$  inch over the rim of Box.

For Boxes with  $\frac{1}{2}$ -inch Nipples, add 10 cents to above list prices for each Nipple.

##### Dimensions.

No. 32643 Inside each angle, length, 3 ins.; width, 2½ ins.; depth, 1½ ins. Same style as No. 32642.

No. 32644 Inside each angle, length, 3 ins.; width, 2½ ins.; depth, 1½ ins. Same style as No. 32640.

No. 32645 Inside each angle, length, 3¼ ins.; width, 2½ ins.; depth, 1½ ins. Same style as No. 32641.

These Boxes are made for Brick or Terra Cotta work, the Nipples being placed  $\frac{1}{8}$  of an inch from rim of Box to allow plaster to cover Conduit.

#### Single Tube Iron—Double Tube Brass.

##### For Direct or Alternating Currents.

<i>Snounding</i>	30646	Iron Insulated Box, with one Iron and two Combination Couplings fitted. Same style as No. 32642 . . . . .	2.25
<i>Snoundeep</i>	30647	Iron insulated Box, with one Iron and two Combination Couplings fitted. Same style as No. 32640 . . . . .	2.25
<i>Snoundrift</i>	30648	Iron Insulated Box, with one Iron and two Combination Couplings fitted. Same style as No. 32641 . . . . .	2.25

The above prices include plain iron covers and screws—fitted.

If  $\frac{1}{4}$ -inch brass Conduit is to be used please state so in ordering.



### Iron Armored Insulating Conduit—(Continued.)

### Angle and Corner Insulating Boxes—(Continued.)

#### Double Tube Iron—Double Tube Brass.

Code Word.	List No.		List Price. Each.
<i>Snootdrop</i>	30649	Iron Insulated Box, with two Iron and two Combination Couplings fitted. Same style as No. 32642	2.45
<i>Snootflake</i>	30650	Iron Insulated Box, with two Iron and two Combination Couplings fitted. Same as style No. 32640	2.45
<i>Snootfleck</i>	30651	Iron Insulated Box, with two Iron and two Combination Couplings fitted. Same style as No. 32641	2.45

The above prices include Iron Covers and screws fitted.

If  $\frac{1}{2}$ -brass Conduit is to be used, please state so in ordering.

The above Boxes are made for Brick and Terra Cotta Work, Nipples being placed  $\frac{1}{8}$  inch from Rim of Box.

### Switch Box for Cutter and Other Flush Switches.

#### For Single Tube System.

The Box, as illustrated, is designed for a Single Pole Flush Switch. We manufacture these Boxes for all makes of Flush Switches, either Single Pole, Double Pole and for Three or Four Wires.

Where the installation is to be made before the partition walls are erected, we place the Outlets near the rear edge, on top, to clear the front wall of the terra cotta brick.

<i>Snootflood</i>	30981	Box with one Nipple	\$1.00
<i>Snootpouse</i>	30986	Gang Switch Boxes.	Prices on application.

#### For Double Tube System—Iron Armored.

<i>Snootless</i>	30983	Box, with two Nipples	1.25
<i>Snootplow</i>	30989	Gang Switch Box.	Prices on application.

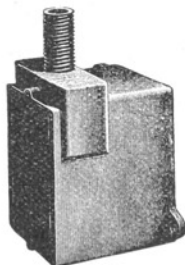
#### For Double Tube System—Brass Armored.

<i>Snootshoe</i>	30984	Box with two Combination Nipples	1.45
Outside Dimensions: Height, 4 inches; Width, 2 $\frac{1}{2}$ inches; Depth, 3 $\frac{1}{2}$ inches.			

<i>Snootstorm</i>	30987	Gang Switch Boxes.	Prices on application.
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Outlets are placed  $\frac{1}{8}$  of an inch from rim for Brick or Terra Cotta work and  $\frac{1}{4}$  of an inch for Lath and Plaster.

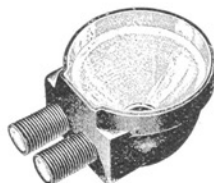
Switches extra.



No. 30981.

## Iron Armored Insulating Conduit—(Continued.)

## Combination Gas and Electric Side Outlet Box.



Nos. 30682, 30683.

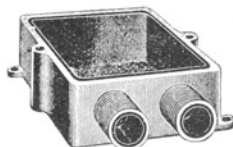
## Single Tube System

Code Word.	List No.		List Price. Each.
<i>Swanwhite</i>	30681	1 Outlet for $\frac{1}{2}$ -inch Conduit.....	\$1.50
<i>Swamy</i>	30683	2 " " $\frac{1}{2}$ " " .....	1.55

Unless otherwise specified all Boxes will be tapped for  $\frac{1}{2}$ -inch gas pipe.

These Boxes are designed to be used for side outlets on walls or partitions. The diameter being small, a  $3\frac{1}{2}$ -inch fixture shell will cover them. The hole on back of Box is tapped to receive a  $\frac{1}{2}$ -inch gas pipe. The thread on gas pipe must be cut back so that the pipe will project through the Box a sufficient length to allow an insulating joint to be screwed on. All Boxes of this type are porcelain lined.

Outlets are placed so as to leave  $\frac{1}{8}$  of an inch for the hard finish of walls, between the outlets and front rim of Box for brick and terra cotta work, and  $\frac{1}{4}$  of an inch for lath and plaster.



No. 32404 and 32407.

## Outlet or Switch Box.

## Double Tube System Complete with Nipples.

Code Word.	List No.		List Price. Each.
<i>Snab</i>	32404	Box for Terra Cotta or Brick work, 2 outlets... ..	\$1.15
<i>Snabnose</i>	32405	" " " " " 4 " .....	1.70
<i>Snabpost</i>	32406	" " " " " 4 " .....	1.70
<i>Snabeye</i>	32407	" Lath and Plaster " 2 " .....	1.25
<i>Snuff</i>	32408	" " " 4 " .....	1.80
<i>Snuffbox</i>	32409	" " " 4 " .....	1.80

Inside dimensions for Brick or Terra Cotta: Length  $2\frac{1}{2}$  in., width  $2\frac{1}{2}$  in., depth  $1\frac{1}{4}$  in.

Inside dimensions for Lath and Plaster: Length  $2\frac{1}{2}$  in.; width  $2\frac{1}{2}$  in., depth  $2\frac{1}{4}$  in.

Outlets are placed  $\frac{1}{8}$  of an inch from rim of Box for Brick and Terra Cotta work and  $\frac{1}{4}$  of an inch for Lath and Plaster.

This Box, being but  $2\frac{1}{2}$  inches square, is especially adapted for use with flush switches.



Nos. 32404, 32407. Nos. 32405, 32408. Nos. 32406, 32409.



No. 21515.



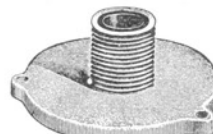
No. 21528.



No. 21534.



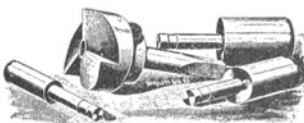
No. 21532.



No. 21530.



No. 21537.



No. 21540.

## Interior Conduit—(Continued.)

### Iron Armored Conduit—(Continued.)

#### Covers for Iron Armored Branch Junction or Outlet Boxes.

Code Word.	List No.	List Price, Each.
<i>Scaffold</i>	21515 537, Bronzed Polished Covers for 2½ in. Round Box.	\$0.35
<i>Scagliola</i>	21516 541, Nickeled " " " 2½ " " "	.30
<i>Scalable</i>	21517 538, Bronzed " " " 3¼ " " "	.40
<i>Scolade</i>	21518 546, Nickeled " " " 3¼ " " "	.35
<i>Scolid</i>	21519 547, Bronzed " " " 2½ " " "	.55
<i>Scolidic</i>	21520 548, Nickeled " " " 2½ " " "	.50
<i>Scole</i>	21521 549, Bronzed " " " 3¼ " " "	.60
<i>Scolene</i>	21522 551, Nickeled " " " 3¼ " " "	.55
<i>Scoliness</i>	21523 539, Bronzed " " " 4¾ " " "	.60
<i>Scoll</i>	21524 543, Nickeled " " " 4¾ " " "	.55
<i>Scallion</i>	21525 521, Plain Cover for 2½ inch Round Box.	.15
<i>Scallup</i>	21526 522, " " " 2½ " " " " " " " " " "	.20
<i>Scalloped</i>	21527 536, " " " 4¾ " " " " " " " " " "	.30
<i>Scalp</i>	21528 524, Cover with Nipple, Female Thread, for 2½ inch Round Box.	.55
<i>Scatpel</i>	21529 525, Cover with Nipple, Female Thread, for 3¼ inch Round Box.	.60
<i>Scaly</i>	21530 527, Cover with Nipple, Male Thread, for 2½ inch Round Box.	.50
<i>Scamble</i>	21531 528, Cover with Nipple, Male Thread, for 3¼ inch Round Box.	.60
<i>Scambler</i>	21532 530, Cover with Rubber Bushing for 2½ in. Round Box.	.35
<i>Scammony</i>	21533 531, Cover with Rubber Bushing for 3¼ in. Round Box.	.40
<i>Scamp</i>	21534 533, Cover for Receptacle for 2½ inch Round Box.	.20
<i>Scamper</i>	21535 534, " " " 3¼ " " " " " " " " " "	.25
<i>Sketch</i>	24057 912, Plain Iron Cover, insulated lining	.25

Covers for all Boxes have an Insulating Lining.

## Tools for Iron Armored Conduit.

### Comstock Pipe Cutters.

<i>Scandul</i>	21537 Cuts from ¾ inch to 1 inch	1.20
<i>Scandalize</i>	21538 " ¾ " 2 "	1.60
<i>Scandalous</i>	21539 " 1 " 2½ "	2.70

### Butt Reamer.

This Reamer is fitted for use with ordinary brace. It should be used after a cut has been made to remove the "burr" from Iron Armor and to true up the end of Conduit. This operation should be performed before the thread is cut.

<i>Scandalously</i>	21540 Size of Conduit ¾ to 1½ inch	1.50
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## Interior Conduit—(Continued.)

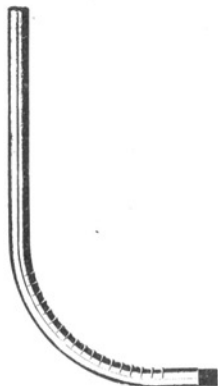
## Brass Armored Conduit.

## For Direct and Alternating Currents.

This is plain conduit with a brass armor or covering drawn upon it. We furnish this tube for better protection against mechanical injury and the destructive action of the alkalis of cement, where used under tile floors or in like exposed places. When polished it will be found unequalled for surface work in the matter of finish and accessibility.



No. 21541.



No. 21549.

Code Word.	List No.		List Price, Per 100 Ft.
<i>Concrete</i>	3981	$\frac{5}{8}$ inch, inside diameter.....	\$ 4.95
<i>Concrete</i>	3982	$\frac{3}{4}$ " " " " .....	5.68
<i>Concur</i>	3983	$\frac{1}{2}$ " " " " .....	6.88
<i>Concurrence</i>	3984	$\frac{3}{8}$ " " " " .....	7.90
<i>Concurrence</i>	3985	$\frac{1}{4}$ " " " " .....	9.28
<i>Concurrent</i>	3986	1 " " " " .....	12.22
<i>Concurring</i>	3987	1 $\frac{1}{2}$ " " " " .....	14.95
<i>Concess</i>	3988	1 $\frac{1}{2}$ " " " " .....	25.25

## No. 114 Brass Armored Elbow.

	Inside Diameter inches.	Outside Diameter Inches.	Radius Inches.	Length over all Inches.	Per 100 Pieces.
<i>Scantest</i>	21541	$\frac{5}{8}$	.495	3 $\frac{1}{2}$	6.60
<i>Scansion</i>	21542	$\frac{3}{4}$	.625	4	8.00
<i>Scansorial</i>	21543	$\frac{1}{2}$	.730	4 $\frac{1}{2}$	10.20
<i>Scant</i>	21544	$\frac{3}{8}$	.792	4 $\frac{1}{2}$	11.80
<i>Scantily</i>	21545	$\frac{1}{4}$	1.000	6	15.60
<i>Scantiness</i>	21546	1	1.230	9	27.85
<i>Scantling</i>	21547	1 $\frac{1}{4}$	1.540	10	38.35
<i>Scantly</i>	21548	1 $\frac{1}{2}$	1.875	12	57.10

## No. 116 Brass Armored Long Elbow.

	Inside Diameter inches.	Outside Diameter Inches.	Radius inches.	Length over all Inches.	Per 100 Pieces.
<i>Scantness</i>	21549	$\frac{5}{8}$	.490	3 $\frac{1}{2}$	16.00
<i>Scantly</i>	21550	$\frac{3}{4}$	.625	4	17.75
<i>Scant</i>	21551	$\frac{1}{2}$	.730	4 $\frac{1}{2}$	18.75
<i>Scantment</i>	21552	$\frac{3}{8}$	.792	4 $\frac{1}{2}$	20.25
<i>Scantula</i>	21553	$\frac{1}{4}$	1.000	6	26.25
<i>Scantular</i>	21554	1	1.230	8 $\frac{1}{2}$	41.00
<i>Scantulary</i>	21555	1 $\frac{1}{4}$	1.540	9 $\frac{1}{2}$	55.00



No. 1404.

## Interior Conduit—(Continued.)

## Brass Armored Conduit—(Continued.)

## No. 114½ Brass Covered Short Elbow, with Attached Coupling.

Code Word.	List No.		List Price. Per 100.
<i>Immoderate</i>	1404	$\frac{5}{8}$ inch, inside diameter.....	\$ 18.70
<i>Immodest</i>	1405	$\frac{3}{4}$ " " " " .....	21.50
<i>Immodestly</i>	1406	$\frac{1}{2}$ " " " " .....	25.60
<i>Immolute</i>	1407	$\frac{3}{8}$ " " " " .....	30.00
<i>Immolated</i>	1408	$\frac{1}{4}$ " " " " .....	43.00
<i>Immolating</i>	1409	1 " " " " .....	63.00

## No. 116½ Brass Covered Long Elbow, with Attached Couplings.

<i>Immocably</i>	1417	$\frac{5}{8}$ inch, inside diameter.....	26.00
<i>Immure</i>	1418	$\frac{3}{4}$ " " " " .....	28.75
<i>Immuring</i>	1419	$\frac{1}{2}$ " " " " .....	31.75
<i>Impair</i>	1420	$\frac{3}{8}$ " " " " .....	36.25
<i>Impaired</i>	1421	$\frac{1}{4}$ " " " " .....	49.25
<i>Impairer</i>	1422	1 " " " " .....	71.00

## No. 117½ Brass Covered S Elbow, with Attached Couplings.

<i>Impartment</i>	1430	$\frac{5}{8}$ inch, inside diameter.....	25.75
<i>Impeach</i>	1431	$\frac{3}{4}$ " " " " .....	28.25
<i>Impeached</i>	1432	$\frac{1}{2}$ " " " " .....	33.00
<i>Impeacher</i>	1433	$\frac{3}{8}$ " " " " .....	38.50
<i>Impeaching</i>	1434	$\frac{1}{4}$ " " " " .....	50.50
<i>Impeachment</i>	1435	1 " " " " .....	64.00

## No. 115½ Brass Covered T, with Attached Couplings.

<i>Igniting</i>	1443	Mains $\frac{3}{4}$ inch, branch $\frac{5}{8}$ inch.....	90.75
<i>Ignition</i>	1444	" $\frac{1}{2}$ " " " $\frac{3}{8}$ " .....	95.00
<i>Ignoble</i>	1445	" $\frac{3}{8}$ " " " $\frac{3}{8}$ " .....	100.00
<i>Ilbred</i>	1446	" $\frac{3}{8}$ " " " $\frac{1}{2}$ " .....	114.00
<i>Illicit</i>	1447	" $\frac{1}{4}$ " " " $\frac{3}{8}$ " .....	132.00
<i>Illicitly</i>	1448	" 1 " " " $\frac{3}{4}$ " .....	167.00



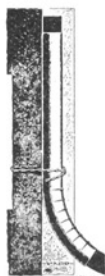
No. 21556.

## Interior Conduit—(Continued.)

## Brass Armored Conduit—(Continued.)

## No. 117 Brass Armored S Elbows.

Code Word.	List No.	Inside Diameter inches.	Outside Diameter inches.	Offset inches.	Length over all inches.	List Price Per 100.
<i>Scar</i>	21556	$\frac{1}{2}$	.495	4	9	15.75
<i>Scarred</i>	21557	$\frac{3}{8}$	.625	4	10 $\frac{1}{2}$	17.25
<i>Scarcing</i>	21558	$\frac{1}{2}$	.730	4	11	20.00
<i>Scarce</i>	21559	$\frac{3}{4}$	.792	4	11	22.50
<i>Scarvelly</i>	21560	$\frac{1}{2}$	1.000	4	11 $\frac{1}{2}$	27.50
<i>Scarcess</i>	21561	1	1.230	4	16	34.00
<i>Scarclty</i>	21562	1 $\frac{1}{2}$	1.540	4	17	50.00



No. 21563.

## Terminal or Outlet Elbows.

These Elbows are made with a sharp bend and are especially adapted for Fixture Outlets. These Elbows are trimmed back  $\frac{1}{4}$  of an inch; this trimming will be done without extra charge when so ordered, or can be readily accomplished by use of Universal Trimmer.

The radii of curves in these Elbows are much smaller than No. 21541, and they will be found better adapted for use at outlet.

## No. 118 For Brick and Tile Work.

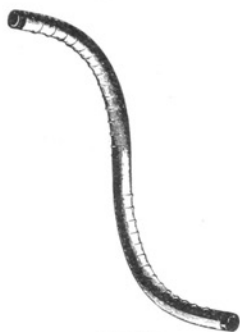
		Diameter inches.	Offset inches.	Length inches.	
<i>Scare</i>	21563	$\frac{1}{2}$	1 $\frac{1}{2}$	5 $\frac{1}{2}$	10.30
<i>Scarcecon</i>	21564	$\frac{5}{8}$	1 $\frac{1}{2}$	5 $\frac{1}{2}$	11.35
<i>Scarfe</i>	21565	$\frac{3}{4}$	1 $\frac{1}{2}$	7	12.40
<i>Scarful</i>	21566	$\frac{1}{2}$	1 $\frac{1}{2}$	8 $\frac{1}{2}$	12.60
<i>Scarfyng</i>	21567	$\frac{3}{4}$	2	9	13.70
<i>Scarfskin</i>	21568	$\frac{1}{2}$	2 $\frac{1}{2}$	10 $\frac{1}{2}$	15.30

## No. 119 For Lath and Plaster.

		Diameter inches.	Offset inches.	Length inches.	
<i>Scarifier</i>	21569	$\frac{1}{2}$	3	5 $\frac{1}{2}$	10.30
<i>Scarify</i>	21570	$\frac{5}{8}$	3	5 $\frac{1}{2}$	11.35
<i>Scarlatina</i>	21571	$\frac{3}{4}$	3	7	12.40
<i>Scarlet</i>	21572	$\frac{1}{2}$	3 $\frac{1}{2}$	8 $\frac{1}{2}$	12.60
<i>Scarpe</i>	21573	$\frac{3}{4}$	3 $\frac{1}{2}$	9	13.70
<i>South</i>	21574	$\frac{1}{2}$	4 $\frac{1}{2}$	10 $\frac{1}{2}$	15.30



No. 21569.



No. 21575.

Interior Conduit.—(Continued.)

Brass Armored Conduit—(Continued.)

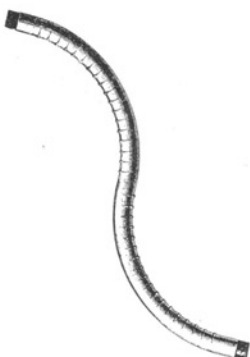
Special Elbows.

No. 511.

Code Word.	List No.	Diameter Inches.	Radius of Bend. Inches.	Offset. Inches.	List Price. Per 100
<i>Scathe</i>	21575	$\frac{1}{8}$	3	8 $\frac{1}{2}$	\$13.20
<i>Scathful</i>	21576	$\frac{1}{4}$	3	9	16.00
<i>Scathless</i>	21577	$\frac{1}{2}$	4	11 $\frac{1}{2}$	20.40
<i>Scatter</i>	21578	$\frac{3}{4}$	4	12	23.60
<i>Scattered</i>	21579	$\frac{1}{2}$	5	14	31.20
<i>Scattering</i>	21580	1	7	21	55.70
<i>Scourger</i>	21581	1 $\frac{1}{4}$	9	24	64.70

No. 518.

Code Word.	List No.	Diameter Inches.	Radius of Bend. Inches.	Offset. Inches.	List Price. Per 100
<i>Scene</i>	21582	$\frac{1}{8}$	3	7 $\frac{1}{2}$	13.20
<i>Scenery</i>	21583	$\frac{1}{4}$	3	8	16.00
<i>Scenic</i>	21584	$\frac{1}{2}$	4	10 $\frac{1}{2}$	20.40
<i>Scenical</i>	21585	$\frac{3}{4}$	4	11	23.60
<i>Scenographic</i>	21586	$\frac{1}{2}$	5	12 $\frac{1}{2}$	31.20
<i>Scenography</i>	21587	1	7	20	55.70
<i>Scent</i>	21588	1 $\frac{1}{4}$	9	23	64.70



No. 21582.

List for Additional Length of Straight Run.

Code Word.	List No.	Diameter. Inches.	Per Foot.
<i>Scentless</i>	21589	$\frac{1}{8}$	..... .05
<i>Scopter</i>	21590	$\frac{1}{4}$	..... .06
<i>Scoptered</i>	21591	$\frac{1}{2}$	..... .07
<i>Scoptic</i>	21592	$\frac{3}{4}$	..... .08
<i>Schedule</i>	21593	$\frac{1}{2}$	..... .09
<i>Schematic</i>	21594	1	..... .12
<i>Schematicist</i>	21595	1 $\frac{1}{4}$	..... .15



No. 21596.

Return Elbows.

No. 515.

Code Word.	List No.	Diameter Inches.	Radius of Bend. Inches.	Distance between sides. Inches.	Per 100.
<i>Scheme</i>	21596	$\frac{1}{8}$	3	6	13.20
<i>Schemer</i>	21597	$\frac{1}{4}$	4	8	16.00
<i>Schemist</i>	21598	$\frac{1}{2}$	4 $\frac{1}{2}$	9	20.40
<i>Schism</i>	21599	$\frac{3}{4}$	5	10	23.60
<i>Schismatic</i>	21600	$\frac{1}{2}$	6	12	31.20
<i>Schist</i>	21601	1	7	18	55.70
<i>Schitose</i>	21602	1 $\frac{1}{4}$	9	22	76.70



No. 21604.



No. 21604—After use of Coupling Tool.



No. 21612—Cross Section—Before using Coupling Tool.



No. 21612—After use of Coupling Tool.

## Interior Conduit—(Continued.)

## Brass Armored Conduit—(Continued.)

## Couplings.

## No. 103½, Plain.

Code Word.	List No.	No. 103½, Plain.	List Price. Per 100.
<i>Schistons</i>	21603	½ inch Seamless Brass, 2½ inches long	\$2.00
<i>Scholar</i>	21604	½ " " " 2½ " "	2.00
<i>Scholarly</i>	21605	½ " " " 2½ " "	2.25
<i>Scholastic</i>	21606	½ " " " 2½ " "	2.35
<i>Scholastic</i>	21607	¾ " " " 2½ " "	3.25
<i>Scholium</i>	21608	1 " " " 3½ " "	4.45
<i>School</i>	21609	1½ " " " 3½ " "	7.35
<i>Schooling</i>	21610	1½ " " " 3½ " "	12.00

## No. 103, Insulated.

<i>Schooner</i>	21611	½ inch Seamless Brass	3.60
<i>School</i>	21612	¾ " " "	3.90
<i>Sciatic</i>	21613	½ " " "	4.30
<i>Sciatica</i>	21614	¾ " " "	4.75
<i>Science</i>	21615	¾ " " "	7.50
<i>Scientific</i>	21616	1 " " "	8.60
<i>Scientist</i>	21617	1½ " " "	12.50
<i>Accountbook</i>	25483	1½ " " "	49.00

Sizes given with above Couplings are those of the inside diameter of the Conduit Tubes for which they are intended.

## Sheet Brass Clips for Conduits.



No. 1573.

<i>Indent</i>	1573	¼ inch per gross	.50
<i>Indented</i>	1574	½ " " "	.50
<i>India</i>	1575	¾ " " "	.65
<i>Indian</i>	1576	1 " " "	.80
<i>Indiente</i>	1577	¾ " " "	.90
<i>Indignant</i>	1578	¾ " " "	1.00
<i>Indignation</i>	1579	1 " " "	1.40
<i>Indignity</i>	1580	1½ " " "	2.00

## Twisted Wire Clips for Conduits.



No. 1581.

<i>Indirect</i>	1581	Size A, 4 inches long, for tubes up to ½ inch, inclusive, per 1,000	4.00
<i>Indirection</i>	1582	" B, 7 " " " 1 " " " " " "	5.00

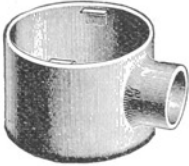

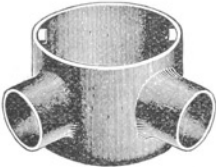
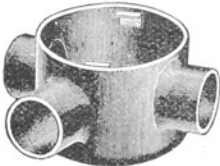
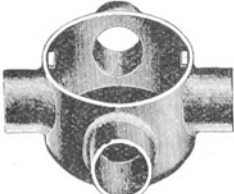
We recommend for use with these Wire Clips Flat Head Nails, which we will furnish at the following net prices:

1 inch. per pound	.08
1½ " " "	.07



## Interior Conduit—(Continued).

## Branch Circuit Junction Boxes—Plain and Brass Covered.

	Code Word.	List No.		List Price.
				
	No. 1419.			
	<i>Iliterate</i>	1449	No. 46, $\frac{3}{8}$ inch branches, plain, each.....	\$0.30
	<i>Iljudged</i>	1450	" 46, $\frac{3}{8}$ " " " " " " .....	.30
	<i>Illogical</i>	1451	" 46, $\frac{3}{8}$ " " " " " " " .....	.50
	<i>Ilude</i>	1452	" 46, $\frac{3}{8}$ " " " " " " " .....	.50
				
	No. 1453.			
	<i>Image</i>	1453	No. 40, $\frac{3}{8}$ inch branches, plain, each.....	.33
	<i>Imaged</i>	1454	" 40, $\frac{3}{8}$ " " " " " " " .....	.33
	<i>Imbecile</i>	1455	" 40, $\frac{3}{8}$ " " " " " " " .....	.33
	<i>Imbecility</i>	1456	" 40, $\frac{3}{8}$ " " " " " " " .....	.55
	<i>Imbed</i>	1457	" 40, $\frac{3}{8}$ " " " " " " " .....	.55
	<i>Imbedded</i>	1458	" 40, $\frac{3}{8}$ " " " " " " " .....	.55
				
	No. 1459.			
	<i>Imbedding</i>	1459	No. 42, $\frac{3}{8}$ inch branches, plain, each.....	.33
	<i>Imbiber</i>	1460	" 42, $\frac{3}{8}$ " " " " " " " .....	.33
	<i>Imbining</i>	1461	" 42, $\frac{3}{8}$ " " " " " " " .....	.33
	<i>Imbitter</i>	1462	" 42, $\frac{3}{8}$ " " " " " " " .....	.55
	<i>Imbittering</i>	1463	" 42, $\frac{3}{8}$ " " " " " " " .....	.55
	<i>Imbittered</i>	1464	" 42, $\frac{3}{8}$ " " " " " " " .....	.55
				
	No. 1465.			
	<i>Imbody</i>	1465	No. 41, $\frac{3}{8}$ inch branches, plain, each.....	.35
	<i>Imbosom</i>	1466	" 41, $\frac{3}{8}$ " " " " " " " .....	.35
	<i>Imbound</i>	1467	" 41, $\frac{3}{8}$ " " " " " " " .....	.35
	<i>Imbow</i>	1468	" 41, $\frac{3}{8}$ " " " " " " " .....	.55
	<i>Imboxed</i>	1469	" 41, $\frac{3}{8}$ " " " " " " " .....	.55
	<i>Imbowing</i>	1470	" 41, $\frac{3}{8}$ " " " " " " " .....	.55
				
	No. 1471			
	<i>Imbowment</i>	1471	No. 47, $\frac{3}{8}$ inch branches, plain, each.....	.38
	<i>Imboz</i>	1472	" 47, $\frac{3}{8}$ " " " " " " " .....	.38
	<i>Imitable</i>	1473	" 47, $\frac{3}{8}$ " " " " " " " .....	.38
	<i>Imitate</i>	1474	" 47, $\frac{3}{8}$ " " " " " " " .....	.60
	<i>Imitation</i>	1475	" 47, $\frac{3}{8}$ " " " " " " " .....	.60
	<i>Imitating</i>	1476	" 47, $\frac{3}{8}$ " " " " " " " .....	.60

## Interior Conduit—(Continued).

## Branch Circuit Junction Boxes—Plain and Brass Covered.



No. 1477.

Code Word.	List No.		List Price.
<i>Imitative</i>	1477	No. 49, $\frac{3}{8}$ inch branches, plain, each	50.40
<i>Imitator</i>	1478	" 49, $\frac{1}{2}$ " " " " "	.40
<i>Immaculate</i>	1479	" 49, $\frac{3}{8}$ " " " " "	.40
<i>Immaculate</i>	1480	" 49, $\frac{3}{8}$ " " " " brass covered, each	.65
<i>Immature</i>	1481	" 49, $\frac{1}{2}$ " " " " "	.65
<i>Immatured</i>	1482	" 49, $\frac{3}{8}$ " " " " "	.65



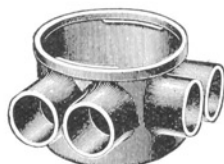
No. 1483—Two Outlets.

<i>Immaturely</i>	1483	$\frac{1}{2}$ inch branches, plain, each	.35
<i>Immaturity</i>	1484	$\frac{3}{8}$ " " " " "	.35
<i>Immemorial</i>	1485	$\frac{3}{8}$ " " " " "	.35
<i>Immense</i>	1486	$\frac{1}{2}$ " " " " brass covered, each	.55
<i>Immensity</i>	1487	$\frac{3}{8}$ " " " " "	.55
<i>Immensity</i>	1488	$\frac{3}{8}$ " " " " "	.55



No. 1489—Four Outlets.

<i>Implacable</i>	1489	$\frac{1}{2}$ inch branches, plain, each	.40
<i>Implacably</i>	1490	$\frac{3}{8}$ " " " " "	.40
<i>Implant</i>	1491	$\frac{3}{8}$ " " " " "	.40
<i>Implacated</i>	1492	$\frac{1}{2}$ " " " " brass covered, each	.60
<i>Implicating</i>	1493	$\frac{3}{8}$ " " " " "	.60
<i>Implication</i>	1494	$\frac{3}{8}$ " " " " "	.60



No. 1495—Four Outlets.

<i>Implicative</i>	1495	$\frac{1}{2}$ inch branches, plain, each	.40
<i>Implicit</i>	1496	$\frac{3}{8}$ " " " " "	.40
<i>Implicitly</i>	1497	$\frac{3}{8}$ " " " " "	.40
<i>Impunge</i>	1498	$\frac{1}{2}$ " " " " brass covered, each	.60
<i>Imply</i>	1499	$\frac{3}{8}$ " " " " "	.60
<i>Implying</i>	1500	$\frac{3}{8}$ " " " " "	.60

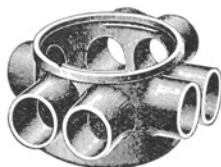


No. 1501—Six Outlets.

<i>Impocket</i>	1501	$\frac{1}{2}$ inch branches, plain, each	.45
<i>Impoison</i>	1502	$\frac{3}{8}$ " " " " "	.45
<i>Impoisoned</i>	1503	$\frac{3}{8}$ " " " " "	.45
<i>Impolicy</i>	1504	$\frac{1}{2}$ " " " " brass covered, each	.65
<i>Impolite</i>	1505	$\frac{3}{8}$ " " " " "	.65
<i>Impolitely</i>	1506	$\frac{3}{8}$ " " " " "	.65

Interior Conduit—(Continued).

Branch Circuit Junction Boxes—Plain and Brass Covered.



No. 1507—Eight Outlets.

Code Word.	List No.		List Price.
<i>Impolitic</i>	1507	½ inch branches, plain, each	\$0.50
<i>Impolitely</i>	1508	⅝ " " " " " "	.50
<i>Import</i>	1509	¾ " " " " " "	.50
<i>Importable</i>	1510	¾ " " " " " " " " " " " "	.70
<i>Importance</i>	1511	⅞ " " " " " " " " " " " "	.70
<i>Important</i>	1512	1 " " " " " " " " " " " "	.70



No. 1513—Two Outlets.

<i>Importantly</i>	1513	½ inch branches, plain, each	.33
<i>Importation</i>	1514	⅝ " " " " " "	.33
<i>Imported</i>	1515	¾ " " " " " "	.33
<i>Importer</i>	1516	¾ " " " " " " " " " " " "	.55
<i>Importing</i>	1517	⅞ " " " " " " " " " " " "	.55
<i>Importune</i>	1518	1 " " " " " " " " " " " "	.55

Metal Covers for Branch Boxes.



No. 60.  
Fancy Cover,  
Regular.



No. 597.  
Fancy Cover,  
With Rubber Bushing.

<i>Killing</i>	63	Dipped brass, each	.10
<i>Kiln</i>	66	" " " "	.15
<i>Kilt</i>	60	" " " "	.20
<i>Kimbo</i>	597	" " " "	.25
<i>Kindle</i>	599	" " " "	.25
<i>Kindled</i>	857	" " " "	.35



No. 63.  
Plain Cover,  
Regular.



No. 66.  
Plain Cover,  
With Rubber Bushing.

<i>Kindlier</i>	1275	Polished Brass, each	.15
<i>Kindliest</i>	1276	" " " "	.20
<i>Kindliness</i>	1277	" " " "	.25
<i>Kindling</i>	1278	" " " "	.30
<i>Kindness</i>	1279	" " " "	.30
<i>Kindred</i>	1280	" " " "	.40



No. 857  
Fancy Cover,  
With 2 ½ inch Holder.



No. 599.  
Fancy Cover,  
With Nozzle for Sockets.

<i>Kingbird</i>	1273	Black Iron, each	.06
<i>Kingcraft</i>	274	" " " "	.11



## Interior Conduit—(Continued.)

### Polished Brass Armored Conduit.

For Exposed Surface Work.

For this purpose the regular Brass Armored Conduit Elbows and Fittings are highly polished and coated with a fine quality of lacquer. The Conduit can be held directly on the surface of the walls by polished brass clips. This class of work has been largely used in buildings that were not originally wired for electric light, and presents a very neat appearance.

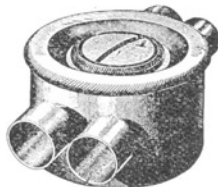
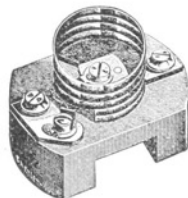


Fig. 1.



No. 21625.



No. 21628.



No. 21630.

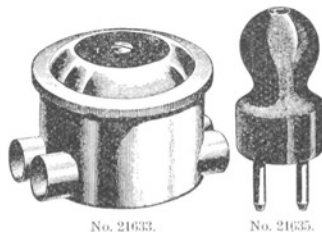
No. 21632.

Code Word.	List No.	List Price. Per 100 Ft.
<i>Seimiter</i>	21618	$\frac{1}{8}$ inch inside diameter..... \$ 9.95
<i>Seimitar</i>	21619	$\frac{1}{4}$ " " " "..... 10.68
<i>Seintilliant</i>	21620	$\frac{3}{8}$ " " " "..... 11.88
<i>Seintillote</i>	21621	$\frac{1}{2}$ " " " "..... 12.90
<i>Seiolism</i>	21622	$\frac{3}{4}$ " " " "..... 14.28
<i>Seion</i>	21623	1 " " " "..... 20.22
<i>Seirrhos</i>	21624	1 $\frac{1}{4}$ " " " "..... 24.95
<i>Seission</i>	21625	1 $\frac{1}{2}$ " " " ".....

### Sockets and Receptacles for Conduit Branch Boxes.

Figure 1 shows the complete Socket and Receptacle inclosed in Branch Box, in which it is held in position by the Brass Cover, No. 21628, and the Rubber Screw Ring, No. 21632; the Dummy Plug, No. 21630, of wood or hard rubber is also shown. The whole is arranged so that no part projects beyond the cover itself or its edge. This has been done with special reference to the use of the device as a Floor Receptacle, and is an advantage in any place where it may be used.

	Each.
<i>Seissors</i>	21626 Socket with porcelain base including cut-out.... .75
<i>Sclerotic</i>	21627 Receptacle with porcelain base without cut-out... .65
<i>Sodf</i>	21628 Cover for No. 21625 and 21627, brass, plain..... .15
<i>Sodd</i>	21629 " " 21625 " 21627, " polished... .25
<i>Sonce</i>	21630 Dummy plug to protect contacts when Socket or Receptacle is not in use, wood..... .15
<i>Scoop</i>	21631 Dummy plug, made of hard rubber..... .50
<i>Scope</i>	21632 Hard rubber screw ring for Nos. 21625 and 21627 .10



No. 21633.



No. 21635.

### Attachment Plug and Receptacle.

<i>Scorbatic</i>	21633 Receptacle, including cover to fit Branch Boxes, polished brass..... 2.75
<i>Score</i>	21635 Attaching plug, hard rubber..... 2.75

Interior Conduit—(Continued.)

Plain Conduit.

Since the introduction of Armored Conduits there has been an increased demand for the plain conduit in making installations for electric bells, telephones, telegraph, district messenger and other systems employing low tension currents.

All tubes and elbows are cut squarely, thoroughly reamed and tested for obstructive matter by passing a test line through them, thus reducing labor of installation and waste material to a minimum.



Code Word.	List No.		List Price, Per 100 Ft.
<i>Condemn</i>	3971	$\frac{1}{4}$ inch, inside diameter, grade 1	\$2.25
<i>Condemner</i>	3972	$\frac{1}{8}$ " " " " 1	2.25
<i>Condemning</i>	3973	$\frac{3}{8}$ " " " " 1	2.75
<i>Condensation</i>	3974	$\frac{1}{2}$ " " " " 1	3.75
<i>Condensate</i>	3975	$\frac{3}{4}$ " " " " 1	4.25
<i>Condense</i>	3976	1 " " " " 1	5.25
<i>Condensed</i>	3977	1 $\frac{1}{2}$ " " " " 1	8.00
<i>Condensed</i>	3978	1 $\frac{3}{4}$ " " " " 1	12.50
<i>Condiment</i>	3979	2 " " " " 1	20.00
<i>Conditite</i>	3980	2 $\frac{1}{2}$ " " " " 1	32.00

$\frac{1}{4}$  inch size in six foot lengths; all other sizes in ten foot lengths.

No. 110, Standard Short Elbow.



No. 1338.

		Per 100.
<i>Impouring</i>	1338	$\frac{1}{4}$ inch inside diameter ..... 5.50
<i>Impede</i>	1339	$\frac{1}{8}$ " " " " ..... 5.50
<i>Impeded</i>	1340	$\frac{3}{8}$ " " " " ..... 5.60
<i>Impeding</i>	1342	$\frac{1}{2}$ " " " " ..... 7.50
<i>Impolitic</i>	1343	$\frac{3}{4}$ " " " " ..... 10.00
<i>Impel</i>	1344	1 " " " " ..... 13.00
<i>Impelled</i>	1345	1 $\frac{1}{2}$ " " " " ..... 25.00
<i>Impellent</i>	1346	1 $\frac{3}{4}$ " " " " ..... 47.00

Larger Sizes Furnished to Order.

No. 112, Plain Long Elbow.



No. 1354.

<i>Impenned</i>	1354	$\frac{1}{4}$ inch, inside diameter ..... 15.50
<i>Impenning</i>	1355	$\frac{1}{8}$ " " " " ..... 16.00
<i>Impenceptible</i>	1356	$\frac{3}{8}$ " " " " ..... 17.75
<i>Impenfection</i>	1358	$\frac{1}{2}$ " " " " ..... 19.75
<i>Impenfectly</i>	1359	$\frac{3}{4}$ " " " " ..... 21.75
<i>Impenfitness</i>	1360	1 " " " " ..... 25.00
<i>Impenforate</i>	1361	1 $\frac{1}{2}$ " " " " ..... 32.50



No. 1369.

## Interior Conduit.—(Continued.)

## Plain Conduit—(Continued.)

## No. 113, Plain S Elbow.

Code Word.	List No.		List Price Per 100.
<i>Imperishably</i>	1369	$\frac{1}{2}$ inch, inside diameter.....	\$15.25
<i>Impersonate</i>	1370	$\frac{3}{8}$ " " " ".....	15.75
<i>Impersonated</i>	1371	$\frac{1}{2}$ " " " ".....	17.25
<i>Impertinent</i>	1373	$\frac{3}{4}$ " " " ".....	22.50
<i>Impertinently</i>	1374	$\frac{1}{2}$ " " " ".....	27.50
<i>Impetuous</i>	1375-1	" " " ".....	34.00
<i>Impetuously</i>	1376	$1\frac{1}{2}$ " " " ".....	50.00



No. 1384.

## No. 111, Plain T or Double Elbow.

<i>Impious</i>	1384	Mains $\frac{1}{2}$ inch, Branch $\frac{1}{2}$ inch.....	16.25
<i>Impiously</i>	1385	" " " " $\frac{3}{8}$ ".....	16.50
<i>Impish</i>	1387	" " " " $\frac{1}{2}$ ".....	18.75
<i>Immerge</i>	1388	" " " " ".....	20.25
<i>Immerged</i>	1389	" " " " ".....	25.00
<i>Immerging</i>	1390	" " " " ".....	35.00

No. 110 $\frac{1}{2}$ , Plain Short Elbow, with Attached Couplings.

<i>Immeshing</i>	1397	$\frac{1}{2}$ inch, inside diameter.....	13.30
<i>Imminent</i>	1398	$\frac{3}{8}$ " " " ".....	13.30
<i>Immingle</i>	1399	$\frac{1}{2}$ " " " ".....	13.50
<i>Immix</i>	1401	$\frac{3}{8}$ " " " ".....	18.50
<i>Immixed</i>	1402	$\frac{1}{2}$ " " " ".....	22.00
<i>Immixing</i>	1403	1 " " " ".....	30.00

No. 112 $\frac{1}{2}$ , Plain Long Elbow, with Attached Couplings.

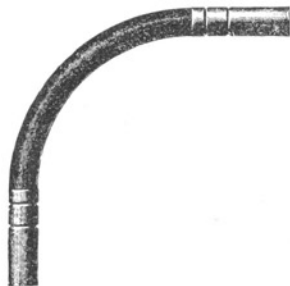
<i>Immolation</i>	1410	$\frac{1}{2}$ inch, inside diameter.....	23.50
<i>Immoral</i>	1411	$\frac{3}{8}$ " " " ".....	24.00
<i>Immorality</i>	1412	" " " ".....	25.75
<i>Immortality</i>	1414	" " " ".....	30.00
<i>Immortalize</i>	1415	$\frac{1}{2}$ " " " ".....	34.00
<i>Immorable</i>	1416	1 " " " ".....	41.00

No. 113 $\frac{1}{2}$ , Plain S Elbow, with Attached Couplings.

<i>Inspiring</i>	1423	$\frac{1}{2}$ inch, inside diameter.....	23.00
<i>Insipid</i>	1424	$\frac{3}{8}$ " " " ".....	23.60
<i>Insipidly</i>	1425	$\frac{1}{2}$ " " " ".....	25.50
<i>Impartial</i>	1427	" " " ".....	31.00
<i>Impartible</i>	1428	$\frac{1}{2}$ " " " ".....	39.75
<i>Imparting</i>	1429	1 " " " ".....	50.00

No. 111 $\frac{1}{2}$ , Plain T, with Attached Couplings.

<i>Impearl</i>	1436	Mains $\frac{1}{2}$ inch, Branch $\frac{1}{2}$ inch.....	26.25
<i>Impearled</i>	1437	" " " " $\frac{3}{8}$ ".....	27.90
<i>Idolize</i>	1439	" " " " ".....	29.50
<i>Igenous</i>	1440	" " " " $\frac{1}{2}$ ".....	32.25
<i>Ignite</i>	1441	" " " " ".....	34.50
<i>Ignited</i>	1442	" " " " $\frac{1}{2}$ ".....	41.00



No. 1110.

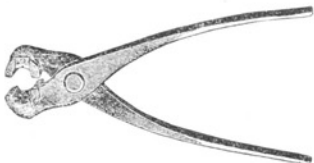
Interior Conduit—(Continued).



No. 1583.

**Staple Drivers.**

Code Word.	List No.		List Price.
<i>Indispose</i>	1583	½ inch, each, net.....	\$0.10
<i>Indisposed</i>	1584	¾ " " ".....	.11
<i>Indisposing</i>	1585	1 " " ".....	.12
<i>Indistinct</i>	1586	1 ¼ " " ".....	.14
<i>Indistinctly</i>	1587	1 ½ " " ".....	.16
<i>Indorse</i>	1588	1 ¾ " " ".....	.18
<i>Indorsed</i>	1589	1 " " ".....	.20
<i>Indorsement</i>	1590	1 ½ " " ".....	.24



No. 1591.

**Coupling Tool.**

<i>Indorser</i>	1591	½ inch, each, net.....	.90
<i>Induce</i>	1592	¾ " " ".....	.90
<i>Induct</i>	1593	1 " " ".....	1.00
<i>Inducted</i>	1594	1 ¼ " " ".....	1.20
<i>Inducting</i>	1595	1 ½ " " ".....	1.25
<i>Inductive</i>	1596	1 ¾ " " ".....	1.50
<i>Inductor</i>	1597	1 " " ".....	1.75
<i>Indulge</i>	1598	1 ½ " " ".....	2.15

**Miscellaneous.**

<i>Indulgent</i>	1316	Staples, all sizes, per pound, net.....	.10
<i>Industry</i>	1317	Compound for Making Joints, per pound, net..	.20
<i>Inez</i>	1318	Powdered Soapstone, per pound, net.....	.04
<i>Infamous</i>	1319	Fishing Wire, per foot, net.....	.01

**Finishing and Fitting Tools for Conduits.**



No. 153—Outside Reamer.

<i>Infamy</i>	153	Outside Reamer, each.....	1.00
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No. 154—Inside Reamer.

<i>Infancy</i>	154	Inside Reamer, each.....	1.00
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No. 157—Combination Reamer.

<i>Infantile</i>	157	Combination Reamer each.....	1.90
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No. 156.  
Trimmer for Metal Covered Conduit Tube.

<i>Infected</i>	156	Universal Trimmer for Brass Covered Conduit Tube, for all size conduits, each.....	4.25
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## Interior Conduit—(Continued.)

### Instructions.

In ordering Tube and Fittings the proper amount of Fittings bears about the following ratio to the Tube:

Three Couplings to every ten feet of Brass Armored Tube.

Four Couplings to every ten feet of Iron Armored Tube.

Four Elbows to every thirty feet of Tube.

Fifteen Clips to every thirty feet of Plain or Brass Armored Tube.

The number of Main Line, Junction, Feeder and other Boxes can only be determined by actual count and the arrangement of the circuits.

Small quantities of Compound, for sealing-Tubes in Junction Boxes, Soapstone and Fishing Wire, should always accompany every order.

Iron Armored Conduit is shipped in bundles, securely tied.

Packing Charges are as follows: Slats for Bandling Plain or Brass Armored Conduit, 7 cts. each; Six-foot Crates, 75 cts. each; Ten-foot Crates, \$1.00 each; Barrels, 25 cts. each; Small Boxes, 15 cts. and 25 cts. each.

We charge net cost of material only, and are not reimbursed for the labor expended in packing.

### Flexible Conduit.

#### For Interior Wiring.



Code Word.	List No.		List Price. Per foot.
<i>Amidships</i>	3925	$\frac{1}{4}$ inch inside diameter	<b>\$0.06</b>
<i>Amis</i>	3926	$\frac{3}{8}$ " " "	.07
<i>Ammunition</i>	3927	$\frac{1}{2}$ " " "	.08
<i>Amnesty</i>	3928	$\frac{5}{8}$ " " "	.10
<i>Among</i>	3929	$\frac{3}{4}$ " " "	.12
<i>Amorous</i>	3930	1 " " "	.16
<i>Amount</i>	3931	1 $\frac{1}{4}$ " " "	.20

Shipped in coils unless specially ordered on reels.

#### Size of Coils and Weight.

	Feet. per Coil.	Weight per 1000 Feet.
$\frac{1}{4}$ inch inside diameter	250	90
$\frac{3}{8}$ " " "	250	100
$\frac{1}{2}$ " " "	200	125
$\frac{5}{8}$ " " "	200	140
$\frac{3}{4}$ " " "	150	175
1 " " "	100	250
1 $\frac{1}{4}$ " " "	100	280

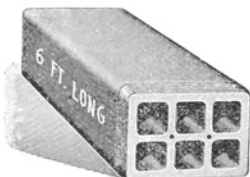




Two Duct.



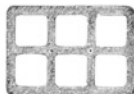
Three Duct.



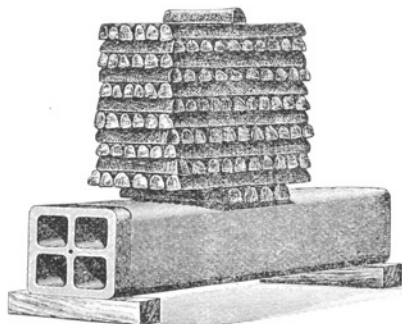
All Styles are made Six Feet Long.



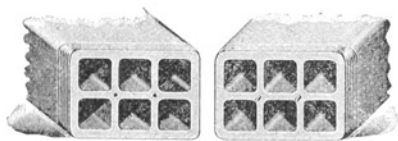
Four Duct.



Six Duct.



This cut is taken from a photograph showing a four chamber Conduit, 8 x 8 inches, six feet long, distance between bearings five feet four inches, supporting seven tons of pig iron.



Cross section of six chamber Conduit, showing position of dowel pins in abutting joints.

## The McRoy Vitrified Terra Cotta Conduit.

Manufactured from pure shale, finely ground, giving density and smoothness; is thoroughly and uniformly burned, affording good alignment and adding great bearing strength.

Made in lengths of 6 feet, and widths of 8½ and 13 inches, this size alone commends it to general favor owing to the great surface bearing of each piece.

In cross section dimensions the outer walls are ¾ in. with partitions ½ in. thick, and duct openings 3¼ x 3¼ inches square, with rounded corners.

The interior and exterior of Conduit being thoroughly salt glazed, prevents the moisture from penetrating.

The ends of each piece have the duct openings beveled to avoid any possibility of cable coming in contact with sharp edges.

Being manufactured of shale places it foremost as a material not affected by electrolysis or any gases or acids in the earth, besides being entirely free from corrosion.

The large amount of duct area obtainable in the McRoy Conduit compared with the small cross section of Conduit is well worthy of consideration.

Being made in multiples of two, three, four and six ducts, any odd number of multiple Conduit can be constructed.

In making joint a simple Portland cement mortar coating around joint is generally used.

To make an airtight joint a strip of burlap 8 to 10 inches wide, saturated with hot liquid asphalt is wrapped several times around joint, adding to its rigidity and making joint waterproof. No cement mortar is needed for this joint.

It can be laid surrounded entirely by concrete, in which case the concrete on the sides necessarily need not be very thick.

It is considered practical to lay it on a concrete foundation, none on sides, but the top covered with concrete for protection against the users of picks.

**Prices Quoted on Application.**

## Western Electric Fan Motors.

### Fan Motors for Direct Current Incandescent Circuits.

In designing the W. E. Fan Motor for 1898, great attention has been given to the essential qualities of a Fan Motor, namely Cost, Appearance, Economy of Operation and Durability, and we feel warranted in saying that this motor possesses all these requirements to a remarkable degree. The design of the Motor is artistic and graceful, and when running at the maximum speed the 16 inch motor consumes but little more current than an ordinary 16 candle power incandescent lamp and the 12 inch motor consumes less than any ordinary 16 candle power lamp. The motor is designed upon scientific principles, and drop-forged steel is used in the construction of the horseshoe field magnets—the most economical form of magnet known—all of which contributes to the extraordinary high efficiency obtained in the motor.

The armature is iron-clad and furnished with mica-insulated commutator, and is entirely encased by the metal of the motor, protecting it from dust and injury from external sources.

The brush holders are so designed as to automatically take up the wear of the carbons, without the necessity of manual adjustment, and to press the carbon brushes upon the commutator in the direction of rotation. This is a very essential feature for noiseless operation.

The Motor is furnished with self-oiling, self-aligning bearings and is silent in operation, the only noise to be detected being caused by the whirring of the fan through the air.

The utmost care in the selection of material and assembling of the Motors is maintained and every Motor is guaranteed.

These Motors have three speeds and are furnished with 16 inch and 12 inch Fan Blades.

The 16-inch Motor is wound for 110, 220 and 550 volts direct current. The 12-inch Motor is wound for 110 volts only.

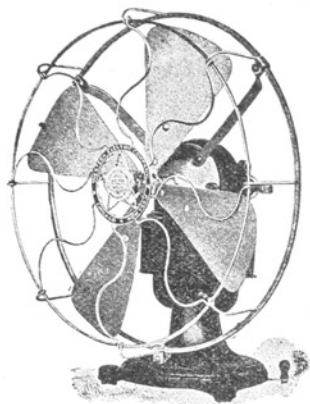
The Ceiling Fan Motors have three speeds and are furnished with 60 inch Fan Blades. They are wound for 110, 220 and 550 volts, direct current.

The Column Fan Motors have two speeds.



Desk Fan Motor—12 inch

Direct Current Fan Motor—(Continued.)



Desk Fan Motor—12 inch.

Western Electric Desk Fan, 12-inch, 110 Volts.

List No.	List Price, Each
F-1	One-sixteenth H. P., Western Electric Fan Motor, with regulating switch, giving three speeds, viz.: 1,875, 1,500 and 1,200 revolutions per minute at 110 volts, for constant potential circuits, up to 125 volts, self-aligning, self-oiling bearings, black enamel finish, complete with 12 inch black enamel fan and guard. .... <b>\$34.00</b>
F-2	With polished brass Fan and Guard, and all other outside brass fittings polished. .... <b>34.00</b>
F-3	With nickel-plated Fan and Guard, and all other outside brass fittings nickel-plated. .... <b>34.00</b>

Western Electric Desk Fan, 16-inch, 110 Volts.

A-4	One-tenth H. P., Western Electric Fan Motor, with regulating switch, giving three speeds, viz. 1,375, 1,000 and 750 revolutions per minute at 110 volts for constant potential circuits up to 125 volts, self-aligning, self-oiling bearings, enamel finish, complete 16 inch black enamel Fan and Guard. .... <b>43.00</b>
A-5	With polished brass Fan and Guard, and all other outside brass fittings, polished. .... <b>43.00</b>
A-6	With nickel-plated Fan and Guard, and all other outside brass fittings nickel-plated. .... <b>43.00</b>

Western Electric Desk Fan, 16-inch, 220 Volts.

AA-13	One-tenth H. P., Western Electric Fan Motor, with regulating switch, giving three speeds, viz. 1,375, 1,000 and 750 revolutions per minute at 220 volts, for constant potential circuits up to 240 volts, self-aligning, self-oiling bearings, with polished brass Fan and Guard and all other outside brass fittings polished. .... <b>50.00</b>
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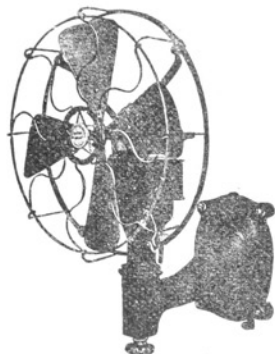
Western Electric Desk Fan, 16-inch, 500 Volts.

AAA-15	One-tenth H. P., Western Electric Fan Motor, with regulating switch, giving three speeds, viz. 1,375, 1,000 and 750 revolutions per minute at 500 volts, for constant potential circuits, up to 550 volts, self-aligning, self-oiling bearings, with polished brass Fan and Guard and all other outside brass fittings polished. .... <b>55.00</b>
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In ordering give List No. and Voltage.



Desk Fan Motor—16 inch.



Bracket Fan Motor  
12-inch.

### Direct Current Fan Motors—(Continued.)

#### Western Electric Bracket Fan, 12-inch, 110 Volts.

List No		List Price Each.
F-7	One-sixteenth H. P., Western Electric Fan Motor, with regulating switch, giving three speeds, viz.: 1,875, 1,500 and 1,200 revolutions per minute at 110 volts, for constant potential circuits, up to 125 volts, self-aligning, self-oiling bearings, thumbscrew for adjusting direction of Fan; feet of base drilled for screws; black enamel finish; complete with 12-inch black enamel Fan and Guard.....	\$34.00
F-8	With polished brass Fan and Guard, and all other outside brass fittings polished.....	34.00
F-9	With nickel-plated Fan and Guard, and all other outside brass fittings nickel-plated.....	34.00

#### Western Electric Bracket Fan, 16-inch, 110 Volts.

A-10	One-tenth H. P., Western Electric Fan Motor, with regulating switch, giving three speeds, viz.: 1,375, 1,000 and 750 revolutions per minute at 110 volts, for constant potential circuits, up to 125 volts, self-aligning, self-oiling bearings, thumbscrew for adjusting direction of Fan; feet of base drilled for screws; black enamel finish; complete, with 16-inch Fan and Guard.....	43.00
A-11	With polished brass Fan and Guard, and all other outside brass fittings polished.....	43.00
A-12	With nickel-plated Fan and Guard, and all other outside brass fittings nickel-plated.....	43.00

#### Western Electric Bracket Fan, 16-inch, 220 Volts.

AA-14	One-tenth H. P., Western Electric Fan Motor, with regulating switch, giving three speeds, viz.: 1,375, 1,000 and 750-revolutions per minute at 220 volts, for constant potential circuits, up to 240 volts, self-aligning, self-oiling bearings, thumbscrew for adjusting direction of Fan, feet of base drilled for screws; polished brass Fan and Guard, and all other outside brass fittings polished.....	50.00
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#### Western Electric Bracket Fan, 16-inch, 500 Volts.

AAA-16.	One-tenth H. P., Western Electric Fan Motor, with regulating switch, giving three speeds, viz.: 1,500, 1,200 and 800 revolutions per minute at 500 volts, for constant potential circuits, up to 550 volts, self-aligning, self-oiling bearings, thumbscrew for adjusting direction of Fan, feet of base drilled for screws; complete, with 16-inch Fan and Guard.....	55.00
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In ordering give List No. and Voltage.



Bracket Fan Motor  
16-inch.

Direct Current Fan Motors—(Continued.)

Western Electric Ceiling Fan, 110 Volts.

List No.

List Price.  
Each.

- C-34. W. E. Ceiling Fan Motor, with regulating switch, giving three speeds, viz.: 175, 140 and 115 revolutions per minute, at 110 volts, for constant potential circuits, up to 125 volts, self-aligning, self-oiling bearings, polished brass, oxidized copper or nickel finish, four 60-inch blades, for ceilings from 10 to 12 feet in height, complete without chandelier attachments..... **\$45.00**

For ceilings over 12 feet in height add 50 cents to the above list for each additional 6 inches.

Western Electric Ceiling Fan, 220 Volts.

CC-35.

- W. E. Ceiling Fan Motor, with regulating switch, giving three speeds, viz.: 175, 140 and 115 revolutions per minute, at 220 volts, for constant potential circuits up to 240 volts, self-aligning, self-oiling bearings, polished brass, oxidized copper or nickel finish, four 60-inch blades, for ceilings from 10 to 12 feet in height, complete without chandelier attachments..... **53.00**

For ceilings over 12 feet in height add 50 cents to the above list for each additional 6 inches.

Western Electric Ceiling Fan, 500 Volts.

CCC-36.

- W. E. Ceiling Fan Motor, with regulating switch, giving three speeds viz.: 175, 140 and 115 revolutions per minute, at 500 volts, for constant potential circuits, up to 550 volts, self-aligning, self-oiling bearings, polished brass, oxidized copper or nickel finish, four 60-inch blades, for ceilings from 10 to 12 feet in height, complete without chandelier attachments..... **63.00**

For ceilings over 12 feet in height add 50 cents to the above list for each additional 6 inches.

Special prices quoted for Ceiling Fans with two, three or more brackets arranged for Incandescent Electric Lights.

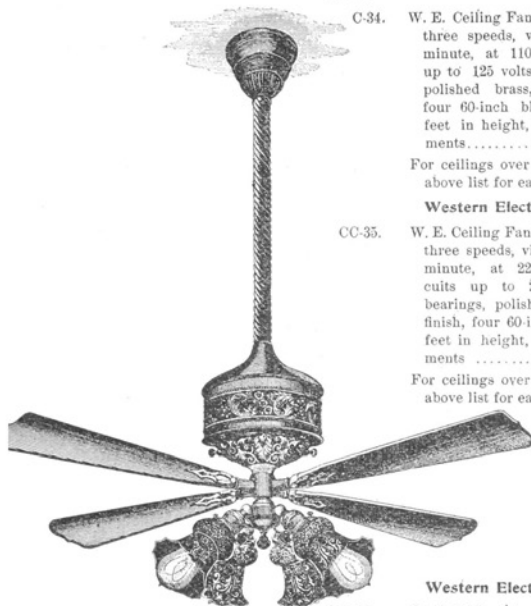
- For chandelier attachment including four rigid ball joints, for T.-H. or Westinghouse sockets four shade holders and four crimped porcelain shades 6 inches diameter, the whole wired to socket, additional..... **2.50**

- For the above with Edison sockets, instead of T.-H. or Westinghouse..... **2.75**

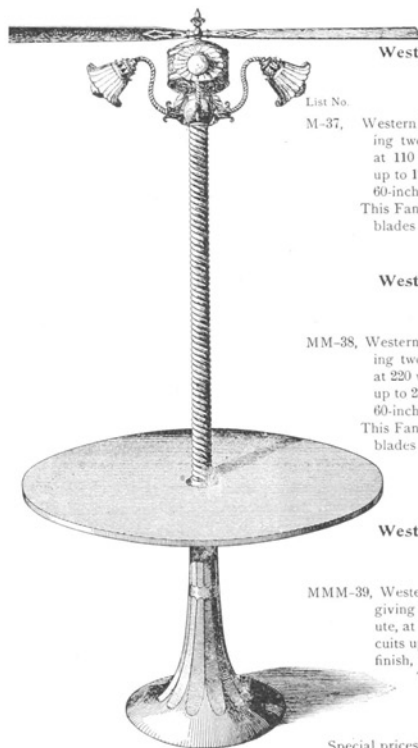
Hubs specially designed for two blades will be furnished if ordered.

Fan with two blades; three speeds, viz.: 210, 170 and 147 revolutions per minute.

In ordering give List No. and Voltage.



## Direct Current Fan Motors—(Continued.)

**Western Electric Column Fan, 110 Volts.**

Height of Blades from floor, 7 ft. 4 in.

List No.

List Price.  
Each.

- M-37, Western Electric Column Fan, with regulating switch, giving two speeds, viz.: 150 and 75 revolutions per minute, at 110 volts, for constant potential incandescent circuits up to 125 volts, self-oiling bearings, polished brass finish, 60-inch blades ..... **60.00**  
This Fan will be arranged for chandelier lights under the blades when so desired.

**Western Electric Column Fan, 220 Volts.**

Height of Blades from floor, 7 ft. 4 in.

- MM-38, Western Electric Column Fan, with regulating switch, giving two speeds, viz.: 150 and 75 revolutions per minute, at 220 volts, for constant potential incandescent circuits up to 240 volts, self-oiling bearings, polished brass finish, 60-inch blades ..... **67.50**  
This Fan will be arranged for chandelier lights under the blades when so desired.

**Western Electric Column Fan, 500 Volts.**

Height of Blades from floor, 7 ft. 4 in.

- MMM-39, Western Electric Column Fan, with regulating switch, giving two speeds, viz.: 150 and 75 revolutions per minute, at 500 volts, for constant potential incandescent circuits up to 550 volts, self-oiling bearings, polished brass finish, 60-inch blades ..... **80.00**  
This Fan will be arranged for chandelier lights under the blades when so desired.

Special prices quoted on Column Fans with two, three or more brackets arranged for incandescent lights.

We furnish Column Fans with round mahogany table around standard, for restaurants.

In ordering give List No. and Voltage.

## Direct Current Fan Motor—(Continued.)

## Prices of Parts of Western Electric Fan Motors.

## 12-Inch Fans.

List No.		List Price, Each.
F-17.	12-inch Brass Fan, polished.....	\$2.50
F-18.	12-inch Brass Fan, nickel-plated.....	2.50
F-19.	12-inch Black Enameled Fan.....	2.50

## 12-Inch Guards.

F-20.	12-inch Black Enameled Guard.....	3.00
F-21.	12-inch Brass Guard, polished.....	3.00
F-22.	12-inch Brass Guard, nickel-plated.....	3.00

## 16-Inch Fans.

F-23.	16-inch Brass Fan, polished.....	3.00
A-24.	16-inch Brass Fan, nickel-plated.....	3.00
A-25.	16-inch Black Enameled Fan.....	3.00

## 16-Inch Guards.

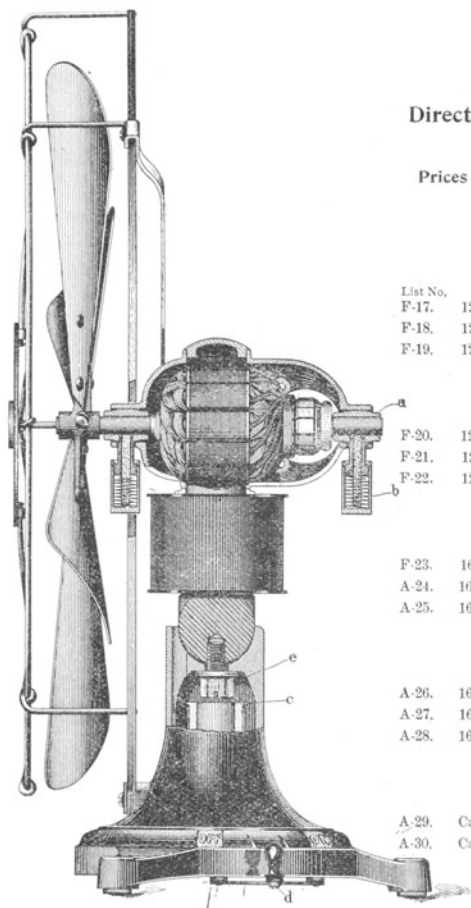
A-26.	16-inch Black Enameled Guard.....	3.25
A-27.	16-inch Brass Guard, polished.....	3.25
A-28.	16-inch Brass Guard, nickel-plated.....	3.25

## Carbon Brushes.

A-29.	Carbon Brushes for 1-16 H. P. Motor, per pair.....	.10
A-30.	Carbon Brushes for 1-10 H. P. Motor, per pair.....	.10

## Armatures.

A-31.	Armatures for 1-10 H. P. Motor, 110 volts.....	15.00
AA-32.	Armatures for 1-10 H. P. Motor, 220 volts.....	19.00
AAA-33.	Armatures for 1-10 H. P. Motor, 500 volts.....	23.00
F-34.	Armatures for 1-16 H. P. Motor, 110 volts.....	10.00



### Parts of Western Electric Desk Fan Motors—(Continued.)

List No.		List Price.
F-54.	12-inch Rheostat for 110 volts.....	\$1.60
F-55.	16 " " " 110 " .....	1.60
F-56.	16 " " " 220 " .....	1.60
F-57.	16 " " " 550 " .....	1.60
F-58.	12 " Switch Base, 110 " .....	.90
F-59.	16 " " " 110 " .....	.90
F-60.	16 " " " 220 " .....	.90
F-61.	16 " " " 550 " .....	.90
F-62.	Oil Cup Complete, .....	.50
F-63.	" " Spring, .....	.10
F-64.	" " Wick, .....	.05
F-65.	Self-aligning Journal, .....	.60

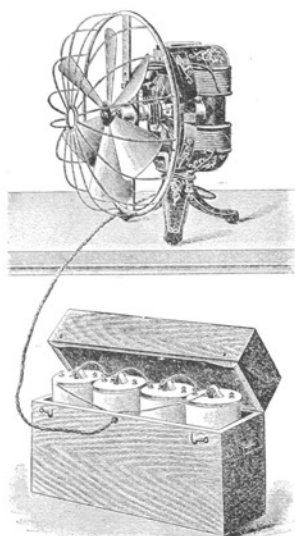
### Parts of Western Electric Ceiling Fan Motors.

C-66.	110 volt Armature, .....	10.80
CC-67.	220 " " .....	14.80
CCC-68.	550 " " .....	20.00
C-69.	110 " Field Coil, (Two Sections).....	7.70
(Each Field Coil is made up of two sections.)		
CC-70.	220 volt Field Coil, .....	9.25
CCC-71.	550 " " " .....	11.70
C-72.	110 " Rheostat, .....	1.60
CC-73.	220 " " .....	1.60
CCC-74.	550 " " .....	1.60
C-75.	Carbon Brushes for 110, 220 and 550 volts.....	.10
C-76.	45 degree Ball joint for Chandelier attachment.....	.35
C-77.	Switch handle, .....	.12
C-78.	Blades per pair, .....	1.60
Note. (Always order blades in pairs as they have to be balanced in weight to prevent swaying.)		
C-79.	Oil Cups, complete, .....	.50
C-80.	Oil Cup Springs, .....	.10
C-81.	Oil Cup Wicks, .....	.05
C-82.	Self-aligning Journal, .....	.60



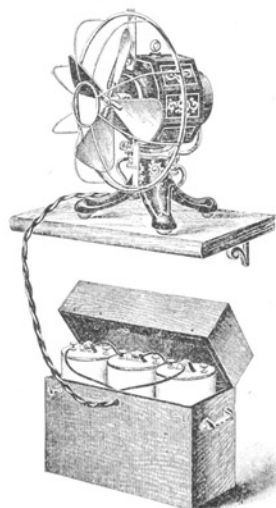
## Direct Current Fan Motor—(Continued.)

## Battery Fan Motor, No. 1.



No. 2820.  
No. 1 Battery Fan Motor.

List No.	List Price, Each.
2820	Outfit complete with charge to run 125 hours..... \$25.00
2821	Consisting of Edison battery motor with 9 inch Fan and Guard, battery cords, four Edison Lalande cells, type S, porcelain jars, in polished oak box 2½ inches long, 8 inches wide, 15 inches high. .... 12.00
2822	The motor with fan occupies a space 10 x 12 inches. It is absolutely noiseless. .... 1.00
2823	Flexible battery cord connecting cord to battery..... 4.76
2824	Complete renewals for 4 cells, type S..... .21
2825	Zinc plates..... .21
2826	Copper oxide plates..... .25
2827	Caustic potash per can of 8 sticks..... .96
2827	Heavy paraffine oil, per bottle..... .21



No. 2828.  
No. 2 Battery Fan Motor.

## Iron Clad Fan Motor, No. 2.

2828	Outfit complete with charge to run motor 150 hours. . 17.50
2829	Consisting of iron clad motor with 7-inch Fan and Guard, battery, cords, 3 Edison Lalande cells, porcelain jars, type S in polished oak boxes 18½ inches long, 8 inches wide, 15 inches deep. .... 8.50
2830	Edison iron clad battery fan motor with 7-inch Fan and Guard. It is noiseless, has self-oiling bearings, and is entirely enclosed in iron clad case, being provided with glass window at rear for regulation of brushes. .... 8.50
2830	When ordering renewals for this outfit always state for type S. .... 3.60
2831	Complete renewals for 3 cells, type S..... 3.60
2832	Zinc plates..... .21
2833	Copper oxide plates..... .25
2834	Caustic potash per can of 6 sticks..... .74
2834	Heavy paraffine oil, per bottle..... .12

## Alternating Current Desk Fan Motors.

Our Alternating Current Fan Motors are made for either 60 cycles or 125 cycles.

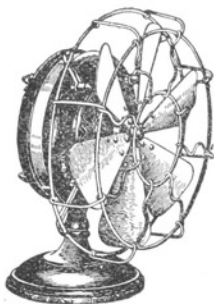
The Motors have a speed regulating device consisting of an inductive resistance operated by a three-point snap switch capable of giving full speed and half speed, the third position of the switch cutting the motor out of circuit. This controlling switch will be recognized as a great convenience, as it not only permits a change of speed but allows the motor to be wired directly to a circuit without the introduction of a lamp socket and plug connection.

The field core is a ring of iron punchings upon the inwardly projecting teeth of which the field coils are placed. The armature has no insulated wire, but consists of the customary laminated core through which, near the periphery, bare copper rods are run, their ends being riveted to copper disks at the ends of the core. As the rotation is produced by inductive action, no commutator or brushes are required. This permits the armature core to overhang the bearing to such a degree that, together with the fan, a balance is effected in the single bearing of the motor. This bearing is long and is provided with a self-oiling device so that it does not heat. By this method of lubrication the flying of oil is prevented.

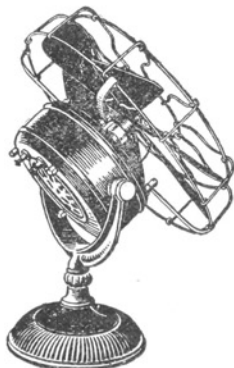
The 12-inch motor is supported on trunnions which allow a vertical angular adjustment.

These motors are made in three styles.

10-inch diameter, with regulating switch, rigid base.  
12-inch diameter, with regulating switch, with trunnion.  
14-inch diameter, with regulating switch, rigid base.



10-inch and 14-inch Motor with rigid base.



12-inch Motor with adjustable base, or Trunnion.

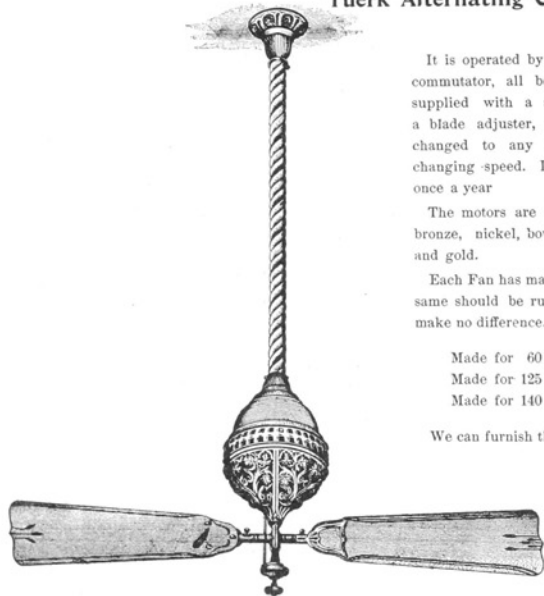
### For 125 Cycles.

List No	Description.	List Price
G-40.	Alternating Current Fan Motor, 104 volts, 10-inch Fan, rigid base.....	\$25.00
GG-41.	Alternating Current Fan Motor, 52 volts, 10 inch Fan, rigid base.....	25.00
G-43.	Alternating Current Fan Motor, 104 volts, 12-inch Fan, adjustable base.....	30.00
GG-44.	Alternating Current Fan Motor, 52 volts, 12-inch Fan, adjustable base.....	30.00
G-83	Alternating Current Fan Motor, 104 volts, 14-inch Fan, rigid base .....	35.00
GG-84.	Alternating Current Fan Motor, 52 volts, 14-inch Fan, rigid base.....	35.00

### For 60 Cycles.

G-45.	Alternating Current Fan Motor, 104 volts, 10-inch Fan....	25.00
GG-46.	Alternating Current Fan Motor, 52 volts, 10-inch Fan....	25.00
G-48.	Alternating Current Fan Motor, 104 volts, 12-inch Fan....	30.00
GG-49.	Alternating Current Fan Motor, 52 volts, 12 inch Fan....	30.00
G-85.	Alternating Current Fan Motor, 104 volts, 14-inch Fan, rigid base.....	35.00
GG-86	Alternating Current Fan Motor, 52 volts, 14-inch Fan, rigid base.....	35.00

### Tuerk Alternating Current Ceiling Fan Motor.



It is operated by induction and has no brushes or commutator, all bearings self-oiling, the Motor is supplied with a starting and stopping switch, and a blade adjuster, which admits of the blades being changed to any angle without stopping motor or changing speed. It is necessary to oil the motor only once a year

The motors are furnished in the following finishes: bronze, nickel, bower-barff, polished brass and white and gold.

Each Fan has marked on a plate the voltage on which same should be run; a slight variation from this will make no difference.

Made for 60 cycles, 52 and 104 volts.

Made for 125 cycles, 52 and 104 volts.

Made for 140 cycles, 52 and 104 volts.

We can furnish them up to 120 volts when required.

T-50.	Bronze .....	\$50.00
T-51.	Bower-Barff .....	50.00
T-52.	Nickel .....	54.00
T-53.	Brass .....	60.00
	For white and gold finish, additional, net .....	2.50

For ceilings over 14 feet \$1.00 per foot extra will be charged. Without switch, \$2.00 less, net.

When ordering Alternating Ceiling Fans state number of cycles or number of alternations and give voltage. In case you can not determine the number of cycles or alternations state what systems are used, viz. General Electric, Westinghouse, Stanley or Fort Wayne.

In ordering give List Number and Voltage.

## Combined Exhaust Fans and Lundell Motors.

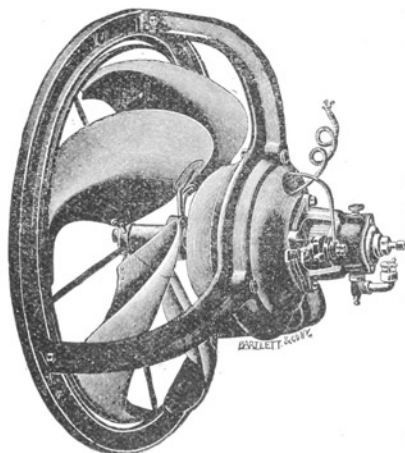
### Direct Connected, Noiseless, Efficient, Variable Speeds.

The design of the Lundell Motor lends itself most readily in application to exhaust fan work. The motor, being iron clad, is almost wholly inclosed and easily permits of connection by radial arms, spider, or bolts to any of the many forms of exhaust fans now to be found in the market.

It has been the practice of manufacturers of exhaust fans to supply a bearing in front as well as in the back of the fan, but in our application we carry a shaft, which may be horizontal or vertical, in two bearings in the motor frame itself, not supporting the shaft in any sense from the fan ring. This course insures perfect alignment and noiseless running.

All exhaust fan outfits are made with horizontal shafts, unless otherwise ordered, and are invariably made so that the direction of the flow of air is from the motor toward the fan. If it is desired to operate the fan with a vertical shaft or to drive the air through the fan and over the motor, it should be specifically stated in the order. With all standard horizontal shaft fans, an adjustable thrust bearing is provided. When the flow of air is desired contrary to the standard direction, a button and thrust bearing is placed at the rear of the motor.

In all horizontal shaft fans, lubrication is effected by oil. In vertical shaft fans, lubrication is effected in an oil receptacle enclosing a step at the bottom of the shaft, and a graphite or other self-lubricating bearing (never a grease cup or oil bearing) at the upper end of the shaft. Particular care should be taken to see that the white line marked upon the motor be in a vertical position when the fan outfit is erected.



Catalogue No.	Size of pan-Inches.	Speed	Motor Horse-Power.	Amperes	Voltage.	Price.
990	18	1000	$\frac{1}{4}$	1.5	115	\$220.00
992	24	775	$\frac{1}{2}$	3.	115	300.00
994	30	650	1	5.	115	390.00
996	36	600	2	10.	115	490.00
998	42	550	4	20.	115	650.00
1000	48	500	5	25.	115	750.00
1002	60	400	10	30.	115	1200.00
1004	72	350	15	50.	115	1500.00

We attach our Lundell Motors to any of the standard makes of Ventilating or Exhaust Fans. A list of prices and the charge we make for attaching is given herewith.

Horse-Power.	*Price of Motor and attaching.	Size of Fan, inches.	Price for attaching only.
$\frac{1}{4}$	132.00	18	\$12.00
$\frac{1}{2}$	180.00	24	50.00
1	220.00	30	60.00
2	320.00	36	70.00
4	505.00	42	80.00
5	565.00	48	90.00
10	820.00	60	120.00
15	1100.00	72	200.00

## Combined Exhaust Fans and Lundell Motors— (Continued.)

Motors are wound for 115, 230 and 500-volt circuits.  $\frac{1}{2}$ ,  $\frac{3}{4}$ , and 1 H. P. Motors, wound for 500-volt circuits, \$5.00 net extra.

Purchaser will understand that, for example, a 2-horse-power motor whose standard speed is 1000 revolutions per minute is a 1-horse-power motor at 500 revolutions per minute, or in other words the power a motor exerts is directly proportional to its speed.

The prices on preceding page are for disc fans only. Centrifugal fans, prices on application.

Motors for direct-connected outfits are made special, and are different from the standard power motors, having extra length of shaft, extra heavy bearing next to fan, thrust bearing, etc.

\*Customers to furnish fan and ring or frame.

## Direct Connected Electric Blowers and Exhausters.

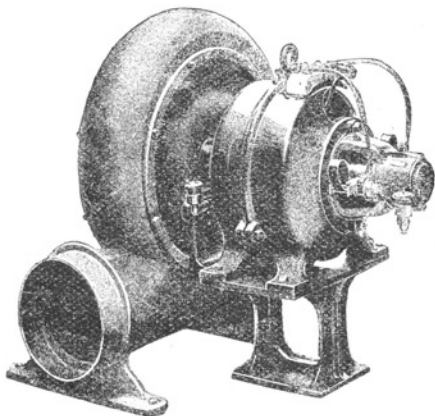


Table for Direct Connected Blowers.

SIZE NUMBERS					Pressure Limits	Sizes of Motors (These Vary According to Pressure of Air Required.) Horse-power.
B. F. Sturtevant & Co. "Monogram."	Buffalo Forge Co. "B" Volume	Boston Blower Co.	American Blower Co. "Dixie"	J. F. Polsey "Exeter."		
00				AA	From 0 to 5 ounces.	$\frac{1}{2}$ - $\frac{1}{4}$
0	1B			A		$\frac{1}{2}$ - 1
1	2B	24		B		$\frac{1}{2}$ - 1
2	3B	27		C		$\frac{1}{2}$ - 2
3	4B	30	14			$\frac{1}{2}$ - 4
4	5B	35	18	D and E		1 - 5
5	6B	40	22	F		1 - 7 $\frac{1}{2}$
6	7B	45	26	G		2 - 10
7	8B	53	30			3 - 15
8	9B	63	34	H and I		7 $\frac{1}{2}$ - 15
9	10B		38	J		10 - 20
10			42			20 - 25
36						25 - 35
37					35	

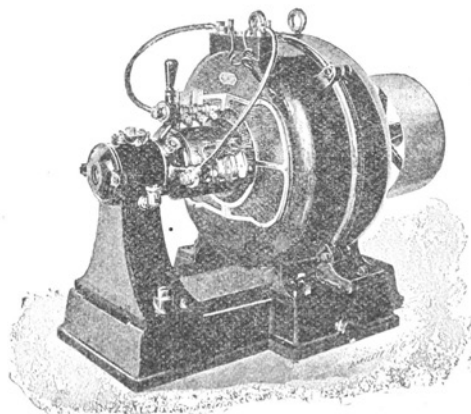
Prices upon application.

## Lundell Motors and Dynamos.

## Data and Prices.

Guaranteed Brake H. P.	Watts.	Amperes at 115 Volts.	Voltage*	Approximate Speed	PULLEY		List
					Diam	Face	
1/8	.....	.....	4 Battery	1300	1	V	\$ 28 00
1/4	.....	.....	115	1050	1	V	28 00
1/2	.....	.....	8 Battery	1200	1 1/2	V	32 00
3/4	.....	.....	115	1200	1 1/2	V	40 00
1	250	2.2	*115, 230, 500	1640	2 1/2	1 1/2	40 00
1 1/2	500	4.3	*115, 230, 500	1485	3 1/2	2	130 00
2	1000	8.7	*115, 230, 500	1225	4 1/2	2 1/2	160 00
2 1/2	1920	16.7	115, 230, 500	1040	6	3 1/2	250 00
3	2750	23.9	115, 230, 500	1480	6	3 1/2	350 00
4	3675	32.	115, 230, 500	1150	7	3 1/2	425 00
** 5	4525	39.4	115, 230, 500	1073	8	4 1/2	473 00
** 7 1/2	6650	57.8	115, 230, 500	1060	9	5	600 00
**10	8750	76.1	115, 230, 500	878	11	6	700 00
**15	12700	118.7	115, 230, 500	785	13	6 1/2	900 00
**20	16700	142.2	115, 230, 500	725	15	7	1100 00
**25	20650	179.5	115, 230, 500	770	17	8	1300 00
**35	28500	248.7	115, 230, 500	750	22	10	1800 00

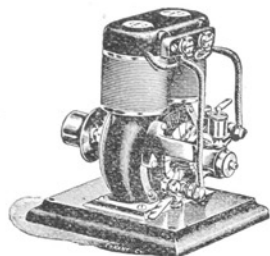
\*4, 4 and 1 H. P. motors, wound for 500-volt circuits, \$5.00 net, extra.  
\*\*4-Pole Type, all smaller sizes 2 Pole Type.



## NOTICE.

Prices subject to change without notice  
Boxing and cartage charged at cost.  
Above prices include fire proof starting boxes.  
Adjustable base, for tightening belt when required, will be furnished with 2 H. P. size and over without extra charge.  
Machines are also wound for slower speeds with proportionately smaller outputs, and for any voltage between 50 and 150 volts.  
Regulating Rheostats capable of 50 per cent reduction in speed furnished at a special quotation

## Plating Dynamos.



No. 1 Plating Dynamo.

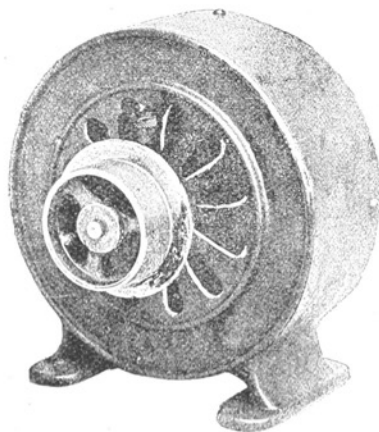
## Price List.

	Silver per hour	Nickel.	H. P. required at full load.	Pulley	Speed, Approximate.	List Price.
No. 1	2 oz.	36 gal.	$\frac{1}{2}$	1 $\frac{1}{2}$ x 1 $\frac{1}{2}$ in.	2,500	\$ 40.00
No. 3	6 "	100 "	$\frac{1}{2}$	2 x 1 $\frac{1}{2}$ "	2,000	95.00
No. 4	12 "	200 "	$\frac{2}{3}$	3 x 2 "	1,750	140.00
No. 5	25 "	400 "	1	4 x 2 "	1,900	190.00
No. 6	53 "	825 "	2	5 x 3 "	1,750	250.00
No. 7	110 "	1,700 "	4	7 x 4 "	1,600	390.00
No. 8	160 "	3,600 "	5	8 x 5 "	1,400	425.00

With No. 6 and larger sizes are sent sub-base, sliding rails and belt-tightening gear.

Rheostat included in above prices.

## Alternating Current Power Motor.



Alternating Current Power Motor.

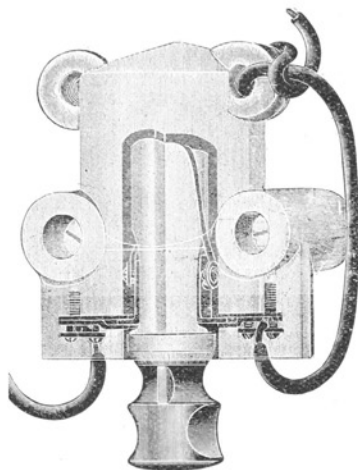
This Motor is non-synchronous, and runs at a practically constant speed under any change of load up to its full capacity.

The armature and field are finely laminated. The winding on the armature consists of copper bars, which are inserted in holes near the periphery, and are connected at the ends by massive copper rings, thus furnishing a closed circuit winding of great capacity. The current in these conductors is produced by induction, hence no collector, commutator, nor connection with the outside circuit is needed. The winding of the fields and the arrangement of the iron in the pole pieces produces a starting torque equal to one-half that of the machine under full load.

In starting the motor the button on the back of the motor is pushed in for a few seconds until the armature comes up to speed, when it is released. The motor requires no further attention while running.

	List Price.
$\frac{1}{2}$ H. P., 52 to 104 volts, with grooved or flat pulley.....	\$40.00
$\frac{1}{3}$ H. P., 52 to 104 volts, with grooved or flat pulley.....	60.00

These motors are built for 52 or 104 volts, high or low frequency. In ordering be particular to state voltage and number of periods or cycles per second. Low frequency machines are only made to order.



### P. & S. All China Junction Box and Motor Cut-Out.

The illustration shows a form of motor cut-out and junction box that will meet the requirements of the average motor installation.

The fuse chamber is entirely surrounded by porcelain and is completely divided by means of projections on the plug, this gives plenty of room for the fuse.

A five (5) inch fuse is required in this cut-out.

The plug is held in the box by means of the **Knife Contacts** shown in the illustration and cannot drop out.

The connections will take a wire from No. 4 B & S to the smallest size.

This device should not be used on motors taking over 60 amperes of current on normal loads.

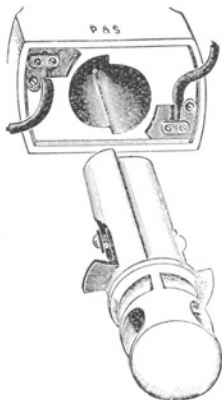
It can be used for motors,

On 110 volts up to	8 H. P.
On 220 " " "	15 " "
On 500 " " "	25 " "

For larger size motors the Bryant High Tension Service Switch and fuse box combined should be used.

On each corner of the P. & S. junction box is an eye, to these eyes service wires may be attached thus saving the expense of an extra insulator.

In addition to its use as a motor cut-out it may be used as a junction box for transformers, as a telephone cut-out and for outside work on service lines. It may be fastened to its supports by lag screws or wood screws.



Code Word.	List No.	P. & S. No.	Each
<i>Accredit</i>	25488	139 White	\$1.00
<i>Accreditation</i>	25489	139½ Black	.85

Furnished in black or white.

Two lag screws are furnished with each cut-out.



# TOOLS.



No. 15005.

## Carrying Hooks.

Code Word.	Last No.	List Price.
<i>Merritt</i>	15005	Carrying hook, with swivel bearing, each \$ 5.00



No. 15010.

<i>Maro</i>	15010	Extra heavy, 7-foot handle.....	4.50
<i>Marquon</i>	15011	Heavy, 6-foot handle.....	4.00
<i>Marquette</i>	15012	Medium, 5-foot handle.....	3.50

These hooks are made with particular regard to construction work. They are not malleable iron. The swivel bolt is forged wrought iron; hooks steel, with special long prods. The handles are made especially for us.



No. 15007.

## Cant Hooks.

<i>Mercin</i>	15007	Cant hook, 4 feet long, each.....	2.50
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No. 14910

## Digging Shovels.

<i>Meshoppen</i>	14910	Pole hole shovels, regular, 7-foot handle, each.....	1.25
<i>Metamora</i>	14911	Pole hole shovels, regular, 8-foot handle, each.....	1.40
<i>Metcalf</i>	14912	Pole-hole shovels, heavy, extra long straps, 7-foot handle, each.....	1.50
<i>Metropolitan</i>	14913	Pole hole shovels, heavy, extra long straps, 8-foot handle, each.....	1.60
<i>Meyers</i>	14915	Shovel handles, 7-foot, per dozen.....	5.50
<i>Miami</i>	14916	Shovel handles, 8-foot, per dozen.....	6.00



No. 3780.

## Digging Spoons.

Code Word.	List No.		List Price.
<i>Beehive</i>	3780	Pole hole spoons, regular, 7-foot handle, each.....	\$ 1.60
<i>Beetle</i>	3781	Pole hole spoons, regular, 8-foot handle, each.....	1.75
<i>Beftall</i>	3782	Pole hole spoons, heavy, 7-foot handle, each. With extra long straps.....	1.75
<i>Beft</i>	3783	Pole hole spoons, heavy, 8-foot handle, each. With extra long straps. ....	2.00
<i>Micanopy</i>	14917	Spoon handles 7-foot, per dozen.....	7.50
<i>Michigamme</i>	14918	Spoon handles, 8-foot, per dozen.....	7.50



No. 3869.

## Grading Shovels.

<i>Binocular</i>	3869	Round point, per dozen.....	9.00
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No. 3870.

<i>Binocular</i>	3870	Square point, per dozen.....	9.00
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No. 3622.

## Eureka Post Hole Diggers.

<i>Anchorage</i>	3622	Each.....	2.50
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No. 14920.

## Vaughan's Patent Augers.

<i>Middleboro</i>	14920	10-inch, each.....	3.50
<i>Middleburg</i>	14921	12 " " .....	4.00
<i>Middlefield</i>	14923	14 " " .....	4.50



No. 3689.

## Digging Bars.

<i>Beheaded</i>	3689	$\frac{1}{2}$ Digging bar, round, $1\frac{1}{4}$ inches diameter, 8 feet long, best steel, each.....	2.50
<i>Middleport</i>	3690	$\frac{1}{2}$ Digging bar, octagon, $1\frac{1}{4}$ inches diameter, 8 feet long, best steel, each.....	2.50

## Crow Bars.



No. 3687.

Code Word.	List No.	List Price.
<i>Behavior</i>	3687 $\frac{1}{2}$	Crow bars, 4 feet long, ..... \$ 2.50
<i>Behad</i>	3688	" 6 " " ..... 3.00

## Tamping Bars.



No. 1108

<i>Creep</i>	1108	Tamping bar, wood, 7 ft. long	2.25
<i>Creasing</i>	3075	Tamping bar, iron, 7 ft. long	2.00
<i>Crickit</i>	3078	Combined digging and tamping bar, iron	2.50

## Raising Forks.



No. 14925.

<i>Millanville</i>	14925	Length, 12 feet	2.20
<i>Millanfield</i>	14926	" 14 "	2.30
<i>Millerville</i>	14927	" 16 "	2.40

## Pike Poles.



No. 14928.

<i>Millerton</i>	14928	Pike pole, length, 12 feet	1.20
<i>Millenburg</i>	14929	" " 14 "	1.35
<i>Millar</i>	14930	" " 16 "	1.50
<i>Millenburg</i>	14931	" " 18 "	1.60



No. 14932.

## Pole Supporters.

<i>Millerfield</i>	14932	Jenny pole supporter, height 6 feet	8.00
<i>Millereau</i>	14933	Jenny pole supporter, height 7 $\frac{1}{2}$ feet	8.50



No. 3693.

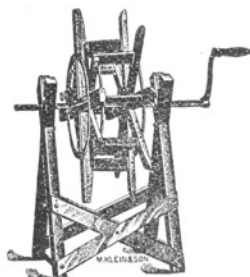
<i>Benignant</i>	3693 $\frac{1}{2}$	"Mule" pattern, height 4 $\frac{1}{2}$ ft.	7.00
<i>Benumb</i>	3694 $\frac{1}{4}$	" " " 6 "	7.00
<i>Benumbed</i>	3695 $\frac{1}{2}$	" " " 7 $\frac{1}{2}$ "	7.00



No. 2543.

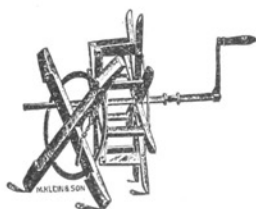
## Reels.

Code Word	List No.	List Price.
<i>Constricted</i>	2543	Take-up reel, each..... \$ 15.00

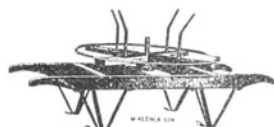


No. 15015.

<i>Martel</i>	15015	Improved take-up reel, each..... 17.50
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The improvement in this reel consists of a separate guard piece (shown in cut below) which is slipped on shaft and fastened with a flat key. To empty the reel, lift the spool out of buck, draw the key, and turn reel on end, the guard piece and coil will then come off together. This arrangement does away with the loose toggle guard irons of the old style reel and is much handier.



No. 2545.

<i>Constricted</i>	2545	Pay-out and take-up reel, each..... 16.50
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No. 2544.

<i>Constriction</i>	2544	Pay-out reel, each..... 7.50
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<i>Categorical</i>	2546	Reel straps, per set..... 5.00
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Nos. 14935 and 1109.

**Vises—Stubs .**

Code Word.	List No.	Stubs, 5½ inch.....	List Price, Each.
<i>Millergan</i>	14935	Stubs, 5½ inch.....	\$ 2.25
<i>Millington</i>	14936	" 6 " .....	3.00
<i>Millmont</i>	14937	" 5½ " copper face.....	3.50
<i>Millstadt</i>	14938	" 6 " " " .....	4.50

**Vises—Vom Cleff's.**

<i>Bilking</i>	2547	5½ inch.....	1.75
<i>Billbook</i>	2548	6 " .....	2.00
<i>Billet</i>	2549	5½ " copper face.....	2.50
<i>Millville</i>	2538	6 " " " .....	3.00
<i>Mitroy</i>	1109	Vise straps.....	.75



No. 14940.

**"Come-Along" Eccentric.**

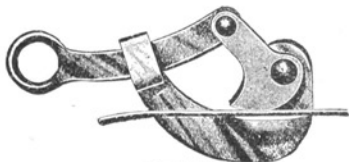
<i>Milton</i>	14940	For No. 9 wire.....	.60
<i>Millwood</i>	14941	For No. 3 wire.....	1.25
<i>Milo</i>	14942	For No. 000 wire.....	1.50



No. 3705.

**Klein's Plain Eccentric.**

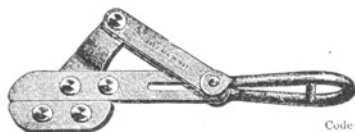
<i>Beauty</i>	3705	Brass.....	1.25
<i>Beautyspot</i>	3706	Steel.....	1.10



No. 3494.

**Haven's Clamp.**

<i>Blundering</i>	3494	Small size.....	1.75
<i>Blunt</i>	3495	Large size.....	3.50



No. 14945.

Code Word:	List No.	List Price.
<i>Milipitus</i>	<b>14945</b> Large size, for Trolley wire.....	Each. \$ 4.00
<i>Milesbury</i>	<b>14946</b> Small " " No. 6 and smaller	2.50
<i>Acosmism</i>	<b>25594</b> Extra large grip. ....	6.00
	Buffalo Grip, with pulley, 50 cents list additional.	

### The Buffalo Grip.



No. 15018.

### Parallel Screw Clamp.

For Trolley Wire.

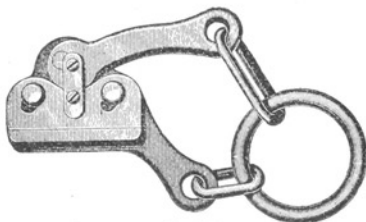
<i>Martinsbury</i> 15018 .....	2.25
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No. 15020.

### Ferdinand Wire Stretcher.

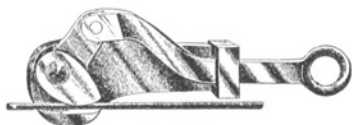
<i>Martinsville</i> 15020 .....	1.00
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No. 106.

### Fulford's Eccentric.

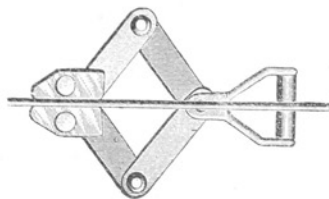
<i>Discerned</i> 106 .....	4.00
Will take No. 3 B. & S. bare wire.	



No. 15021.

### Landee's Clamp.

<i>Marville</i> 15021 .....	1.50
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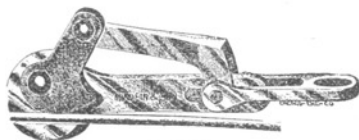


No. 2259.

## The Parallel Wire Stretcher.

No Teeth. Direct Pull. All Steel.

Code Word.	List No.		List Price.
<i>Capna</i>	2265	Fine tool steel, per dozen.....	36.00
<i>Captured</i>	2542	Cast steel, arranged for hooks : suitable for electric light and trolley wires ; carries any size up to No. 000, inclusive, per dozen.....	42.00



No. 2524.

## Klein's Compound Eccentrics.

Style A.

<i>Milford</i>	2525	Klein's Compound Eccentric clamp, brass, each.....	1.70
<i>Milard</i>	2526	Iron, large size, each.....	2.50



No. 2524.

Style B.

For hard drawn copper wire.  
As both the upper and lower  
bearings of this clamp are made  
of brass, there is no danger of  
injuring the wire.

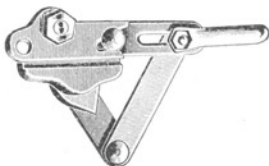
<i>Milboro</i>	2524	Each.....	2.50
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No. 15025.

Style C.

<i>Maryville</i>	15025	Light, for No. 4 B. & S. and finer, each.....	3.50
<i>Marquota</i>	15026	Heavy; for No. 0 and finer, each	5.00



No. 25088.

### The Westfield Grip.

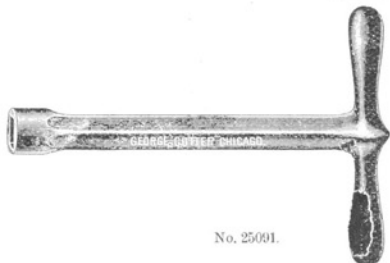
Carries any size Wire up to No. 4.

Code Word.	List No		List Price.
<i>Song</i>	25088	Each .....	\$ 2.50



### Improved Parallel Wire Stretcher.

<i>Songful</i>	25089	No. 0	Telephone size, small size, each.....	3.00
<i>Songfish</i>	25090	No. 1	Telegraph, Electric Light and Trolley Wire, each. ....	3.50



No. 25091.

### Cutter Lag Screw Wrench.

Made in two sizes, for  $\frac{3}{4}$  inch and for  $\frac{1}{2}$  inch lag screws. Is especially handy for putting up windlasses, pole pulleys, brackets, and the like.

<i>Songless</i>	25091	For $\frac{3}{4}$ inch Lag Screws, each.....	.30
<i>Songster</i>	25092	For $\frac{1}{2}$ " " " each.....	.30



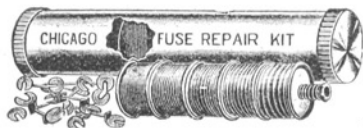
No. 25093.

### The Electric Spud.

The handles being made of crucible steel tubing, (especially for this purpose) and are as strong as a solid steel bar. The blades are forged from best open hearth crucible mining tool steel and tempered.

These Spuds are provided with tamper on upper end for tamping ground around pole, thus combining a Spud and tamping bar in one tool. Length 9 feet.

<i>Songstress</i>	25093	Each.....	3.00
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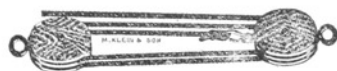


### Chicago Fuse Repair Kit.

Contains five sizes of fuse wire, also a good assortment of fuse links.

<i>Acquirer</i>	25598	Kit, complete.....	\$1.00
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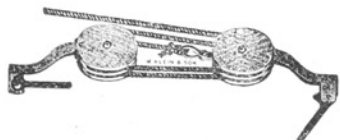


No. 15030.

Code Word.	List No.		List Price.
<i>Masonville</i>	15030	4-inch, per pair.....	\$ 2.50
<i>Matamoros</i>	15031	5 " " .....	4.00

**Pulley Blocks with Eye**

For Attaching Separate Clamp.



No. 15032.

<i>Maselon</i>	15032	4-inch, per pair.....	4.25
<i>Matamoros</i>	15033	5-inch, extra heavy, per pair.....	6.50

**Pulley Blocks.**

With Eccentric Attached.



No. 15035.

<i>Matfield</i>	15035	2 1/4-inch malleable galvanized iron. per pair.....	3.50
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**Pulley Blocks.**

With Eccentric Attached.



No. 6810.

<i>Dangerous</i>	6807	Diameter of rope, 3/8 inch, per dozen..	7.20
<i>Dangling</i>	6808	" " " 5/8 " " " ..	10.80
<i>Daniel</i>	6809	" " " 3/4 " " " ..	15.00

**Pulley Blocks.**

GALVANIZED IRON, WITH LOOSE HOOKS.

Single Iron Sheaves.

Double Iron Sheaves.

<i>Dandy</i>	6810	Diameter of rope, 1/2 inch, per dozen..	12.00
<i>Dandle</i>	6812	" " " 5/8 " " " ..	18.00
<i>Danger</i>	6817	" " " 3/4 " " " ..	24.00

GALVANIZED IRON, WITH SWIVEL EYES.

Single Iron Sheaves.

Double Iron Sheaves.

<i>Dapper</i>	6818	Diameter of rope, 3/8 inch, per dozen..	.75
<i>Dapple</i>	6819	" " " 1/2 " " " ..	1.00
<i>Dave</i>	6820	" " " 5/8 " " " ..	1.75
<i>Daring</i>	6821	" " " 3/4 " " " ..	2.75
<i>Darken</i>	6822	" " " 1/2 " " " ..	4.00



No. 6818.

<i>Darkness</i>	6823	Diameter of rope, 1/2 inch, per dozen..	1.00
<i>Darling</i>	6824	" " " 3/4 " " " ..	1.50
<i>Dart</i>	6825	" " " 5/8 " " " ..	2.25
<i>Darted</i>	8788	" " " 3/4 " " " ..	3.50
<i>Dash</i>	8789	" " " 1/2 " " " ..	5.00



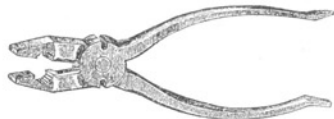
No. 3663.



No. 15040.



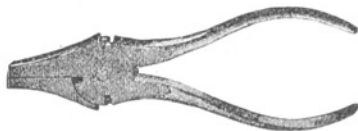
No. 15045.



No. 15050.



No. 15052.



No. 15055.

### Stubs' Side Cutting Pliers.

Code Word.	List No.		List Price.
<i>Anarchist</i>	3663	4 inch, per doz.	\$10.00
<i>Anarchy</i>	3664	4½ " " "	10.00
<i>Anatomist</i>	3665	5 " " "	10.00
<i>Anatomy</i>	3667	6 " " "	11.00
<i>Anatron</i>	3668	7 " " "	18.00
<i>Ancestor</i>	3669	8 " " "	24.00
<i>Milbrook</i>	2523	9 " " "	30.00

Nickel plated, 30c. per pair extra, net.

### Solid Steel Pliers.

#### With Raised Cutter.

<i>Matapan</i>	15040	5-inch, per dozen	14.50
<i>Matavea</i>	15041	6 " " "	15.50
<i>Mataveau</i>	15042	7 " " "	19.50
<i>Mattison</i>	15043	8 " " "	22.50

### Safety Pliers.

#### Patent Insulation.

<i>Mattoon</i>	15045	6-inch, per dozen	25.00
<i>Maurice</i>	15046	7 " " "	33.00
<i>Maxwell</i>	15047	8 " " "	40.00

Tested to insulate against a current of 2,500 volts.

### The Universal Pliers.

<i>Mayfield</i>	15050	8-inch, per pair	1.50
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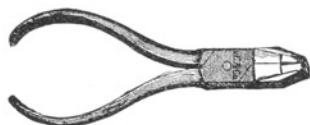
### Fry's Patent Lineman's Splicing Pliers.

<i>Mascopa</i>	15052	8-inch, per pair	2.00
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### Patent Pliers.

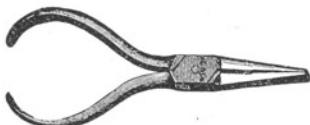
<i>Masomance</i>	15055	4½-inch, per dozen	4.20
<i>Mayford</i>	15056	6 " " "	4.80
<i>Mazon</i>	15057	8 " " "	6.00
<i>Meadelle</i>	15058	10 " " "	8.00

## Vom Cleff's All Steel Pliers.



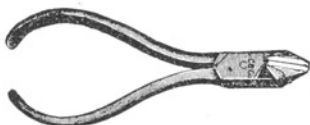
No. 3794.

Code Word.	List No.	Side Cutting.	List Price.
<i>Belched</i>	3794	4 Inch, per dozen .....	\$8.00
<i>Belching</i>	3795	4½ " " .....	8.00
<i>Belfry</i>	3796	5 " " .....	8.00
<i>Belgian</i>	3797	5½ " " .....	9.00
<i>Belie</i>	3798	6 " " .....	10.00
<i>Belied</i>	3799	6½ " " .....	12.00
<i>Belike</i>	3800	7 " " .....	14.00
<i>Belittle</i>	3801	8 " " .....	18.00
<i>Bellow</i>	3802	9 " " .....	22.30



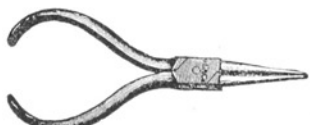
No. 2835.

Code Word.	List No.	Flat, Long Nose.	List Price.
<i>Coquettish</i>	2835	3 Inch, per dozen .....	4.20
<i>Coquetting</i>	2836	3½ " " .....	4.20
<i>Cora</i>	2837	4 " " .....	4.20
<i>Coral</i>	2838	4½ " " .....	4.20
<i>Corallite</i>	2839	5 " " .....	4.60
<i>Coralline</i>	2840	5½ " " .....	5.40
<i>Coralloid</i>	2841	6 " " .....	6.30



No. 2869.

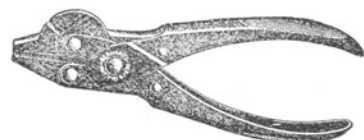
Code Word.	List No.	Diagonal Cutting.	List Price.
<i>Corant</i>	2869	3 Inch, per dozen .....	8.00
<i>Corcule</i>	2870	3½ " " .....	8.00
<i>Cord</i>	2871	4 " " .....	8.00
<i>Cordage</i>	2872	4½ " " .....	8.00
<i>Cordate</i>	2873	5 " " .....	8.00
<i>Corded</i>	2874	5½ " " .....	9.00
<i>Cordelia</i>	2875	6 " " .....	10.00
<i>Cordial</i>	2876	6½ " " .....	11.50
<i>Cordially</i>	2877	7 " " .....	14.00
<i>Cordon</i>	2878	8 " " .....	18.00



No. 2879.

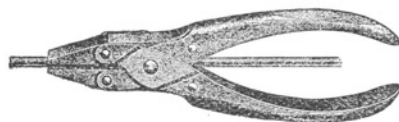
Code Word.	List No.	Round, Long Nose.	List Price.
<i>Cordovan</i>	2879	3 Inch, per dozen .....	4.20
<i>Corduroy</i>	2880	3½ " " .....	4.20
<i>Cordvain</i>	2881	4 " " .....	4.20
<i>Correlation</i>	2882	4½ " " .....	4.20
<i>Corinne</i>	2883	5 " " .....	4.60
<i>Corinthian</i>	2884	5½ " " .....	5.40
<i>Cork</i>	2885	6 " " .....	6.20

### Bernard's Combined Parallel and Cutting Pliers.



No. 3789

Code Word.	List No.	Length.	Will Cut.	Width between plying jaws when open.	List Price Per doz.
<i>Beholder</i>	3789	4½ in.	No. 9 B. & S. Wire.	¼ in.	\$11.50
<i>Beholding</i>	3790	5½ "	No. 7 B. & S. Wire.	⅜ "	14.50
<i>Behoove</i>	3791	6½ "	No. 5 B. & S. Wire.	½ "	17.50
<i>Belabor</i>	3792	7½ "	No. 3 B. & S. Wire.	¾ "	24.00



No. 2688.

### Bernard's Parallel Pliers.

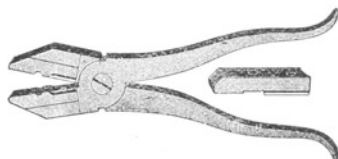
<i>Consummate</i>	2688	4½ inch.	.....	7.00
<i>Consumption</i>	2689	5½ "	.....	9.00
<i>Consumptive</i>	2690	6½ "	.....	11.50
<i>Contact</i>	2691	7½ "	.....	15.00



No. 15060.

### Hall's Telegraph Pliers.

<i>Mechakling</i>	15060	8 inch.	.....	14.40
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No. 15062

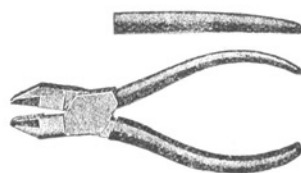
<i>Mecosta</i>	15062	8 inch.	.....	21.60
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No. 15063.

### Fixture Pliers.

<i>Mecham</i>	15063	6 inch.	.....	9.00
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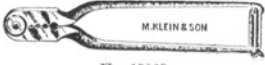


No. 2680.

### Rubber Handles for Pliers.

				Per Gross Pairs.
<i>Constrictor</i>	2680	5 inch.	.....	17.00
<i>Constructure</i>	2681	6 "	.....	23.00
<i>Consular</i>	2682	7 "	.....	28.80
<i>Consulate</i>	2683	8 "	.....	36.00

## Splicing Clamps or Connectors.

				Code Word.	List No.		List Price.
							Per Pair
	No. 8632.	M. KLEIN & SON		<i>Contagion</i>	8632	For Nos. 2, 4, 6 and 8 wire.....	\$ 2.00
	No. 8633.	M. KLEIN & SON		<i>Contagious</i>	8633	For No. 6 and finer wire.....	2.00
	No. 8634.	M. KLEIN & SON		<i>Contain</i>	8634	For Nos. 4, 6, 8 and 9 wire.....	2.00
	No. 8635.	M. KLEIN & SON		<i>Contained</i>	8635	Copper jawed, for Hard drawn copper wire No. 8 and finer....	3.00
	No. 15065.	M. KLEIN & SON.		<i>Mecede</i>	15065	Combination No. 2 and McIntire connector.....	2.35
	No. 15066.	M. KLEIN & SON		<i>Melira</i>	15066	Railroad, for Nos. 0, 2 and 4 wire	2.00
	No. 15067	M. KLEIN & SON.		<i>Medfield</i>	15067	For McIntire joints.....	2.00
	No. 15068.	M. KLEIN & SON		<i>Medford</i>	15068	Seven inches long, for No. 9 to 16 wire.....	1.85



No. 15070

**Vom Cleff Splicing Clamps.**

Code Word. List No. List Price.  
*Mediapolis* 15070 4-Hole, per pair..... \$ 1.80



No. 15071.

*Medione* 15071 2-Hole, per pair..... 1.80



No. 2673

**McIntire's Twisting Clamps.**

*Effect* 2673 Compressing and cutting pliers, for No. 10 to No. 20 wire, per pair..... 2.00



No. 2674.

*Effective* 2674 Twisting clamp for No. 8 to No. 16 wire, per set of 2 pair 3.50



No. 2675.

*Effectual* 2675 Twisting clamp for No. 4, 5 and 6 wire, per set of 2 pair..... 4.50



No. 2676.

*Effected* 2676 Twisting clamp, for No. 00 to No. 6 wire, per set of 2 pair..... 8.00



No. 2515.

**Climbers.**

*Milbury* 2515 Western pattern, per pair, no straps..... 2.00

*Mildale* 2516 Straps, per set of four. 1.00



No. 2517.

*Millan* 2517 Eastern pattern, per pair, no straps. 3.00

*Minteco* 2518 Straps, per set of four. 1.00

**Double Steel Splicing Wrench.****For Iron Wire or Heavy Copper Wires.**

We keep in stock two sizes, one for 4 and 6 wire and one for 8 and 9 wire. These wrenches are accurately fitted for the respective wires and will make a tight, clean splice. We have made them for as large as 00 wire.



No. 15075.

Code Word.	List No.	List Price.
<i>Medon</i>	<b>15075</b>	For stock sizes, each..... \$ 1.05

Price large size on application.

**Steel Tie Wrench.****For Hard Drawn Copper Wire.**

The purpose of this tool is to make the tie around the line wire, where it is fastened to the insulators. It will wind the tie wire around line smoothly without marring same.



No. 15076

<i>Medora</i>	<b>15076</b>	Each.....	1.05
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**Combination Lag-Screw and Nut Wrench.**

<i>Medway</i>	<b>15077</b>	Each.....	1.50
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Will take lag-screws and nuts for  $\frac{1}{8}$  inch,  $\frac{1}{2}$  inch and  $\frac{3}{8}$  inch bolts.



No. 15077.

**Steel Lag-Screw Wrench.**

This wrench is very convenient for drawing up lag-screws through cross-arms; the jaw is made tapering to accommodate variations in bolt heads.

<i>Mekers</i>	<b>15078</b>	Each.....	1.25
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No. 15078.

**Coe Wrenches.**

<i>Blunted</i>	<b>3496</b>	6 inch, per dozen.....	9.00
<i>Bluntly</i>	<b>3497</b>	8 " " ".....	10.00
<i>Bluntly</i>	<b>3498</b>	10 " " ".....	12.00
<i>Blar</i>	<b>3499</b>	12 " " ".....	14.00
<i>Blurred</i>	<b>3500</b>	15 " " ".....	24.00
<i>Blurring</i>	<b>3501</b>	18 " " ".....	30.00

**Tree Trimmers.**

<i>Minburne)</i>	<b>2520</b>	Regular, each.....	2.50
<i>Minden</i>	<b>2521</b>	Extra heavy, each.....	3.00

No. 3496.



No. 2520.



No. 15080.

<i>Medon</i>	<b>15080</b>	Vom Cleff, each.....	3.00
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No. 15115.

**Electricians' Hammer.**

Code Word.	List No.	List Price.
		Each.
<i>Mendon</i>	15115	9-oz. . . . . \$ .65



No. 15116.

**Nail Hammers.****Plain Eye.**

<i>Meridota</i>	15116	12-oz. . . . .	.50
<i>Menlo</i>	15117	15 " . . . . .	.55
<i>Mento</i>	15118	18 " . . . . .	.60

**Adze Eye.**

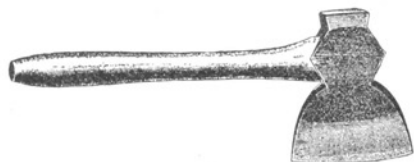
<i>Meridith</i>	15120	13-oz. . . . .	.70
<i>Merodosius</i>	15121	16 " . . . . .	.75
<i>Mercedo</i>	15128	20 " . . . . .	.80



No. 15122.

**Hatchets.**

<i>Meridan</i>	15122	Cut 3 $\frac{3}{4}$ inches. . . . .	.80
<i>Meridia</i>	15123	Cut 4 $\frac{1}{4}$ " . . . . .	.90



No. 15124.

**Hand Axes.**

<i>Merigold</i>	15124	4 $\frac{1}{2}$ inch cut. . . . .	1.25
<i>Merom</i>	15125	5 " " . . . . .	1.45
<i>Merian</i>	15126	5 $\frac{1}{2}$ " " . . . . .	1.55
<i>Merricourt</i>	15127	6 " " . . . . .	1.80



No. 15130.

**Linemen's Axe.**

<i>Merrillian</i>	15130	With handle. . . . .	1.25
<i>Merimac</i>	15132	Without handle. . . . .	1.00





No. 24064.



No. 24065.



No. 24075.

## Dicke Tools.

### Carrying Hooks.

Code Word.	List No.	List Price.
<i>Skill</i>	24064 With Swivel, each.....	\$3.00
	Length of handle, 4 feet.	

### Cant Hooks.

<i>Skilled</i>	24065 Length 4 feet, each.....	2.25
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### Wood Handle Tamping Bars.

<i>Skinch</i>	24075 Hardwood, iron shoe, per doz.....	25.00
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### Jenny Pole Support.

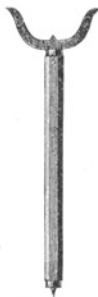
<i>Skinftnt</i>	24076 6 feet, each.....	8.00
<i>Skinful</i>	24077 7½ " ".....	9.00
	Very strong and substantial.	

### Mule Pole Support.

<i>Skink</i>	24078 4½ feet, each.....	5.00
<i>Skinless</i>	24079 6 " ".....	6.00
<i>Skinner</i>	24080 7½ " ".....	7.00
	Light and very strong.	



No. 24076.



No. 24078.



No. 21088.



No. 24091.



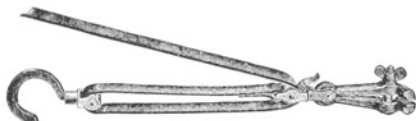
No. 24093.



No. 24095.



No. 24096.



No. 24098.



No. 24099.

## Dicke Tools—(Continued.)

## Splicing Clamps.

Code Word.	List No.	List Price.
<i>Skippingly</i>	24085	No. 100. Polished, 4 hole for No. 0 B. & S. wire and finer, per doz. . . . . \$30.00
<i>Skirl</i>	24086	No. 101. Polished, 2 hole for No. 0 B. & S. wire and finer, per doz. . . . . 30.00
<i>Skirling</i>	24087	No. 102. Polished, 2 hole for No. 3 B. & S. wire and finer, per doz. . . . . 30.00
<i>Skirmish</i>	24088	No. 103. Polished, 4 hole, for No. 8 B. & S. wire and finer, per doz. . . . . 30.00
<i>Skirmisher</i>	24089	No. 104. Polished, 4 hole, for No. 0 B. & S. wire and finer, per doz. . . . . 30.00
<i>Skicret</i>	24090	No. 105. Polished, same as 104, with copper jaws, per doz. . . . . 50.00

## Western Climbers.

<i>Skirt</i>	24091	Without Straps, per pair. . . . . 1.50
<i>Skirting</i>	24092	Straps, per set . . . . . 1.00

## Eastern Climbers.

<i>Skittish</i>	24093	Without Straps, per pair. . . . . 2.00
<i>Skittishly</i>	24094	Straps, per set . . . . . 1.00

## Lag Screw Wrench.

<i>Skittles</i>	24095	Fits any size head, per doz. . . . . 16.00
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## Splicing Tool.

<i>Skice</i>	24096	Per dozen . . . . . 9.00
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## Howe's Improved Wire Tool.

<i>Skicer</i>	24097	Wire Tightener, only (without vise), with strap, each. . . . . 4.50
<i>Skout</i>	24098	Wire Tightener, with 5½ in. Vise, with strap, each. . . . . 7.00

## Eccentric Clamps.

<i>Skeed</i>	24099	For No. 9 wire and finer, per doz. . . . . 16.00
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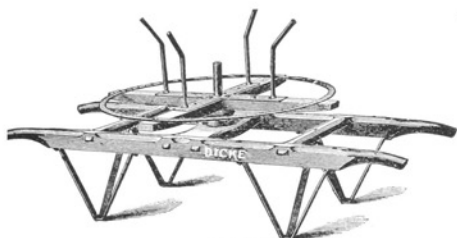


No. 24081.

Dicke Tools—(Continued.)

Common Reel.

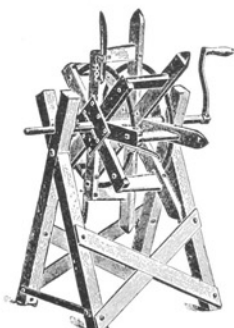
Code Word.	List No.	List Price.
<i>Skinniness</i>	24081	Each. .... \$10.00
	Complete with Pins	..... \$10.00



No. 24082 1/2

Combination Pay-Out Reel.

<i>Skimny</i>	24082 1/2	Each	.....	16.00
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No. 24083.

Take-Up Reel.

<i>Skip</i>	24083	12-inch Reel	.....	20.00
<i>Skipper</i>	24084	18-inch Reel	.....	22.00

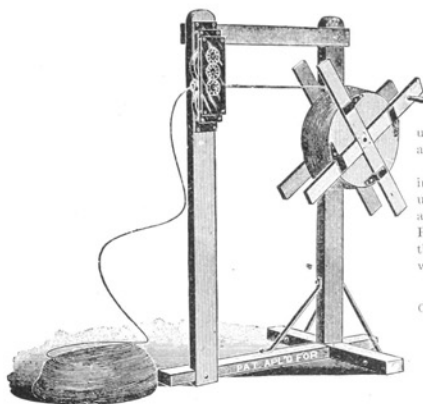


Dicke Lock Ferrule Screw Driver.

Blades forged from finest tool steel, Polished Malleable Ferrules, Fluted Handles.

Length of Blade	2 1/2	3 1/2	4 1/2	5 1/2	6 1/2	8 1/2	10 1/2	12 1/2			
Cabinet, per doz	\$3.00	\$3.50	\$4.50	\$5.50	\$6.50	\$8.00	\$9.50	\$11.00			
Length of Blade	2 1/2	3 1/2	4	5	6	7	8	9	10	11	12
Machinists, per doz	3.00	3.50	4.25	5.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00

Blades and Handles of the Dicke Screw Driver are warranted not to turn in the ferrule.



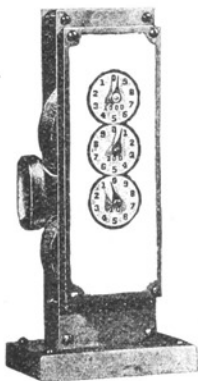
No. 24001.

### Wire Reel and Meter.

The accompanying cut gives an idea of our Wire Measuring and Reeling Device. It will save time and money and a short use will demonstrate its great value.

In the meter the wire passes between two self-adjusting rollers, which admit of a wide range, and will measure accurately either large or small wire. The pointers are movable and readily adjusted to the zero point. Parties handling wire, either as supplies or for construction work, cannot afford to be without this device, as it will pay for itself in a short time.

Code Word.	List No.	List Price
<i>Sizing</i>	24001	Meter, with Reel, each, ..... \$25.00



No. 24002.

### Wire Meter for Counter.

The meter is also made, mounted on a neat base, to be used on a counter where a reel is not needed. For wire factories and dynamo builders the meter alone is invaluable.

<i>Size</i>	24002	Meter, without Reel, each, ..... 16.00
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Cable Meters are made to order only, and are applicable for measuring cables of all sizes, rope or steel cables.

Special prices quoted on Cable Meters.



**Sheffy Pipe Wrench.**

It is quick acting, self-adjusting and has but three parts. It is so constructed that it cannot lock on the pipe, will disengage itself by reversing the lever. It cannot slip as the stronger the effort to turn the pipe the firmer the grip. It cannot be abused by using on larger pipe than the size designated by number. All parts interchangeable.

The construction is so simple that it appeals to the mechanic at once. No screws or springs and self-adjusting.

To operate the Sheffy Pipe Wrench, open the jaw, hook on the pipe, pull on the handle. This brings the lever up against the dog and creates the grip. The stronger the pull on the lever the stronger the grip.

**Length and Dimensions**

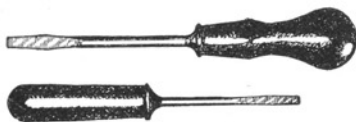
	0	1	2	3	4
7 inches					
Pipe,	$\frac{1}{2}$ to $\frac{3}{4}$	$\frac{1}{2}$ to $\frac{3}{4}$	$\frac{1}{2}$ to 1	$\frac{1}{2}$ to 1 $\frac{1}{4}$	$\frac{1}{2}$ to 2

**Price List Wrenches and Parts.**

	0	1	2	3	4
Wrench, List..	\$2.00	\$2.00	\$2.25	\$3.00	\$4.00
Handles, " "	.50	.50	.60	.70	.80
Jaw, " "	.70	.70	.80	.90	1.00
Dog, " "	.60	.60	.70	.80	.90

**"Vulcan" Insulated Screwdrivers.**

**MOLDDED MICA INSULATION.**



Nos. 1164 and 1168.

Catching	1164	2 $\frac{1}{2}$ inch, per dozen	6.00
Catchword	1165	3 $\frac{1}{2}$ " "	7.00
Catchrise	1166	4 " "	8.00
Catchisid	1167	5 " "	12.00
Catchism	1168	6 " "	13.50

**Champion Screwdrivers.**



No. 2556.

Luff	2554	2 $\frac{1}{2}$ inch, per dozen	3.00
Luggage	2555	3 " "	3.50
Lugger	2556	4 " "	4.25
Luke	2557	5 " "	5.00
Lull	2558	6 " "	6.00
Lullaby	2559	7 " "	7.00
Lulled	2560	8 " "	8.00
Lumbago	2561	9 " "	9.00
Lumbering	2562	10 " "	10.00
Lumberingly	2563	11 " "	11.00
Luminary	2564	12 " "	12.00



No. 15140.

Code Word.	List No.	List Price.
<i>Mincola</i>	15140	Each..... \$ 50

### Pinion Screw Driver.



No. 15142.

<i>General</i>	15142	Small size, each.....	.60
<i>Acouchy</i>	25595	Large size, each.....	1.25

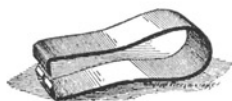
### Handy Ratchet Screw Driver.



No. 15145.

<i>Minerva</i>	15145	Each.....	.60
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### Novelty Pocket Screw Driver.



No. 15148.

<i>Minor</i>	15148	Each.....	50
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### Wire Peeler.



No. 15150.

<i>Mingo</i>	15150	Per dozen.....	10.20
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### Electrician's Scissors.



No. 15152.

Code Word	List No.	Size	Price
<i>Mincosa</i>	15152	15-inch: $\frac{9}{32}$ , each.....	7.50
<i>Mincota</i>	15153	15 " $\frac{19}{32}$ ".....	7.50
<i>Mincocolan</i>	15154	15 " $\frac{11}{16}$ ".....	7.50
<i>Minock</i>	15155	24 " $\frac{11}{16}$ ".....	8.50
<i>Minvka</i>	15156	24 " $\frac{19}{32}$ ".....	8.50
<i>Minster</i>	15157	24 " $\frac{11}{16}$ ".....	8.50
<i>Mishavreaka</i>	15158	36 " $\frac{11}{16}$ ".....	9.50
<i>Misoula</i>	15159	36 " $\frac{19}{32}$ ".....	9.50
<i>Missouva</i>	15160	36 " $\frac{11}{16}$ ".....	9.50

### Bell Hanger's Gimlet.



No. 15162.

<i>Mitchell</i>	15162	18-inch, $\frac{11}{16}$ , per dozen.....	4.80
<i>Moberly</i>	15163	18 " $\frac{11}{16}$ ".....	4.80

### Pod Bits.



## The "Syracuse" Electricians' Drill Bit.



THE NUMBERS INDICATE THE SIZES IN 32DS OF AN INCH.

No.	12 Inch, Per Doz.	No.	15 Inch, Per Doz.	No.	21 Inch, Per Doz.	No.	30 Inch, Per Doz.	No.	36 Inch, Per Doz.
6	\$5.00	6	\$7.00	6	\$9.00	6	\$11.00	6	\$13.00
8	5.00	8	7.00	8	9.00	8	11.00	8	13.00
10	5.50	10	7.50	10	9.50	10	12.00	10	13.00
12	6.00	12	8.00	12	10.00	12	12.00	12	13.00
14	7.00	14	9.00	14	11.00	14	13.00	14	14.00
16	8.00	16	10.00	16	12.00	16	14.00	16	15.00
18	9.00	18	11.00	18	13.00	18	15.00	18	16.00
20	10.00	20	12.00	20	14.00	20	15.00	20	16.00
22	11.00	22	13.00	22	15.00	22	16.00	22	17.00
24	12.00	24	14.00	24	16.00	24	17.00	24	18.00
26	13.00	26	15.00	26	17.00	26	18.00	26	18.00
28	14.00	28	16.00	28	18.00	28	19.00	28	19.00
30	15.00	30	17.00	30	19.00	30	20.00	30	20.00
32	16.00	32	18.00	32	20.00	32	20.00	32	20.00
34	17.00	34	19.00	34	20.00	34	20.00	34	20.00
36	18.00	36	20.00	36	21.00	36	21.00	36	21.00

## Adjustable Malleable Iron Handles.



FOR USE WHERE A BRACE IS INCONVENIENT.

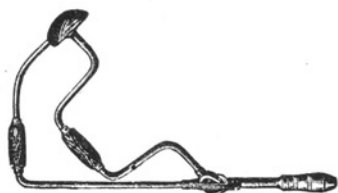
Per dozen..... List Price.  
 ..... \$1.25



No. 2353.

## Automatic Boring Tools.

Code Word. List No.  
 Corkscrew 2353 Automatic Boring Tool, with 8  
 Drills, each..... 2.00



No. 2912.

## Amidon's Patent Corner Bit Brace.

Code Word.	List No.			List Price.
<i>Conjugation</i>	2913	8	" " " per doz.	\$40.00
<i>Conjunct</i>	2914	10	" " " " "	44.00



No. 2916.

## Braces—Ratchet.

<i>Conjunction</i>	2916	6-inch sweep,	per doz.	30.00
<i>Conjunctive</i>	2917	8 " " "	" "	33.00
<i>Conjunctly</i>	2918	10 " " "	" "	36.00
<i>Conjuncture</i>	2919	12 " " "	" "	39.00
<i>Conjuration</i>	2920	14 " " "	" "	42.00



No. 2944.

## Braces—Plain.

<i>Conjure</i>	2944	6-inch sweep,	per doz.	10.80
<i>Conjurer</i>	2945	8 " " "	" "	11.80
<i>Connate</i>	2946	10 " " "	" "	12.25
<i>Connect</i>	2947	12 " " "	" "	13.68



No. 15085.

## Draw Knives

<i>Melborn</i>	15085	12-inch blade,	each, per doz.	11.50
<i>Melvin</i>	15086	14 " " "	" "	13.00



No. 1748.

## Saws.

<i>Connected</i>	1748	14-inch panel saw,	per doz.	16.00
<i>Connivancée</i>	1749	16 " " "	" "	17.35
<i>Connie</i>	1750	18 " " "	" "	18.75
<i>Connivency</i>	1751	20 " " "	" "	20.00
<i>Connicent</i>	1752	22 " " "	" "	21.50
<i>Conniter</i>	1753	24 " " "	" "	22.75

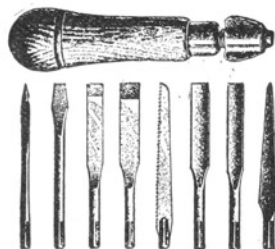




No. 15165.

**Inspector's Tools.**

Code Word.	List No.	List Price.
<i>Modena</i>	15165	Complete set in Morocco case, containing everything necessary for adjusting telephone apparatus, telegraph and stock-printing instruments, etc..... \$ 5.50
<i>Modesta</i>	15166	Case, only..... 1.50



No. 15170.

**Combination Handles.**

<i>Mohawk</i>	15170	Large size, complete..... 1.75
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No. 15175.

<i>Molton</i>	15175	11 Tools, complete..... 1.25
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No. 3832.

**Pipe Cutters.**

<i>Blighting</i>	3832	Knife, No.2..... 8.00
<i>Blind</i>	3833	" " 3..... 16.00



No. 3787.

**Porter's Wire Cutters.**

<i>Behold</i>	3787	Porter's Easy Wire Cutters, will cut $\frac{3}{8}$ -inch wire, each 5.00
<i>Beholden</i>	3788	Porter's Easy Wire Cutters, will cut $\frac{1}{2}$ -inch wire, each 7.00
<i>Bodily</i>	3527	Heavy Wire Cutters, will cut $\frac{3}{8}$ -inch wire, each..... 9.00



No. 15180.

Code Word.	List No.		List Price Per doz.
<i>Momence</i>	15180	$\frac{3}{8}$ -inch.....	3.00
<i>Mona</i>	15181	$\frac{1}{2}$ ".....	3.75
<i>Moncure</i>	15182	$\frac{5}{8}$ ".....	4.50
<i>Moncloca</i>	15183	$\frac{3}{4}$ ".....	5.25

## Cold Chisel.



No. 15185.

<i>Monster</i>	15185	1" inch.....	8.00
<i>Mondamin</i>	15186	$1\frac{1}{2}$ ".....	10.00
<i>Mondola</i>	15187	2" ".....	12.00

## Socket Framing Chisel.



No. 15190.

<i>Monnet</i>	15190	Steel.....	18.00
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## Brick Drills.



No. 15191.

<i>Monetta</i>	15191	Hollow.....	10.00
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No. 15192.

<i>Moncka</i>	15192	.....	12.00
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## Floor Groovers.



No. 15193.

<i>Monnette</i>	15193	With removable knife.....	14.00
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No. 15195.

<i>Monon</i>	15195	With sinker.....	20.00
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No. 15200.

**Tool Belt.**

Code Word	List No.	List Price Each
<i>Monongah</i>	15200	\$ 1.25



No. 15201.

**Linemen's Tool Bag.**

<i>Monongahela</i>	15201	Canvas	3.00
<i>Monroe</i>	15202	Leather	3.75



No. 15205.

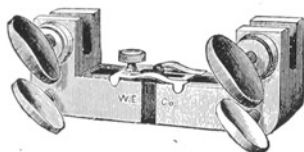
**Tape Lines.**

**Sole Leather-Cases.**

<i>Monrovia</i>	15205	25 feet per doz.	21.00
<i>Monsin</i>	15206	50 ' "	31.80
<i>Montague</i>	15207	100 ' "	50.40

**Asses Skin, Brass Bound Case.**

<i>Montandon</i>	15210	25 feet per doz.	5.00
<i>Montclair</i>	15211	50 ' "	8.00
<i>Montbello</i>	15212	75 ' "	10.00
<i>Montello</i>	15213	100 ' "	12.50



No. 15215.

**Line-Tapping Clamps.**

<i>Montray</i>	15215	4.00
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No. 15216.

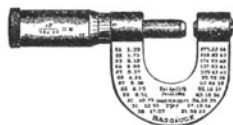
**Pole Counter or Tally Register.**

<i>Monterale</i>	15216	3.00
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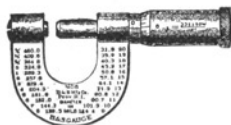
No. 8624.

<i>Constitutive</i>	8624	American Standard Wire Gauge, 0 to 36, each..	\$ 2.50
<i>Constrain</i>	8625	" " " 5 " 36, " ..	2.00
<i>Constrainedly</i>	8626	English " " 1 " 36, " ..	2.00
<i>Constraining</i>	8627	" " " 6 " 36, " ..	1.50



No. 2392.

<i>Constrict</i>	2392	Micrometer Caliper, measures from .001 to 1 inch, each.....	5.00
<i>Casual</i>	2393	Micrometer Caliper, measures from .001 to 1 inch, in morocco case, each.....	5.75



No. 2527

<i>Constraint</i>	2527	Micrometer Caliper, measures from .001 to .5 inch, each.....	4.50
<i>Casualy</i>	2528	Micrometer Caliper, measures from .001 to .5 inch, in morocco case, each.....	5.00



No. 3205.

## Soldering Apparatus and Supplies

### W. E. Soldering Salts.

Code Word.	List No.	List Price.
<i>Arbitrate</i>	3205 In 1/2 pound bottles, per pound	\$0.75
<i>Arbitrator</i>	3206 In 1 " " "	.65
<i>Arcode</i>	3207 In 5 " " "	.50

### The S. S. Soldering Paste.

The Paste being in a soft, plastic condition, can be applied to the metal to be soldered in quantities just sufficient for the purpose. After an application of this paste the solder flows easily. The paste will not tarnish or corrode the metal.

<i>Solemnizer</i>	24457 1/2 pound boxes, per pound	1.40
<i>Solemnly</i>	24458 1 " " "	1.30



No. 24459.

<i>Solemnness</i>	24459 Per stick	.25
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### The Allen Soldering Stick.

### Star Soldering Stick.

<i>Acoustics</i>	25596 Per stick	.25
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No. 3513.

<i>Blutrous</i>	3513 2 1/2 pounds to the pair, per pound	.48
<i>Boar</i>	3514 3 " " "	.48
<i>Board</i>	3515 4 " " "	.48
<i>Boardable</i>	3516 5 " " "	.48
<i>Boarded</i>	3517 6 " " "	.48
<i>Boarding</i>	3518 7 " " "	.48
<i>Boast</i>	3519 8 " " "	.48
<i>Boaster</i>	3520 9 " " "	.48
<i>Boastful</i>	3521 10 " " "	.48

### Soldering Coppers, Pointed.



No. 3338.

<i>Concolor</i>	3338 Strictly Half and Half	
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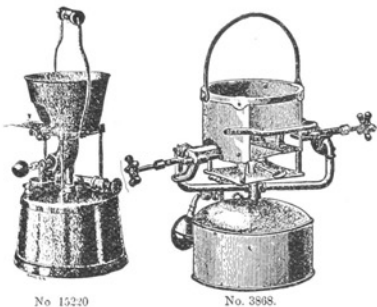
### Solder.

AT LOWEST MARKET PRICES.



No. 3339.

<i>Concomitant</i>	3339 Wire Solder	
<i>Concord</i>	3340 Rosin Core Solder	



No. 15220

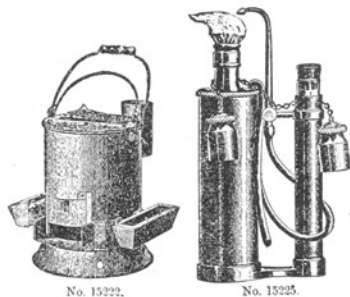
No. 3868

## Soldering Apparatus—(Continued).

Code Word.	List No.		List Price.
			Each.
<i>Montecidco</i>	15220	Combination Hot Blast Furnace.....	\$ 10.00
		Holds 1 gallon of oil	
<i>Bioanimal</i>	3868	Helper's Firepot. Can also be used as a reversible torch.....	10.00

## Charcoal Soldering Furnace.

Code Word.	List No.		List Price.
			Each.
<i>Montgomery</i>	15222	.....	5.00



No. 15222

No. 15225

## Combination Soldering Torch.

## For Alcohol.

<i>Montcell</i>	15225	.....	3.00
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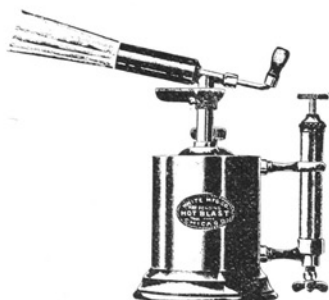
This torch can be carried in the pocket or tool bag. The handle contains a vial for acid, doing away with carrying an extra acid bottle. The blow-pipe is adjustable and the wick large. It is made entirely of brass and highly polished.



No. 15230

<i>Montecello</i>	15230	Wellington Torch.....	7.50
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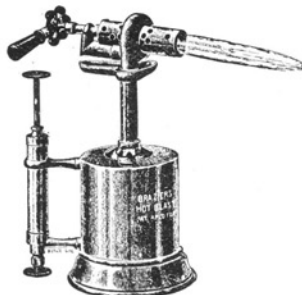
Soldering Apparatus—(Continued.)



No. 23116.

Imperial Hot Blast Gasoline Blow Torch.

This torch is made especially for burning paint, thawing pipes, burning lead, etc. It generates a blue flame of 1500 degrees F. The size and power of the flame can be increased or turned down to suit the work. The tank holds 1½ pints of gasoline, and is made of the best drawn brass, of 18 gauge, is seamless and highly polished. The diameter of the tank is 4½ inches, and the height to top of burner is 9 inches. It weighs 3 lbs. It is equipped with a brass pump, which has strong detachable connections, and a simple accessible valve. The torch will burn in any position, and consume ½ pint per hour at full blast and will not blow out in the wind. The tank has a cone-shaped bottom, giving additional strength. These torches are fully tested and warranted.



No. 23117.

Code Word.	List No.	List Price.
		Each.
<i>Simplicity</i>	23116 Imperial Torch.....	\$5.00

Braziers' Hot Blast Blow Torch.

For Gasoline.

For brazing and tempering small tools and springs, soldering patterns, and annealing brass and other metals, heating soldering coppers, glue, burning off paint, general bench, furnace work, etc.

<i>Simplicity</i>	23117 Braziers' Torch.....	6.00
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No. 23118.

The Combination Hot Blast Blow Torch.

For Gasoline.

Three useful tools in one: a brazier, soldering iron heater, and blow torch for plumbers, electricians and conduit workers. Will not blow out.

<i>Simplicity</i>	23118 .....	6.00
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No. 23119.

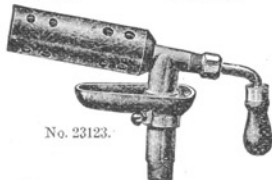


No. 23120.

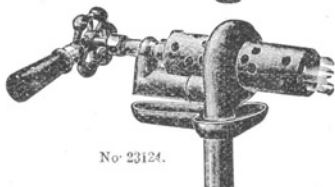


No. 23121.

No. 23122.



No. 23123.



No. 23124.



No. 23125.



No. 23126 and 23127.



No. 23128.



No. 23129.



No. 23131.



No. 23134.



No. 23132, and 23133.

## Soldering Apparatus—(Continued.)

## The Electric "Hot Blast" Blow Torch.

For Gasoline.

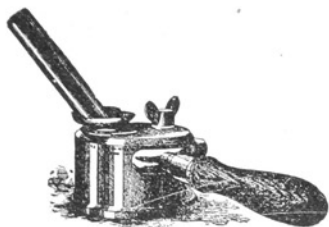
It produces a solid blue flame. Weighs two pounds when empty, three pounds when filled. Is very strong as well as light. Will burn in any position.

Code Word.	List No.	List Price, Each.
<i>Similar</i>	23119	Hot Blast Torch. . . . . \$ 4.50

## Repair Parts to Torches.

<i>Simulate</i>	23120	No. 1. Air Pump, complete for Hot Blast Torches. . . . .	} 1.00
		Imperial Torches . . . . .	
		Brazier's Torches . . . . .	
		Combination Furnaces. . . . .	
<i>Simulty</i>	23121	No. 2. Lower Bracket for Pump. . . . .	.50
<i>Sin</i>	23122	No. 3. Upper Bracket for Pump. . . . .	.50
<i>Sinac</i>	23123	No. 4. Burner for Imperial Blow Torch, complete. . . . .	2.50
<i>Sinotic</i>	23124	No. 6a. Burner for Brazier's Blow Torch. . . . .	4.00
<i>Sinopic</i>	23125	No. 9. Filler Cap for Blow Torches. . . . .	.20
<i>Sinopine</i>	23126	No. 10a. Needle Valve Seat for Imperial and Brazier's Torch. . . . .	.30
<i>Sinopis</i>	23127	No. 10b. Needle Valve Seat for Combination and Tinner's Furnace. . . . .	.30
<i>Sinopism</i>	23128	No. 11a. Large Packing Nut for Imperial Brazier's Torches. . . . .	.20
<i>Sinre</i>	23129	No. 12a. Large Drip Cup for Imperial and Duplex Torches, and Combination and Tinner's Furnaces. . . . .	.30
<i>Sinon</i>	23130	No. 12b. Large Drip Cup for Braziers Torch. . . . .	.30
<i>Sinre</i>	23131	No. 14. Air Valve for Screw and Packing Nut for Imperial and Brazier's Torches. . . . .	.30
<i>Sinreure</i>	23132	No. 16. Perforated Burner Tube for Imperial Torch. . . . .	.40
<i>Sinreute</i>	23133	No. 16a. Perforated Burner Tube for Brazier's Torch. . . . .	.40
<i>Sinre</i>	23134	No. 20. Needle and Packing Nut for Imperial and Brazier's Torches. . . . .	.50





No. 8649.

## Soldering Apparatus—(Continued)

Code Word.	List No	List Price.
<i>Archangel</i>	8649	Vulcan Torch, each.....\$10.00



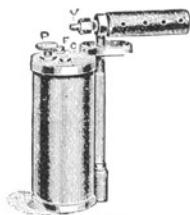
No. 8652.

<i>Christened</i>	8652	Economic Flux Bulb, for soldering acid, each.....	2.25
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No. 8653.

<i>Christening</i>	8653	Alcohol Blow Lamp, small size, each.....	1.25
<i>Christian</i>	8654	" " regular size, each.....	1.50
<i>Christianity</i>	8655	" " large " ".....	2.00
<i>Christmas</i>	8656	" " extra " ".....	2.50



No. 2388.

## Soldering Apparatus—(Continued).

Code Word.	List No.	List Price.
<i>Decouring</i>	2388	Walgh Blow Torch, each..... \$ 6.00



No. 15245.

## Utlich Soldering Pot.

<i>Moran</i>	15245	Each. ....	7.50
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No. 8650.

<i>Christi</i>	8650	Lineman's Torch, tin, each.....	1.85
<i>Christopher</i>	8651	" " brass, each.....	2.00



No. 2550.

<i>Carabine</i>	2550	Solder Ladles, 2½ inch. per dozen.....	2.75
<i>Caravan</i>	2551	" " " " " " .....	3.50
<i>Cardine</i>	2552	" " 4 " " " " .....	4.75
<i>Carcon</i>	2553	" " 5 " " " " .....	6.50

## Solder Pots.



No. 3507.

<i>Blushfully</i>	3507	8 inch diameter, per dozen.....	5.20
<i>Blushing</i>	3508	6½ " " " " .....	5.50
<i>Blushless</i>	3509	8 " " " " .....	10.00
<i>Bluster</i>	3510	9 " " " " .....	12.00
<i>Blusterer</i>	3511	10½ " " " " .....	16.00
<i>Blustering</i>	3512	13½ " " " " .....	32.00

# Station and Workmen's Supplies.

## Tape.

IN  $\frac{1}{8}$ ,  $\frac{3}{8}$ , 1,  $1\frac{1}{2}$ , 2 AND 3 INCHES.



Code Word.	List No.		List Price.
<i>Beamlet</i>	3638	Grimshaw, black, per pound.....	\$1.10
<i>Beamtree</i>	3639	" white, " .....	1.00
<i>Beamy</i>	3640	Competition, black, " .....	.75
<i>Bean</i>	3641	" white, " .....	.75
<i>Beancaper</i>	3642	Okonite, black, " .....	2.00
<i>Beancod</i>	3643	Manson, black, " .....	1.40
<i>Beanfcd</i>	3644	" white, " .....	1.40
<i>Beanfgy</i>	3645	Paragon, black, " .....	.60
<i>Beangoose</i>	3646	Tenax, black, " .....	.60
<i>Bear</i>	3647	" white, " .....	.60
<i>Calamity</i>	3623	Century Tape, " .....	.90
<i>Creased</i>	8746	Kerite " per roll.....	.95
<i>Solen</i>	24460	Sampson Friction Tape, per pound.....	.75
<i>Solenaccan</i>	24461	Clifton Tape, " .....	.75
<i>Solenaccous</i>	24462	Simplex, " .....	.75
<i>Soleness</i>	24463	B. W. H., " .....	.85



## Splicing Compound.

<i>Bears</i>	3731	Chatterton's American, per pound.....	1.60
<i>Bearable</i>	3732	" Imported " .....	2.00
<i>Beard</i>	3733	Tenax Splicing Compound, in rolls, per pound..	1.00
<i>Solenite</i>	24464	Para " " " " ..	1.25



No. 24438.

## Gale's Commutator Compound.

Code Word.	List No.	List Price
<i>Solarize</i>	24438 Per Stick .....	\$0.75
<i>Solarly</i>	24439 Per Dozen .....	8.00

## Crolius Commutator Compound.

<i>Acquaintable</i>	25597 Per stick .....	.50
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No. 8701.

## Kester's Commutator Compound.

<i>Lapidary</i>	8701 Per Stick .....	.25
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## Hoffman's Rod Polish.

Will not wear the lamp rod. It is in the form of a powder, put up in tin boxes, and easily applied.

<i>Soldanel</i>	24441 Per Box .....	.30
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No. 24442.

## Rubber Gloves.



No. 24445.

<i>Soldanvic</i>	24442 Regular Rubber, no cuffs, per dozen .....	13.00
<i>Soldier</i>	24443 " " with cuffs, " .....	16.50
<i>Soldiering</i>	24444 Heavy " no cuffs, " .....	24.00
<i>Soldierly</i>	24445 " " with cuffs, " .....	30.00



### Hard Rubber Sheet.

Size of Sheets 20x48 inches.

Code Word.	List No.	Thickness.	Approximate weight of full sheets.	List Price. Per Pound.
<i>Hgattsville</i>	13210	$\frac{3}{32}$ inch	1 $\frac{1}{2}$ pound.....	\$ 2.10
<i>Hgndman</i>	13211	$\frac{1}{16}$ "	2 $\frac{1}{4}$ "	2.00
<i>Hgndsville</i>	13212	$\frac{3}{32}$ "	3 $\frac{3}{8}$ "	2.00
<i>Iberia</i>	13213	$\frac{1}{10}$ "	4 $\frac{3}{8}$ "	2.00
<i>Icamole</i>	13214	$\frac{1}{8}$ "	5 $\frac{1}{2}$ "	2.00
<i>Idalia</i>	13215	$\frac{5}{32}$ "	6 "	2.00
<i>Idleveld</i>	13216	$\frac{3}{16}$ "	7 $\frac{1}{2}$ "	2.00
<i>Ignacio</i>	13217	$\frac{1}{4}$ "	10 $\frac{1}{2}$ "	2.00
<i>Ilion</i>	13218	$\frac{5}{16}$ "	13 $\frac{1}{4}$ "	2.00
<i>Illioopolis</i>	13219	$\frac{3}{8}$ "	16 $\frac{1}{2}$ "	2.00
<i>Independence</i>	13220	$\frac{7}{16}$ "	18 $\frac{1}{4}$ "	2.00
<i>Indianola</i>	13221	$\frac{1}{2}$ "	22 "	2.00
<i>Ingrams</i>	13222	$\frac{1}{8}$ "	24 "	2.00
<i>Ingalls</i>	13223	$\frac{3}{8}$ "	27 "	2.00
<i>Ingaltou</i>	13224	$\frac{3}{4}$ "	32 "	2.00
<i>Ingersoll</i>	13225	$\frac{7}{8}$ "	35 "	2.00
<i>Ingleside</i>	13226	1 "	40 "	2.00
<i>Inksater's</i>	13227	1 $\frac{1}{4}$ "	50 "	2.00

### Vulcanized Fibre Sheet.

Size of Sheets 40x70 inches.

Indian Red or White.

For convenience in shipping we prefer to cut sheets in halves or quarters



		Thickness.	
<i>Interlochen</i>	13235	$\frac{1}{16}$ inch.....	.60
<i>Inwood</i>	13236	$\frac{3}{16}$ "	.60
<i>Iola</i>	13237	$\frac{1}{8}$ "	.60
<i>Ione</i>	13238	$\frac{1}{16}$ "	.50
<i>Ionia</i>	13239	$\frac{1}{8}$ "	.50
<i>Ipava</i>	13240	$\frac{1}{16}$ "	.50
<i>Ipswich</i>	13241	$\frac{1}{8}$ "	.50
<i>Iredell</i>	13242	$\frac{3}{16}$ "	.60
<i>Ironation,</i>	13243	$\frac{3}{8}$ "	.60
<i>Ironate</i>	13244	$\frac{7}{8}$ "	.60
<i>Ironton</i>	13245	1 "	.65
<i>Iroto</i>	13246	1 $\frac{1}{4}$ "	.65
<i>Iroquois</i>	13247	1 $\frac{1}{2}$ "	.75

Black, 5 cents per pound advance.

## Hard Rubber Rods.

In lengths of 30 inches.

Code Word	List No.	Diameter	Approximate Weight per Per 100 Feet.	List Price.
<i>Ireinton</i>	13260	$\frac{1}{8}$ inch	$\frac{3}{4}$ pounds per pound.	\$ 1.80
<i>Ireing</i>	13261	$\frac{3}{16}$ "	1 $\frac{1}{2}$ "	1.80
<i>Ireington</i>	13262	$\frac{1}{4}$ "	2 $\frac{1}{4}$ "	1.50
<i>Irons</i>	13263	$\frac{5}{16}$ "	3 "	1.50
<i>Iruin</i>	13264	$\frac{3}{8}$ "	6 $\frac{1}{2}$ "	1.50
<i>Isabel</i>	13265	$\frac{7}{16}$ "	8 "	1.50
<i>Ispenning</i>	13266	$\frac{1}{2}$ "	10 $\frac{1}{4}$ "	1.40
<i>Isleta</i>	13280	$\frac{9}{16}$ "	12 $\frac{1}{4}$ "	1.40
<i>Islington</i>	13281	$\frac{5}{8}$ "	16 "	1.35
<i>Islip</i>	13267	$\frac{11}{16}$ "	19 $\frac{1}{4}$ "	1.35
<i>Ithica</i>	13269	$\frac{3}{4}$ "	22 $\frac{1}{4}$ "	1.35
<i>Ithican</i>	13270	$\frac{13}{16}$ "	27 $\frac{1}{4}$ "	1.35
<i>Iuka</i>	13271	$\frac{7}{8}$ "	29 $\frac{1}{4}$ "	1.35
<i>Jackman</i>	13272	$\frac{15}{16}$ "	36 $\frac{1}{2}$ "	1.35
<i>Jacksonboro</i>	13273	1 "	42 "	1.25
<i>Jacksonport</i>	13274	1 $\frac{1}{4}$ "	65 $\frac{1}{2}$ "	1.25
<i>Jalapa</i>	13275	1 $\frac{1}{2}$ "	92 $\frac{1}{2}$ "	1.25
<i>Jamaica</i>	13276	1 $\frac{3}{4}$ "	128 "	1.25
<i>Jaynesburg</i>	13277	2 "	1 rod 4 "	1.25
<i>Janzon</i>	13278	2 $\frac{1}{4}$ "	1 " 5 $\frac{1}{4}$ "	1.25
<i>Janessport</i>	13279	2 $\frac{3}{4}$ "	1 " 6 $\frac{1}{4}$ "	1.25

## Vulcanized Fibre Rod.

Red, Random Lengths.

Code Word	List No.	Diameter.	List Price.
<i>Jamestown</i>	13285	$\frac{1}{4}$ inch, per foot.	12
<i>Jamison</i>	13286	$\frac{5}{16}$ "	14
<i>Jaral</i>	13287	$\frac{3}{8}$ "	16
<i>Jarvis</i>	13288	$\frac{1}{2}$ "	18
<i>Jaudou</i>	13289	$\frac{7}{16}$ "	18
<i>Jaddo</i>	13290	$\frac{1}{2}$ "	24
<i>Jefferson</i>	13291	$\frac{17}{16}$ "	26
<i>Jenkinsville</i>	13292	$\frac{9}{16}$ "	28
<i>Jennings</i>	13293	$\frac{3}{8}$ "	34
<i>Jenny</i>	13294	$\frac{11}{16}$ "	40
<i>Jericho</i>	13295	$\frac{1}{2}$ "	48
<i>Jermyn</i>	13296	$\frac{7}{8}$ "	64
<i>Jerome</i>	13297	1 "	84
<i>Jerusalem</i>	13298	1 $\frac{1}{4}$ "	130
<i>Jesup</i>	13299	1 $\frac{3}{8}$ "	160

Black fibre can be furnished on application.

## Hard Rubber Battery Cells.

The sizes given below are inside dimensions, the thickness of the shell  $\frac{1}{8}$  inch.These cells are all plain except the No. 13994 which has a shoulder near the top for cover--the price on cells is without cover. The inside dimensions are given at the bottom and on account of the taper allowed for the mandrel the dimensions are slightly greater at the top, about  $\frac{3}{16}$  inches.

Code Word.	List No.	List Price
<i>Licermore</i>	13993	2 $\frac{1}{4}$ x 5 $\frac{1}{4}$ x 9 $\frac{1}{2}$ inches high ..... \$1.50
<i>Livingstone</i>	13994	2 $\frac{1}{2}$ x 4 $\frac{3}{4}$ x 10 $\frac{1}{4}$ " " ..... 1.50
<i>Livonia</i>	13995	3 $\frac{1}{2}$ x 3 $\frac{1}{2}$ x 6 $\frac{1}{2}$ " " ..... 1.00
<i>Llano</i>	13996	5 x 5 x 7 $\frac{1}{2}$ " " ..... 1.50

## Tubing.

### Hard Rubber Tubing.

In Lengths of 24 Inches.



Code Word.	List No.	Outside Diam.	Inside Diam.	Approx. No. of Feet per lb.	List Price. Per pound.
<i>Bloat</i>	3481	3/8 inch.	1/8 inch.	20.....	\$ 1.20
<i>Bloated</i>	3482	1/2 "	1/4 "	14.....	1.20
<i>Bloater</i>	3483	1/2 "	3/8 "	16.....	1.20
<i>Blobber</i>	3484	3/8 "	1/4 "	10.....	1.20
<i>Blitheful</i>	3485	3/4 "	1/2 "	8.....	1.20
<i>Blithely</i>	3486	3/8 "	1/4 "	8.....	1.20
<i>Blithesome</i>	3487	1 "	3/4 "	6.....	1.20
<i>Binnacle</i>	3488	1 1/8 "	3/4 "	6.....	1.20

### Vulcanized Fibre Tubing.

Length about 22 inches, 1/8 to 3/8-inch walls.

		Inside Diam.		
<i>Jewett</i>	13310	1/4 inch		1.00
<i>Joab</i>	13311	3/8 "		1.00
<i>Jobston</i>	13312	1/2 "		1.00
<i>Johnston</i>	13313	3/8 "		1.00
<i>Johnson</i>	13314	3/4 "		1.00
<i>Jolley</i>	13315	1 "		1.00
<i>Jonesboro</i>	13316	1 1/4 "		1.00
<i>Joplin</i>	13317	1 1/2 "		1.00



### Okonite Tubing.

			Approx. No. of Feet per lb.	
<i>Allowance</i>	3249	1/4 inch.	35 feet.	2.00
<i>Allowing</i>	3250	1/4 "	17 "	2.00
<i>Alloy</i>	3251	1/8 "	14 "	2.00
<i>Alloyage</i>	3252	3/8 "	11 1/2 "	2.00
<i>Alloyed</i>	3253	1/2 "	10 "	2.00
<i>Allo</i>	3254	3/8 "	8 "	2.00
<i>Altspeice</i>	3255	3/4 "	4 1/2 "	2.00
<i>Allude</i>	3256	3/8 "	4 "	2.00
<i>Alluding</i>	3257	1 "	3 "	2.00



### Soft Rubber Tubing.

		Inside Diam.	Covers Wire.	Approx. No. of Feet per lb.	
<i>Branding</i>	3475	1/4 inch.	No. 20 B. & S. G.	100.....	1.35
<i>Brandy</i>	3476	3/8 "	" 11 "	50.....	.85
<i>Bregado</i>	3477	1/4 "	" 10 "	20.....	.85
<i>Brace</i>	3478	3/8 "	" 6 "	15.....	.85
<i>Bravely</i>	3479	1/4 "	" 4 "	12.....	.85
<i>Bridget</i>	3480	1/2 "	" 0 "	9.....	.85



### Insulating Paints.

<i>Capitation</i>	3347	P. & B. Paint, 1 gallon cans, per gallon.....	1.50
<i>Capitulate</i>	3348	“ “ 5 “ “ .....	1.40
<i>Capon</i>	3349	“ “ barrel lots, “ .....	1.25

### Armalac.

For Insulating Field Magnets and Armatures.

Acid, alkali and waterproof. Absolutely non-inflammable. Unexcelled and unvarying standard of insulation.

Code Word.	List No.	Bbls. Per Gal.	Half Bbls.	Cans.	
<i>Covenant</i>	8728	Armalac.....	\$1.65	\$1.75	\$2.00

### Insullac

Is a rapid drying orange colored insulating varnish, possessing great insulating properties and absolute resistance to lubricating oils. Dilute with insullac thinner only.

		Bbls. Per Gal.	Half Bbls.	Cans.	
<i>Copyist</i>	8729	Insullac.....	\$1.65	\$1.75	\$2.00

### Insullac Thinner.

A Dilutant for Insullac.

		Bbls. Per Gal.	Half Bbls.	Cans.	
<i>Gertrude</i>	8881	Insullac Thinner .....	\$1.35	\$1.45	\$1.70

### Enamelac.

For producing highly-lustrous, smooth and waterproof surfaces upon wood or iron. Unexcelled as a preservative.

		Bbls. Per Gal.	Half Bbls.	Cans.	
<i>Copyholder</i>	8730	Enamelac.....	\$0.80	\$0.90	\$1.00



### Waste.

<i>Cask</i>	3999	Best Quality Cotton Waste, per pound.....	15
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### Crocus Cloth.

<i>Cousin</i>	8726½	Per Sheet.....	.05
		“ Ream.....	18.00

### Asbestos.

<i>Cove</i>	8727	Asbestos Paper, in rolls, per pound.....	.30
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## Standard Price List

OF

## Electrical Mica.

Size.	Price per lb.	Size.	Price per lb.	Size.	Price per lb.	Size.	Price per lb.	Size.	Price per lb.	Size.	Price per lb.
1½ x 3	\$0 60	2 x 2½	\$0 60	2½ x 7½	\$5 00	2½ x 5	\$5 00	3½ x 5½	\$7 75	4½ x 7	\$9 75
1½ x 3½	65	2 x 2½	65	2½ x 8	5 50	2½ x 5½	5 25	3½ x 6	8 50	4½ x 8	10 00
1½ x 3¾	70	2 x 2½	70	2½ x 8½	6 25	2½ x 5½	5 50	3½ x 7	8 75	4½ x 9	10 25
1½ x 3½	75	2 x 3	75	2½ x 9	6 75	2½ x 6	6 00	3½ x 8	9 00	4½ x 10	11 25
1½ x 4	90	2 x 3½	80	2½ x 9½	7 50	2½ x 6½	6 25	3½ x 9	9 50	4½ x 11	12 00
1½ x 4½	1 00	2 x 3½	90	2½ x 10	8 00	2½ x 7	6 75	3½ x 10	10 50	4½ x 12	13 00
1½ x 4½	1 15	2 x 3¾	1 00	2½ x 11	8 50	2½ x 7½	7 25	3½ x 11	12 00	5 x 5	8 50
1½ x 5	1 50	2 x 4	1 20	2½ x 12	9 50	2½ x 8	7 75	3½ x 12	12 50	5 x 5½	9 00
1½ x 5½	1 90	2 x 4½	1 25	2½ x 2½	85	2½ x 8½	8 75	3½ x 3½	4 50	5 x 6	9 50
1½ x 6	2 40	2 x 4½	1 40	2½ x 2½	1 00	2½ x 9	9 00	3½ x 3½	5 00	5 x 6½	9 75
1½ x 6½	3 00	2 x 4½	1 50	2½ x 3	1 25	2½ x 9½	9 50	3½ x 4	6 00	5 x 7	10 00
1½ x 7	4 00	2 x 5	1 75	2½ x 3½	1 35	2½ x 10	10 00	3½ x 4½	6 25	5 x 8	10 25
1½ x 7½	4 50	2 x 5½	2 40	2½ x 3¾	1 50	2½ x 11	11 00	3½ x 4½	6 50	5 x 9	10 50
1½ x 8	4 75	2 x 6	3 00	2½ x 3¾	1 60	2½ x 12	11 50	3½ x 4½	7 00	5 x 10	11 00
1½ x 8½	5 25	2 x 6½	3 50	2½ x 4	1 75	3 x 3	2 50	3½ x 5	7 50	5 x 11	12 00
1½ x 9	5 75	2 x 7	4 50	2½ x 4½	2 00	3 x 3½	2 75	3½ x 5½	8 25	5 x 12	13 50
1½ x 9½	6 50	2 x 7½	4 75	2½ x 4½	2 50	3 x 3¾	3 25	3½ x 6	8 75	5½ x 5½	9 25
1½ x 10	7 00	2 x 8	5 00	2½ x 4¾	3 00	3 x 3¾	3 75	3½ x 6½	8 75	5½ x 6	9 75
1½ x 11	7 75	2 x 8½	5 75	2½ x 5	3 50	3 x 4	5 00	3½ x 7	9 00	5½ x 7	10 25
1½ x 12	8 75	2 x 9	6 25	2½ x 5½	3 60	3 x 4½	5 25	3½ x 8	9 25	5½ x 8	10 50
1½ x 3	70	2 x 9½	7 00	2½ x 5½	3 75	3 x 4½	6 00	3½ x 9	9 50	5½ x 9	10 75
1½ x 3½	75	2 x 10	7 50	2½ x 6	4 25	3 x 4½	6 50	3½ x 10	10 75	5½ x 10	11 50
1½ x 3¾	85	2 x 11	8 25	2½ x 6½	4 50	3 x 5	7 00	3½ x 11	12 00	5½ x 11	12 00
1½ x 3¾	1 00	2 x 12	9 25	2½ x 7	5 00	3 x 5½	7 50	3½ x 12	13 00	5½ x 12	13 50
1½ x 4	1 10	2½ x 2½	60	2½ x 7½	5 25	3 x 6	8 00	4 x 4	7 00	6 x 6	10 00
1½ x 4½	1 15	2½ x 2½	65	2½ x 8	5 50	3 x 6½	8 25	4 x 4½	7 25	6 x 6½	10 25
1½ x 4½	1 25	2½ x 2½	70	2½ x 8½	6 50	3 x 7	8 50	4 x 5	7 75	6 x 7	10 50
1½ x 4½	1 40	2½ x 3	1 00	2½ x 9	7 00	3 x 8	8 75	4 x 5½	8 50	6 x 8	10 75
1½ x 5	1 75	2½ x 3½	1 15	2½ x 9½	7 50	3 x 9	9 00	4 x 6	9 00	6 x 9	11 00
1½ x 5½	2 15	2½ x 3¾	1 30	2½ x 10	8 00	3 x 10	10 50	4 x 6½	9 25	6 x 10	11 50
1½ x 6	2 75	2½ x 3¾	1 45	2½ x 11	8 75	3 x 11	12 00	4 x 7	9 50	6 x 11	12 00
1½ x 6½	3 25	2½ x 4	1 60	2½ x 12	10 00	3 x 12	12 50	4 x 8	9 75	6 x 12	14 00
1½ x 7	4 25	2½ x 4½	1 75	2½ x 2½	1 25	3½ x 3½	3 50	4 x 9	10 00	7 x 7	10 75
1½ x 7½	4 50	2½ x 4½	2 00	2½ x 3	1 75	3½ x 3½	4 00	4 x 10	11 00	7 x 7½	10 75
1½ x 8	4 75	2½ x 4½	2 25	2½ x 3½	2 00	3½ x 3¾	4 50	4 x 11	12 00	7 x 8	11 00
1½ x 8½	5 50	2½ x 5	2 75	2½ x 3¾	2 25	3½ x 4	5 25	4 x 12	13 00	7 x 9	11 25
1½ x 9	6 00	2½ x 5½	2 85	2½ x 3¾	2 50	3½ x 4½	5 50	4½ x 4½	7 50	7 x 10	12 00
1½ x 9½	6 75	2½ x 5½	3 00	2½ x 4	3 00	3½ x 4½	6 00	4½ x 5	8 25	7 x 11	12 50
1½ x 10	7 25	2½ x 6	3 40	2½ x 4½	3 25	3½ x 4½	6 50	4½ x 5½	8 75	8 x 8	12 00
1½ x 11	8 00	2½ x 6½	3 65	2½ x 4¾	3 75	3½ x 5	7 25	4½ x 6	9 25	8 x 9	12 50
1½ x 12	9 00	2½ x 6½	3 90	2½ x 4¾	4 25	3½ x 5½	7 50	4½ x 6½	9 50	8 x 10	13 00
2 x 2	60	2½ x 7	4 75								

All Larger. Special Prices.



No. 3604.

## Galvanized Oil Waste Cans.

Self-Closing Cover.

WITH IMPROVED SPRING ATTACHMENT.

The "Iron-Clad" Oil Waste Cans are made without the use of Solder and are galvanized after being put together. They are recommended by the leading insurance companies.

Code Word.	List No.	Round.	List Price.
<i>Ancestral</i>	3604	No. 1, 11½x15 inches, per doz.	\$18.00

## Round.

Made to Order Only.

<i>Dab</i>	554	No. 2, 12x18 inches, per doz.	24.00
<i>Dabble</i>	555	" 3, 13x20 " "	28.00
<i>Daft</i>	556	" 4, 14x22 " "	36.00
<i>Dagger</i>	557	" 5, 16x24 " "	42.00
<i>Daily</i>	558	" 6, 18x26 " "	56.00
<i>Daintily</i>	559	" 7, 20x30 " "	90.00
<i>Daisy</i>	560	" 8, 24x36 " "	130.00

## Rectangular.

		Length.	Width.	Depth.		
		in.	in.	in.		
<i>Daker</i>	561	No. 30, per doz.	30	15	20	70.00
<i>Dale</i>	562	" 40, " "	20	18	24	90.00
<i>Dally</i>	563	" 50, " "	24	20	30	132.00
<i>Damage</i>	564	" 60, " "	26	22	30	140.00
<i>Damaging</i>	565	" 70, " "	28	24	34	170.00
<i>Damaak</i>	566	" 80, " "	30	24	36	190.00

## The Model Oil Filter.

It can be operated with or without heat, although it is preferable to use heat at all times, as it greatly facilitates the flow of oil, and assists in separating it from all sediment, grit and dirt.

The steam heating pipes are independent of filter. We place them on top of the stand, under the filter, where the coil gives all the heat required and can be easily connected or disconnected. By doing this we avoid all trouble that is caused by defective and leaky joints where steam pipes pass through wall of filter.

It is self cleaning, as it is so constructed that all dirt, grit and sediment in the oil as it passes through the separating chambers is trapped to the bottom and is drawn off through a waste cock.

The supply of waste oil to separating chamber can be regulated to feed fast or slow. All heavy or gummy oils require more time to filter than light oils.

It can be used for an oil tank, for the clean oil chamber is large enough to hold all the oil required in an engine room.



No. 3454.

<i>Blown</i>	3454	10 gallons	35.00
<i>Blubber</i>	3455	30 " "	50.00
<i>Blubbered</i>	3456	60 " "	65.00

Larger Sizes Made to Order.



No. 3834.



No. 3838.



No. 3452.



No. 3840.

## Oiler Sets.

These Engineers' Sets are made of heavy brass and handsomely finished.

Code Word.	List No.		List Price.
<i>Blessing</i>	3834	Five Pieces, Brass.....	\$6.00
<i>Blest</i>	3835	Six " " .....	9.00
<i>Blight</i>	853	Five " Nickel.....	8.00
<i>Blighted</i>	854	Six " " .....	11.00

## Engineers' Fillers, Brass.

<i>Blessedly</i>	3838	Heavy Brass, One Quart, each.....	2.00
<i>Blesser</i>	3839	" " Two Quarts " .....	3.00

## Engineers' Fillers, Steel.

<i>Blistered</i>	3452	Pint Fillers, 4½ in. diameter, 3¼ in. high, Screw Top, per doz.....	14.00
<i>Blistering</i>	3453	Quart Fillers, 5 in. diameter, 5 in. high, Screw Top, per doz.....	20.00

## Brass.

<i>Blistry</i>	3450	1½ Pint Fillers, 4½ in. diameter, 4 in. high, Screw Top, per doz.....	22.00
<i>Blithe</i>	3451	Quart Fillers, 5 in. diameter, 5 in. high, Screw Top, per doz.....	30.00

## Steel.

<i>Bled</i>	3840	Steel Oiler, 4½ in. diam., 3 in. nozzle, per doz....	9.25
<i>Blenish</i>	3841	" 4½ " 9 " " .....	10.50

## Brass.

<i>Bless</i>	3842	Brass Oilers, 4½ in. diam., 3 in. nozzle, per doz..	12.00
<i>Blessed</i>	3843	" 4½ " 9 " " .....	14.00



No. 3844.

## Oiler Sets—(Continued).

		Steel.		List Price.
Code Word.	List No.			
<i>Blatter</i>	3844	Steel Oiler, 2½ in. diam., 2½ in. nozzle, per doz.		\$4.50
<i>Blaze</i>	3845	" 3½ " 3 " "	"	5.50
<i>Blazed</i>	3846	" 3½ " 9 " "	"	6.50
<i>Blazer</i>	3847	" 3½ " 3 " "	"	7.50
<i>Blazing</i>	3848	" 3½ " 9 " "	"	8.50

## Brass.

<i>Blazon</i>	3849	Brass Oilers, 2½ in. diam., 2½ in. nozzle, per doz.		6.50
<i>Bleat</i>	3850	" 3½ " 3 " "	"	8.00
<i>Bleating</i>	3851	" 3½ " 9 " "	"	9.20

## Upright Locomotive Oiler.

The flow of oil from this is controlled by a valve so the oil only runs out when you press the thumb piece on top of the handle.



No. 3852.

## Brass.

<i>Blast</i>	3852	1 Pint, Brass, with valve, per dozen		36.00
<i>Blasted</i>	3853	2 " " " "		48.00
<i>Blaster</i>	3854	3 " " " "		60.00
<i>Blasting</i>	3855	1 " " no valve		24.00
<i>Blastpipe</i>	3856	2 " " " "		36.00
<i>Blatant</i>	3857	3 " " " "		48.00

## Tin.

<i>Biology</i>	3858	1 Pint, Tin, with valve, per dozen		24.00
<i>Birch</i>	3859	2 " " " "		33.00
<i>Birchen</i>	3860	3 " " " "		45.00
<i>Bird</i>	3861	1 " " no valve		12.00
<i>Birch</i>	3862	2 " " " "		21.00
<i>Blanche</i>	3863	3 " " " "		33.00

## Railroad Oiler.

## Steel.

<i>Biographer</i>	3864	Pint R. R. Oiler, 3½ in. diam., 5 in. high, 12 in. nozzle, per dozen		14.00
<i>Biographic</i>	3865	Quart R. R. Oiler, 4½ in. diam., 6 in. high, 18 in. nozzle, per dozen		18.00

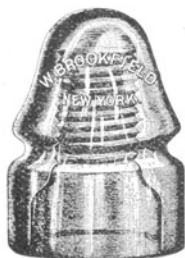
## Brass.

<i>Biographical</i>	3866	Pint R. R. Oiler, 3½ in. diam., 5 in. high, 12 in. nozzle, per dozen		18.00
<i>Biography</i>	3867	Quart R. R. Oiler, 4½ in. diam., 6 in. high, 18 in. nozzle, per dozen		21.00



No. 3864.

# CONSTRUCTION MATERIAL.



No. 2348

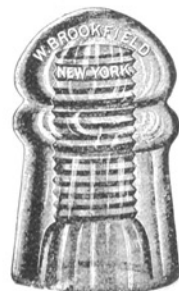
## Insulators—Glass.

Code Word.	List No.	List Price
<i>Elm</i>	2348 Regular, per 1,000.....	\$40.00
	Packed 250 in a barrel.	



No. 2349

<i>Elongate</i>	2349 Deep Groove, per 1,000.....	45.00
	Packed 200 in a barrel.	



No. 2350

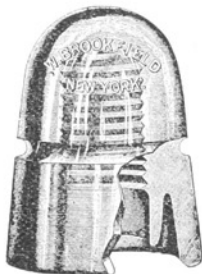
<i>Elopement</i>	2350 Western Union, per 1,000.....	50.00
	Packed 200 in a barrel.	



No. 2351

## Insulators—Glass—(Continued)

Code Word.	List No.	List Price.
<i>Eloquence</i>	2351 Pony, per 1,000 .....	\$22.50
	Packed 300 in a barrel.	



No. 2352

<i>Eloquent</i>	2352 Double Petticoat, per 1,000 .....	55.00
	Packed 165 in a barrel.	



No. 3872

<i>Billion</i>	3872 Deep Groove, Double Petticoat, per 1,000.....	50.00
	Packed 175 in a barrel.	



No. 3719

Insulators—Glass—(Continued).

Code Word.	List No.	List Price.
<i>Beamless</i>	3719 Extra D. G., D. P., per 1,000.....	\$50.00
	Packed 165 in a barrel.	



No. 2354

<i>Elsewhere</i>	2354 Pony, Double Petticoat, per 1,000.....	27.50
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No. 2334

<i>Emmeline</i>	2334 National Pony, per 1,000.....	40.00
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No. 2335

<i>Eminent</i>	2335 Pony Duplex, per 1,000.....	45.00
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No. 15301.—

## Insulators—Glass—(Continued).

## Hemingray.

Code Word.	List No.	List Price per 1,000.
<i>Moravia</i>	15300 No. 3, Regular.....	\$ 36.00
<i>Morhead</i>	15301 No. 7 Standard.....	32.00

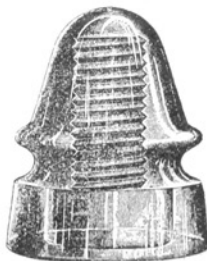
Packed 250 in a barrel.



No. 15302.—

<i>Morcani</i>	15302 Standard, deep groove.....	36.00
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Packed 250 in a barrel.



No. 15305.

<i>Morganton</i>	15305 Deep groove, double petticoat.....	40.00
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Packed 200 in a barrel.





No. 15308.

## Insulators—Glass—(Continued).

## Hemingray.

Code Word.	List No.		List Price.
<i>Morian</i>	15308	Street railway, deep groove, double petti coat.....	per 1,000.
			\$ 50.00
		Packed 200 in a barrel.	



No. 15310.—

<i>Moro</i>	15310	Western Union Double petticoat, teat...	50.00
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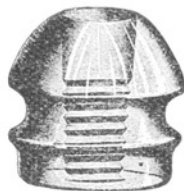
The points or teats on the lower rim of the petticoat attract the water on the outer surface of the insulator into drops. The water drops from these points, thereby preventing the moisture from creeping up on the inner petticoat, and thence to the pin.

Other insulators can be made in same manner at special prices.



No. 15812.—

<i>Morell</i>	15312	Pony.....	23.00
		Packed 300 in a barrel.	



No. 2336

### Insulators—Glass—(Continued).

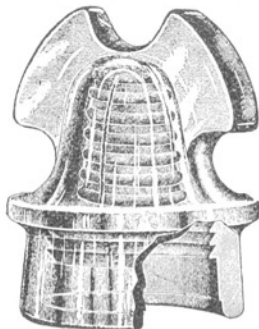
Code Word.	List No.	List Price.
<i>Emissary</i>	2336 Deep Groove Duplex, per 1,000.....	\$50.00



No. 9200—Open.

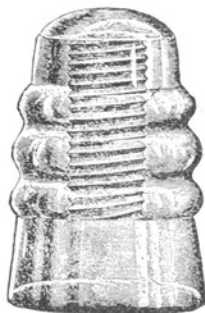
<i>Emulating</i>	9200 Glass Oil Insulator, complete, iron pin, per 100.	80.00
<i>Emulation</i>	9308 " " " " wooden pin, "	50.00

The price for No. 9200 includes 10 quarts of oil and 5 pounds of hemp or oakum, and for No. 9308 includes 12 quarts of oil.



No. 9315.

<i>Accomplise</i>	9315 Cable Glass Insulator, per 1,000.....	140.00
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No. 6793.

**Insulators—Glass—(Continued).**

Code Word.	List No.	List Price.
<i>Emulate</i>	6793	Double Groove Glass Insulator, per 1,000. . . . . \$82.00



No. 2337.

**No. 1, Glass Insulating or Break Knob.**

1½ inches long, 1½ inches wide, ⅝ inch hole.

<i>Empty</i>	2337	Per 1,000. . . . .	20.00
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No. 2338

**No. 2, Glass Insulating or Break Knob.**

1½ inches long, 2 inches wide, ⅝ inch hole.

<i>Emptying</i>	2338	Per 1,000. . . . .	30.00
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No. 2339-

**No. 3, Glass Insulating or Break Knob.**

For insulating span wires, guy wires, arc lamps, etc.

2½ inches long, 2 inches wide, ⅝ inch hole.

<i>Emptying</i>	2339	Per 1,000. . . . .	40.00
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No. 24465.

### Glass Insulators.—(Continued.)

#### Break Knob.

Takes a One Inch Cable.

Code Word.	List No.	Per 1,000	List Price.
<i>Soleplate</i>	24465	.....	\$80.00

3½ in. long; 2½ in. wide.

#### Liquid Insulator.

<i>Solere</i>	24446	Per 1,000	.....	500.00
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Made all in one piece.

Weight, per piece, 30½ ozs. Weight; per 100, packed, 2210 lbs.  
Packed 100 in a barrel.



No. 24446.

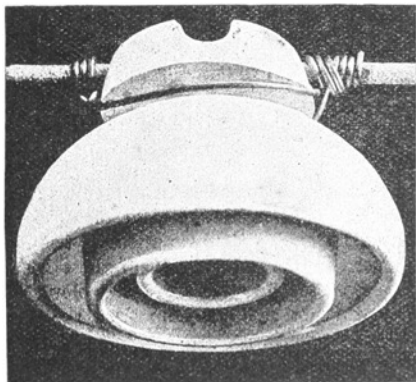
#### Locke Triple Petticoat Insulators.

For High Voltages.

China Insulator.

<i>Solert</i>	24467	Each	.....	.50
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Dimensions:—Diameter, 5½ inches; Height, 3 inches.

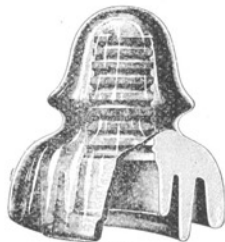


No. 24467.

#### Glass Insulator.

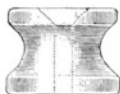
<i>Soleship</i>	24468	Each	.....	.15
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Dimensions:—Diameter, 4½ inches; height, 3½ inches; 8½ inches of surface between wire and pin.



No. 24468.

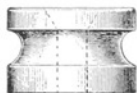
## Insulators—Porcelain.



No. 3458.



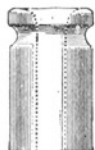
No. 3460.



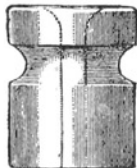
No. 1928.



No. 1929.



No. 1930.

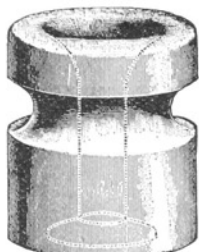


No. 3462.

The dimensions are as nearly accurate as possible, but owing to the fact that porcelain shrinks when baked, and the shrinkage is not at all times the same, Insulators may be a little larger or smaller than figures given.

Code Word.	List No.	Per 1,000	List Price.
<i>Blissful</i>	3458	.....	<b>\$3.60</b>
	R. T. & Sons No. 7. $\frac{3}{4}$ in. wide and $\frac{3}{8}$ in. high.		
	• Groove, $\frac{3}{16}$ in. deep, $\frac{3}{8}$ in. wide.		
<i>Blissless</i>	3460	.....	3.60
	R. T. & Sons No. 6. $\frac{1}{2}$ in. wide and $\frac{1}{4}$ in. high.		
	Groove, $\frac{1}{4}$ in. deep, $\frac{3}{16}$ in. wide.		
<i>Bilge</i>	1928	.....	4.00
	R. T. & Sons No. 8. $1\frac{1}{16}$ in. wide, $1\frac{1}{2}$ in. high.		
	Groove, $\frac{3}{16}$ in. deep, $\frac{3}{16}$ in. wide.		
<i>Bilobed</i>	1929	.....	4.00
	R. T. & Sons No. 11. $1\frac{1}{16}$ in. wide, $1\frac{1}{2}$ in. high.		
	Groove, $\frac{1}{4}$ in. deep, $\frac{1}{4}$ in. wide.		
<i>Bilged</i>	1930	.....	5.00
	R. T. & Sons No. 9. $\frac{3}{4}$ in. wide, $1\frac{1}{2}$ in. high.		
	Groove, $\frac{3}{16}$ in. deep, $\frac{1}{2}$ in. wide.		
<i>Blunness</i>	3462	.....	5.25
	R. T. & Sons No. 5. $1\frac{1}{16}$ in. wide, $1\frac{1}{4}$ in. high.		
	Groove, $\frac{3}{16}$ in. deep, $\frac{1}{16}$ in. wide.		

About 5,000 No. 5 fill a barrel. 500 are packed in boxes. When packed in boxes 50 cents extra per 1,000 is charged.



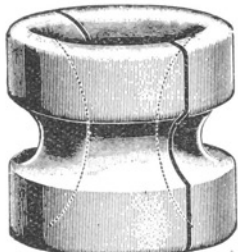
No. 3464.

### Insulators—Porcelain—(Continued.)

Code Word. List No. List Price.  
*Blue* 3464 Per 1,000, in barrel lots..... \$8.00

R. T. & Sons No. 4.  $1\frac{1}{8}$  in. wide,  $1\frac{1}{4}$  in. high.  
 Groove,  $\frac{1}{4}$  in. deep,  $\frac{3}{8}$  in. wide.

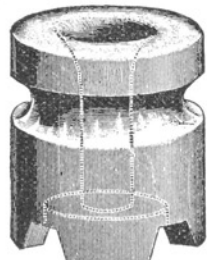
About 2,000 to 2,300 make a barrelfull. 500 fill a box. 50 cents extra per 1,000 charged when packed in boxes.



No. 2575.

*Decon* 2575 Split, per 1,000..... 36.00

Special Split Insulator,  $1\frac{1}{4}$  in. wide,  $1\frac{1}{2}$  in. high.  
 Groove,  $\frac{1}{4}$  in. deep,  $\frac{1}{2}$  in. wide.



No. 1923.

*Daytime* 1923 Per 1,000..... 15.00

R. T. & Sons No. 10.  $1\frac{1}{2}$  in. wide,  $1\frac{1}{2}$  in. high.  
 Groove,  $\frac{1}{2}$  in. deep,  $\frac{3}{8}$  in. wide.



No. 3466.

*Blander* 3466 Per 1,000..... 24.00

R. T. & Sons No. 36.  $1\frac{1}{2}$  in. wide,  $1\frac{1}{2}$  in. high.  
 Groove,  $\frac{1}{4}$  in. deep,  $\frac{3}{8}$  in. wide.



No. 3648.

## Insulators—Porcelain—(Continued.)

Code Word	List No	Per 1,000	List Price.
<i>Blabbering</i>	3468	.....	\$20.00

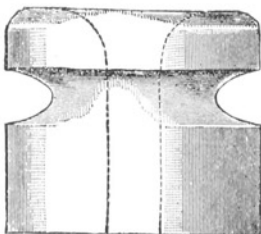
R. T. & Sons No. 15.  $1\frac{1}{2}$  in. wide,  $1\frac{1}{2}$  in. high.  
Groove,  $\frac{5}{16}$  in. deep,  $\frac{3}{4}$  in. wide



No. 1924.

<i>Dazle</i>	1924	Per 1,000 .....	20.00
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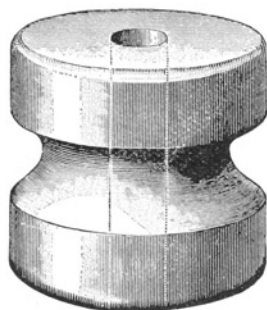
R. T. & Sons No. 24.  $1\frac{1}{2}$  in. wide,  $1\frac{1}{2}$  in. high.  
Groove,  $\frac{1}{4}$  in. deep,  $\frac{1}{2}$  in. wide.



No. 1925.

<i>Bilious</i>	1925	Per 1,000 .....	20.00
----------------	------	-----------------	-------

R. T. & Sons No. 3. 2 in. wide,  $1\frac{1}{4}$  in. high.  
Groove  $\frac{3}{8}$  in. deep,  $\frac{3}{8}$  in. wide.

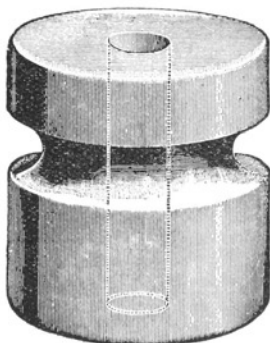


No. 3470.

### Insulators—Porcelain—(Continued.)

Code Word.	List No.	List Price.
<i>Bluffness</i>	3470 . Per 1,000.....	\$35.00

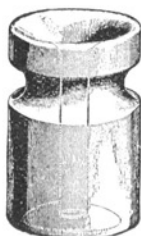
R. T. & Sons No. 26. 2 $\frac{1}{8}$  in. wide, 1 $\frac{1}{2}$  in. high.  
Groove,  $\frac{1}{8}$  in. deep,  $\frac{1}{2}$  in. wide.



No. 1926.

<i>Billed</i>	1926 Per 1,000.....	27.00
---------------	---------------------	-------

R. T. & Sons No. 2. 2 in. wide, 2 $\frac{1}{4}$  in. high.  
Groove,  $\frac{1}{8}$  in. deep,  $\frac{7}{16}$  in. wide.

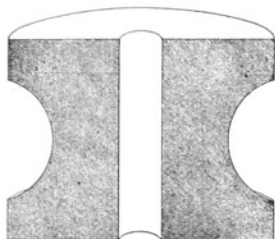


No. 1927.

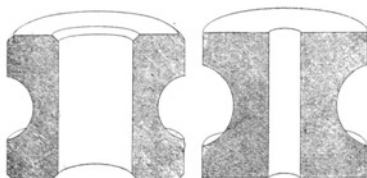
<i>Billed</i>	1927 Per 1,000.....	53.00
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R. T. & Sons No. 1. 2 in. wide, 3 in. high.  
Groove,  $\frac{1}{4}$  in. deep,  $\frac{3}{8}$  in. wide.



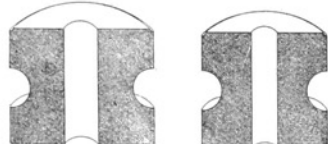


25429



25430

25431



25432

25433



25434

25435



25436

25437



25438

25439

## Special Porcelain Insulators.

The figures as to dimensions and weight of Insulators is as accurate as the nature of porcelain will allow, and in actual practice results may vary a trifle.

Code Word. List No.

*Accessarily* **25429** P101 Insulator .....  
 $3\frac{1}{2}$  inches high; 4 inches wide;  $\frac{3}{8}$  inch hole;  $1\frac{1}{2}$  inch groove. Weight per 1000, 2780 pounds. A barrel contains about 125.

*Accessories* **25430** P102 Insulator .....  
 $2\frac{1}{2}$  inches high;  $2\frac{1}{2}$  inches wide;  $1\frac{1}{4}$  inch hole;  $\frac{3}{8}$  inch groove. Weight per 1000, 675 pounds. A barrel contains about 400.

*Accessary* **25431** P103 Insulator .....  
 $2\frac{3}{4}$  inches high;  $2\frac{1}{2}$  inches wide;  $\frac{1}{2}$  inch hole;  $1\frac{1}{4}$  inch groove. Weight per 1000, 660 pounds. A barrel contains about 400.

*Accessibility* **25432** P104 Insulator .....  
 $1\frac{1}{2}$  inch high;  $2\frac{1}{2}$  inch wide;  $\frac{1}{2}$  inch hole;  $\frac{3}{8}$  inch groove. Weight per 1000, 380 pounds. A barrel contains about 700.

*Accessorial* **25433** P104 $\frac{1}{2}$  Insulator .....  
 $1\frac{1}{2}$  inches high; 2 inches wide;  $\frac{1}{2}$  inch hole;  $\frac{3}{8}$  inch groove. Weight per 1000, 380 pounds. A barrel contains about 900.

*Accessorial* **25434** P105 Insulator .....  
 $1\frac{3}{4}$  inches high;  $2\frac{1}{2}$  inches wide;  $1\frac{1}{2}$  inch hole; 1 inch groove. Weight per 1000, 350 pounds. A barrel contains about 700.

*Accessarily* **25435** P106 Insulator .....  
 $1\frac{3}{4}$  inch high;  $1\frac{1}{2}$  inch wide;  $\frac{3}{8}$  inch hole;  $1\frac{1}{2}$  inch groove. Weight per 1000, 115 pounds. A barrel contains about 2200.

*Accessories* **25436** P107 Insulator .....  
 1 inch high;  $1\frac{1}{2}$  inches wide;  $\frac{1}{2}$  inch hole;  $\frac{1}{2}$  inch groove. Weight per 1000, 160 pounds. A barrel contains about 2500.

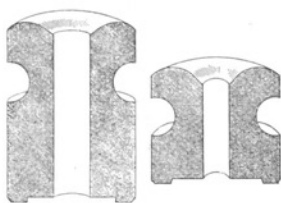
*Accidence* **25437** P108 Insulator .....  
 $\frac{3}{4}$  inch high;  $1\frac{1}{2}$  inches wide;  $\frac{1}{2}$  inch hole;  $\frac{3}{8}$  inch groove. Weight per 1000, 75 pounds. A barrel contains about 3000.

*Accidentalism* **25438** P109 Insulator .....  
 $\frac{1}{2}$  inch high;  $1\frac{1}{2}$  inch wide;  $\frac{1}{4}$  inch hole;  $\frac{3}{8}$  inch groove. Weight per 1000, 30 pounds. A barrel contains about 8000.

*Accidentality* **25439** P110 Insulator .....  
 1 inch high;  $1\frac{1}{2}$  inch wide;  $\frac{3}{8}$  inch hole;  $\frac{3}{8}$  inch groove. Weight per 1000, 105 pounds. A barrel contains about 2200.

Prices Quoted on Application.

## Special Porcelain Insulators.—Continued.



25440

25441



25442

25443



25444

25445

25446



25447

25448



25449

25450



25451

25452

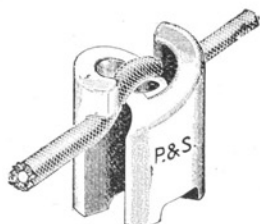
25453



25454

- Code Word. List No.
- Accidental* **25440** P1 Insulators.....  
 $2\frac{1}{2}$  inches high; 2 inches wide;  $\frac{1}{2}$  inch hole;  $\frac{3}{8}$  inch groove.  
 Weight per 1000, 500 pounds. A barrel contains about 600.
- Accidentalness* **25441** P2 Insulator.....  
 $1\frac{1}{2}$  inches high;  $1\frac{1}{2}$  inches wide;  $\frac{3}{8}$  inch hole;  $\frac{1}{4}$  inch groove.  
 Weight per 1000, 287 pounds. A barrel contains about 900.
- Accidental* **25442** P3 Insulator.....  
 $1\frac{1}{2}$  inches high;  $1\frac{1}{2}$  inches wide;  $\frac{3}{8}$  inch hole;  $\frac{1}{4}$  inch groove.  
 Weight per 1000, 287 pounds. A barrel contains about 900.
- Accipenser* **25443** P4 Insulator.....  
 $1\frac{1}{2}$  inches high;  $1\frac{1}{2}$  inches wide;  $\frac{3}{8}$  inch hole;  $\frac{1}{4}$  inch groove.  
 Weight per 1000, 200 pounds. A barrel contains about 2500.
- Accipit* **25444** P5 Insulator.....  
 $1\frac{1}{2}$  inch high;  $1\frac{1}{2}$  inches wide;  $\frac{1}{2}$  inch hole;  $\frac{1}{4}$  inch groove.  
 Weight per 1000, 80 pounds. A barrel contains about 4500.
- Accipiter* **25445** P6 Insulator.....  
 $\frac{3}{4}$  inch high;  $1\frac{1}{2}$  inch wide;  $\frac{3}{8}$  inch hole;  $\frac{1}{4}$  inch groove. Weight  
 per 1000, 30 pounds. A barrel contains about 9000.
- Accimite* **25446** P7 Insulator.....  
 $\frac{1}{2}$  inch high;  $1\frac{1}{2}$  inch wide;  $\frac{3}{8}$  inch hole;  $\frac{1}{4}$  inch groove. Weight  
 per 1000, 30 pounds. A barrel contains about 9000.
- Accimition* **25447** P8 Insulator.....  
 $\frac{1}{2}$  inch high;  $\frac{3}{4}$  inch wide;  $\frac{3}{8}$  inch hole;  $\frac{1}{4}$  inch groove. Weight  
 per 1000, 30 pounds. A barrel contains about 9000.
- Accimention* **25448** P9 Insulator.....  
 $1\frac{1}{2}$  inches high;  $\frac{3}{4}$  inch wide;  $\frac{1}{2}$  inch hole;  $\frac{1}{4}$  inch groove.  
 Weight per 1000, 26 pounds. A barrel contains about 9000.
- Accimittize* **25449** P111 Insulator.....  
 $1\frac{1}{2}$  inches high;  $1\frac{1}{2}$  inches wide;  $\frac{1}{2}$  inch hole;  $\frac{1}{4}$  inch groove.  
 Weight per 1000, 195 pounds. A barrel contains about 1500.
- Accimitture* **25450** P151 Bushing length under head 1 inch;  $\frac{3}{8}$  inch  
 wide;  $\frac{3}{8}$  inch hole
- Accivous* **25451** P152 Bushing length under head  $\frac{1}{2}$  inch;  $\frac{3}{8}$  inch  
 wide;  $\frac{3}{8}$  inch hole.
- Accloy* **25452** P153 Bushing length under head  $\frac{3}{8}$  inch;  $1\frac{1}{2}$   
 inch; wide;  $\frac{3}{8}$  inch hole.
- Accoast* **25453** P154 Bushing length under head  $\frac{3}{8}$  inch;  $1\frac{1}{2}$   
 inches wide;  $\frac{3}{8}$  inch hole.
- Accoil* **25454** High Potential Insulator, hard burned and  
 thoroughly vitrified.

Prices Quoted on Application.

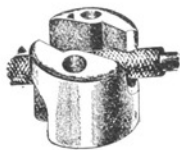


No. 1.

Insulators—Porcelain—(Continued).

Wiring Insulator.

Code Word.	List No.	List Price.
<i>Enabling</i>	1 Glazed, for No. 6 and No 8 wire, per 100.....	\$2.40
<i>Enact</i>	1½ Unglazed, " 6 " 8 " " .....	1.50
<i>Enacted</i>	2 Glazed, " 10 to No. 16 " " .....	1.80
<i>Enacting</i>	2½ Unglazed, " 10 " 16 " " .....	1.20

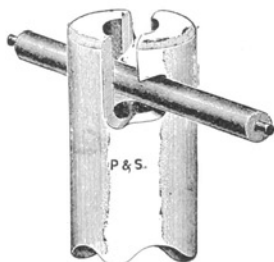


No. 8907.

Wiring Insulator for Large Wires.

The Insulator will hold insulated wires or cables from  $\frac{1}{4}$  to  $\frac{1}{2}$  inch outside diameter.

<i>Emulsize</i>	8907 Glazed, per 100.....	7.50
<i>Enable</i>	8908 Unglazed, " .....	4.50

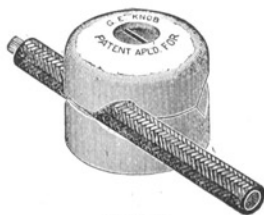


No. 8909.

"Economic" Insulators.

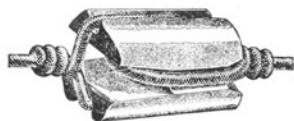
This is a modification of Nos. 1 and 2 Wiring Insulators. By an improved construction it is, without sacrificing strength, made much smaller, and is therefore sold at a much lower price.

<i>Emulgent</i>	8909 For No. 1 wire and smaller, glazed, per 100....	1.80
<i>Emulation</i>	8910 " 6 " " glazed, " .....	1.20



No. 6580.

<i>Emulator</i>	6580 Insulating Knob for wire, $\frac{1}{4}$ in. diam., per 100.	3.00
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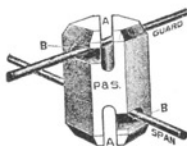
No. 8.



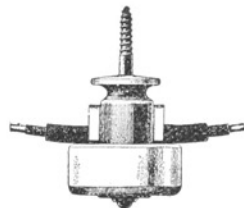
No. 9266.



No. 2341.



No. 25000.



No. 2566.

### P. & S. Circuit Breaker.

The construction of this Circuit Breaker is such as to insure high insulation and great strength. We furnish a large size for electric light wires, and smaller size for electric railway span wires, guard wires, curves, etc.

Code Word.	List No.	List Price.
<i>Emptied</i>	8 Small size, each, per 100	\$3.00
<i>Emptiness</i>	9 Large " " " "	5.00

<i>Empress</i>	9266 "Victor" Split Insulator, per 1000	35.00
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<i>Empowering</i>	2341 Rubber Hook Insulator, each	.15
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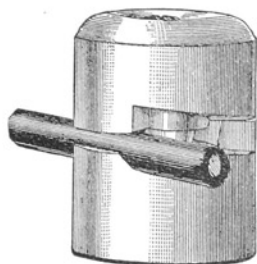
### P. & S. Guard Wire Suspension Insulators.

<i>Solicitant</i>	List Price.
25000 P. & S. No. 60, Glazed	Per 100. \$2.20

### The "Safety" Wire Holder.

Made in three sizes, Nos. 1, 2 and 3, to take wire as follows: No. 1 takes from No. 18 to No. 12 B. & S. gauge; No. 2 takes from No. 12 to No. 6 B. & S. gauge; No. 3 takes from No. 6 to No. 0 B. & S. gauge. They are furnished with different screws to suit the class of work required, viz., No. A, 1 inch wood screw for wood work; No. B, 1 1/4 inch wood screw for plastered ceiling; No. C, 1/2 inch machine screw for iron work.

<i>Dexy</i>	2566	No. 1, with 1 inch wood screw, per 100	10.00
<i>Dexter</i>	2567	" 2, " 1 " " " "	10.00
<i>Dexterity</i>	2568	" 1, " 1 1/4 " " " "	10.00
<i>Dexterous</i>	2569	" 2, " 1 1/2 " " " "	10.00
<i>Diadem</i>	2570	" 1, " 1/2 " machine screw, " "	10.00
<i>Diagonal</i>	2571	" 2, " 1/2 " " " "	10.00
<i>Diagram</i>	2572	" 3, " 1 " wood screw, " "	15.00
<i>Dial</i>	2573	" 3, " 1 1/4 " " " "	15.00
<i>Dialect</i>	2574	" 3, " 1/2 " machine screw, " "	15.00



No. 8742.

Code Word.  
*Luminous*

List No.

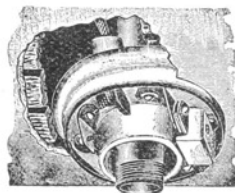
8742 Security Insulator, 1½ x 1¼ inch. No. 2 to No. 12  
wire, per 1 000 .....

List Price.

\$30.00

### Combination Fixture Cut-out and Outlet Insulator.

As will be seen by the cut, it is fastened to the lathing, and when the plaster is put on, the Cut-out projects slightly through it. The wires pass through holes in the china plate, and it is impossible for them to touch the gas pipe or the lath or plaster. It is fitted with brass work for connecting the wires or fuses, and is furnished either with fuse plugs, which cover the fuses, or may be fused in the ordinary way.



No. 64.

*Electioneer*

64 Each ..... .15

*Exacted*

26 Fuse Plugs, each..... .05

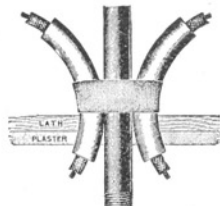
We also furnish the China Plate for No. 64 with three holes for wires, to be used without brass work.

*Elector*

64½ Each..... .11

### Outlet Insulator.

Small curved china tubes for outlets, which effectually insulate wires from the gas pipe and lath and plaster. They are fastened to the pipe with tape in the usual way, as shown in the cut.



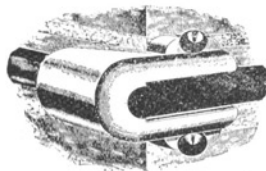
No. 60.

*Election*

50 Per 100..... 2.00

### Corner Insulator.

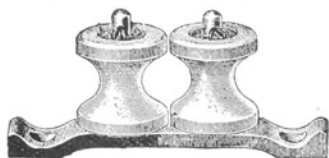
For the protection and insulation of heavy wires and cables when passing around corners or over cornices. It has a hole large enough for an insulated wire ¼ inch outside diameter.



No. 61.

*Empoising*

61 Glazed, each..... .25



No. 9301.

Code Word.

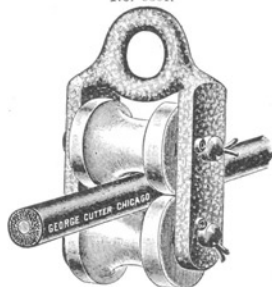
List No.

List Price.

*Elite*

9301 Simplex Tree Insulator, each ..... .50

### Tree Insulators.



No. 25094.

### The Cutter Swinging Tree Insulator.

It is readily hung from a hook or wire twisted through the loop at the top, and by lengthening this wire the device will adapt itself to a wide range of conditions. It can also be used for supporting arc light wires under iron roofs.

*Soniferous* 25094 Per Dozen ..... 2.00



No. 9.

The cut shows our No. 9 Circuit Breaker used as a Tree Insulator.

*Emptiness* 9 P. & S. Tree Insulator, per 100, ..... 5.00



No. 2855.

### Gem Wire Holders, with Bolt and Nut.

#### Wood Insulation.

*Effort* 2853  $\frac{1}{8}$  inch opening, per 100 ..... 10.00

*Effrontery* 2854  $\frac{1}{4}$  " " " ..... 12.00



No. 2853.

#### Porcelain Insulation.

*Effulgent* 2855  $\frac{1}{8}$  inch opening, per 100 ..... 12.00

*Effuse* 2856  $\frac{1}{4}$  " " " ..... 12.00

*Effusion* 2857  $\frac{3}{8}$  " " " ..... 17.50

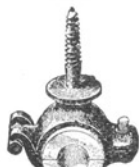
**Gem Wire Holders, with Bolt and Nut—**  
(Continued).

**Opalescent Glass Insulation.**

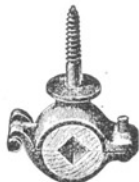
Code Word.	List No.		List Price.
<i>Efusure</i>	2858	$\frac{1}{2}$ inch opening, per 100.	\$22.50
<i>Eybert</i>	2859	$\frac{3}{8}$ " " " "	22.50
<i>Egy</i>	2860	$\frac{1}{2}$ " " " "	27.50
<i>Egyptiam</i>	2861	$\frac{3}{4}$ " " " "	27.50
<i>Egotist</i>	2862	1 " " " "	27.50
<i>Egress</i>	2863	$1\frac{1}{2}$ " " " "	60.00
<i>Egyptian</i>	2864	$1\frac{1}{2}$ " " " "	70.00
<i>Either</i>	02865	$1\frac{1}{2}$ " " " "	80.00
<i>Eject</i>	02866	2 " " " "	90.00



No. 481.



No. 487.



No. 478.



No. 492.

**Gem Wire Holders, with Wood Screw.**

**Porcelain Insulation.**

<i>Ejected</i>	481	$\frac{3}{8}$ inch opening, per 100.	10.00
<i>Ejecting</i>	482	$\frac{1}{2}$ " " " "	10.00
<i>Ejection</i>	483	$\frac{3}{4}$ " " " "	15.00

These Wire Holders are suitable for indoor or outdoor use.

**Opalescent Glass Insulation.**

<i>Ejectment</i>	487	$\frac{1}{2}$ inch opening, per 100	20.00
<i>Elaborate</i>	488	$\frac{3}{8}$ " " "	20.00
<i>Elypse</i>	489	$\frac{1}{2}$ " " "	25.00
<i>Elastic</i>	490	$\frac{3}{4}$ " " "	25.00
<i>Elasticity</i>	491	1 " " "	25.00
<i>Elite</i>	493	$1\frac{1}{2}$ " " "	50.00
<i>Elated</i>	494	$1\frac{1}{2}$ " " "	60.00
<i>Elation</i>	484	$1\frac{1}{2}$ " " "	75.00
<i>Elbow</i>	485	2 " " "	85.00

**Wood Insulation.**

The Fletcher Gem Wire Holders, with wood insulation, are suitable for every description of inside work, but are not recommended for outdoor use.

<i>Elderly</i>	478	$\frac{3}{8}$ inch opening, per 100.	8.33
<i>Eldst</i>	479	$\frac{1}{2}$ " " "	10.00

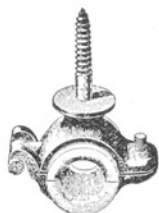
**"Tree" Wire Holder.**

**Opalescent Glass Insulation.**

By passing a wire through the hole in boss of the "Tree" Wire Holder, it can be adjusted to any desired position.

<i>Elect</i>	492	1 inch opening, per 100.	25.00
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Flanged at ends.



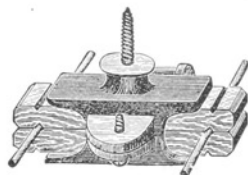
No. 2915.

## "Jumbo" Wire Holders.

### Opalescent Glass Insulation.

The Fletcher "Jumbo" Wire Holder is sufficiently strong to support a heavy cable, and adds materially to the neat appearance of wiring work.

Code Word.	List No.	List Price.
<i>Electing</i>	2915	1 inch opening, per 100.....\$25.00



No. 496.

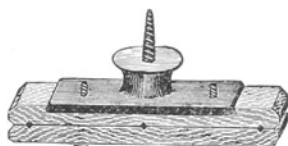
## Gem Wire Holders.

<i>Cider</i>	496	Gem Wire Holder, per 100 .....	10.00
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No. 497.

<i>Churn</i>	497	Gem Wire Holder, per 100.....	5.00
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No. 498.

<i>Churlish</i>	498	Gem Wire Holder, per 100 .....	6.50
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## Insulated Wood Risers.

The Fletcher Insulated Wood Risers are used in fitting up electric light stations and power houses with wire or copper rods.



No. 2396.

<i>Chuffness</i>	2396	$\frac{1}{4}$ inch, Porcelain Insulation, each.....	.25
<i>Chuffy</i>	2397	$\frac{3}{8}$ " " " " " " .....	.25
<i>Chump</i>	2398	$\frac{1}{2}$ " " Glass " " .....	.30
<i>Chunk</i>	2399	$\frac{5}{8}$ " " " " " " .....	.30
<i>Church</i>	2400	$\frac{3}{4}$ " " " " " " .....	.40
<i>Churchdom</i>	2401	$\frac{7}{8}$ " " " " " " .....	.40
<i>Churching</i>	2402	1 " " " " " " .....	.50
<i>Churchland</i>	2403	1 $\frac{1}{2}$ " " " " " " .....	.50
<i>Churchman</i>	2404	1 $\frac{3}{4}$ " " " " " " .....	.50





No. 6799.



No. 6798.

### The Fletcher Wiring Pendants.

A very neat and strong device for wiring arc and incandescent lights, indoors or out. Length, 5 inches; diameter of base plate, 3 inches.

Code Word.	List No.	List Price.
<i>Chud</i>	6798 Fletcher's Wiring Pendant, with screw, each....	\$0.15
<i>Chuff</i>	6799 " " " screw holes, " ...	.15

### Fletcher's Insulating Iron Pin and Bracket.

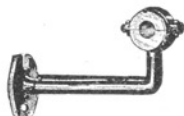
These Iron Pins or Brackets are used on poles and cross-arms for running electric light lines or electric street railway feed wires, and do not require tie wires, which might injure the insulation or the line or feeder wire.



No. 2931.

#### Fletcher's Insulating Iron Pin.

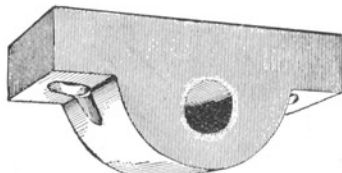
<i>Employable</i>	2931	1/4 inch, Glass Insulation, each.....	.25
<i>Employer</i>	2932	3/8 " " " " .....	.25
<i>Employing</i>	2933	1/2 " " " " .....	.30
<i>Empoison</i>	2934	5/8 " " " " .....	.30
<i>Empoisoned</i>	2935	3/4 " " " " .....	.30



No. 1857.

#### Fletcher's Insulating Iron Bracket.

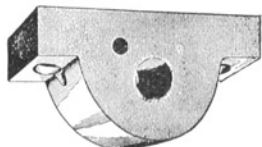
<i>Emphasize</i>	1857	1/4 inch, Glass Insulation, each.....	.30
<i>Emphasizing</i>	1858	3/8 " " " " .....	.30
<i>Empire</i>	2923	1/2 " " " " .....	.40
<i>Empirie</i>	2924	5/8 " " " " .....	.40
<i>Empirical</i>	2925	3/4 " " " " .....	.40



No. 2344

<i>Electrify</i>	2344	Per 1,000.....	27.75
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### Porcelain Wire Holders.



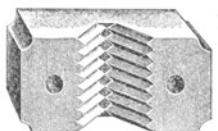
No. 2345

<i>Eltas</i>	2345	Per 1,000.....	90.00
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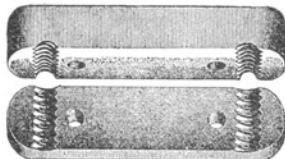
No. 24100.



No. 24101.



No. 24107.



No. 15325.



No. 24146.

**I X L Cleat.**

Code Word.	List No.	List Price.
<i>Slighter</i>	24100	Per 1,000 ..... \$20.00

**Duggan One Wire Cleat.**

Glazed.

<i>Slight</i>	24101	Holds Wires No. 16 to No. 8, per 1,000...	20.00
<i>Slighten</i>	24102	" " No. 6 to No. 00, "	36.00
<i>Slighter</i>	24103	" " No. 000 and larger, "	60.00

**The Diamond Porcelain Cleat.**

<i>Slightly</i>	24107	Per 1,000 .....	23.00
Takes all Wires from No. 8 to No. 16.			

**"W" Cleat.**

<i>Morrice</i>	15325	Per 1,000 .....	20.00
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**"P & S" China Cleat, Two and Three Wire.**

<i>Stodge</i>	24146	Two Wire, glazed, per 100 .....	3.50
<i>Stodger</i>	24147	" " unglazed, " .....	2.20
<i>Stodgy</i>	24148	Three " glazed, " .....	3.50
<i>Stae</i>	24149	" " unglazed, " .....	2.20



No. 300.



No. 301.



No. 302.



No. 303.

### Brass Wiring Cleats.

While these cleats are adapted specially for street car wiring, they will be found very useful in other lines of work.

Code Word.	List No.	List Price Per 1,000
<i>Versatile</i>	300 Small.....	\$5.00
<i>Vertebra</i>	301 For No. 16 Wire.....	6.00
<i>Vestment</i>	302 For No. 6 Wire.....	7.00
<i>Vividly</i>	303 For No. 6 Wire.....	7.00

### Wood Cleats.

#### One Wire.

		Outside Diam. of Wire.	Length in ins.		
<i>Stily</i>	24108	No. 4, $\frac{1}{4}$ -inch,	2	square ends..	4.00
<i>Stiva</i>	24109	No. 15, $\frac{1}{8}$ -inch,	2	"	4.17
<i>Stine</i>	24110	Bunched Cleat $\frac{1}{2}$ -inch,	2 $\frac{1}{2}$	beveled ends..	9.35

#### Two Wire.

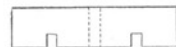
<i>Stinness</i>	24111	No. 1, $\frac{1}{2}$ -inch,	2	square ends ...	4.25
<i>Stimny</i>	24113	No. 3, $\frac{3}{8}$ -inch,	4	beveled ends ..	6.19
<i>Stimy</i>	24114	No. 23, $\frac{1}{4}$ -inch,	2	"	9.40
<i>Stiness</i>	24115	No. 5, $\frac{1}{4}$ -inch,	4 $\frac{1}{2}$	"	7.75
<i>Sting</i>	24116	No. 17, $\frac{1}{4}$ -inch,	2	square ends... ..	5.00
<i>Stinger</i>	24117	No. 19, $\frac{3}{8}$ -inch,	4 $\frac{1}{2}$	beveled ends ...	15.00
<i>Stink</i>	24118	No. 6, $\frac{1}{2}$ -inch,	4 $\frac{1}{2}$	"	20.00

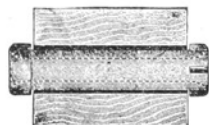
#### Three Wire.

<i>Slipknot</i>	24120	No. 24, $\frac{5}{8}$ -inch,	4	beveled ends ..	7.00
<i>Slipon</i>	24121	No. 18, $\frac{1}{2}$ -inch,	5	"	8.80

#### Four Wire.

<i>Stipper</i>	24122	No. 2, $\frac{5}{16}$ -inch,	3 $\frac{1}{2}$	beveled ends ...	9.25
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No. 013.

Code Word.	List No.	List Price.
<i>Arquest</i>	012	Hole for wire 5-16 inch (use 5-8 inch bit to bore joists), length 3 inches, per 100 ..... \$1.80
<i>Empassion</i>	013	Hole for wire $\frac{5}{16}$ inch (use $\frac{3}{8}$ inch bit to bore joists), per 100 ..... \$2.00
<i>Emperor</i>	13	Hole for wire $\frac{3}{8}$ inch (use $\frac{1}{2}$ inch bit to bore joists), per 100 ..... 2.25
<i>Emphasis</i>	14	Hole for wire $\frac{1}{2}$ inch (use 1 inch bit to bore joists), per 100 ..... 3.25

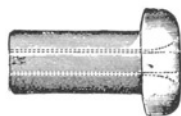
### China Cross-over Tube.

This tube has a head on each end and is designed to be used when wires cross over other wires. The heads tend to hold tube in position.



No. 130.

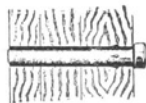
<i>Empaling</i>	130	$\frac{3}{8}$ inch hole, 3 inches between heads, glazed, per 100 ..... 4.50
<i>Empanel</i>	130 $\frac{1}{2}$	$\frac{3}{8}$ inch hole, 3 inches between heads, unglazed, per 100 ..... 2.50



No. 8801.

Code Word.	List No.	List Price.
<i>Arquest</i>	013 $\frac{1}{2}$	1 5-8 inches long, 5-16 inch hole, 5-8 inch outside diameter; per 100 ..... 1.50
<i>Edwin</i>	8801	1 $\frac{1}{2}$ inches long, $\frac{3}{8}$ inch hole, $\frac{1}{2}$ inch outside diameter, per 100 ..... 1.60

### Porcelain Window Tube.

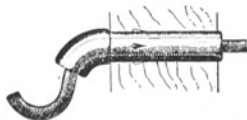


No. 20.

<i>Empaled</i>	20	6 inches long, $\frac{3}{8}$ inch hole, unglazed, each ..... .06
<i>Empalement</i>	20 $\frac{1}{2}$	6 " " $\frac{3}{8}$ " glazed, " ..... .09

Use  $\frac{3}{8}$  inch bit to bore holes for them.

### Porcelain Window Tube, with Curved End.



No. 37.

This form of Window Tube has a curved end which effectually prevents any water entering through tube, and insures a compliance with the insurance rule requiring a "water loop" in wire. Use  $\frac{3}{8}$  inch bit.

<i>Emotive</i>	37	Glazed Window Tubes, curved ends, each ..... .07
<i>Empale</i>	37 $\frac{1}{2}$	Unglazed " " " " ..... .05

## Long Curved End Tubes.

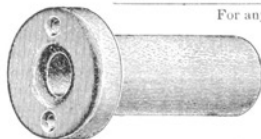


This Tube has a hole  $\frac{3}{8}$  inch in diameter, and is  $1\frac{1}{4}$  inch outside diameter.

## Price List of Each Size, in Cents.

LENGTH UNDER HEAD IN INCHES.	6	8	10	12	14	16	18
Unglazed .....	11	17	23	33	38	46	54

For any of the above furnished Glazed, add 25 per cent.



No. 9327.

Code Word.	List No.	List Price.
<i>Emotive</i>	9327 Floor Insulator, $\frac{3}{8}$ in. hole, $3\frac{1}{4}$ inch tube .....	.15

## Awning Insulator.

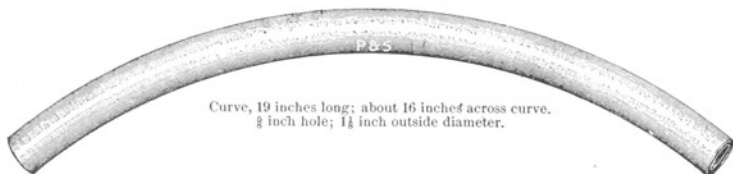
This Insulator is used where a wire passes over an awning or cornice, or around the corner of a building, to protect the insulation of the wire from abrasion.



No. 21

<i>Emotion</i>	8989 $\frac{1}{2}$ Awning Insulator, glazed, each .....	.07
<i>Emotional</i>	8998 " " unglazed, each .....	.05

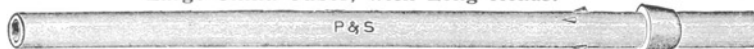
## Long Curved Tubes, for Awnings, Cornices, Etc.



Curve, 19 inches long; about 16 inches across curve.  
 $\frac{3}{8}$  inch hole;  $1\frac{1}{4}$  inch outside diameter.

<i>Sloven</i>	24125 Unglazed, each .....	.40
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## Large China Tubes, with Long Heads.



We carry the following sizes with heads 3 inches long, which can be used advantageously where water or sweepings are liable to come in contact with wires. In ordering always give both outside and inside diameter.

## Price List of Each Size, in Cents.

LENGTH UNDER HEAD IN INCHES.	6	8	10	12	14	17
$\frac{1}{2}$ in. hole, $\frac{3}{8}$ in. outside diameter .....	7	12 $\frac{1}{2}$	15 $\frac{1}{2}$	18 $\frac{1}{2}$	21 $\frac{1}{2}$	..
$\frac{3}{8}$ " " $\frac{3}{8}$ " " .....	8	13 $\frac{1}{2}$	16 $\frac{1}{2}$	19 $\frac{1}{2}$	22 $\frac{1}{2}$	..
$\frac{1}{2}$ " " $1\frac{1}{8}$ " " .....	18	27 $\frac{1}{2}$	32 $\frac{1}{2}$	37 $\frac{1}{2}$	42 $\frac{1}{2}$	50
$\frac{3}{4}$ " " $1\frac{1}{4}$ " " .....	18	27 $\frac{1}{2}$	32 $\frac{1}{2}$	37 $\frac{1}{2}$	42 $\frac{1}{2}$	50
$\frac{1}{2}$ " " $1\frac{1}{2}$ " " .....	22 $\frac{1}{2}$	33	39	45	51	60
1 " " $1\frac{3}{4}$ " " .....	22 $\frac{1}{2}$	33	39	45	51	60

For any of the above Glazed, add 25 per cent.

## Large China Tubes.



In ordering always give outside and inside diameter.

Price List of Each Size, in Cents.

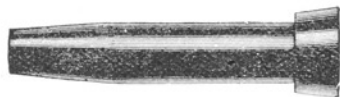
LENGTH IN INCHES.		4	5	6	7	8	9	10	12	14	15	16	18	20	22	24
1/2	in. hole,	2 1/2	3	4	5	6	7	8	14	17	20	23	...	...	...	...
	2 1/2	3 1/2	4	5	6	7	8	9	15	18	19	21	24	...	...	...
1	in. hole,	8	12	16	20	25	30	35	40	45	50	55	60	65	70	75
	1 1/2	9	15	20	25	30	35	40	45	50	55	60	65	70	75	80
1 1/4	in. hole,	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96
	2	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96
2 1/2	in. hole,	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160
	3	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160

For any of the above sizes, add 20 per cent.

## Hard Rubber Tubing, with Heads.

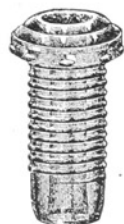


ROUGH.

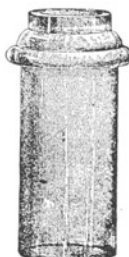


POLISHED.

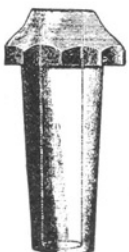
Length.	Outside Diam.	Inside Diam.	Weight per C.	Rough Price per lb	Polished Price per 100
1 1/2 inch.	1 1/8 inch.	1/2 inch.	1 1/8 lbs.	2.25	29.80
1 1/2 "	1 1/8 "	1/2 "	1 1/8 "	2.25	28.40
2 1/2 "	1 1/8 "	1/2 "	1 1/8 "	2.25	35.20
2 1/2 "	1 1/8 "	1/2 "	2 "	2.25	38.00
3 "	1 1/8 "	1/2 "	1 1/2 "	2.25	36.80
4 "	1 1/8 "	1/2 "	2 1/8 "	2.25	46.00
6 "	1 1/8 "	1/2 "	3 1/8 "	2.25	60.00
3 "	1 1/8 "	1/2 "	2 1/8 "	2.25	60.00
4 "	1 1/8 "	1/2 "	3 1/8 "	2.25	60.00
6 "	1 1/8 "	1/2 "	5 1/8 "	2.25	68.60
8 "	1 1/8 "	1/2 "	6 1/8 "	2.25	77.00
4 "	1 1/8 "	1/2 "	4 1/8 "	2.25	65.60
8 "	1 1/8 "	1/2 "	7 1/8 "	2.25	93.80
10 "	1 1/8 "	1/2 "	10 1/8 "	2.25	121.80
8 "	1 1/8 "	1/2 "	10 1/8 "	2.25	110.40
12 "	1 1/8 "	1/2 "	15 1/8 "	2.25	138.60
2 1/2 "	1 1/8 "	1/2 "	22 1/8 "	2.25	38.00
3 "	1 1/8 "	1/2 "	26 1/8 "	2.25	46.40
4 "	1 1/8 "	1/2 "	5 1/8 "	2.25	65.80



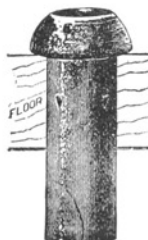
Nos. 3816 to 3825.



No. 3836.



No. 3472.



No. 8890.

## Floor Insulators.

## Glass Floor Insulators.

Code Word.	List No.		List Price. Per 1,000.
<i>Bernard</i>	3816	3 in. floor ins., $\frac{1}{2}$ in. bore, with thread	\$70.00
<i>Bertha</i>	3817	" " " 1 " " "	70.00
<i>Bertram</i>	3818	" " " $1\frac{1}{4}$ " " "	80.00
<i>Beseck</i>	3819	$3\frac{1}{2}$ " " 1 " " "	75.00
<i>Beseem</i>	3820	" " " $\frac{3}{4}$ " " "	80.00
<i>Beset</i>	3821	" " " 1 " " "	80.00

<i>Besige</i>	3822	$1\frac{1}{2}$ in. floor ins., 1 in. bore, with thread	90.00
<i>Besiegemt</i>	3823	" " " 1 " " "	100.00
<i>Besieging</i>	3824	" " " 1 " " "	120.00
<i>Besmoke</i>	3825	" " " $1\frac{1}{4}$ " " "	140.00
<i>Besot</i>	3836	$3\frac{1}{2}$ " " $\frac{3}{4}$ " " no thread	75.00
<i>Bespeak</i>	3837	" " " 1 " " split thread	200.00

## Floor Insulators, F. O. B., N. Y.

		Per Gross.	
<i>Avairy</i>	25599	3 inch over all, $\frac{5}{8}$ inch bore	60.00
<i>Avaisitor</i>	25600	$3\frac{1}{2}$ " " " $\frac{5}{8}$ " "	3.50 60.00
<i>Avaiqt</i>	25601	$4\frac{1}{2}$ " " " $\frac{5}{8}$ " "	5.00 75.00
<i>Avaiqtment</i>	25602	6 " " " $\frac{5}{8}$ " "	5.50 90.00

## Porcelain Bushing.

## THREE INCHES UNDER THE HEAD.

<i>Blinkard</i>	3472	For $\frac{5}{8}$ inch wire	75.00
<i>Blinkers</i>	3473	" $\frac{3}{4}$ " " "	90.00
<i>Bliss</i>	3474	" 1 " " "	100.00

## China Floor Tubes.

		Each.	
<i>Enactment</i>	8899	4 inches long, $\frac{3}{4}$ inch hole	\$ .09
<i>Enactor</i>	8900	" " 1 " "	.09
<i>Enamel</i>	8901	" " $\frac{3}{4}$ " "	.15
<i>Enameled</i>	8902	" " 1 " "	.15
<i>Enaming</i>	8903	" " $1\frac{1}{4}$ " "	.14
<i>Enamor</i>	8904	" " $1\frac{1}{2}$ " "	.14
<i>Enamored</i>	8905	" " $1\frac{3}{4}$ " "	.18
<i>Enamoring</i>	8906	" " $1\frac{1}{2}$ " "	.18



Price List of Vitrified Clay Wiring Tubes.

Inches.	Diam. 5/16 In. Per 1000.	Diam. 3/8 In. Per 1000.	Diam. 1/2 In. Per 1000.	Diam. 5/8 In. Per 1000.	Diam. 3/4 In. Per 1000.	Diam. 1 In. Per 1000.	Diam. 1 1/4 In. Each	Diam. 1 1/2 In. Each.	Diam. 1 3/4 In. Each.
1	7.50	7.00	.....	.....	.....	.....	.....	.....	.....
1 1/2	7.00	9.00	.....	.....	.....	.....	.....	.....	.....
2	8.00	10.00	12.00	15.00	20.00	.....	.....	.....	.....
2 1/2	9.50	12.00	15.00	.....	.....	.....	.....	.....	.....
3	10.00	12.00	15.00	18.00	23.00	28.00	.....	.....	.....
4	12.00	14.00	18.00	22.00	25.00	35.00	.08	.10	.12
6	25.00	28.00	35.00	40.00	45.00	50.00	.10	.16	.20
8	32.00	40.00	50.00	54.00	60.00	70.00	.12	.20	.24
10	40.00	52.00	65.00	70.00	80.00	90.00	.16	.24	.28
12	70.00	80.00	90.00	100.00	105.00	130.00	.24	.36	.40
14	90.00	100.00	105.00	120.00	130.00	155.00	.28	.42	.50
16	105.00	120.00	120.00	135.00	155.00	180.00	.32	.48	.60
18	120.00	132.00	135.00	155.00	170.00	200.00	.36	.54	.65
20	135.00	145.00	150.00	175.00	185.00	225.00	.40	.60	.70
22	150.00	160.00	165.00	190.00	205.00	250.00	.44	.65	.80
24	165.00	175.00	180.00	205.00	215.00	275.00	.48	.70	.90

B. & T. White Porcelain Tubes.

Thin Walls. Straight. Absolutely Non-Absorbent.

List Price per 100.

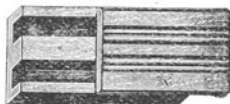
Length in inches..	3	4	5	6	8	10	12	14	16	18	20	24
1/2 in. inside diam.	.78	.94	1.53	1.95	3.00	4.00	6.00	7.00	8.00	9.00	10.00	.....
3/8 " " "	.94	1.10	1.80	2.34	3.50	4.50	6.50	8.00	9.00	10.00	11.00	14.00
1/2 " " "	1.25	1.40	2.11	2.72	4.00	5.00	7.00	9.00	10.00	12.00	13.00	15.00
3/4 " " "	1.40	1.72	2.55	3.11	4.50	6.00	8.00	10.00	12.00	14.00	15.00	17.00
1 " " "	1.81	1.95	2.80	3.50	5.00	7.00	9.00	10.00	13.00	15.00	16.00	20.00
1 1/4 " " "	2.18	2.72	3.45	3.90	7.00	8.00	11.00	12.00	15.00	17.00	19.00	22.00
1 1/2 " " "	.....	6.50	.....	8.00	10.00	13.00	19.00	22.00	26.00	.....	33.00	39.00
1 3/4 " " "	.....	8.00	.....	13.00	16.00	19.00	28.00	34.00	58.00	.....	47.00	56.00

## Mouldings.

F. O. B. Chicago.

## Price per 1,000 Feet, Moulding Only.

Capping one-half price of Moulding.



No. Wires.	Size of Grooves.	Unfinished Mahogany.	Finished Mahogany.	Unfinished Red Birch.
2	$\frac{1}{4}$ in.	\$80.00	\$100.00	\$20.00
3	$\frac{1}{4}$ in.	120.00	150.00	30.00

## Price per 1,000 Feet, Moulding Only.

Capping one-half price of Moulding.

No. Wires.	Size of Grooves.	Unfinished Soft Wood.	Painted Soft Wood.	Unfinished Oak.	Finished Oak.	Finished Georgia Pine
1	$\frac{1}{4}$ in.	\$6.00	\$8.00	\$12.00	\$17.00	\$12.00
2	$\frac{1}{4}$ in.	7.50	11.00	18.00	24.00	20.00
3	$\frac{1}{4}$ in.	12.00	16.00	28.00	36.00	28.00
2	$\frac{5}{16}$ in.	9.00	13.00	20.00	28.00	22.00
3	$\frac{5}{16}$ in.	14.00	19.00	30.00	40.00	32.00
1	$\frac{3}{8}$ in.	7.00	10.00	14.00	22.00	18.00
2	$\frac{3}{8}$ in.	13.00	18.00	25.00	36.00	28.00
3	$\frac{3}{8}$ in.	20.00	26.00	38.00	50.00	40.00
2	$\frac{1}{2}$ in.	14.00	20.00	28.00	40.00	30.00
3	$\frac{1}{2}$ in.	22.00	30.00	40.00	55.00	45.00
2	$\frac{5}{8}$ in.	18.00	24.00	35.00	47.00	37.00
3	$\frac{5}{8}$ in.	26.00	35.00	47.00	65.00	55.00
1	$\frac{3}{4}$ in.	10.00	14.00	20.00	30.00	22.00
2	$\frac{3}{4}$ in.	22.00	28.00	40.00	55.00	45.00
3	$\frac{3}{4}$ in.	30.00	40.00	55.00	75.00	65.00
2	1 in.	30.00	40.00	55.00	75.00	60.00
3	1 in.	45.00	60.00	82.00	110.00	90.00

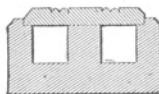
Special Mouldings made to order on short notice.

## Mouldings.

F. O. B. New York.



No. 386.

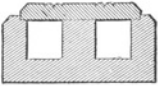
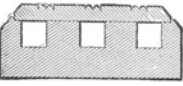
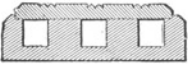


No. 387.

		Description.	Outside Diam. of Wire, Inches.	Width of Bottom, Inches.	List Price per 1,000 Ft.
<i>Contemplator</i>	386	A-1, complete, 2 wire	$\frac{3}{16}$	$1\frac{1}{8}$	11.00
<i>Contempt</i>	387	A-2, complete, 2 "	$\frac{3}{16}$	$1\frac{1}{8}$	21.00
<i>Contemptible</i>	388	A-2, bottom, 2 "	$\frac{3}{16}$	$1\frac{1}{8}$	13.50
<i>Contemptibly</i>	389	A-2, capping, 2 "	$\frac{3}{16}$	$1\frac{1}{8}$	7.50
<i>Content</i>	401	B-1, complete, 2 "	$\frac{5}{16}$	$1\frac{1}{2}$	25.00
<i>Content</i>	402	B-1, bottom, 2 "	$\frac{5}{16}$	$1\frac{1}{2}$	16.00
<i>Contention</i>	403	B-1, capping, 2 "	$\frac{5}{16}$	$1\frac{1}{2}$	9.00
<i>Contentious</i>	415	C-1, complete, 2 "	$\frac{1}{2}$	$2\frac{1}{4}$	28.00
<i>Contentless</i>	416	C-1, bottom, 2 "	$\frac{1}{2}$	$2\frac{1}{4}$	19.00
<i>Contentment</i>	417	C-1, capping, 2 "	$\frac{1}{2}$	$2\frac{1}{4}$	9.00
<i>Contents</i>	429	D-1, complete, 2 "	$\frac{3}{4}$	$2\frac{3}{4}$	40.00
<i>Contentminable</i>	430	D-1, bottom, 2 "	$\frac{3}{4}$	$2\frac{3}{4}$	29.00
<i>Contenternous</i>	431	D-1, capping, 2 "	$\frac{3}{4}$	$2\frac{3}{4}$	11.00
<i>Contest</i>	441	E-1, complete, 2 "	$\frac{7}{8}$	$3\frac{1}{8}$	60.00
<i>Contestable</i>	442	E-1, bottom, 2 "	$\frac{7}{8}$	$3\frac{1}{8}$	48.00

## Mouldings—(Continued).

F. O. B. New York.

	Code Word.	List No.	Description.	Outside Diam of Wire, Inches.	Width of Bottom, Inches.	List Price, per 1,000 Ft.	
	<i>Contestant</i>	443	E-1, capping, 2 wire,	$\frac{3}{16}$	$3\frac{1}{8}$	12.00	
	<i>Contestant</i>	390	A-3, complete, 2 "	$\frac{1}{8}$	$1\frac{1}{8}$	18.00	
	<i>Continental</i>	391	A-3, bottom, 2 "	$\frac{1}{8}$	$1\frac{1}{8}$	10.50	
	<i>Contingency</i>	392	A-3, capping, 2 "	$\frac{1}{8}$	$1\frac{1}{8}$	7.50	
	<i>Contingent</i>	404	B-2, complete, 2 "	$\frac{1}{8}$	$1\frac{1}{8}$	21.00	
	<i>Continuable</i>	405	B-2, bottom, 2 "	$\frac{1}{8}$	$1\frac{1}{8}$	12.00	
	<i>Continual</i>	406	B-2, capping, 2 "	$\frac{1}{8}$	$1\frac{1}{8}$	9.00	
	<i>Contested</i>	418	C-2, complete, 2 "	$\frac{1}{8}$	$2\frac{1}{8}$	25.00	
	<i>Contesting</i>	419	C-2, bottom, 2 "	$\frac{1}{8}$	$2\frac{1}{8}$	16.00	
	<i>Context</i>	420	C-2, capping, 2 "	$\frac{1}{8}$	$2\frac{1}{8}$	9.00	
<i>Contiguity</i>	432	D-2, complete, 2 "	$\frac{1}{8}$	$2\frac{1}{8}$	38.00		
<i>Contiguous</i>	433	D-2, bottom, 2 "	$\frac{1}{8}$	$2\frac{1}{8}$	27.00		
<i>Continually</i>	434	D-2, capping, 2 "	$\frac{1}{8}$	$2\frac{1}{8}$	11.00		
<i>Continuance</i>	399	A-6, complete, 2 "	$\frac{1}{8}$	$1\frac{1}{8}$	\$15.00		
<i>Continue</i>	413	B-5, " 2 "	$\frac{1}{8}$	$1\frac{1}{8}$	17.50		
<i>Continued</i>	427	C-5, " 2 "	$\frac{1}{8}$	$2\frac{1}{8}$	22.50		
<i>Continuedly</i>	400	A-7, complete, 3 "	$\frac{1}{8}$	$2\frac{3}{8}$	22.00		
<i>Continuing</i>	414	B-6, " 3 "	$\frac{1}{8}$	$2\frac{1}{8}$	25.00		
<i>Continuity</i>	428	C-6, " 3 "	$\frac{1}{8}$	$2\frac{1}{8}$	30.00		
<i>Continuous</i>	393	A-4, complete, 3 "	$\frac{1}{8}$	$2\frac{3}{8}$	30.00		
<i>Contort</i>	394	A-4, bottom, 3 "	$\frac{1}{8}$	$2\frac{3}{8}$	19.00		
<i>Contorted</i>	395	A-4, capping, 3 "	$\frac{1}{8}$	$2\frac{3}{8}$	11.00		
<i>Contortion</i>	407	B-3, complete, 3 "	$\frac{1}{8}$	$2\frac{1}{8}$	35.00		
<i>Contour</i>	408	B-3, bottom, 3 "	$\frac{1}{8}$	$2\frac{1}{8}$	21.50		
<i>Contra</i>	409	B-3, capping, 3 "	$\frac{1}{8}$	$2\frac{1}{8}$	13.50		
<i>Contraband</i>	421	C-3, complete, 3 "	$\frac{1}{8}$	$2\frac{1}{8}$	42.00		
<i>Contract</i>	422	C-3, bottom, 3 "	$\frac{1}{8}$	$2\frac{1}{8}$	27.00		
<i>Contracted</i>	423	C-3, capping, 3 "	$\frac{1}{8}$	$2\frac{1}{8}$	15.00		
<i>Contractile</i>	435	D-3, complete, 3 "	$\frac{1}{8}$	$3\frac{1}{8}$	60.00		
<i>Contracting</i>	436	D-3, bottom, 3 "	$\frac{1}{8}$	$3\frac{1}{8}$	38.00		
<i>Contraction</i>	437	D-3, capping, 3 "	$\frac{1}{8}$	$3\frac{1}{8}$	22.00		
<i>Contractor</i>	444	E-2, complete, 3 "	$\frac{1}{8}$	$4\frac{1}{8}$	80.00		
<i>Contradict</i>	445	E-2, bottom, 3 "	$\frac{1}{8}$	$4\frac{1}{8}$	59.00		
<i>Contradicted</i>	446	E-2, capping, 3 "	$\frac{1}{8}$	$4\frac{1}{8}$	21.00		
<i>Contralto</i>	396	A-5, complete, 3 "	$\frac{1}{8}$	$2\frac{3}{8}$	27.00		
<i>Contraries</i>	397	A-5, bottom, 3 "	$\frac{1}{8}$	$2\frac{3}{8}$	16.00		
<i>Contrariety</i>	398	A-5, capping, 3 "	$\frac{1}{8}$	$2\frac{3}{8}$	11.00		
<i>Contrarily</i>	410	B-4, complete, 3 "	$\frac{1}{8}$	$2\frac{1}{8}$	30.00		
<i>Contrary</i>	411	B-4, bottom, 3 "	$\frac{1}{8}$	$2\frac{1}{8}$	16.50		
<i>Contrast</i>	412	B-4, capping, 3 "	$\frac{1}{8}$	$2\frac{1}{8}$	13.50		
<i>Contrasted</i>	424	C-4, complete, 3 "	$\frac{1}{8}$	$2\frac{1}{8}$	38.00		
<i>Contravene</i>	425	C-4, bottom, 3 "	$\frac{1}{8}$	$2\frac{1}{8}$	23.00		
<i>Contravening</i>	426	C-4, capping, 3 "	$\frac{1}{8}$	$2\frac{1}{8}$	15.00		
<i>Contraction</i>	438	D-4, complete, 3 "	$\frac{1}{8}$	$3\frac{1}{8}$	58.00		
<i>Contretemps</i>	439	D-4, bottom, 3 "	$\frac{1}{8}$	$3\frac{1}{8}$	36.00		
<i>Contributable</i>	440	D-4, capping, 3 "	$\frac{1}{8}$	$3\frac{1}{8}$	22.00		
							
							

## Mouldings—(Continued).

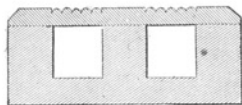
F. O. B. New York.

Code Word	List No.	Description	Outside Diam of Wire, Inches.	Width of Bottom, Inches.	List Price, per 1,000 Ft.
<i>Contribute</i>	447	F-1, complete, 2 "	$\frac{3}{8}$	4	80.00
<i>Contributed</i>	448	F-1, bottom, 2 "	$\frac{3}{8}$	4	56.00
<i>Contributing</i>	449	F-1, capping, 2 "	$\frac{3}{8}$	4	24.00
<i>Contribution</i>	453	G-1, complete, 2 "	1	5	110.00
<i>Contributor</i>	454	G-1, bottom, 2 "	1	5	80.00
<i>Contributor</i>	455	G-1, capping, 2 "	1	5	30.00
<i>Contribute</i>	459	H-1, complete, 2 "	$1\frac{1}{8}$	5 $\frac{1}{2}$	121.00
<i>Contributed</i>	460	H-1, bottom, 2 "	$1\frac{1}{8}$	5 $\frac{1}{2}$	90.00
<i>Contributing</i>	461	H-1, capping, 2 "	$1\frac{1}{8}$	5 $\frac{1}{2}$	31.00
<i>Contribute</i>	450	F-2, complete, 3 "	$\frac{3}{8}$	5 $\frac{1}{2}$	100.00
<i>Contributed</i>	451	F-2, bottom, 3 "	$\frac{3}{8}$	5 $\frac{1}{2}$	68.00
<i>Contributing</i>	452	F-2, capping, 3 "	$\frac{3}{8}$	5 $\frac{1}{2}$	32.00
<i>Contribute</i>	456	G-2, complete, 3 "	1	7	140.00
<i>Contributed</i>	457	G-2, bottom, 3 "	1	7	100.00
<i>Contributing</i>	458	G-2, capping, 3 "	1	7	40.00

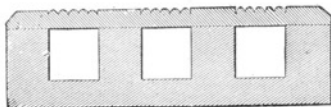
## Ornamental Moulding.

MADE IN TWO AND THREE WIRE, WITH  $\frac{1}{4}$  INCH GROOVE.

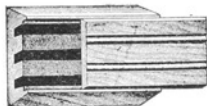
Code Word	List No.	Description	List Price
<i>Hardhood</i>	590	Polished Oak, 2 wire, per foot.....	\$0.25
<i>Hardly</i>	591	" 3 " " .....	.30
<i>Hardening</i>	592	Polished Oak, 2 wire, per foot.....	.25
<i>Hardist</i>	593	" 3 " " .....	.30
<i>Harborless</i>	594	White and Gold, 2 wire, per foot.....	.30
<i>Hardened</i>	595	" " 3 " " .....	.40
<i>Harborer</i>	596	White and Gold, 2 wire, per foot.....	.30
<i>Harboring</i>	598	" " 3 " " .....	.40



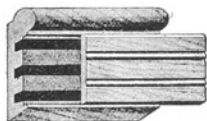
No. 447.



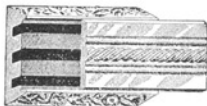
No. 450.



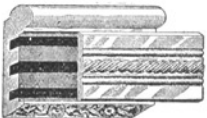
No. 591



No. 593.



No. 595.



No. 598.



## McIntire Patent Wire Connectors.

Code Word.	List No.		List Price.
<i>Cheerlessly</i>	18757	Twist connectors for No. 4 wire, B. & S. gauge, per 100.....	\$9.00
<i>Cheesy</i>	18758	Twist connector, for No. 6 wire, B. & S. gauge, per 100.....	8.00
<i>Chemically</i>	18759	Twist connector for No. 8 wire, B. & S. gauge, per 100.....	9.50
<i>Chemist</i>	18760	Twist connector for No. 10 wire, B. & S. gauge, per 100.....	7.00
<i>Chemnitz</i>	15416	Twist connector for No. 12 wire, B. & S. gauge, per 100.....	7.00
<i>Chemnitz</i>	15417	Twist connector for No. 14 wire, B. & S. gauge, per 100.....	7.00
<i>Chemnitz</i>	15418	Twist connector, for No. 16 wire, B. & S. gauge, per 100.....	7.00
<i>Cheris</i>	18761	Solder connector for No. 0000 wire, B. & S. gauge, per 100.....	25.00
<i>Cherishing</i>	18762	Solder connector for No. 000 wire, B. & S. gauge, per 100.....	25.00
<i>Cheroot</i>	18763	Solder connector for No. 00 wire, B. & S. gauge, per 100.....	25.00
<i>Cherryly</i>	18764	Solder connector for No. 0 wire, B. & S. gauge, per 100.....	20.00



## Turn Buckles.

Code Word.	List No.	Diameter of Thread, inches.	Length of Screws, inches.	Galvanized, List Price Each.	Plain, List Price Each.
<i>Slipshod</i>	24129	$\frac{1}{8}$	...	.95	.80
<i>Slipshoe</i>	24130	$\frac{1}{4}$	$3\frac{1}{2}$	1.00	.85
<i>Slipstop</i>	24131	$\frac{1}{2}$	4	1.10	.90
<i>Slipstring</i>	24132	$\frac{3}{8}$	5	1.30	1.10
<i>Slipthrift</i>	24133	$\frac{1}{2}$	6	1.50	1.25
<i>Slit</i>	24134	$\frac{1}{2}$	7	1.80	1.55
<i>Slither</i>	24135	$\frac{1}{2}$	12	2.75	2.40
<i>Slowness</i>	24137	$\frac{3}{8}$	8	2.40	2.00
<i>Slowness</i>	24138	$\frac{1}{2}$	12	3.75	3.10
<i>Slow</i>	24139	$\frac{3}{8}$	9	3.50	2.75
<i>Slowback</i>	24140	$\frac{3}{8}$	12	5.40	4.25
<i>Slowly</i>	24141	$\frac{1}{2}$	10	4.25	3.50
<i>Slowness</i>	24142	1	11	5.50	4.25
<i>Slob</i>	24143	$1\frac{1}{4}$	14	7.00	5.25
<i>Slobber</i>	24144	$1\frac{1}{2}$	15	8.25	6.25

**Cutter Insulated Turnbuckle.**

No. 24123.

Is made with heavy porcelain insulators secured to malleable iron forks. These give a double insulation, making the device very effective. The turnbuckle gives nine inches adjustment.

Code Word. List No. List Price.  
*Slipperiness* 24136 Complete ..... .75

**Cutter Insulated Suspension Bolt.**

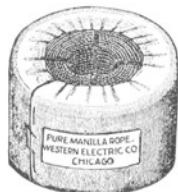
No. 24124.

Reduces the risk of grounds on suspension lamps by insulating the suspension wire or cable from the pole. Can also be used with guard wires or for railway suspensions. The fork is of malleable iron and well braced.

*Slipperity* 24124 With 12-inch bolt..... \$0.25

**Cutter "Banner Core" Hoisting Rope.**

A new brand of hoisting rope specially made for use with arc lamps or suspension street hoods. It is made of selected cotton stock, closely braided over a red, white and blue core; the cord is then treated so as to withstand the weather, making the strongest and most durable cord for outdoor use. The genuine has the distinctive "banner core."



*Slippery* 24126 1/4-inch, per 100 feet ..... .90  
*Slippiness* 24127 5/8-inch, " ..... 1.44  
*Slippy* 24128 3/4-inch, " ..... 1.80

**Pure Manilla Rope.**

	Diam.	Weight of 1,000 Feet.	Number of Feet in One Pound.	Strength of New Manilla Rope.	Per Pound.	
<i>Murlock</i>	15420	1/4	23	43	450	.30
<i>Murrows</i>	15421	3/8	42	24	950	.30
<i>Muscotine</i>	15422	1/2	74	13 1/2	1700	.28
<i>Muscoda</i>	15423	5/8	101	10	2300	.28
<i>Muskygan</i>	15425	3/4	132	7 1/2	3000	.25
<i>Mystic</i>	15426	7/8	167	6	3900	.24

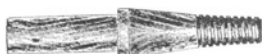
**Incandescent Street Brackets.**

*Cherub* 2795 30-inch Straight Pipe Bracket, each ..... 1.00  
*Cherubim* 2796 Goose Neck Bracket, each ..... 1.10

The above furnished in 3/4-inch and 7/8-inch pipe as desired.

**Oak Pins.**

In Crates of 500.



No. 15430

Code Word.	List No.		List Price.
<i>Nampa</i>	15430	Western Union Standard, 1½ inch, second growth, split timber, hand painted, two coats, with first-class mineral paint, per 1000.....	\$ 25.00
<i>Nantucket</i>	15431	Western Union Standard, 1½ inch split timber, hand painted, two coats, with first-class mineral paint, per 1000.....	20.00
<i>Napa</i>	15432	Western Union Standard, size 1½ inch, sawed and split timber, dipped, painted one coat, per 1000.....	15.00
<i>Naples</i>	15433	1¼ inch, second growth split timber, hand painted, two coats, first class mineral paint, per 1000.....	20.00
<i>Napolitan</i>	15434	1¼ inch, split timber, hand painted, first-class mineral paint, per 1000.....	15.00
<i>Nashua</i>	15435	1½ inch, sawed and split timber, dipped, painted one coat, per 1000.....	12.00

**Locust Pins.**

Not Painted.

In Crates of 500.



No. 15440.

<i>Nashville</i>	15440	1¼ inch, 7¼ inch long, per 1000.....	25.00
<i>Natchez</i>	15441	1¼ " " 8 " " " " " " " " " " " " " "	25.00
<i>Natchik</i>	15442	1½ " " 8 " " " " " " " " " " " " " "	27.00
<i>Nacajo</i>	15443	1¼ " " 8 " " " " " " " " " " " " " " transposition, per 1000	30.00
<i>Naylor</i>	15444	1½ " " 9 " " " " " " " " " " " " " "	30.00

**Corner Pins.**



No. 15445.

<i>Neenah</i>	15446	Oak, 1½ " " " " " " " " " " " " " "	60.00
<i>Negona</i>	15447	Locust " " " " " " " " " " " " " "	65.00

**Brown Duplex Pins.**



No. 2671.

<i>Circumcent</i>	2671	Oak, 1¼ inch, per 1000.....	30.00
<i>Citable</i>	2672	Locust 1½ " " " " " " " " " " " " " "	40.00

**Solid Iron Pin.**



No. 3394.

<i>Bald</i>	3394	1½ inch, each.....	10
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**Brackets.**

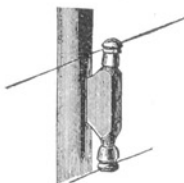
In Crates of 500.



No. 15455.

<i>Nelson</i>	15455	Oak, Western Union Standard, No. 1 timber, hand painted, two coats first-class mineral paint, per 1000.....	25.00
<i>Nola</i>	15456	Oak, Western Union Standard, No. 2 timber, hand painted, two coats first-class mineral paint, per 1000.....	21.00
<i>Neosho</i>	15457	Oak, Pony telephone, hand painted, two coats, first-class mineral paint, per 1000	18.00
<i>Neenah</i>	15458	Oak, Pony, painted, dipped, one coat " "	16.50
<i>Neorark</i>	15459	Standard, Locust, not painted " "	35.00

Special prices on pins and brackets shipped direct from factory in large quantities.



No. 3000.

**Brown Duplex Bracket.**

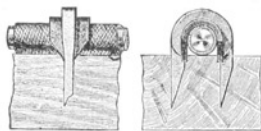
Code Word.	List No.	List Price.
<i>Clrate</i>	3000 Per 1,000 .....	\$35.00



No. 3610.

**Locke Indestructible Insulator Pin.**

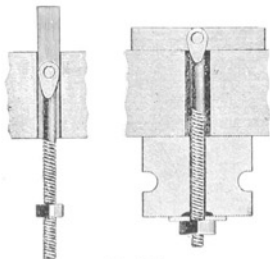
<i>Cam</i>	3610 Complete, with nut, etc., each .....	.20
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No. 1742.

**The "Insulating Saddle Staple."**

<i>Centrolize</i>	1742	For wire $\frac{5}{16}$ inch in diameter, per 1,000 .....	.60
<i>Centrifugal</i>	1743	" $\frac{1}{8}$ " " " " " .....	.70
<i>Centripetal</i>	1744	" $\frac{1}{2}$ " " " " " .....	.80
<i>Centriple</i>	1745	" $\frac{3}{8}$ " " " " " .....	1.70
<i>Centurion</i>	1746	" $\frac{5}{8}$ " " " " " .....	5.40
<i>Century</i>	1747	" $\frac{1}{4}$ " " " " " .....	5.00



No. 1648.

**Toggles.**

For suspending fixtures, brackets, wood blocks, etc., to side walls or ceiling.

<i>David</i>	1648	Each .....	.10
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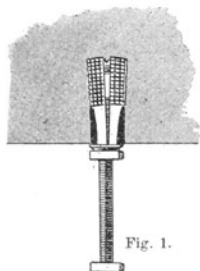


Fig. 1.

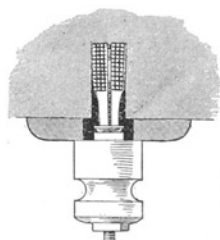
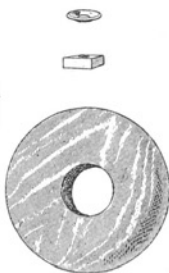


Fig. 2.



Detail of Parts.

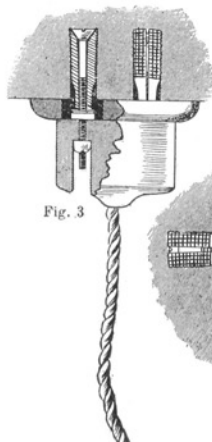


Fig. 3.

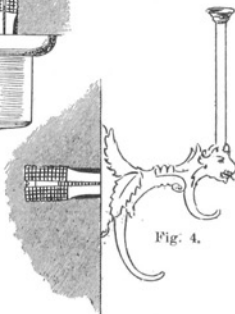


Fig. 4.

## Tile Bolt and Lock.

This tile bolt and lock is devised for use in fire-proof buildings where the columns and girders are covered with tiling. It is a safe and simple method for fastening insulators, rosettes, or other electrical appliances to ceilings, columns, or walls. It cannot be pulled out when properly set and yet can be easily removed when desired.

This device consists of two pieces of metal with partially corrugated outside surfaces which when placed together form a shape similar to a cone. The opening in the upper end when the pieces of metal are put together is countersunk, allowing the bolthead to which the insulators or other devices are to be fastened to fit snugly between the two pieces of metal. These two pieces of metal together with the bolt are inserted in a hole in the tiling. A small concave washer slips over the bolt and a nut is then screwed up close to the ends of the small pieces of metal, as it is gradually tightened it draws the bolt head down into the space between the two pieces of metal until it makes them bind tightly to the sides of the hole, the end deepest in the hole binding tightest; this leaves the shank of the bolt free for attaching any device that may be desired.

The top illustration, Figure 1, shows the screw or bolt attached to a ceiling while the illustrations under it, Figure 2 and Figure 3, show respectively an insulator and a ceiling button or rosette attached to the bolt. Illustration Figure 4 shows how the tile bolt and lock may be used for attaching ornamental brackets to the side of a wall.

These tile bolts and locks are made in two sizes: No. 25073 which has a bolt  $3\frac{1}{2} \times \frac{1}{4}$  inches, includes the two conical pieces of metal which are called the lock, one small iron washer, two small iron nuts, and the bolt; No. 25074, which has a bolt  $2 \times \frac{1}{4}$  inches, includes the lock, the bolt, one small iron washer, one small iron nut, and one brass nut which is slotted so that a screw driver as well as a wrench may be used on it. No. 25074 is used principally for fastening rosettes to the ceiling where two bolts are to be used on one device.

It will be particularly noted that partitions in the tiling or tile or marble slabs resting against flat surfaces do not interfere with the use of the tile bolt and lock as in the case of toggle bolts; with the tile bolt and lock there is no need of an open space as is required in the use of toggle bolts.

Code Word.	List No		List Price.
<i>Somnative</i>	25073	$3\frac{1}{2} \times \frac{1}{4}$ inches, per 1000.....	\$40.00
<i>Somnulous</i>	25074	$2 \times \frac{1}{4}$ " " 1000.....	45.00

## Standard Cross Arms.



No. 23564.

Shipped direct from Bay City, Mich.  
Painted two coats red. Finished size  $3\frac{1}{2} \times 4\frac{1}{4}$  inches.  
Bored for  $1\frac{1}{2}$  inch pins and two  $\frac{1}{2}$  inch bolts unless otherwise specified.

Code Word.	List No.	Length.	Number of Pins.	End.	Spacings. Center.	Sides.	List Price. Each.
<i>Otley</i>	23563	3 feet.	2, 4	in.	28	in.	\$.12
<i>Otsego</i>	23564	4 "	4 "	"	16 "	12 "	.15
<i>Ottawa</i>	23565	5 "	4 "	"	18 "	17 "	.21
<i>Otto</i>	23566	6 "	4 "	"	22 "	21 "	.24
<i>Ottumwa</i>	23567	6 "	6 "	"	16 "	12 "	.24
<i>Overton</i>	23568	8 "	6 "	"	18 "	17½ "	.33
<i>Ovid</i>	23569	8 "	8 "	"	16 "	12 "	.33
<i>Ozego</i>	23572	10 "	8 "	"	17½ "	15¼ "	.53
<i>Oxford</i>	23573	10 "	10 "	"	16 "	12 "	.55

## Telephone Cross Arms.

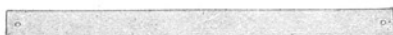
Shipped direct from Bay City, Mich.  
Painted two coats. Finished size  $2\frac{1}{4} \times 3\frac{1}{4}$  in.  
Bored for  $1\frac{1}{4}$  in. pins and two  $\frac{1}{2}$  in. bolts.

		Length.	Number of Pins.	End.	Spacings. Center.	Sides.	
<i>Newburn</i>	15460	24 in.	2	3 in.	18 in.		.08
<i>Newburg</i>	15461	30 "	2	"	24 "		.10
<i>Newton</i>	15462	36 "	2	"	30 "		.12
<i>Niagara</i>	15463	42 "	4	"	16 "	10 in.	.14
<i>Niantic</i>	15464	62 "	6	"	16 "	10 "	.21
<i>Nichols</i>	15465	82 "	8	"	16 "	10 "	.27
<i>Nicolletti</i>	15466	102 "	10	"	16 "	10 "	.35
<i>Niles</i>	15467	120 "	12	"	16 "	10 "	.45

Odd lengths same price as next longer arm having same number of pins. Odd spacing extra prices.

Above arms of best Michigan white pine. Special prices quoted on yellow pine arms and extra heavy arms.

## Stiff Steel Cross Arm Braces.



No. 15470.

$1\frac{1}{2}$  inches wide by  $\frac{3}{4}$  inches thick, punched for  $\frac{1}{4}$  inch lag screw in one end and  $\frac{1}{2}$  inch carriage bolt in the other.

## Plain.

Approx. weight per 1000 pair.

<i>Nina</i>	15470	20-inch,	2700 pounds,	per 1000 pair.	90.00
<i>Nipton</i>	15471	24 "	3200 "	"	108.00
<i>Nolia</i>	15472	26 "	3500 "	"	125.00
<i>Noma</i>	15473	28 "	3900 "	"	140.00

## Galvanized.

<i>Nora</i>	15475	20-inch,	2700 pounds,	per 1000 pair.	135.00
<i>Norcross</i>	15476	24 "	3200 "	"	160.00
<i>Norfolk</i>	15477	26 "	3500 "	"	180.00
<i>Norman</i>	15478	28 "	3900 "	"	200.00

Special dimension braces to order.



Length.	Price per hundred.			
	½ in.	¾ in.	1 in.	1 ¼ in.
2	\$2.88	\$4.05	\$4.95	
2½	3.06	4.35	5.40	\$ 7.92
3	3.24	4.65	5.85	8.58
3½	3.42	4.95	6.30	9.24
4	3.60	5.25	6.75	9.90
4½	3.78	5.55	7.20	10.56
5	3.96	5.85	7.65	11.22
5½	4.14	6.15	8.10	11.88
6	4.32	6.45	8.55	12.54
7	4.68	7.05	9.45	13.86
8	5.04	7.65	10.35	15.18

**Lag Bolts.**

Price per hundred.



Length.	Price per hundred.			
	½ in.	¾ in.	1 in.	1 ¼ in.
2	\$1.08	\$1.50	\$3.00	\$ 5.00.
2½	1.16	1.64	3.00	5.00
3	1.24	1.78	3.00	5.00
3½	1.28	1.85	3.10	5.15
3¾	1.32	1.92	3.20	5.30
3¾	1.36	1.99	3.30	5.45
4	1.40	2.06	3.40	5.60
4¼	1.44	2.13	3.50	5.75
4½	1.48	2.20	3.60	5.90
4¾	1.52	2.27	3.70	6.05
5	1.56	2.34	3.80	6.20
5½	1.64	2.48	4.00	6.50
6	1.72	2.62	4.20	6.80
6½	1.80	2.76	4.40	7.10
7	1.88	2.90	4.60	7.40
7½	1.96	3.04	4.80	7.70
8	2.04	3.18	5.00	8.00

**Carriage Bolts.**

Price per hundred.



Length.	Price per hundred.			
	½ in.	¾ in.	1 in.	1 ¼ in.
2½	\$1.86	\$2.64	\$4.00	\$5.80
3	1.94	2.76	4.20	6.10
3½	2.02	2.88	4.40	6.40
4	2.10	3.00	4.60	6.70
4½	2.18	3.12	4.80	7.00
5	2.26	3.24	5.00	7.30
5½	2.34	3.36	5.20	7.60
6	2.42	3.48	5.40	7.90
6½	2.50	3.60	5.60	8.20
7	2.58	3.72	5.80	8.50
7½	2.66	3.84	6.00	8.80
8	2.74	3.96	6.20	9.10
9	2.90	4.20	6.60	9.70
10	3.06	4.44	7.00	10.30

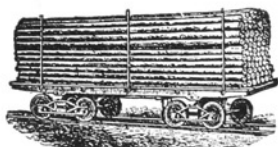
**Machine Bolts.**

Price per hundred.



**Washers.**

At market prices.



## Wood Poles.

SPECIAL PRICES QUOTED ON APPLICATION.

### Round Cedar.

Length	Top.	Weight in Lbs.	No. to Carload
25 feet	5 inches.	200	120
25 "	6 "	275	110
30 "	6 "	325	100
30 "	7 "	450'	90
35 "	6 "	500	120
35 "	7 "	600	110
40 "	6 "	700	100
40 "	7 "	800	90
45 "	6 "	950	82
45 "	7 "	1100	60
50 "	6 "	1250	40
50 "	7 "	1450	25
55 "	6 "	1500	30
55 "	7 "	1800	25

### Norway Pine.

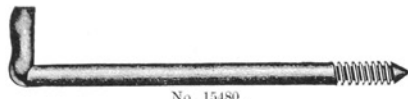
40 feet.	7 inches	1100	90
45 "	7 "	1200	80
50 "	7 "	1350	72
55 "	7 "	1500	65
60 "	7 "	1700	55
65 "	7 "	2000	45
70 "	7 "	2400	50
75 "	7 "	2800	45
80 "	7 "	3400	35
85 "	7 "	3800	30

### Norway Pine Octagonals.

28 feet.	6 inches.	9 inch butt.	75
28 "	7 "	10 "	80
28 "	8 "	11 "	50
30 "	6 "	9 "	75
30 "	7 "	10 "	60
30 "	8 "	11 "	50
32 "	6 "	9 "	65
32 "	7 "	10 "	50
32 "	8 "	11 "	40
34 "	6 "	9 "	65
34 "	7 "	10 "	50
34 "	8 "	11 "	40

Six feet of the butt treated with preservative, balance of pole painted drab, tops tipped.

**Pole Steps.**



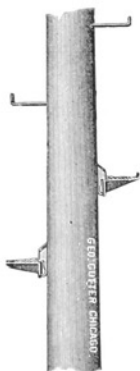
No. 15480.

Code Word	List No.		List Price Per 100.
<i>Norton</i>	15480	$\frac{5}{8}$ "x9 Black	\$ 6.00
<i>Norwalk</i>	15481	$\frac{5}{8}$ "x9 Galvanized	8.00
<i>Norway</i>	15482	$\frac{3}{8}$ "x9 Black	7.00
<i>Norwich</i>	15483	$\frac{3}{8}$ "x9 Galvanized	9.00



No. 3528.

<i>Booby</i>	3528	8x $\frac{1}{2}$ " F. D black pole steps	6.50
<i>Book</i>	3529	9x $\frac{1}{2}$ " " " "	6.75
<i>Bookful</i>	3530	10x $\frac{1}{2}$ " " " "	7.00
<i>Booking</i>	3531	8x $\frac{3}{4}$ " " " "	6.70
<i>Bookish</i>	3532	9x $\frac{3}{4}$ " " " "	7.00
<i>Boom</i>	3533	10x $\frac{3}{4}$ " " " "	7.25
<i>Boomed</i>	3534	8x $\frac{1}{2}$ " " galv.	8.00
<i>Boomerang</i>	3535	9x $\frac{1}{2}$ " " " "	8.25
<i>Boot</i>	3536	10x $\frac{1}{2}$ " " " "	8.50
<i>Booted</i>	3537	8x $\frac{3}{4}$ " " " "	9.00
<i>Booth</i>	3538	9x $\frac{3}{4}$ " " " "	9.25
<i>Bootless</i>	3539	10x $\frac{3}{4}$ " " " "	9.50



No. 24433.



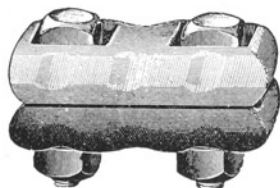
No. 24434.

**Cutter Detachable Polesteps.**

Are easier to carry than a Trimmer's Ladder. A pair of Sockets are fastened to the pole and the trimmer carries a pair of Polesteps to fit them (weight per pair less than one pound). He slips the steps into their socket, goes up the pole to trim the lamp, then puts the steps into his pocket and goes on to the next lamp.

All of malleable iron, japanned.

<i>Solarium</i>	24433	Sockets, per pair	\$0.20
<i>Solarization</i>	24434	Polesteps, per pair	.30



Small size.

**Galvanized Guy Clamps.**

For fastening guy wires and cables, large size is  $5\frac{1}{2}$  inches long; small size 3 inches long.

<i>Acquittal</i>	25603	Large size with three bolts	.40
<i>Acquittance</i>	25604	Small size with two bolts	.20

**Crosby Clips.**



No. 15481.

	Diam. Rope.	Each.
<i>Oakville</i>	15484 $\frac{3}{8}$ -inch	.25
<i>Oakland</i>	15485 $\frac{1}{2}$ "	.30
<i>Oaklawn</i>	15486 $\frac{5}{8}$ "	.35
<i>Oakdale</i>	15487 $\frac{3}{4}$ "	.40
<i>Oakfield</i>	15488 $\frac{7}{8}$ "	.45
<i>Oakford</i>	15489 1"	.50
<i>Oakwood</i>	15490 $1\frac{1}{8}$ "	.50
<i>Obeida</i>	15491 $1\frac{1}{4}$ "	.50
<i>Oconto</i>	15492 $1\frac{3}{8}$ "	.55
<i>Ocean</i>	15493 $1\frac{1}{2}$ "	.60



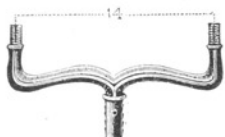
No. 8640.



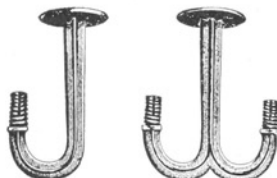
No. 8641.



No. 2446.



No. 2447.



No. 2448.

No. 2449.



No. 2450.



No. 2451.



No. 2452.

### "High Insulation" Brackets.

#### Break Arms.

Code Word.	List No.	List Price Each.
<i>Cerate</i>	8640 Removable Pin, each .....	\$0.22
<i>Cerebus</i>	8641 Permahent Pin, each .....	.20
<i>Soldiery</i>	2446 $\frac{1}{2}$ Malleable Iron, Removable Pin, each .....	.25
<i>Sole</i>	2447 Malleable Iron, Solid Pin, each .....	.25

### Malleable Iron Ceiling Brackets.

<i>Solecism</i>	2448 Single, each .....	.17
<i>Solecist</i>	2449 Double, each .....	.20

### Malleable Iron Drive Brackets.

<i>Solecistic</i>	2450 Upright .....	.10
<i>Solecistically</i>	2451 Thimble .....	.12
<i>Solecise</i>	2452 Right Forward .....	.10

High Insulation Brackets.

Loop or Spreader Brackets.



No. 8657. No. 8658. No. 8659.

Code Word.	List No.	List Price, Each.
<i>Cereol</i>	8657	Left, each ..... \$0.24
<i>Cerebrul</i>	8658	Right, each ..... .24
<i>Cerebrum</i>	8659	Forward, each ..... .24



No. 8662.



No. 8660.

<i>Cerement</i>	8660	Wall Bracket, each ..... .13
<i>Cereous</i>	8662	Roof Bracket, straight, each ..... .17



No. 24453.



No. 8661.

<i>Ceremony</i>	8661	Roof Bracket, offset, each ..... .17
<i>Solcly</i>	24453	Malleable Wall Bracket, each ..... .08



No. 24454.

Malleable Iron Roof Bracket.

<i>Solcum</i>	24454	Each ..... .08
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No. 24455.

Malleable Iron Pins.

<i>Solemitly</i>	24455	5 inches above Cross Arm ..... 10
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No. 24456.

<i>Solemicie</i>	24456	8 1/2 inches above Cross Arm ..... .12
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## "High Insulation" Brackets—(Continued)



No. 8663

Code Word	List No.	List Price
<i>Ceres</i>	8663 Lateral Bracket, right, each.....	\$0.17



No. 8642.

<i>Corky</i>	8642 Cornice Brackets, each.....	.17
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No. 8643.

<i>Cerin</i>	8643 Lateral Brackets, left, each.....	.17
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No. 8646.

<i>Certainly</i>	8646 Combination Bracket, each.....	17
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No. 8647.

<i>Certainness</i>	8647 Reflector Bracket, each.....	.20
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No. 8648.

<i>Certificate</i>	8648 Converter Bracket, each.....	20
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No. 9468.

<i>Certified</i>	9468 Side Bracket, each.....	.08
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No. 2891.

## Fletcher's Double Pin Bell Break Arm

FOR USE WITH CONVERTERS AND SWITCHES.

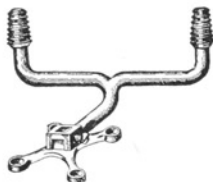
<i>Certify</i>	2891 Each.....	.50
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## Japanned. House Brackets.

WITH VENTILATED THREADS.

Code Word.	List No.	List Price.
<i>Chicken</i>	8992 Each .....	\$0.50



No. 8992.

<i>Chickory</i>	8993 Each .....	.20
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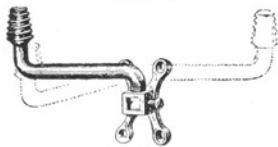
No. 8993.

<i>Chide</i>	8994 Each .....	.20
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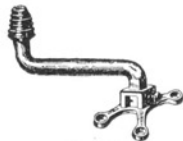
No. 8994.

<i>Chider</i>	8995 Each .....	.25
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No. 8995.

<i>Chiding</i>	8996 Each .....	.25
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No. 8996.

<i>Chief</i>	8997 Each .....	.20
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No. 8997.

## Japanned. Wall Plates.

WITH PORCELAIN KNOBS

	Code Word.	List No.	List Price.
	<i>Cheer</i>	9065 Each.....	\$0.10
	<i>Chewing</i>	9066 Each.....	.20
	<i>Chicanery</i>	9067 Each.....	.30



No. 9065.



No. 9066.



No. 9067.



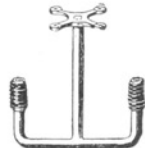
No. 8636.

<i>Certitude</i>	8636 Adjustable House Bracket, each.....	.45
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No. 8637.

<i>Cessation</i>	8637 Adjustable House Bracket, each.....	.45
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No. 8638.

<i>Cesible</i>	8638 Ventilated Thread Bracket, each.....	.40
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No. 8639.

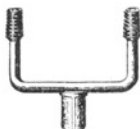
<i>Cession</i>	8639 Ventilated Thread Bracket, each.....	.75
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No. 9068.

## House Brackets—(Continued).

Code Word.	List No.	List Price.
<i>Cessment</i>	9068	Ventilated Thread Bracket, each. .... \$0.75



No. 9069.

<i>Cessor</i>	9069	Ventilated Thread Bracket, each. .... .40
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No. 9070.

<i>Cesspool</i>	9070	Ventilated Thread Bracket, each. .... .50
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No. 9071.

<i>Cestus</i>	9071	Ventilated Thread Bracket, each. .... .75
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No 9072.

<i>Chieftly</i>	9072	Ventilated Thread Bracket, each. .... .75
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No. 8966.

Code Word.  
*Clabber*

List No.

List Price.

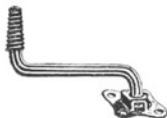
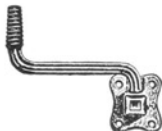
8966 Ventilated Thread Bracket, each. .... \$0.75



No. 8967.

*Civilly*

8967 Ventilated Thread Bracket, each. .... .50



No. 8968.

*Chieftain*

8968 Extra Heavy, each. .... .35



No. 8969.

*Civilly*

8969 Each ..... .25

**House Brackets—(Continued).****Universal House Bracket.**

CAN BE PLACED IN ANY POSITION.

**House Brackets.**

WITH VENTILATED THREADS.



No. 8970.

## House Brackets—(Continued).

Code Word.	List No.	List Price.
<i>Civilized</i>	<b>8970</b> Each .....	<b>\$0.15</b>



No. 8971.

<i>Civilizer</i>	<b>8971</b> Each .....	<b>.20</b>
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No. 8972.

<i>Civilizing</i>	<b>8972</b> Each .....	<b>.25</b>
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# Wire, Cord and Cable.

## Habirshaw White Core.

### Solid Conductors, Braided.

### Stranded Conductors, Braided.

Code Word.	List No.	Gauge B. & S.	Approx. Outside Diam. in 32ds of in.	Price per 1000 Ft.	Code Word.	List No.	Gauge B. & S.	Approx. Outside Diam. in 32ds of in.	Price per 1000 Ft.
<i>Solicitation</i>	25001	14	6	\$15.00	<i>Solidity</i>	25013	8	10	\$50.00
<i>Solicitor</i>	25002	12	7	23.00	<i>Solidly</i>	25014	6	11	62.00
<i>Solicitous</i>	25003	10	8	30.00	<i>Solidness</i>	25015	5	13	78.00
<i>Solicitously</i>	25004	8	9	36.00	<i>Solidness</i>	25016	4	13½	96.00
<i>Solicitude</i>	25005	6	10	50.00	<i>Soliloquize</i>	25017	3	14½	136.00
<i>Solicitude</i>	25006	5	12	69.60	<i>Soliloquy</i>	25018	2	16	156.00
<i>Solidarity</i>	25007	4	13	76.00	<i>Soliped</i>	25019	1	17	200.00
<i>Solidate</i>	25008	3	13½	90.00	<i>Solitar</i>	25020	0	18	210.00
<i>Solify</i>	25009	2	14½	118.00	<i>Solitarily</i>	25021	00	19	228.00
<i>Solidism</i>	25010	1	15½	135.00	<i>Solitariness</i>	25022	000	21	260.00
<i>Solidist</i>	25011	0	16½	180.00	<i>Solitary</i>	25023	0000	24	340.00

## Habirshaw Standard Red Core.

No. 3000.

### Solid Conductor, 500 Volts, Taped Outside.

Code Word.	List No.	Gauge, B. & S.	Approximate Outside Diam. in 32nds of an Inch.	List Price, per Foot.
<i>Abacus</i>	3000½	18	4	\$.02½
<i>Abaft</i>	3001	16	5½	.02¾
<i>Abandoner</i>	3002	14	6	.03½
<i>Abandoning</i>	3003	12	7	.04¾
<i>Abase</i>	3004	10	8	.06¾
<i>Abasement</i>	3005	8	9	.08¾
<i>Abash</i>	3006	6	10	.11¾
<i>Abashed</i>	3007	5	12	.13¾
<i>Abashing</i>	3008	4	13	.15¾
<i>Abate</i>	3009	3	13½	.18
<i>Abated</i>	3010	2	14½	.23½
<i>Abatement</i>	3011	1	15½	.31½
<i>Abater</i>	3012	0	16½	.41

### Solid Conductor, 500 Volts, Braided Outside.

No. 3013.

		Gauge, B. & S.	Approximate Outside Diam. in 32nds of an Inch.	
<i>Abattoir</i>	3013	18	4	.02¾
<i>Abbacy</i>	3014	16	5½	.03
<i>Abess</i>	3015	14	6	.03¾
<i>Abbey</i>	3016	12	7	.05
<i>Abject</i>	3017	10	8	.06¾
<i>Abjection</i>	3018	8	9	.08½
<i>Abjectly</i>	3019	6	10	.12
<i>Abjectness</i>	3020	5	12	.14
<i>Abjure</i>	3021	4	13	.16
<i>Ablation</i>	3022	3	13½	.18¾
<i>Ablative</i>	3023	2	14½	.24½
<i>Ab blaze</i>	3024	1	15½	.32½
<i>Able</i>	3025	0	16½	.43

## Habirshaw Standard Red Core—(Continued).



Stranded Conductor, 500 Volts, Braided Outside.

No 3026

Code Word.	List No	Gauge. B. & S	Circular Mils.	Approximate Outside Diameter in 32nds of an inch.	List Price per Foot.
<i>Ablution</i>	3026	12	6,529	7	\$0.05½
<i>Able</i>	3027	10	10,381	8	.07
<i>Abnegate</i>	3028	8	16,509	10	.10½
<i>Abnormal</i>	3029	6	26,250	11	.17½
<i>Aboard</i>	3030	5	33,102	13	.19½
<i>Abode</i>	3031	4	41,742	13½	.24½
<i>Abolish</i>	3032	3	52,634	14½	.29½
<i>Abolisher</i>	3033	2	66,373	16	.32½
<i>Abolition</i>	3034	1	83,694	17	.36
<i>Abominably</i>	3035	0	105,592	18	.47½
<i>Abominate</i>	3036	00	133,079	19	.60
<i>Abominated</i>	3037	000	167,805	21	.68
<i>Abominating</i>	3038	0000	211,600	24	.88



## Grimshaw White Core Wire.

Solid Conductor, Double Coated, Taped, Black or White Braid.

Trade No.	B. & S. Gauge.	Safe Carrying Capacity, Bare Wire, in Amp. 100° F.	Circular Mils. (d) 1 MIL = .001 inch.	Outside Diam. of Insulation, .001 inch.	Price per 100 Feet.
<i>Archives</i>	3104	220	18	6	1624. .125 \$1.90
<i>Archness</i>	3105	221	18	6	1624. .156 2.00
<i>Archway</i>	3106	223	16	10	2583. .125 2.15
<i>Archwise</i>	3107	224	16	10	2583. .156 2.20
<i>Arctic</i>	3108	228	14	15	4107. .187 2.70
<i>Ardour</i>	3109	229	14	15	4107. .218 3.00
<i>Area</i>	3110	231	12	21	6530. .218 3.50
<i>Arena</i>	3111	232	12	21	6530. .250 3.70
<i>Argent</i>	3112	235	10	32	10381. .250 4.50
<i>Argument</i>	3113	236	10	32	10381. .281 5.00
<i>Arid</i>	3114	237	8	44	16509. .281 5.50
<i>Aridity</i>	3115	238	8	44	16509. .343 6.50
<i>Aright</i>	3116	239	6	60	26250. .343 8.25
<i>Arise</i>	3117	240	6	60	26250. .406 9.50
<i>Arise</i>	3118	241	5	68	33102. .406 9.90
<i>Aristocrat</i>	3119	242	5	68	33102. .468 10.25
<i>Ark</i>	3120	243	4	83	41742. .406 10.50
<i>Armorer</i>	3122	244	4	83	41742. .468 12.50
<i>Armorial</i>	3123	245	3	104	52634. .437 12.75
<i>Armoric</i>	3124	245½	3	104	52634. .500 14.25
<i>Armory</i>	3125	246	2	118	66373. .468 15.75
<i>Armpit</i>	3126	246½	2	118	66373. .531 17.25
<i>Army</i>	3127	247	1	135	83694. .500 21.00
<i>Arnot</i>	3128	247½	1	135	83694. .562 23.00
<i>Arousing</i>	3129	248	0	179	105592. .531 27.25
<i>Arras</i>	3130	248½	0	179	105592. .593 30.75

## Grimshaw White Core Wire—(Continued).

## Stranded Conductors, Double Coated, Taped, Black or White Braid.

Code Word.	List No.	Trade No.	B. & S. Gauge.	Safe Carrying Capacity Bare Wire to Amp. 130° F.	Circular Mils. (37) 1 Mil. = .001 inch.	Outside Diam. of Insulation, per 100 Ft.	List Price.
<i>Assayer</i>	3131	704	8	44	16509.	.343	<b>\$8.00</b>
<i>Assaying</i>	3132	705	6	60	26250.	.375	<b>9.50</b>
<i>Assecure</i>	3133	706	6	60	26250.	.437	<b>11.00</b>
<i>Assemblage</i>	3134	707	5	68	33102.	.461	<b>12.00</b>
<i>Assemblance</i>	3135	708	4	83	41742.	.461	<b>14.50</b>
<i>Assembling</i>	3136	709	5	83	41742.	.523	<b>16.00</b>
<i>Assembly</i>	3137	710	3	104	52634.	.483	<b>18.00</b>
<i>Assent</i>	3138	711	3	104	52634.	.545	<b>19.50</b>
<i>Assenter</i>	3139	712	2	118	66373.	.539	<b>20.00</b>
<i>Assenting</i>	3140	713	2	118	66373.	.601	<b>23.00</b>
<i>Assentment</i>	3141	714	1	135	83694.	.544	<b>27.00</b>
<i>Assert</i>	3142	715	1	135	83694.	.606	<b>30.00</b>
<i>Asserted</i>	3143	716	0	179	105592.	.593	<b>30.00</b>
<i>Asserting</i>	3144	717	0	179	105592.	.656	<b>35.50</b>
<i>Assertion</i>	3145	718	00	210	133079.	.656	<b>38.00</b>
<i>Assertive</i>	3146	719	00	210	133079.	.718	<b>43.00</b>
<i>Assessable</i>	3147	720	000	251	167805.	.718	<b>48.00</b>
<i>Assession</i>	3148	721	000	251	167805.	.791	<b>53.00</b>
<i>Assessor</i>	3149	722	0000	275	211600.	.718	<b>58.00</b>
<i>Asseverate</i>	3150	723	0000	275	211600.	.791	<b>63.00</b>

## Raven Core Wire—Braided.

## Solid.

<i>Deputing</i>	1229	320	18	6	1624.	.125	<b>1.65</b>
<i>Deputy</i>	1230	321	18	6	1624.	.156	<b>1.75</b>
<i>Derange</i>	1231	323	16	10	2583.	.125	<b>1.75</b>
<i>Deranged</i>	1232	324	16	10	2583.	.156	<b>1.85</b>
<i>Derangement</i>	1233	327	14	15	4107.	.156	<b>2.10</b>
<i>Derelict</i>	1234	328	14	15	4107.	.187	<b>2.30</b>
<i>Deride</i>	1235	331	12	21	6530.	.218	<b>3.25</b>
<i>Deriding</i>	1236	332	12	21	6530.	.250	<b>3.55</b>
<i>Derision</i>	1237	334	10	32	10381.	.218	<b>4.00</b>
<i>Derivation</i>	1238	335	10	32	10381.	.250	<b>4.10</b>
<i>Derive</i>	1239	337	8	44	16509.	.281	<b>4.75</b>
<i>Deriving</i>	1241	338	8	44	16509.	.343	<b>5.75</b>
<i>Derogation</i>	1242	339	6	60	26250.	.343	<b>6.50</b>
<i>Derogatory</i>	1243	340	6	60	26250.	.406	<b>8.40</b>
<i>Despotic</i>	1244	341	5	68	33102.	.406	<b>8.90</b>
<i>Despotism</i>	1245	342	5	68	33102.	.468	<b>9.50</b>
<i>Destination</i>	1246	343	4	83	41742.	.406	<b>9.60</b>
<i>Destine</i>	1247	344	4	83	41742.	.468	<b>11.50</b>
<i>Destiny</i>	1248	345	3	104	52634.	.437	<b>11.25</b>
<i>Destitution</i>	1249	346	3	104	52634.	.500	<b>12.75</b>
<i>Destroy</i>	1250	347	2	118	66373.	.468	<b>14.75</b>
<i>Destroying</i>	1251	348	2	118	66373.	.531	<b>16.25</b>
<i>Destructible</i>	1252	349	1	135	83694.	.500	<b>19.00</b>
<i>Destructive</i>	1253	350	1	135	83694.	.562	<b>21.00</b>
<i>Desultory</i>	1254	351	0	179	105592.	.531	<b>26.25</b>
<i>Detach</i>	1255	352	0	179	105592.	.592	<b>29.75</b>





Raven Core Wire—Braided—(Continued).

		Stranded.					
Code Word.	List No.	Trade No.	R. & S. Gauge.	Safe Carrying Capacity, B. & S. Wire in Amp. 150° F.	Circular Mils. (d) 1 Mil. = .001 inch.	Outside Diam. of Insulation, .001 inch.	List Price, per 100 Ft.
<i>Emarginate</i>	1869	804	8	44	16509.	.343	\$6.25
<i>Embassy</i>	1870	805	6	60	26250.	.375	7.75
<i>Embedded</i>	1871	806	6	60	26250.	.437	9.00
<i>Embellish</i>	1872	807	5	68	33102.	.461	9.75
<i>Embers</i>	1873	808	4	83	41742.	.461	12.00
<i>Embezzle</i>	1874	809	4	83	41742.	.523	15.00
<i>Emanated</i>	1875	810	3	104	52634.	.483	16.60
<i>Emanation</i>	1876	811	3	104	52634.	.545	18.00
<i>Emancipate</i>	1877	812	2	118	66373.	.539	19.00
<i>Emancipator</i>	1878	813	2	118	66373.	.601	22.00
<i>Emancipist</i>	1879	814	1	135	83694.	.544	26.00
<i>Emanuel</i>	1880	815	1	135	83694.	.606	29.00
<i>Elude</i>	1881	816	0	179	105592.	.593	28.25
<i>Elvira</i>	1882	817	0	179	105592.	.656	32.15
<i>Emaciate</i>	1883	818	00	210	133079.	.656	36.00
<i>Emaciated</i>	1884	819	00	210	133079.	.718	41.00
<i>Emaculate</i>	1885	820	000	251	167805.	.718	42.50
<i>Emanate</i>	1886	821	000	251	167805.	.729	47.50
<i>Embolden</i>	1887	822	0000	275	211600.	.718	55.00
<i>Embosom</i>	1888	823	0000	275	211600.	.791	60.00

Grimshaw Duplex Fixture Wire.

		Taped or Braided.				
Listful		B. & S. Gauge.	Safe Carrying Cap., each Cond. Bare Wire, in Amp. 150° F.	Outside Diam. of Insulation .001 inch.	List Price, per 100 Ft.	
<i>Listful</i>	1169	Taped.....	14	15	.218	5.00
<i>Listless</i>	1170	" .....	16	10	.218	4.50
<i>Literat</i>	1171	" .....	18	6	.218	4.00
<i>Literatism</i>	1172	Braided.....	14	15	.218	5.00
<i>Literatness</i>	1173	" .....	16	10	.218	4.50
<i>Literary</i>	1174	" .....	18	6	.218	4.00

## Okonite Wire.

LOW TENSION CURRENTS, FROM 100 TO 500 VOLTS.

## Solid Conductor, Plain Finish.

Code Word.	List No.	Size of Conductor A. W. G.	Outside Diameter of Insulation. Inches.	Approximate Weight per Mile. Pounds.	Insulation Resistance per Mile. Megohms.	List Price. Per foot.
<i>Ascendant</i>	3158	22	.075	32	500	\$.01 1/4
<i>Ascending</i>	3159	20	.091	42	500	.02 1/4
<i>Ascension</i>	3160	18	.102	56	500	.02 1/2
<i>Ascertain</i>	3161	16	.120	78	500	.03
<i>Asetic</i>	3162	14	.148	127	500	.04 1/4
<i>Ascribe</i>	3163	12	.165	178	500	.05 1/4
<i>Ascribing</i>	3164	10	.175	236	500	.06 1/2
<i>Ashamed</i>	3165	9	.182	273	500	.07
<i>Ashore</i>	3166	8	.192	323	500	.08
<i>Ashpan</i>	3167	7	.220	422	500	.09 1/2
<i>Assassin</i>	3168	6	.252	534	500	.12 1/4
<i>Assassinate</i>	3169	5	.276	663	500	.15 1/4
<i>Assation</i>	3170	4	.300	815	500	.19 1/4
<i>Assault</i>	3171	3	.340	1,036	500	.23
<i>Assaulted</i>	3172	2	.372	1,238	500	.28
<i>Assaulting</i>	3173	1	.430	1,657	500	.35
<i>Assay</i>	3174	0	.500	2,134	500	.45
<i>Assayed</i>	3175	00	.560	2,693	500	.60



## Solid Conductor, Braided Finish.

<i>Alertness</i>	3211	22	.075	40	500	.02 1/4
<i>Alexand</i>	3212	20	.091	50	500	.02 1/4
<i>Alfred</i>	3213	18	.102	66	500	.03
<i>Algebra</i>	3214	16	.120	90	500	.03 1/2
<i>Algebraical</i>	3215	14	.148	143	500	.04 1/4
<i>Algernon</i>	3216	12	.165	195	500	.06
<i>Algous</i>	3217	10	.175	254	500	.07 1/2
<i>Alice</i>	3218	9	.182	291	500	.07 1/2
<i>Alias</i>	3219	8	.192	351	500	.08 1/2
<i>Alienable</i>	3220	7	.220	446	500	.11 1/2
<i>Alienation</i>	3221	6	.252	563	500	.13 1/4
<i>Alienator</i>	3222	5	.276	702	500	.16 1/4
<i>Alience</i>	3223	4	.300	859	500	.19 1/4
<i>Alife</i>	3224	3	.340	1,087	500	.24 1/4
<i>Align</i>	3225	2	.372	1,299	500	.29 1/4
<i>Aliment</i>	3226	1	.430	1,750	500	.37
<i>Alimental</i>	3227	0	.500	2,238	500	.47 1/4
<i>Alimentally</i>	3228	00	.560	2,799	500	.61

## Okonite Wire—(Continued).

## Stranded Conductor, Plain Finish.



Code Word.	List No.	Size of	No. of	Outside	Approx.	Insulation	List
		Conductor		Diameter of	Weight	Resistance	
		Equals.	Strands.	Insulation,	per Mile.	per Mile.	per foot.
		A. W. G.	B. W. G.	Inches.	Pounds.	Megohms.	
<i>Assistless</i>	3176	22	7x30*	.091	35	500	\$0.02 $\frac{1}{4}$
<i>Assize</i>	3177	20	7x30	.102	46	500	.02 $\frac{3}{8}$
<i>Assized</i>	3178	18	7x26*	.114	63	500	.03 $\frac{1}{8}$
<i>Assizer</i>	3179	16	7x24	.141	101	500	.04 $\frac{1}{2}$
<i>Associable</i>	3180	14	7x23	.162	139	500	.05 $\frac{1}{4}$
<i>Associate</i>	3181	12	7x20*	.182	191	500	.06 $\frac{1}{2}$
<i>Associated</i>	3182	11	7x20	.192	214	500	.07 $\frac{1}{4}$
<i>Associating</i>	3183	10	7x18*	.204	270	500	.08 $\frac{1}{4}$
<i>Associative</i>	3184	9	7x17*	.212	325	500	.09 $\frac{1}{4}$
<i>Associator</i>	3185	8	7x18	.220	360	500	.09 $\frac{3}{8}$
<i>Assoil</i>	3186	7	7x17	.238	468	500	.11 $\frac{1}{4}$
<i>Assolment</i>	3187	6	7x16	.289	623	500	.15 $\frac{1}{4}$
<i>Assonance</i>	3188	5	7x15	.300	735	500	.16 $\frac{1}{4}$
<i>Assonant</i>	3189	4	7x14	.340	958	500	.21 $\frac{1}{4}$
<i>Assuage</i>	3190	3	7x11*	.380	1,155	500	.26
<i>Assuaged</i>	3191	2	19x17	.440	1,409	500	.34 $\frac{1}{2}$
<i>Assuaging</i>	3192	1	19x16	.489	1,730	500	.41 $\frac{1}{2}$
<i>Assuasive</i>	3193	0	19x15	.530	2,110	500	.50
<i>Assuetude</i>	3194	00	12x12	.590	2,810	500	.61
<i>Assume</i>	3195	000	19x11*	.620	3,120	500	.69
<i>Assumed</i>	3196	0000	19x12	.730	4,400	500	.98

## Stranded Conductor, Braided Finish.

<i>Atimentary</i>	3229	22	7x30*	.091	44	500	.02 $\frac{1}{4}$
<i>Ailmentation</i>	3230	20	7x30	.102	56	500	.03 $\frac{1}{8}$
<i>Aliquant</i>	3231	18	7x26*	.114	75	500	.03 $\frac{3}{8}$
<i>Aliquot</i>	3232	16	7x24*	.144	118	500	.05
<i>Alise</i>	3233	14	7x23	.162	157	500	.06
<i>Alkali</i>	3234	12	7x20*	.182	209	500	.07 $\frac{1}{8}$
<i>Alkaline</i>	3235	11	7x20	.192	252	500	.08
<i>Alkaloid</i>	3236	10	7x18*	.204	295	500	.09
<i>Allan</i>	3237	9	7x17*	.212	348	500	.10
<i>Allay</i>	3238	8	7x18	.220	384	500	.10 $\frac{1}{2}$
<i>Allegation</i>	3239	7	7x17	.238	495	500	.12 $\frac{1}{4}$
<i>Allege</i>	3240	6	7x16	.289	666	500	.16 $\frac{1}{4}$
<i>Alloging</i>	3241	5	7x15	.300	780	500	.18
<i>Alliant</i>	3242	4	7x14	.340	1,007	500	.22 $\frac{1}{2}$
<i>Allied</i>	3042	3	7x11*	.380	1,212	500	.27 $\frac{1}{4}$
<i>Alligate</i>	3243	2	19x17	.440	1,473	500	.36 $\frac{1}{2}$
<i>Allision</i>	3244	1	19x16	.480	1,803	500	.42 $\frac{1}{4}$
<i>Alliteration</i>	3245	0	19x15	.530	2,192	500	.52
<i>Allopathy</i>	3246	00	12x12*	.590	2,897	500	.63
<i>Allot</i>	3247	000	19x12	.620	3,250	500	.71
<i>Allotment</i>	3248	0000	19x12	.730	4,606	500	1.01

\*American Wire Gauge.

## Kerite Wire—Solid.



Code Word.	List No	Plain.		List Price per 100 Ft.		
		COPPER.			INSULATION.	
		B. & S. Gauge.	Diameter of Copper, Mils.		Diameter of Insulation, Mils.	Diameter of Insulation, Inches.
<i>Haggled</i>	1889	20	.0319	.078	$\frac{3}{8}$	\$1.75
<i>Haggling</i>	1890	20	.0319	.093	$\frac{3}{8}$	1.75
<i>Hailing</i>	1891	18	.040	.078	$\frac{3}{8}$	1.75
<i>Hailstone</i>	1892	18	.040	.093	$\frac{3}{8}$	1.90
<i>Halberd</i>	1893	18	.040	.125	$\frac{3}{8}$	2.00
<i>Halcyon</i>	1894	16	.050	.093	$\frac{3}{8}$	2.00
<i>Halibut</i>	1895	16	.050	.125	$\frac{3}{8}$	2.25
<i>Halliard</i>	1896	16	.050	.156	$\frac{3}{8}$	2.75
<i>Halter</i>	1897	14	.064	.125	$\frac{3}{8}$	2.50
<i>Halting</i>	1898	14	.064	.156	$\frac{3}{8}$	3.00
<i>Halving</i>	1899	14	.064	.187	$\frac{3}{8}$	3.25
<i>Ham</i>	1900	14	.064	.218	$\frac{3}{8}$	3.75
<i>Hamble</i>	1901	12	.080	.156	$\frac{3}{8}$	3.25
<i>Hamlet</i>	1902	12	.080	.187	$\frac{3}{8}$	3.75
<i>Hammering</i>	1903	12	.080	.250	$\frac{3}{8}$	5.50
<i>Hammock</i>	1904	10	.101	.218	$\frac{3}{8}$	5.75
<i>Hamper</i>	1905	10	.101	.250	$\frac{3}{8}$	6.25
<i>Hampered</i>	1906	8	.128	.218	$\frac{3}{8}$	7.00
<i>Hampering</i>	1907	8	.128	.250	$\frac{3}{8}$	8.25
<i>Hamstring</i>	1908	8	.128	.281	$\frac{3}{8}$	9.75
<i>Haraper</i>	1909	7	.144	.250	$\frac{3}{8}$	8.50
<i>Handcuff</i>	1910	7	.144	.281	$\frac{3}{8}$	10.00
<i>Handcuffed</i>	1911	6	.162	.250	$\frac{3}{8}$	9.00
<i>Handfast</i>	1912	6	.162	.281	$\frac{3}{8}$	9.50
<i>Handicraft</i>	1913	6	.162	.312	$\frac{3}{8}$	10.75
<i>Handiness</i>	1914	5	.181	.281	$\frac{3}{8}$	10.50
<i>Handle</i>	1915	5	.181	.312	$\frac{3}{8}$	11.00
<i>Handling</i>	1916	4	.204	.281	$\frac{3}{8}$	11.50
<i>Hannah</i>	1917	4	.204	.312	$\frac{3}{8}$	12.50
<i>Handscree</i>	1918	4	.204	.375	$\frac{3}{8}$	14.00
<i>Handsome</i>	1919	3	.229	.375	$\frac{3}{8}$	13.50
<i>Handsomely</i>	1920	3	.229	.437	$\frac{3}{8}$	17.50
<i>Hang</i>	1932	2	.257	.406	$\frac{3}{8}$	19.00
<i>Hanged</i>	1933	2	.257	.468	$\frac{3}{8}$	23.00
<i>Hanging</i>	1934	1	.289	.500	$\frac{3}{8}$	25.00
<i>Hangman</i>	1935	1	.289	.562	$\frac{3}{8}$	27.00
<i>Hangnail</i>	1936	0	.324	.562	$\frac{3}{8}$	30.00
<i>Harker</i>	1937	0	.324	.625	$\frac{3}{8}$	34.00
<i>Hankering</i>	1938	00	.364	.562	$\frac{3}{8}$	35.00
<i>Harless</i>	1939	00	.364	.625	$\frac{3}{8}$	40.00

## Kerite Wire—Solid—(Continued).

Code Word.	List No.	Taped or Braided.				List Price per 100 Ft.	
		R. & S. Gauge.	Diam. of Copper, Mils.	INSULATION			
				Diam. of Insulation, Mils.	Outside Diam. Braided, Inches.		
<i>Haply</i>	1950	20	.0319	.078	$\frac{3}{16}$	$\frac{3}{16}$	\$ 2.00
<i>Happen</i>	1951	20	.0319	.098	$\frac{3}{16}$	$\frac{3}{16}$	2.00
<i>Happening</i>	1952	18	.040	.078	$\frac{5}{16}$	$\frac{5}{16}$	2.00
<i>Happily</i>	1953	18	.040	.098	$\frac{5}{16}$	$\frac{5}{16}$	2.15
<i>Happiness</i>	1954	18	.040	.125	$\frac{5}{16}$	$\frac{5}{16}$	2.25
<i>Happy</i>	1955	16	.050	.098	$\frac{3}{8}$	$\frac{3}{8}$	2.25
<i>Harangue</i>	1956	16	.050	.125	$\frac{3}{8}$	$\frac{3}{8}$	2.50
<i>Harangued</i>	1957	16	.050	.156	$\frac{3}{8}$	$\frac{7}{16}$	3.00
<i>Haranguing</i>	1958	14	.064	.125	$\frac{1}{2}$	$\frac{1}{2}$	2.75
<i>Harass</i>	1959	14	.064	.156	$\frac{1}{2}$	$\frac{1}{2}$	3.25
<i>Harassing</i>	1960	14	.064	.187	$\frac{1}{2}$	$\frac{3}{8}$	3.50
<i>Harbinger</i>	1961	14	.064	.218	$\frac{1}{2}$	$\frac{3}{8}$	4.00
<i>Harbor</i>	1962	12	.080	.156	$\frac{1}{2}$	$\frac{1}{2}$	3.50
<i>Harborage</i>	1963	12	.080	.187	$\frac{1}{2}$	$\frac{1}{2}$	4.00
<i>Habit</i>	1964	12	.080	.250	$\frac{1}{2}$	$\frac{1}{2}$	5.75
<i>Habitation</i>	1965	10	.101	.218	$\frac{3}{8}$	$\frac{3}{8}$	6.00
<i>Habited</i>	1966	10	.101	.250	$\frac{3}{8}$	$\frac{1}{2}$	6.50
<i>Habitual</i>	1967	8	.128	.218	$\frac{3}{8}$	$\frac{3}{8}$	7.25
<i>Habitude</i>	1968	8	.128	.250	$\frac{3}{8}$	$\frac{1}{2}$	8.50
<i>Hack</i>	1969	8	.128	.281	$\frac{3}{8}$	$\frac{1}{2}$	10.00
<i>Hacking</i>	1970	7	.144	.250	$\frac{3}{8}$	$\frac{1}{2}$	9.00
<i>Hackney</i>	1971	7	.144	.281	$\frac{3}{8}$	$\frac{1}{2}$	10.50
<i>Haddock</i>	1972	6	.162	.250	$\frac{3}{8}$	$\frac{1}{2}$	9.50
<i>Hades</i>	1973	6	.162	.281	$\frac{3}{8}$	$\frac{1}{2}$	10.00
<i>Haggard</i>	1974	6	.162	.312	$\frac{1}{2}$	$\frac{1}{2}$	11.25
<i>Haggardly</i>	1975	5	.181	.281	$\frac{3}{8}$	$\frac{1}{2}$	11.00
<i>Haggle</i>	1976	5	.181	.312	$\frac{1}{2}$	$\frac{1}{2}$	11.75
<i>Embroid</i>	1977	4	.204	.281	$\frac{3}{8}$	$\frac{1}{2}$	12.25
<i>Embryo</i>	1978	4	.204	.312	$\frac{1}{2}$	$\frac{1}{2}$	13.25
<i>Embryonic</i>	1979	4	.204	.375	$\frac{1}{2}$	$\frac{1}{2}$	14.75
<i>Emerge</i>	1980	3	.229	.375	$\frac{1}{2}$	$\frac{1}{2}$	14.50
<i>Emergency</i>	1981	3	.229	.437	$\frac{1}{2}$	$\frac{1}{2}$	18.50
<i>Emerging</i>	1982	2	.257	.406	$\frac{1}{2}$	$\frac{1}{2}$	20.00
<i>Embotting</i>	1983	2	.257	.468	$\frac{1}{2}$	$\frac{1}{2}$	24.00
<i>Embracing</i>	1984	1	.289	.500	$\frac{1}{2}$	$\frac{1}{2}$	26.00
<i>Embrasure</i>	1985	1	.289	.562	$\frac{1}{2}$	$\frac{1}{2}$	28.00
<i>Embrace</i>	1986	0	.324	.562	$\frac{1}{2}$	$\frac{1}{2}$	32.00
<i>Embroglio</i>	1987	0	.324	.625	$\frac{1}{2}$	$\frac{1}{2}$	36.00
<i>Embroider</i>	1988	00	.364	.562	$\frac{1}{2}$	$\frac{1}{2}$	38.00
<i>Emity</i>	1989	00	.364	.625	$\frac{1}{2}$	$\frac{1}{2}$	44.00

## Kerite Wire.—(Continued.)

## Stranded Electric Light Conductors.

## Plain Insulation.

Gauge B. & S.	Strands.	Insulation Outside Diam Mils. .001 In	Insulation Outside Diam Inches	Price per 100 Feet	
6	7 x 14	A	312.5	10-32	11.00
6	7 x 16	B	375	12-32	13.00
6	7 x 16	B	437.5	14-32	16.50
5	7 x 15	B	375	12-32	13.00
5	7 x 15	B	437.5	14-32	17.25
4	7 x 12	A	375	12-32	15.00
4	7 x 12	A	437.5	14-32	18.00
4	7 x 12	A	500	16-32	22.00
3	1 x 12—6 x 14 B		375	12-32	17.50
3	1 x 12—6 x 14 B		406.2	13-32	18.50
3	1 x 12—6 x 14 B		500	15-32	21.00
2	1 x 12—6 x 13 B		406.2	13-32	19.00
2	1 x 12—6 x 13 B		437.5	14-32	20.50
2	1 x 10—18 x 17 B		498.7	15-32	22.00
1	1 x 11—6 x 12 B		437.5	14-32	24.00
1	1 x 15—18 x 16 B		500	16-32	26.00
0	1 x 10—6 x 11 B		562.5	18-32	30.00
0	1 x 14—18 x 15 B		625	20-32	34.00
00	7 x 7	A	562.5	18-32	36.00
00	19 x 12	A	625	20-32	41.00
00	1 x 13—18 x 14 B		687.5	22-32	45.00
000	1 x 8—6 x 10 B		625	20-32	60.00
000	19 x 11	A	687.5	22-32	63.00
000	19 x 11	A	750	24-32	66.00
0000	7 x 7	B	687.5	22-32	76.00
0000	19 x 12	B	750	24-32	82.00
0000	19 x 12	B	812.5	26-32	88.00

## Covered Insulation.

Gauge B. & S.	Insulation.	Insulation.	List Prices	
	Outside Diam.	Outside Diam.	per 100 Feet.	per 100 Feet Taped and Braided.
	Mils. .001 In.	Inches.	Braided.	Braided.
6	312.5	10-32	12.00	13.00
6	375	12-32	14.00	15.00
6	437.5	14-32	17.50	18.50
5	375	12-32	14.00	15.00
5	437.5	14-32	18.25	19.25
4	375	12-32	16.00	17.00
4	437.5	14-32	19.00	20.00
4	500	16-32	23.00	24.00
3	375	12-32	18.50	19.50
3	406.2	13-32	20.50	21.50
3	500	15-32	22.00	23.00
2	406.2	13-32	20.00	21.00
2	437.5	14-32	21.50	23.00
2	498.7	15-32	23.50	26.00
1	437.5	14-32	25.50	28.00
1	500	16-32	28.00	30.00
0	562.5	18-32	32.00	34.00
0	562.5	18-32	36.00	38.00
00	625	20-32	38.00	40.00
00	687.5	22-32	43.00	45.00
00	687.5	22-32	47.00	50.00
000	625	20-32	62.00	66.00
000	687.5	22-32	66.00	70.00
000	750	24-32	70.00	75.00
0000	687.5	22-32	80.00	85.00
0000	750	24-32	85.00	90.00
0000	812.5	26-32	93.00	98.00



## Clark Wire.

## Solid.

Code Word	List No.	B. & S.	Diam. Wire in the decimal of an inch.	Diam. Gum 32d of inch.	Total Diam Outside Braid.	Approximate Pounds Per 100 Feet.	Price Per 100 Feet
<i>Sluggard</i>	24150	18	.040	4-32	5-32	2.35	\$1.65
<i>Sluggardy</i>	24151	16	.051	5-32	6-32	2.70	1.80
<i>Sluggish</i>	24152	14	.064	5-32	6-32	3.20	1.80
<i>Sluggishly</i>	24153	14	.064	6-32	7-32	3.40	2.00
<i>Sluggy</i>	24154	14	.064	7-32	8-32	4.79	3.00
<i>Slugs</i>	24155	12	.081	6-32	7-32	4.30	2.50
<i>Sluice</i>	24156	12	.081	7-32	8-32	5.30	3.00
<i>Sluicgate</i>	24157	10	.102	8-32	10-32	7.00	4.00
<i>Sluicy</i>	24158	10	.102	9-32	11-32	7.77	4.50
<i>Slum</i>	24159	9	.114	9-32	11-32	8.00	4.60
<i>Slumber</i>	24160	8	.129	9-32	11-32	10.12	4.70
<i>Slumberer</i>	24161	8	.129	10-32	12-32	10.92	6.00
<i>Slumberless</i>	24162	7	.144	9-32	11-32	10.25	6.20
<i>Slumbery</i>	24163	6	.162	10-32	12-32	14.00	7.20
<i>Slump</i>	24164	6	.162	12-32	14-32	15.57	9.00
<i>Slumpy</i>	24165	6	.162	14-32	16-32	18.72	10.80
<i>Slung</i>	24166	5	.182	12-32	14-32	16.00	9.60
<i>Slungshot</i>	24167	4	.204	12-32	14-32	20.33	10.00
<i>Slunk</i>	24168	4	.204	14-32	16-32	21.87	12.00
<i>Slur</i>	24169	3	.229	15-32	17-32	23.00	12.60
<i>Slurced</i>	24170	2	.258	16-32	18-32	31.25	15.30
<i>Slush</i>	24171	1	.289	17-32	20-32	43.78	20.70
<i>Slushy</i>	24172	0	.324	19-32	22-32	50.00	24.00
<i>Slutch</i>	24173	00	.365	21-32	23-32	54.00	30.00
<i>Slutchy</i>	24174	000	.409	23-32	25-32	66.50	37.00
<i>Sly</i>	24175	0000	.460	25-32	27-32	81.00	45.00

## Stranded.

<i>Smcir</i>	24200	10	....	10-32	12-32	10.94	5.40
<i>Smell</i>	24201	8	....	10-32	12-32	14.06	7.20
<i>Smeller</i>	24202	6	....	12-32	14-32	20.31	10.80
<i>Smelling</i>	24203	4	....	14-32	16-32	21.87	13.00
<i>Smelt</i>	24204	3	....	16-32	19-32	29.69	16.00
<i>Smelter</i>	24205	2	....	17-32	19-32	34.37	18.00
<i>Smeltery</i>	24206	1	....	18-32	21-32	43.75	24.00
<i>Smertin</i>	24207	0	....	22-32	25-32	59.37	30.00
<i>Smew</i>	24208	00	....	24-32	27-32	65.63	35.00
<i>Smicker</i>	24209	000	....	26-32	29-32	75.50	42.00
<i>Smicket</i>	24210	0000	....	28-32	31-32	90.00	50.00

## Flexible Clark Wire.

Diameter of Insulation given is exclusive of Outside Braid.

Made up of No. 28 B. W. G. Wire.

Code Word.	List No.	No. B. & S. Gauge.	Diam. Wire in the decimal of an inch.	Circular Mils D <sup>2</sup>	Number of Wires.	Diam. Gum 32d of inch.	Price per 100 Feet.
<i>Smiltaine</i>	24212	18	.040	1624.3	5	5-32	\$2.70
<i>Smiltax</i>	24214	16	.051	2582.7	8	5-32	2.70
<i>Smile</i>	24215	14	.064	4106.8	13	7-32	3.60
<i>Smileless</i>	24216	12	.081	6529.9	21	8-32	5.40
<i>Smiles</i>	24217	10	.102	10382.	35	9-32	7.20
<i>Smilingly</i>	24218	8	.129	16510.	56	12-32	10.80
<i>Smilingness</i>	24219	7	.144	20817.	63	12-32	12.00
<i>Smirch</i>	24220	6	.162	26250.	84	14-32	14.40
<i>Smirk</i>	24221	5	.182	33102.	105	14-32	18.00
<i>Smirky</i>	24222	4	.204	41742.	126	15-32	21.60
<i>Smite</i>	24223	3	.229	52634	161	17-32	25.20
<i>Smiter</i>	24224	2	.258	66373.	203	18-32	28.80
<i>Smith</i>	24225	1	.289	83994.	259	20-32	32.40
<i>Smither</i>	24226	0	.324	105534.	329	22-32	37.20
<i>Smithery</i>	24227	00	.365	133079.	413	24-32	43.20
<i>Smithing</i>	24228	000	.410	167805.	528	26-32	52.80
<i>Smithsonian</i>	24229	0000	.460	211600.	651	28-32	64.80

## Clark Elevator Electric Light Cable.

## Braided.

		B. & S.	Diam. Gum 32d of inch.	Total Diam. Braided.	Price per 100 Feet
<i>Smithy</i>	24230	18 Duplex	8-32	9-32	6.00
<i>Smitt</i>	24231	16 "	9-32	11-32	7.00
<i>Smitten</i>	24232	14 "	12-32	27-64	8.00
<i>Smittle</i>	24233	12 "	.	16-32	14.00





## Safety Wire.

### Plain, without Tape or Braid.

Code Word.	List No.	Gauge B. & S.	Outside Diam. of Insulation.	Insulation Resistance per Mile. Megohms.	Price per 100 Feet.
<i>Smock</i>	24234	20	3-32	1000	2.25
<i>Smockable</i>	24235	18	4-32	1500	2.50
<i>Smoke</i>	24236	16	4-32	1000	2.75
<i>Smokelech</i>	24237	14	5-32	2000	3.75
<i>Smokeball</i>	24238	12	6-32	1500	4.50
<i>Smokebox</i>	24239	10	6-32	1000	5.50
<i>Smokejack</i>	24240	10	7-32	1500	6.25
<i>Smokeless</i>	24241	8	7-32	1000	7.50
<i>Smoker</i>	24242	8	8-32	1500	8.00
<i>Smokesail</i>	24243	6	9-32	1500	11.25

### Gauges from No. 20 to No. 4 Braided. Gauges above No. 4 Taped and Braided.

		Gauge B. & S.	Outside Diam. of Insulation.	Outside Diam. Braided.	Insulation Resistance per Mile. Megohms.	Price per 100 Feet.
<i>Smoketree</i>	24244	20	3-32	4-32	1000	2.50
<i>Smokily</i>	24245	18	4-32	5-32	1500	2.50
<i>Smokiness</i>	24246	16	4-32	5-32	1000	3.00
<i>Smokny</i>	24247	14	5-32	6-32	2000	3.85
<i>Smolder</i>	24248	12	6-32	7-32	1500	5.00
<i>Smoldry</i>	24249	10	6-32	7-32	1000	6.75
<i>Smolt</i>	24250	8	8-32	9-32	1500	9.00
<i>Smooth</i>	24251	6	9-32	10-32	1500	12.50
<i>Smother</i>	24252	4	11-32	12-32	1000	16.50
<i>Smoothing</i>	24253	2	13-32	14-32	1000	25.00
<i>Smoothly</i>	24254	1	15-32	16-32	1200	35.00

### Stranded Conductors.

#### Heavy Insulation, Taped and Braided.

		Gauge B. & S.	Outside Diam. of Insulation.	Outside Diam. Taped and Braided.	Insulation Resistance per Mile. Megohms.	Price per 100 Feet.
<i>Smoothness</i>	24255	8	9-32	11-32	1200	10.00
<i>Smoozando</i>	24256	6	10-32	12-32	1200	14.50
<i>Smöther</i>	24257	6	11-32	13-32	1500	17.50
<i>Smothery</i>	24258	4	12-32	14-32	1000	21.00
<i>Smouch</i>	24259	4	13-32	15-32	1500	25.00
<i>Smudge</i>	24260	2	15-32	17-32	1500	28.50
<i>Smug</i>	24261	1	16-32	18-32	1200	37.50
<i>Smuggle</i>	24262	0	19-32	21-32	1500	48.00
<i>Smugly</i>	24263	00	.....	22-32	1500	58.50
<i>Smugness</i>	24264	000	.....	24-32	1500	72.50
<i>Smuly</i>	24265	0000	.....	26-32	1500	90.00

## Safety Lead Incased Wire.

For Underground Purposes.

Covered with Heavy Rubber Insulation, Taped and Lead Incased.

Code Word.	List No.	Sizes, B. & S. Gauge.		Price per Foot.
<i>Sau</i>	24266	(0000)	Stranded,	\$1.00
<i>Sauvek</i>	24267	(000)	"	.90
<i>Suevriat</i>	24268	(00)	"	.80
<i>Suack</i>	24269	0	"	.70
<i>Suacklet</i>	24270	1	"	.64
<i>Suacat</i>	24271	1	Solid,	.60
<i>Suagffe</i>	24272	2	Stranded,	.56
<i>Suag</i>	24273	2	Solid,	.54
<i>Suaggepl</i>	24274	4	Stranded,	.50
<i>Suaggy</i>	24275	4	Solid,	.36
<i>Suall</i>	24276	6	Stranded,	.36
<i>Suake</i>	24277	6	Solid,	.32
<i>Suakeeroot</i>	24278	7	Stranded,	.30
<i>Suakeered</i>	24279	7	Solid,	.26
<i>Suakeeoad</i>	24280	8	Stranded,	.26
<i>Suakish</i>	24281	8	Solid,	.22
<i>Suaky</i>	24282	10	"	.18
<i>Suap</i>	24283	12	"	.12
<i>Suaplock</i>	24284	14	"	.07

## Safety Flexible Cables.

For Switchboards, Dynamos and Lamps.

Composed of Fine Copper Wire, No. 25 B. & S. Gauge, well Tinned  
Taped and Braided.

		Equal in Conductivity to B. & S. Gauge No.	Insulation Resistance per Mile, Megohms.	Price per 100 Feet.
<i>Snapper</i>	24285	14	1000	12.00
<i>Snappish</i>	24286	12	1000	13.00
<i>Snappishly</i>	24287	10	1000	13.50
<i>Snappy</i>	24288	9	1000	14.00
<i>Suare</i>	24289	8	1000	15.00
<i>Suart</i>	24290	6	1000	16.50
<i>Suarter</i>	24291	4	1000	20.00
<i>Suary</i>	24292	2	1000	30.00
<i>Suatch</i>	24293	1	1000	40.00
<i>Suatcher</i>	24294	0	1000	50.00
<i>Suatchingly</i>	24295	(00)	1000	60.00
<i>Suath</i>	24296	(000)	1000	75.00
<i>Suead</i>	24297	(0000)	1000	95.00

Safety White Core Wire.

Stranded Conductor.

Taped and Braided.

Code Word.	List No.	Gauge B. & S.	Outside Diam. of Insulation	Insulation Resistance per Mile Megohms	Price per 100 Feet
<i>Socle</i>	24380	0	21-32	1500	48.80
<i>Socman</i>	24381	00	22-32	1500	59.30
<i>Socmanry</i>	24382	000	24-32	1500	73.30
<i>Socky</i>	24379	0000	26-32	1500	90.80

Solid Conductor.

Gauges from No. 20 to No. 4 Braided. Gauges above No. 4 Taped and Braided.

		Gauge B. & S.	Outside Diam. of Insulation.	Outside Diam. Braided.	Insulation Resistance per Mile Megohms.	Price per 100 Feet.
<i>Socin</i>	24368½	20	3-32	4-32	1000	2.90
<i>Socinlness</i>	24369	18	4-32	5-32	1500	2.90
<i>Socinety</i>	24370	16	4-32	5-32	1000	3.40
<i>Socinet</i>	24371	14	5-32	6-32	2000	4.25
<i>Socinian</i>	24372	12	6-32	7-32	1500	5.40
<i>Socininnism</i>	24373	10	6-32	7-32	1000	7.15
<i>Socinology</i>	24374	8	8-32	9-32	1500	9.40
<i>Socinologic</i>	24375	6	9-32	10-32	1500	13.30
<i>Sock</i>	24376	4	11-32	12-32	1000	17.30
<i>Sockdobyger</i>	24377	2	13-32	14-32	1000	25.80
<i>Sockless</i>	24878	1	15-32	16-32	1200	35.80

Low Tension Simplex Cables.

Tape and Two Braids over Rubber.

Stranded Conductor.

Code Word.	List No.	Size.	Strands.	Weight per mile incl'd g Reels.	Outside Diameter.	Price per 1,000 Feet.
<i>Softlaw</i>	24413	2,000,000 C. M.	91	45,000	2 6-32	\$3247.60
<i>Softness</i>	24414	1,750,000	" 91	40,000	2 2-32	2859.80
<i>Soggy</i>	24415	1,500,000	" 91	35,000	1 30-32	2474.50
<i>Soil</i>	24416	1,250,000	" 61	20,000	1 25-32	2072.20
<i>Soiliness</i>	24417	1,000,000	" 61	23,000	1 18-32	1665.00
<i>Soilless</i>	24418	950,000	" 61	22,000	1 17-32	1578.90
<i>Soilure</i>	24419	900,000	" 61	21,000	1 16-32	1514.50
<i>Solly</i>	24420	850,000	" 61	20,000	1 15-32	1430.60
<i>Solire</i>	24421	800,000	" 61	19,000	1 13-32	1332.50
<i>Sojourn</i>	24422	750,000	" 61	18,000	1 12-32	1257.20
<i>Sojourner</i>	24423	700,000	" 61	17,000	1 11-32	1184.40
<i>Sojourning</i>	24424	650,000	" 61	16,000	1 10-32	1104.20
<i>Sol</i>	24425	600,000	" 61	15,000	1 9-32	1031.50
<i>Soluce</i>	24426	550,000	" 61	14,000	1 8-32	965.50
<i>Solucement</i>	24427	500,000	" 61	12,500	1 6-32	873.60
<i>Solacious</i>	24428	450,000	" 37	11,500	1 4-32	776.00
<i>Solaciousness</i>	24429	400,000	" 37	10,500	1 3-32	706.40
<i>Solander</i>	24430	350,000	" 37	9,000	1	609.60
<i>Solunine</i>	24431	300,000	" 37	8,000	31-32	540.90
<i>Solino</i>	24432	250,000	" 37	7,000	29-32	459.70

## Simplex Lead=Covered Cables, Low Tension.

Stranded Conductor.						
Code Word.	List No.	Size.	Strands.	Wall Lead.	Outside Diameter.	Price per 1,000 Ft.
<i>Socome</i>	24383	1,000,000 C. M.	61	3-32	1 22-32	\$1958.10
<i>Socutran</i>	24384	900,000	" 61	3-32	1 20-32	1837.48
<i>Socutrine</i>	24385	800,000	" 61	3-32	1 18-32	1677.84
<i>Socratic</i>	24386	700,000	" 61	3-32	1 13-32	1400.04
<i>Socratically</i>	24387	600,000	" 61	3-32	1 11-32	1254.60
<i>Socratism</i>	24388	500,000	" 61	5-64	1 8-32	1078.76
<i>Socratist</i>	24389	400,000	" 37	5-64	1 4-32	864.36
<i>Sod</i>	24390	300,000	" 37	5-64	1 1-32	705.40
<i>Soda</i>	24391	250,000	" 37	5-64	30-32	587.50
		B. & S. Gauge.				
<i>Sodalite</i>	24392	0000	37	5-64	29-32	540.40
<i>Sodality</i>	24393	000	37	5-64	27-32	458.40
<i>Sodaenter</i>	24394	00	19	5-64	25-32	381.86
<i>Sodden</i>	24395	0	19	5-64	24-32	342.88
<i>Soddy</i>	24396	1	19	1-16	20-32	245.44
<i>Soder</i>	24397	2	19	1-16	19-32	217.64
<i>Sodium</i>	24398	3	19	1-16	18-32	185.58
<i>Sodomite</i>	24399	4	19	1-16	17-32	163.50
<i>Sodomitical</i>	24400	6	19	1-16	16-32	138.16
Solid Conductor.						
<i>Sofa</i>	24401	1		1-16	19-32	224.52
<i>Sofett</i>	24402	2		1-16	18-32	195.58
<i>Sof</i>	24403	3		1-16	17-32	170.26
<i>Soffsm</i>	24404	4		1-16	16-32	147.32
<i>Soffiet</i>	24405	6		1-16	15-32	121.82
<i>Soff</i>	24406	8		1-16	14-32	101.00
<i>Soffen</i>	24407	10 (8-32)		3-64	12-32	67.26
<i>Soffener</i>	24408	10 (7-32)		3-64	10-32	56.32
<i>Soffish</i>	24409	12 (7-32)		3-64	10-32	53.62
<i>Soffling</i>	24410	12 (6-32)		3-64	9-32	49.80
<i>Soffly</i>	24411	14 (6-32)		3-64	9-32	48.28
<i>Soffman</i>	24412	14 (5-32)		3-64	8-32	39.96

**Simplex Caoutchouc Wire.**

**Solid Conductor, Braided.**

Code Word.	List No.	Size. B. & S. Gauge.	Diameter over Rubber.	Diameter over Braiding.	Price per Foot.
<i>Sneak</i>	24298	1	14-32	17-32	.31½
<i>Sneaker</i>	24299	2	13-32	16-32	.26½
<i>Sneaking</i>	24300	3	12-32	15-32	.22½
<i>Sneakingness</i>	24301	4	11-32	14-32	.17½
<i>Sneep</i>	24302	5	10-32	12-32	.15
<i>Sneck</i>	24303	6	9-32	11-32	.12½
<i>Sneckband</i>	24304	7	17-64	21-64	.11
<i>Sned</i>	24305	8	8-32	10-32	.09½
<i>Sneer</i>	24306	9	15-64	9-32	.08½
<i>Sneerer</i>	24307	10	7-32	8-32	.07½
<i>Sneerful</i>	24308	12	6-32	7-32	.05½
<i>Sneeringly</i>	24309	14	5-32	6-32	.03½
<i>Sneeze</i>	24310	16	9-34	11-64	.03½
<i>Sneezeweed</i>	24311	18	4-32	5-32	.03½

**Stranded Conductor, Braided.**

		Size B. & S. Gauge.	Number of Strands.	Diameter over Rubber.	Diameter over Braiding.	Price per Foot.
<i>Sneezevoort</i>	24312	0000	37	22-32	26-32	.76
<i>Sneezevoord</i>	24313	000	37	20-32	24-32	.64
<i>Snell</i>	24314	00	19	18-32	22-32	.50½
<i>Snep</i>	24315	0	19	17-32	21-32	.44½
<i>Snickup</i>	24316	1	19	15-32	18-32	.34½
<i>Snicker</i>	24317	2	19	14-32	17-32	.31½
<i>Sniff</i>	24318	3	7	13-32	16-32	.25
<i>Snift</i>	24319	4	7	12-32	15-32	.21½
<i>Snig</i>	24320	5	7	11-32	14-32	.17½
<i>Snigger</i>	24321	6	7	10-32	12-32	.14½
<i>Snigglo</i>	24322	7	7	19-64	23-64	.12½
<i>Snip</i>	24323	8	7	9-32	11-32	.11½
<i>Snipe</i>	24324	9	7	17-64	10-32	.11
<i>Snipebill</i>	24325	10	7	8-32	9-32	.09½
<i>Snipefish</i>	24326	12	7	7-32	8-32	.07½
<i>Snipper</i>	24327	14	7	6-32	7-32	.06½
<i>Snipsnap</i>	24328	16	7	5-32	6-32	.04½

## Climax Wire.

## Solid Conductors, Braided.

Code Word.	List No.	Size B. & S. Gauge.	Diameter over Rubber.	Diameter over Braiding.	Price per Foot.
<i>Smithy</i>	24329	1	14-32	16-32	\$.29½
<i>Snivel</i>	24330	2	13-32	15-32	.24½
<i>Sniveler</i>	24331	3	12-32	14-32	.20½
<i>Snivelg</i>	24332	4	11-32	25-64	.16½
<i>Snob</i>	24333	5	10-32	11-32	.13½
<i>Snobbery</i>	24334	6	9-32	10-32	.10½
<i>Snobbish</i>	24335	8	8-32	9-32	.08
<i>Snobbishly</i>	24336	10	7-32	8-32	.05½
<i>Snobbishness</i>	24337	12	6-32	7-32	.04½
<i>Snobbism</i>	24338	14	5-32	6-32	.03½

## Stranded Conductors, Braided.

		B. & S. Gauge.	No. of Strands.	Diam over Rubber.	Diam. over Braiding.	
<i>Sonking</i>	24339	0000	37	22-32	25-32	.73
<i>Sonky</i>	24340	000	37	20-32	23-32	.60½
<i>Soal</i>	24341	00	19	18-32	21-32	.48
<i>Soap</i>	24342	0	19	17-32	20-32	.41
<i>Soapsuds</i>	24343	1	19	15-32	17-32	.31½
<i>Soapwort</i>	24344	2	19	14-32	16-32	.26½
<i>Soapy</i>	24345	3	7	13-32	15-32	.21½
<i>Sour</i>	24346	4	7	12-32	27-64	.18
<i>Sob</i>	24347	5	7	11-32	12-32	.15½
<i>Sober</i>	24348	6	7	10-32	11-32	.12½
<i>Soberize</i>	24349	8	7	9-32	10-32	.09½
<i>Soberly</i>	24350	10	7	8-32	9-32	.07½

## Simplex Caoutchouc Mining Wire.

## Solid Conductor.

		B. & S. Gauge.	Diam. over Rubber.	Covering over Rubber.	
<i>Soberness</i>	24351	1	17-32	Tape and 3 Braids.	.44½
<i>Soboles</i>	24352	2	16-32	" 3 "	.39½
<i>Soboliferos</i>	24353	3	15-32	" 2 "	.33
<i>Sobryaty</i>	24354	4	14-32	" 2 "	.28½
<i>Sobriquet</i>	24355	5	12-32	3 Braids.	.21½
<i>Soc</i>	24356	6	11-32	3 "	.18½
<i>Socage</i>	24357	8	9-32	3 "	.13½
<i>Socager</i>	24358	10	8-32	3 "	.10½
<i>Sociability</i>	24359	12	7-32	3 "	.08½
<i>Sociable</i>	24360	14	6-32	3 "	.06½

## Stranded Conductor.

		B. & S. Gauge.	No. of Strands.	Diam over Rubber.	Covering over Rubber.	
<i>Sociableness</i>	24361	0000	37	26-32	Tape and 3 Braids.	1.03
<i>Sociably</i>	24362	000	37	24-32	" 3 "	.88½
<i>Social</i>	24363	00	19	22-32	" 3 "	.73½
<i>Socialism</i>	24364	0	19	20-32	" 3 "	.62½
<i>Socialist</i>	24365	1	19	18-32	" 3 "	.52½
<i>Socialistic</i>	24366	2	19	17-32	" 3 "	.44½
<i>Socialize</i>	24367	3	7	16-32	" 2 "	.36½
<i>Socially</i>	24368	4	7	15-32	" 2 "	.32½

## Magnet Wire.

## Single Cotton Covered.



Nos. 3879 to 3901.



Nos. 1700 to 1720.

Code Word.	List No.	B. & S. Gauge Size.	List Price.
<i>Alluminor</i>	3879	0000 Per pound.....	\$0.44
<i>Allured</i>	3880	000 " .....	.44
<i>Allusive</i>	3881	00 " .....	.44
<i>Allusively</i>	3882	0 " .....	.44
<i>Almandine</i>	3883	1 " .....	.43
<i>Almightily</i>	3884	2 " .....	.43
<i>Almighty</i>	3885	3 " .....	.43
<i>Almhouse</i>	3886	4 " .....	.43
<i>Aloz'</i>	3887	5 " .....	.44
<i>Aloud</i>	3888	6 " .....	.44
<i>Alph</i>	3889	7 " .....	.44
<i>Alphabet</i>	3890	8 " .....	.44
<i>Alpin</i>	3891	9 " .....	.46
<i>Already</i>	3892	10 " .....	.46
<i>Alt</i>	3893	11 " .....	.48
<i>Altar</i>	3894	12 " .....	.48
<i>Alterable</i>	3895	13 " .....	.54
<i>Alterage</i>	3896	14 " .....	.54
<i>Altered</i>	3897	15 " .....	.59
<i>Alternate</i>	3898	16 " .....	.56
<i>Alternative</i>	3899	17 " .....	.59
<i>Alternatively</i>	3900	18 " .....	.59
<i>Alternity</i>	3901	19 " .....	.60
<i>Jingling</i>	1700	20 " .....	.68
<i>Joan</i>	1701	21 " .....	.70
<i>Jockey</i>	1702	22 " .....	.76
<i>Jekeying</i>	1703	23 " .....	.83
<i>Joan</i>	1704	24 " .....	.90
<i>Jears</i>	1705	25 " .....	1.00
<i>Jeer</i>	1706	26 " .....	1.10
<i>Jeered</i>	1707	27 " .....	1.25
<i>Jeerer</i>	1708	28 " .....	1.35
<i>Jering</i>	1709	29 " .....	1.50
<i>Jungly</i>	1710	30 " .....	1.65
<i>Junior</i>	1711	31 " .....	1.80
<i>Jockeyism</i>	1712	32 " .....	1.95
<i>John</i>	1713	33 " .....	2.40
<i>Joinder</i>	1714	34 " .....	2.85
<i>Jollify</i>	1715	35 " .....	3.25
<i>Jolliment</i>	1716	36 " .....	4.37
<i>Jollity</i>	1717	37 " .....	6.75
<i>Jonas</i>	1718	38 " .....	9.00
<i>Jonathan</i>	1719	39 " .....	11.00
<i>Joseph</i>	1720	40 " .....	13.00

## Magnet Wire—(Continued).

## Double Cotton Covered



Nos. 3903 to 3924.



Nos. 1721 to 1741.

Code Word.	List No.	B. & S. Gauge Size.	Per pound.....	List Price.
<i>Although</i>	3902	0000	Per pound.....	\$0.45
<i>Altitude</i>	3903	000	"	.45
<i>Alum</i>	3904	00	"	.45
<i>Always</i>	3905	0	"	.45
<i>Amain</i>	3906	1	"	.43½
<i>Ambrose</i>	3907	2	"	.43½
<i>Ambrosia</i>	3908	3	"	.43½
<i>Ambrosial</i>	3909½	4	"	.43½
<i>Ambrosian</i>	3910	5	"	.45
<i>Ambry</i>	3911	6	"	.45
<i>Ambulant</i>	3912	7	"	.47
<i>Ambulate</i>	3913	8	"	.47
<i>Ambulation</i>	3914	9	"	.48½
<i>Ambulatioe</i>	3915	10	"	.48½
<i>Ambulatory</i>	3916	11	"	.52
<i>Ambuscode</i>	3917	13	"	.52
<i>Ambuscaded</i>	3918	13	"	.58
<i>Ambushed</i>	3919	14	"	.58
<i>Amelia</i>	3920	15	"	.60
<i>Amenable</i>	3921	16	"	.60
<i>Amend</i>	3922	17	"	.65½
<i>Amended</i>	3923	18	"	.65½
<i>Amendment</i>	3924	19	"	.71½
<i>Joyful</i>	1721	20	"	.74
<i>Joyfully</i>	1722	21	"	.88
<i>Joyfulness</i>	1723	22	"	.95
<i>Joyous</i>	1724	23	"	1.05
<i>Joyously</i>	1725	24	"	1.14
<i>Joyousness</i>	1726	25	"	1.27
<i>Jubilant</i>	1727	26	"	1.38
<i>Jubilate</i>	1728	27	"	1.57
<i>Jubilation</i>	1729	28	"	1.69
<i>Judah</i>	1730	25	"	1.89
<i>Judicial</i>	1731	30	"	2.07
<i>Judicious</i>	1732	31	"	2.23
<i>Josephine</i>	1733	32	"	2.28
<i>Joshua</i>	1734	33	"	2.85
<i>Josiah</i>	1735	34	"	3.42
<i>Jostle</i>	1736	35	"	3.88
<i>Jostled</i>	1737	36	"	4.93
<i>Joc</i>	1738	37	"	7.25
<i>Social</i>	1739	38	"	9.50
<i>Socialty</i>	1740	39	"	12.00
<i>Joy</i>	1741	40	"	15.00



## Magnet Wire—(Continued).

## Single Silk Covered.



Code Word.	List No.	No.	per pound.	List Price.
<i>Jeopardy</i>	1650	No 16	per pound	\$1.12
<i>Jebooa</i>	1651	" 17,	"	1.12
<i>Jeremiad</i>	1652	" 18,	"	1.15
<i>Jeremiah</i>	1653	" 19,	"	1.15
<i>Jerker</i>	1654	" 20,	"	1.18
<i>Jerkin</i>	1655	" 21,	"	1.20
<i>Jersey</i>	1656	" 22,	"	1.30
<i>Jerusha</i>	1657	" 23,	"	1.42
<i>Jerwin</i>	1658	" 24,	"	1.56
<i>Jested</i>	1659	" 25,	"	1.81
<i>Jester</i>	1660	" 26,	"	2.10
<i>Jestful</i>	1661	" 27,	"	2.25
<i>Jesting</i>	1662	" 28,	"	2.38
<i>Jesuit</i>	1663	" 29,	"	2.75
<i>Jehovah</i>	1664	" 30,	"	2.95
<i>Jehovist</i>	1665	" 31,	"	3.25
<i>Jelly</i>	1666	" 32,	"	3.45
<i>Jemina</i>	1667	" 33,	"	3.90
<i>Jennet</i>	1668	" 34,	"	4.10
<i>Jenneting</i>	1669	" 35,	"	5.85
<i>Jentling</i>	1670	" 36,	"	7.00
<i>Jeopard</i>	1671	" 37,	"	11.00
<i>Jeoparder</i>	1672	" 38,	"	13.00
<i>Jeoparding</i>	1673	" 39,	"	15.00
<i>Jeopardize</i>	1674	" 40,	"	20.00

## Double Silk Covered.

Code Word.	List No.	No. 16,	per pound.	List Price.
<i>Jesuitic</i>	1675	No 16,	per pound	1.53
<i>Jetsam</i>	1676	" 17	"	1.53
<i>Jettison</i>	1677	" 18	"	1.57
<i>Jettoau</i>	1678	" 19	"	1.57
<i>Jetty</i>	1679	" 20,	"	1.61
<i>Jewel</i>	1680	" 21,	"	1.63
<i>Jeweled</i>	1681	" 22,	"	1.76
<i>Jeweler</i>	1682	" 23,	"	1.93
<i>Jeweling</i>	1683	" 24,	"	2.13
<i>Jewelry</i>	1684	" 25,	"	2.48
<i>Jewess</i>	1685	" 26,	"	2.88
<i>Jewish</i>	1686	" 27,	"	3.07
<i>Jib</i>	1687	" 28,	"	3.23
<i>Jibboom</i>	1688	" 29,	"	3.76
<i>Jibdoor</i>	1689	" 30,	"	4.02
<i>Jibe</i>	1690	" 31,	"	4.40
<i>Jibing</i>	1691	" 32,	"	4.53
<i>Jigger</i>	1692	" 33,	"	5.10
<i>Jiggish</i>	1693	" 34,	"	5.30
<i>Jiggling</i>	1694	" 35,	"	7.78
<i>Jill</i>	1695	" 36,	"	8.88
<i>Jilted</i>	1696	" 37,	"	13.63
<i>Jilting</i>	1697	" 38,	"	14.50
<i>Jingle</i>	1698	" 39,	"	18.00
<i>Jingled</i>	1699	" 40,	"	23.00

## German Silver Resistance Wire.

WOUND WITH COTTON OR SILK—COVERING FIRMLY ADHERING TO THE WIRE—AMERICAN OR BROWN & SHARPE GAUGE.

## Cotton Covered.



	List Price Single.		List Price Double.
No. 16, per pound.....	\$1.40	No. 16, per pound.....	\$1.70
" 17, " .....	1.40	" 17, " .....	1.70
" 18, " .....	1.40	" 18, " .....	1.70
" 19, " .....	1.40	" 19, " .....	1.70
" 20, " .....	1.42	" 20, " .....	1.74
" 21, " .....	1.44	" 21, " .....	1.75
" 22, " .....	1.52	" 22, " .....	1.83
" 23, " .....	1.62	" 23, " .....	1.98
" 24, " .....	1.71	" 24, " .....	2.09
" 25, " .....	1.84	" 25, " .....	2.26
" 26, " .....	2.05	" 26, " .....	2.48
" 27, " .....	2.25	" 27, " .....	2.73
" 28, " .....	2.45	" 28, " .....	2.98
" 29, " .....	2.60	" 29, " .....	3.13
" 30, " .....	2.84	" 30, " .....	3.38
" 31, " .....	3.09	" 31, " .....	3.66
" 32, " .....	3.59	" 32, " .....	4.21
" 33, " .....	3.96	" 33, " .....	4.64
" 34, " .....	4.61	" 34, " .....	5.44
" 35, " .....	5.01	" 35, " .....	5.69
" 36, " .....	8.09	" 36, " .....	8.88
" 37, " .....	13.00	" 37, " .....	13.75
" 38, " .....	24.00	" 38, " .....	27.00
" 39, " .....	27.00	" 39, " .....	30.00
" 40, " .....	30.00	" 40, " .....	33.00

## Silk Covered.



	List Price Single.		List Price Double.
No. 16, per pound.....	1.85	No. 16, per pound.....	2.38
" 17, " .....	1.85	" 17, " .....	2.38
" 18, " .....	1.85	" 18, " .....	2.38
" 19, " .....	1.85	" 19, " .....	2.38
" 20, " .....	1.88	" 20, " .....	2.43
" 21, " .....	1.93	" 21, " .....	2.48
" 22, " .....	2.06	" 22, " .....	2.64
" 23, " .....	2.21	" 23, " .....	2.87
" 24, " .....	2.37	" 24, " .....	3.08
" 25, " .....	2.65	" 25, " .....	3.48
" 26, " .....	3.02	" 26, " .....	3.93
" 27, " .....	3.23	" 27, " .....	4.20
" 28, " .....	3.42	" 28, " .....	4.43
" 29, " .....	3.85	" 29, " .....	5.00
" 30, " .....	4.14	" 30, " .....	5.33
" 31, " .....	4.52	" 31, " .....	5.81
" 32, " .....	4.94	" 32, " .....	6.23
" 33, " .....	5.46	" 33, " .....	6.89
" 34, " .....	5.84	" 34, " .....	7.29
" 35, " .....	7.52	" 35, " .....	9.45
" 36, " .....	10.00	" 36, " .....	11.75
" 37, " .....	18.50	" 37, " .....	22.00
" 38, " .....	28.00	" 38, " .....	33.00
" 39, " .....	30.00	" 39, " .....	40.00
" 40, " .....	45.00	" 40, " .....	50.00

## Weatherproof Wire—Triple Braid.

SPECIAL PRICES QUOTED ON APPLICATION.



Code Word.	List No.	Size, B. & S. Gauge.	Circular Mills.	Weight per 1,000 ft.	Weight per Mile.	Price per lb.
<i>Notify</i>	6761	....	500000.	1867	9858	.....
<i>Notion</i>	6762	....	450000.	1680	8870	.....
<i>Nimbleness</i>	6763	....	400000.	1493	7883	.....
<i>Nimb</i>	6764	....	350000.	1307	6901	.....
<i>Nimbus</i>	6765	....	300000.	1120	5914	.....
<i>Ninefold</i>	6766	....	250000.	993	4926	.....
<i>Ninepins</i>	6768	0000	211600.	739	3902	.....
<i>Ninny</i>	6769	000	167805.	598	3157	.....
<i>Nip</i>	6770	00	133079.2	485	2561	.....
<i>Nippers</i>	6771	0	105534.0	395	2086	.....
<i>Nitid</i>	6772	1	83694.0	313	1653	.....
<i>Niter</i>	6773	2	66373.0	251	1325	.....
<i>Nitrate</i>	6774	3	52633.4	205	1082	.....
<i>Nitric</i>	6775	4	41742.5	168	887	.....
<i>Nitrogen</i>	6776	5	33102.3	139	734	.....
<i>Nitrous</i>	6777	6	26250.5	113	597	.....
<i>Nobility</i>	6778	8	16509.0	74	391	.....
<i>Noble</i>	6779	10	10381.0	51	269	.....
<i>Nobleman</i>	6780	12	6529.9	27	170	.....
<i>Nobleness</i>	6781	14	4107.	23	118	.....
<i>Noblesse</i>	6782	16	2583.	16	81	.....
<i>Nobly</i>	6783	18	1624.	12	58	.....

## Weatherproof Wire—Triple Braid.

SPECIAL PRICES QUOTED ON APPLICATION.

## Hard Drawn Copper.

<i>Havsted</i>	8749	No.	S. B. & S.,	per mile.	.....
<i>Havsting</i>	8750	"	9,	"	.....
<i>Havoc</i>	8751	"	10,	"	.....
<i>Havok</i>	8752	"	12,	"	.....
<i>Havoking</i>	8753	"	14,	"	.....

## Triple Braid Weatherproof Iron Wire.

SPECIAL PRICES QUOTED ON APPLICATION.

<i>Hazard</i>	9073	No.	S. B. W. G.,	per mile.	.....
<i>Hazardcd</i>	9074	"	9,	"	.....
<i>Hazarding</i>	9075	"	10,	"	.....
<i>Hazardous</i>	9076	"	11,	"	.....
<i>Helen</i>	9077	"	12,	"	.....
<i>Henry</i>	9078	"	14,	"	.....

## Underwriters' Wire.

SPECIAL PRICES QUOTED ON APPLICATION.



Code Word.	List No.	Nos. B. & S. Gauge.	APPROXIMATE WEIGHT INSULATED.		Price per lb.
			Per 1,000 ft.	Per Mile.	
<i>Jabber</i>	1600	0000	670	3538	.....
<i>Jabberer</i>	1601	000	555	2930	.....
<i>Jabbering</i>	1602	00	440	2323	.....
<i>Jacamar</i>	1603	0	356	1880	.....
<i>Jackal</i>	1604	1	284	1500	.....
<i>Jackanapes</i>	1605	2	235	1240	.....
<i>Jackass</i>	1606	3	190	1003	.....
<i>Jackblock</i>	1607	4	158	834	.....
<i>Jackdane</i>	1608	5	127	670	.....
<i>Jacob</i>	1609	6	102	538	.....
<i>Jacobi</i>	1610	7	85	449	.....
<i>Jacobine</i>	1611	8	69	364	.....
<i>Jacobinize</i>	1613 1/2	10	47	252	.....
<i>Jacobus</i>	1615	12	31	163	.....
<i>Jade</i>	1617	14	20	105	.....
<i>Jading</i>	1619	16	15	79	.....
<i>Jagged</i>	1621	18	..	....	.....

## Fire and Weatherproof Wire.

SPECIAL PRICES QUOTED ON APPLICATION.

## Triple Braid.



<i>Japanner</i>	1624	0000	753	3977	.....
<i>Jarble</i>	1625	000	594	3136	.....
<i>Jargie</i>	1626	00	500	2640	.....
<i>Jargon</i>	1627	0	375	1980	.....
<i>Jasmin</i>	1628	1	304	1605	.....
<i>Jasper</i>	1629	2	250	1320	.....
<i>Jaspoid</i>	1630	3	210	1108	.....
<i>Jaundice</i>	1631	4	169	892	.....
<i>Javel</i>	1632	5	135	712	.....
<i>Jacelin</i>	1633	6	110	580	.....
<i>Jacbone</i>	1634	7	93	491	.....
<i>Jay</i>	1635	8	80	422	.....
<i>Jaguar</i>	1637	10	55	290	.....
<i>Jambee</i>	1639	12	38	200	.....
<i>Jane</i>	1641	14	26	137	.....
<i>Jangle</i>	1643	16	20	106	.....
<i>Jangling</i>	1645	18	...	...	.....

Flexible Incandescent Lamp Cord.

Taped.



Silk Covered.

Code Word.	List No.	Gauge.	Conductor.	Price per Yard.
<i>Cannibal</i>	3956	No. 22, B. & S.	10x30 Wires.	\$ .12
<i>Cannon</i>	3957	" 20, "	14x30 "	.12
<i>Cannondale</i>	3958	" 18, "	16x30 "	.16
<i>Canny</i>	3959	" 16, "	25x30 "	.19
<i>Canoe</i>	3960	" 14, "	40x30 "	.29
<i>Canonical</i>	3961	" 12, "	60x30 "	.40
<i>Canonize</i>	3962	" 10, "	118x30 "	.50

Cotton or Worsted.

		Gauge.	Conductor.	
<i>Canopy</i>	3963	No. 22, B. & S.	10x30 Wires.	.07
<i>Cantata</i>	3964	" 20, "	14x30 "	.07
<i>Cantation</i>	3965	" 18, "	16x30 "	.09
<i>Canteen</i>	3966	" 16, "	25x30 "	.12
<i>Canter</i>	3967	" 14, "	40x30 "	.21
<i>Canterbury</i>	3968	" 12, "	60x30 "	.32
<i>Cantering</i>	3969	" 10, "	118x30 "	.42

Unless otherwise specified, we furnish on orders green and gold.

Galvanized Steel Wire Strand.



	7 Wires.	No.	Diam.	Weight per 100 Feet.	Breaking Strength.	Per 100 ft.
<i>Aboriginal</i>	3052	8	5/8 in.	52 lbs.	8,320 lbs.	2.40
<i>Aborigines</i>	3053	9	11/8 "	42 "	6,720 "	2.05
<i>Aborsement</i>	3054	10	7/8 "	36 "	6,720 "	1.80
<i>Acove</i>	3055	11	3/4 "	29 "	4,640 "	1.50
<i>Acoupling</i>	3056	12	5/8 "	21 "	3,360 "	1.15
<i>Coupon</i>	3057	13	3/8 "	16 "	2,560 "	.90
<i>Abound</i>	3058	14	17/16 "	12 "	1,920 "	.70
<i>Abounding</i>	3059	15	1/4 "	10 "	1,600 "	.60
<i>Abore</i>	3060	16	7/16 "	8 "	1,280 "	.55
<i>Abrade</i>	3061	17	3/16 "	6 5/16 "	960 "	.42
<i>Abraham</i>	3092	18	1/4 "	4 3/4 "	688 "	.38
<i>Abrasion</i>	3063	19	5/16 "	3 5/16 "	528 "	.35
<i>Abreast</i>	3093	20	1/8 "	2 1/16 "	384 "	.30
<i>Abridge</i>	3065	21	3/32 "	2 "	320 "	.28

Galvanized Arc Lamp Cord.

With Hemp Center.



		No.	Diam.	Per 100
<i>Somnifrons</i>	25075	No.	5/16 inch	031
<i>Knock</i>	19760	No. 26,	1/4 inch	.022
<i>Knocked</i>	19761	" 27,	3/8 "	.021
<i>Knocker</i>	19762	" 27 1/2,	3/8 "	.014
<i>Knocking</i>	19763	" 28,	1/2 "	.014
<i>Knoll</i>	19764	" 29,	1/8 "	.01

Samson Cordage.



			Per lb
<i>Larcinating</i>	2695	Cotton, 3/8 inch diameter	.75
<i>Lordliness</i>	2696	" 3/4 "	.75
<i>Lordly</i>	2697	Linen 3/4 "	1.20
<i>Lordship</i>	2698	" 3/4 "	1.20

Electric Light Elevator Cable.



			Per ft.
<i>Clarify</i>	2097	Flexible, two conductors, No. 16	.30

## Flexible Incandescent Lamp Cord,

## Vulcanite.

		Silk Covered.		List Price. Per Yard.
Code Word.	List No.	Gauge.	Conductor.	
<i>Solitude</i>	25025	No. 22, B. & S.	10 x 30 Wires.	\$0.12
<i>Sollar</i>	25026	" 20, "	14 x 30 "	.12
<i>Solo</i>	25027	" 18, "	16 x 30 "	.16
<i>Solstice</i>	25028	" 16, "	25 x 30 "	.19
<i>Solstitial</i>	25029	" 14, "	40 x 30 "	.29
<i>Solubility</i>	25030	" 12, "	60 x 30 "	.40
<i>Soluble</i>	25031	" 10, "	118 x 30 "	.50

## Cotton or Worsted.

<i>Sotubleness</i>	25032	No. 22, B. & S.	10 x 30 Wires.	.07
<i>Sotus</i>	25033	" 20, "	14 x 30 "	.07
<i>Solute</i>	25034	" 18, "	16 x 30 "	.09
<i>Solution</i>	25035	" 16, "	25 x 30 "	.12
<i>Sotive</i>	25036	" 14, "	40 x 30 "	.21
<i>Sotubility</i>	25037	" 12, "	60 x 30 "	.32
<i>Sotvable</i>	25038.	" 10, "	118 x 30 "	.42

Unless otherwise specified, we furnish on orders green and gold.

## Moulded.

		Silk Covered.		List Price. Per Yard.
Code Word.	List No.	Gauge.	Conductor.	
<i>Sotubleness</i>	25039	No. 22, B. & S.	10 x 30 Wires.	.12
<i>Solve</i>	25040	" 20, "	14 x 30 "	.12
<i>Solvency</i>	25041	" 18, "	16 x 30 "	.16
<i>Solvent</i>	25042	" 16, "	25 x 30 "	.19
<i>Solver</i>	25043	" 14, "	40 x 30 "	.29
<i>Somatice</i>	25044	" 12, "	60 x 30 "	.40
<i>Somatical</i>	25045	" 10, "	118 x 30 "	.50

## Cotton or Worsted.

<i>Somattes</i>	25046	No. 22, B. & S.	10 x 30 Wires.	.07
<i>Somatist</i>	25047	" 20, "	14 x 30 "	.07
<i>Somatology</i>	25048	" 18, "	16 x 30 "	.09
<i>Somatotomy</i>	25049	" 16, "	25 x 30 "	.12
<i>Somber</i>	25050	" 14, "	40 x 30 "	.21
<i>Somberly</i>	25051	" 12, "	60 x 30 "	.32
<i>Somberness</i>	25052	" 10, "	118 x 30 "	.42

Unless otherwise specified, we furnish on orders green and gold.

## Special Packing House Cord.

For use in all places where cord is exposed to action of steam and brine.

Code Word.	List No.	Gauge.	Conductor.	Per Foot
<i>Aerace</i>	25605	No. 16 B. & S.	.....	.12
<i>Aerace</i>	25606	No. 18 "	.....	.09
<i>Aerace</i>	25607	No. 20 "	.....	.08

## Cotton Sleaving.

				Price Per 100 Yards.
Code Word.	List No.	Gauge.	Conductor.	
<i>Sombrero</i>	25053	No. 1, for No. 16 B. & S. Bare Copper Wire	.....	.90
<i>Sombrous</i>	25054	" 2, " 11 "	.....	.90
<i>Sombrously</i>	25055	" 3, " 5 "	.....	1.20
<i>Somedical</i>	25056	" 4, " 4 "	.....	1.50
<i>Somewhat</i>	25057	" 5, " 3 "	.....	2.40
<i>Sommiel</i>	25058	" 6, " 1 "	.....	3.00
<i>Somnambula</i>	25059	" 7, " 0 "	.....	4.00

**Braided Office Wire.**



Approximate Weight.	
No.	Ft. to lb.
No. 4.....	8
" 6.....	12
" 8.....	20
" 12.....	40
" 13.....	45
" 14.....	60

Code Word.	List No.	No. 12, per pound.....	No. 16, ".....	No. 18, ".....	No. 20, ".....	List Price.
<i>Pacific</i>	15800					\$ .40
<i>Paducah</i>	15801					.42
<i>Paige</i>	15802					.44
<i>Paisley</i>	15804					.46
<i>Pajaro</i>	15805					.48

**Weatherproof Office Wire.**

<i>Palistine</i>	15810	No. 14, per pound.....	.46
<i>Palisade</i>	15811	" 16, ".....	.48
<i>Palmer</i>	15812	" 18, ".....	.50
<i>Palmyra</i>	15813	" 20, ".....	.52

**Office Cables.**

From 10 to 100 conductors, made of any size to No. 20 B. & S. gauge copper wire, covered with cotton, compactly cabled together, and braided in any color or combination of colors.  
 Paraffine finish, per pound..... **.50**  
 Paint finish, per pound..... **.50**  
 Finer conductors subject to special prices.

**Annunciator Wire.**

**Double-Wound.**



**Approximate Weight.**

No.	Ft. to lb.	No. 18.	Ft. to lb.
No. 12.....	45	" 19.....	160
" 14.....	67	" 20.....	200
" 16.....	103		225

<i>Palo</i>	15820	No. 14, per pound.....	.36
<i>Pana</i>	15821	" 16, ".....	.38
<i>Panana</i>	15822	" 18, ".....	.40
<i>Panora</i>	15823	" 19, ".....	.42
<i>Paola</i>	15824	" 20, ".....	.44
<i>Paradise</i>	15825	" 22, ".....	.46

**Double Conductor Annunciator Wire.**

<i>Paragon</i>	15830	No. 16, per pound.....	.42
<i>Parham</i>	15831	" 18, ".....	.44

**Gas Fixture Wire.**

**For Lighting Gas by Electricity.**

**White, Yellow or Brown.**

<i>Paris</i>	15835	No. 22. Triple cotton covered, per pound	.90
<i>Parkdale</i>	15836	" 24. " " " "	1.00
<i>Parker</i>	15837	" 24. Five " " " "	1.50
<i>Parma</i>	15838	" 26. Triple " " " "	1.35
<i>Parnell</i>	15840	No. 22. Triple covered, silk outside, per lb.	2.00
<i>Parsons</i>	15841	" 24. " " " "	2.50
<i>Pasco</i>	15842	" 24. Five " " " "	3.00
<i>Passaic</i>	15843	" 26. Triple " " " "	2.75

In ordering specify color wanted.

## Lead Covered Wire.

Code wor.l.	List No.	Single Conductor.	List Price.
<i>Patters</i>	15845	No. 14, B. & S. gauge, per foot.....	.07
<i>Patoka</i>	15846	" 16, " " " " .....	.05½
<i>Paton</i>	15847	" 18, " " " " .....	.04½

## Double Conductor.

<i>Plattville</i>	15848	No. 14, B. & S. gauge, per foot.....	.14
<i>Pauline</i>	15849	" 16, " " " " .....	.11
<i>Pavillion</i>	15850	" 18, " " " " .....	.09

## Three Conductor.

<i>Pawnee</i>	15851	No. 14, B. & S. gauge, per foot.....	21
<i>Pawtucket</i>	15852	" 16, " " " " .....	16½
<i>Paxton</i>	15853	" 18, " " " " .....	13½

## Platinum Wire.

<i>Payne</i>	15860	No. 12, per inch.....	1.00
<i>Payson</i>	15861	" 14, " .....	.75
<i>Peabody</i>	15862	" 16, " .....	.60
<i>Pike</i>	15863	" 18, " .....	.40
<i>Pilot</i>	15864	" 20, " .....	.30
<i>Pinkard</i>	15865	" 22, " .....	.20
<i>Pine</i>	15866	" 24, " .....	.15
<i>Pioneer</i>	15867	" 26, per foot.....	.85
<i>Piqua</i>	15868	" 28, " .....	.70
<i>Pittsfield</i>	15869	" 30, " .....	.50
<i>Plainfield</i>	15870	" 32, " .....	.35
<i>Plainville</i>	15871	" 34, " .....	.25
<i>Plano</i>	15872	" 36, " .....	.20

## Approximate weight of platinum wire per foot.

No. 12.....	310.7	grains
" 14.....	195.4	"
" 16.....	122.8	"
" 18.....	77.3	"
" 20.....	48.6	"
" 22.....	30.6	"
" 24.....	19.2	"
" 26.....	12.1	"
" 28.....	7.60	"
" 30.....	4.79	"
" 32.....	3.01	"
" 34.....	1.89	"
" 36.....	1.19	"




## Pliable Cord.

## Bare Tinsel Cord.

Code Word.	List No.		List Price, Per Yard.
 Plover	15875	Gold, small.....	\$ .06
Plymouth	15876	Gold, large.....	.08


## Covered Tinsel Cord.

## Single Conductor.


 Pocahontas	15877	Silk covered, gold, No. 15875 .....	.10
Polk	15878	Worsted " " " " .....	.08
Pomeroy	15879	Linen " " " " .....	.10
Pomona	15880	Worsted " silver.....	.12

## Double Conductor.


## For Pear-shaped Push.

 Ponquet	15881	Silk covered, No. 15875.....	.21
Ponca	15882	Worsted " " " " .....	.15


## For Floor Push.

 Pontiac	15883	Silk covered, No. 15876.....	.24
Poplar	15884	Worsted " " " " .....	.18

## For Loops, Extra Heavy.

 Portage	15885	Silk covered.....	.36
Posey	15886	Linen " .....	.27


## Special.

 Potosi	15887	Several strands of linen thread covered with bare tinsel wire; second covering of spiral iron wire covered with linen.....	.12
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## Copper Conducting Cords.

## Single Conductor.

Composed of 25 wires No. 32, equal to No. 18 B. & S. gauge.

 Potsdam	15890	Silk covered.....	.12
Poncell	15891	Worsted " .....	.10


Composed of 40 wires No. 31, equal to No. 16 B. & S. gauge.

 Pratt	15892	Silk covered.....	.15
Preble	15893	Worsted " .....	.12

Composed of 40 wires No. 30, equal to No. 14 B. & S. gauge.


 Prentice	15895	Silk covered.....	.18
Prescott	15896	Worsted " .....	.15

Composed of 51 wires No. 29, equal to No. 12 B. & S. gauge.

 Pritchards	15894	Silk covered.....	.21
Prospect	15897	Worsted " .....	.18

## Double Conductor.

Each conductor same capacity as No. 14.

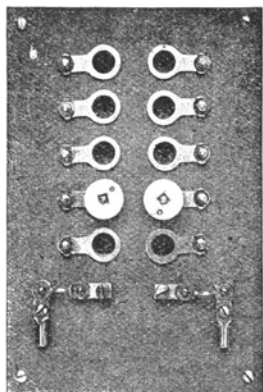
 Provo	15898	Silk covered.....	.45
Pueblo	15899	Worsted " .....	.36

# APPENDIX.

## Richmond Plug Cut-Out.

### Panel Board.

Patented Dec. 21, 1897.



We illustrate a Panel Board having the branch circuits protected by Fuse Plugs.

These Boards are especially designed for Cut-Out Cabinets and can be made with any number of circuits, for use on the 2-wire or 3-wire systems.

The sockets for the plugs are formed in the slate base and the plugs screw into the bus bars in the back.

The Fuse Plugs are made of porcelain, in one piece, and are intended to be re-fused. New Fuses can be put in without the use of solder.

The Fuse, being entirely enclosed in the socket, cannot blow out through the front when melted.

Code Word.	List No.		List Price. Each.
<i>Acred</i>	25608	4 Circuit, without Switches	\$ 8.00
<i>Acredale</i>	25609	6 " " "	10.00
<i>Acredit</i>	25610	8 " " "	12.50
<i>Acreditly</i>	25611	10 " " "	14.00
<i>Acreditness</i>	25612	12 " " "	15.50
<i>Acrim</i>	25613	4 " with Switches	12.40
<i>Acrimini</i>	25614	6 " " "	16.50
<i>Acrimohious</i>	25615	8 " " "	21.00
<i>Acrimony</i>	25616	10 " " "	23.50
<i>Acrisy</i>	25617	12 " " "	27.00

Prices on other sizes quoted on application.



No. 25618.

### Fuse Plugs.

For use with Richmond Panel Boards.

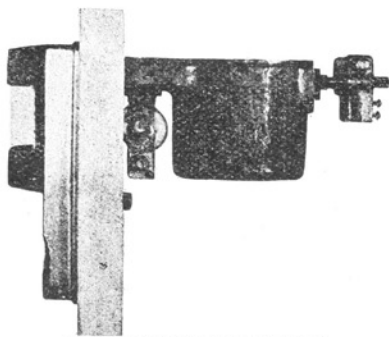
<i>Acrity</i>	25618	3 Ampere capacity	.15
<i>Acrityan</i>	25619	6 " "	.15
<i>Acrityol</i>	25620	9 " "	.15

### Fuses.

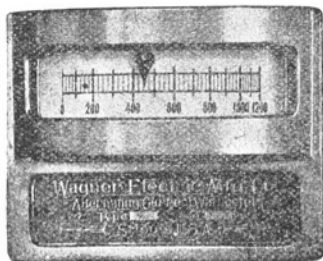
<i>Acrity</i>	25621	3 Ampere capacity	.05
<i>Acrityol</i>	25622	6 " "	.05
<i>Acrityotic</i>	25623	9 " "	.05



Front View of Wagner Co.'s Ammeter.



Side View of Wagner Co.'s Ammeter.



The Wagner Co.'s Wattmeter.

## Wagner Electric Mfg. Co.'s Dead-Beat Illuminated-Dial Switchboard Instruments.

This line of instruments embodies many novel features. The instrument cases extend through the board, and the scales are illuminated by two 10 candle power lamps which stand sufficiently far back to also illuminate the rear of the switchboard. The movements are floated in a light colorless oil for the purpose of securing perfectly dead beat action. The cases are highly japanned in black, while the front covers are of polished brass. The instruments are extremely sensitive, yet absolutely devoid of continuous oscillations which make it difficult to get an accurate reading on most alternating current instruments. The line includes ammeters, voltmeters and wattmeters for alternating current, and these will shortly be followed by a corresponding line for direct currents. Ammeters up to 100 amperes capacity take the entire current, above that amount a series transformer is provided. Prices below include this series transformer. Voltmeters are wound for the voltage indicated. Wattmeter pressure coils are wound for 100 volts. Series transformers are provided for series coils of all wattmeters when the series current is over five amperes.

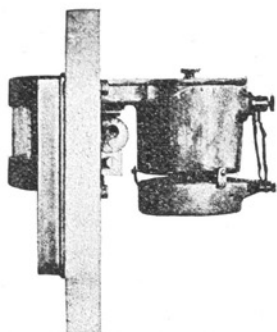
### Ammeters.

Including Series Transformer.

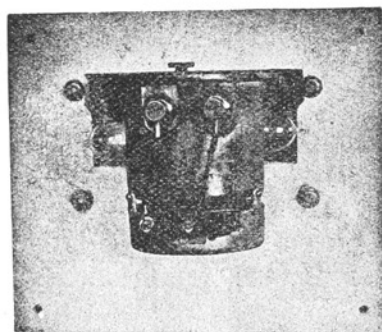
Code Word.	List No.	Scale,	List Price
<i>Aerchord</i>	25624	Scale, 0 to 10 amperes	\$45.00
<i>Aerchordus</i>	25625	0 to 15 "	45.00
<i>Aerogan</i>	25626	0 to 25 "	45.00
<i>Aeroline</i>	25627	0 to 50 "	45.00
<i>Aeropolis</i>	25628	0 to 75 "	45.00
<i>Aerospire</i>	25629	0 to 100 "	55.00
<i>Aerospired</i>	25630	0 to 150 "	55.00
<i>Aeross</i>	25631	0 to 200 "	60.00
<i>Aeroter</i>	25632	0 to 250 "	60.00
<i>Aeroterrial</i>	25633	0 to 300 "	65.00
<i>Aerotic</i>	25634	0 to 400 "	70.00
<i>Act</i>	25635	0 to 500 "	75.00
<i>Action</i>	25636	0 to 600 "	75.00
<i>Actinia</i>	25637	0 to 700 "	75.00
<i>Actinic</i>	25638	0 to 800 "	75.00
<i>Actiniform</i>	25639	0 to 900 "	75.00
<i>Actinoid</i>	25640	0 to 1000 "	80.00
<i>Actinolite</i>	25641	0 to 1200 "	80.00
<i>Actinolite</i>	25642	0 to 1500 "	85.00
<i>Action</i>	25643	0 to 2000 "	90.00

### Voltmeters.

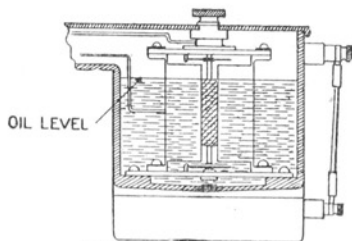
<i>Actionable</i>	25644	Scale, 0 to 60 volts	50.00
<i>Actionably</i>	25645	0 to 120 "	55.00
<i>Actionary</i>	25646	0 to 150 "	60.00



Side View of Wagner Co's Voltmeter.



Rear View of Wagner Co's Voltmeter.



Section Showing Oil Level.

## Wagner Electric Mfg. Co.'s Instruments.

—(Continued.)

## Wattmeters.

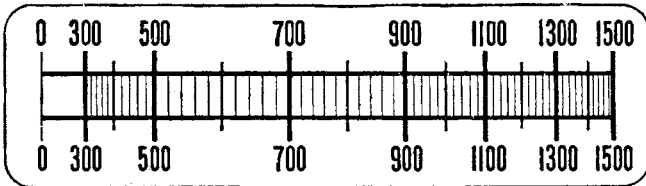
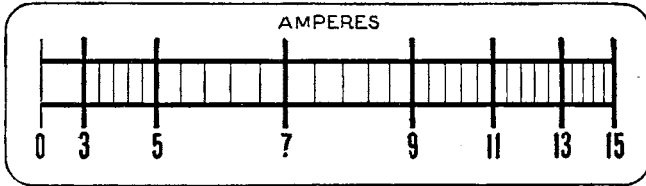
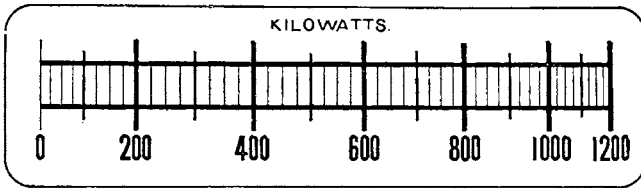
Code Word	List No	Scale, 0 to	List Price
<i>Actionist</i>	25647	100 watts	\$65.00
<i>Actionsermo</i>	25648	0 to 200 "	65.00
<i>Actitation</i>	25649	0 to 300 "	65.00
<i>Activate</i>	25650	0 to 400 "	65.00
<i>Active</i>	25651	0 to 500 "	65.00
<i>Actively</i>	25652	0 to 750 "	65.00
<i>Activeness</i>	25653	0 to 1000 "	65.00
<i>Activity</i>	25654	0 to 2 kilowatts	65.00
<i>Actless</i>	25655	0 to 3 "	70.00
<i>Actor</i>	25656	0 to 5 "	70.00
<i>Actual</i>	25657	0 to 10 "	75.00
<i>Actuality</i>	25658	0 to 25 "	75.00
<i>Actualization</i>	25659	0 to 50 "	95.00
<i>Actualize</i>	25660	0 to 75 "	95.00
<i>Actually</i>	25661	0 to 100 "	100.00
<i>Actualness</i>	25662	0 to 200 "	110.00
<i>Actuation</i>	25663	0 to 300 "	110.00
<i>Actuator</i>	25664	0 to 500 "	120.00
<i>Actuase</i>	25665	0 to 750 "	125.00
<i>Actuosity</i>	25666	0 to 1000 "	130.00
<i>Acture</i>	25667	0 to 1200 "	135.00
<i>Acution</i>	25668	0 to 1500 "	140.00
<i>Acutidator</i>	25669	0 to 2000 "	150.00

## Pressure Reducing Transformers.

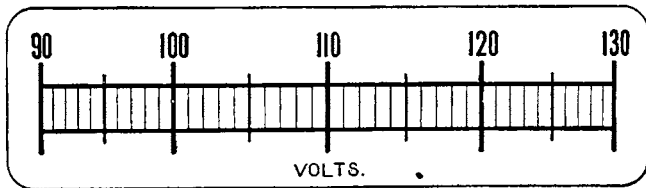
Where pressure reducing transformers for Wagner Co.'s instruments are desired, these will be furnished at following prices:

<i>Acuteness</i>	25670	1000 to 100 volts	\$20.00
<i>Adage</i>	25671	2000 to 100 "	30.00
<i>Adapter</i>	25672	3000 to 100 "	30.00
<i>Adaptive</i>	25673	5000 to 100 "	42.00

Damping oil, lamps and template for mounting are furnished with each instrument. The lamps are 75 volts, operating two in series on 110 volts.

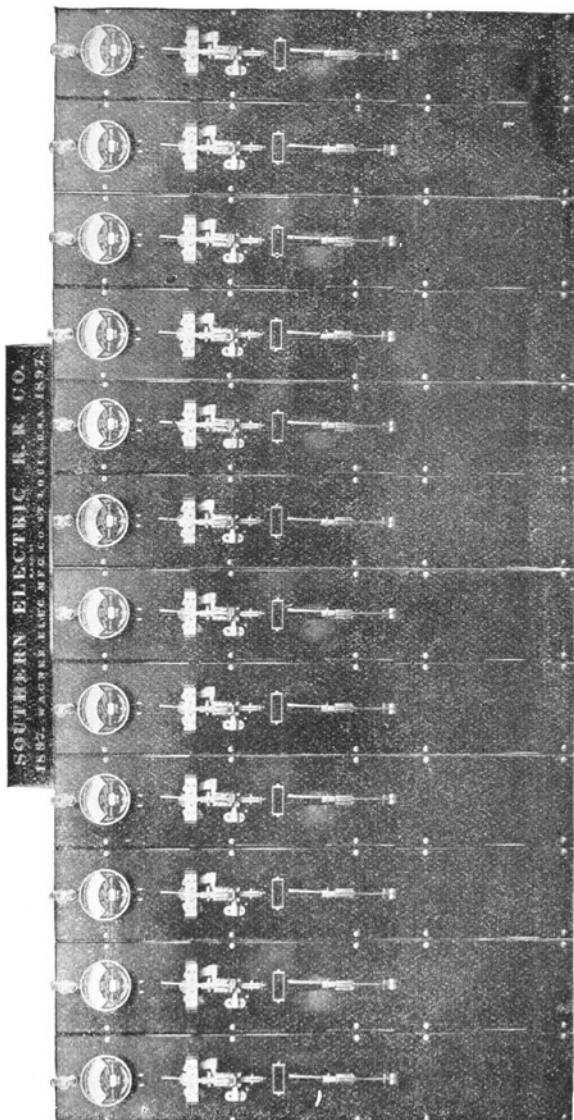


AMPERES



FAC-SIMILE SCALES OF WAGNER CO.'S

DEAD-BEAT ILLUMINATED-DIAL INSTRUMENTS.



WAGNER CO.'S STANDARD STREET RAILWAY FEEDER BOARD.

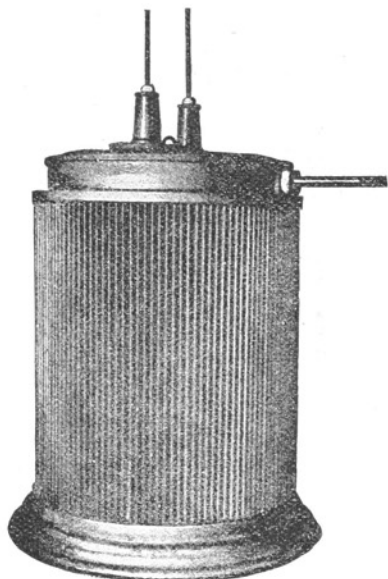


Figure 1.

### Wagner Electric Mfg. Co.'s Transformers for Power Transmission

Transformers for power transmission lines, are of four different forms, namely:

*First.* Self-cooling dry transformers, in which the heat losses are dissipated by the natural circulation of the surrounding atmosphere around and through the coils. This form is to be recommended only in small substation equipments.

*Second.* Self-cooling oil filled transformers, in which the oil serves the functions of insulating and cooling medium, and also drives out all air from the windings. This form is most admirable, and is to be recommended over the self-cooling dry type.

*Third.* Air blast dry transformers, in which the losses are dissipated by means of a cooling blast of air, which is derived from auxiliary ventilating fan outfit. This form is frequently made use of in large installations.

*Fourth.* Water cooled, oil filled transformers, in which the self-cooling property of the transformer by reason of being oil filled is supplemented on heavy loads by a water cooling device.

Figure 1 illustrates the latest form of the Wagner self-cooling oil filled type. The case is built of corrugated sheet. The low voltage leads are brought out at the side, while the high pressure ends come out through the cover.

Figure 2 illustrates the water cooled, oil filled type. In small installations, where the air circulation is good, the water device is not required. But where many transformers are crowded into a small substation, the water coil is a most effective and desirable adjunct.

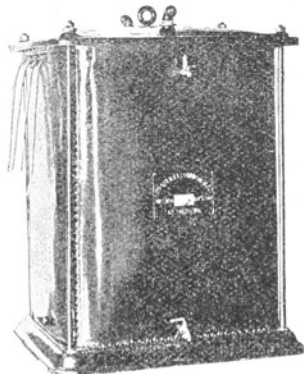


Figure 2.





Figure 3.

Transformers for Power Transmission.  
—(Continued.)

Figure 3 illustrates the water jacketed type, in which the case is completely channeled by water passages. With this, as with the endless coil type of water cooling, (Figure 2) a low pressure head is used. Ten to fifteen pounds pressure is amply sufficient for all requirements.

High tension transformers for any voltage up to 50,000, and for any capacity up to 1000 K. W. will be built to order.

Prices and information in detail given on application.

Wagner Electric Mfg. Co.'s 600 Watt Arc  
Light Transformers.

Circular Out Door Type.

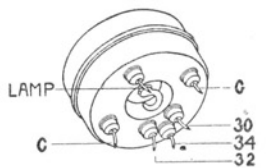
This type has a hook for suspension of the transformer on the upper side, and a corresponding hook for suspension of the lamp on the lower side, the latter appearing in the cut. The ratio of transformation is 100 volts to 30, 32 or 34 volts. The line is connected to the terminals marked by the letters C C. Cast on the box. One lamp circuit wire is connected to terminal marked "lamp," and the other to either of those marked 30, 32 and 34 as selected. This type is weatherproof. The case is of cast iron, and is finished in black japan.

Ornamental Type.

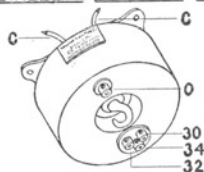
This type is designed to be screwed upon the ceiling where used, and has a hook below from which the lamp is carried. The finish is in highly polished brass. The circuit leads marked C and C in the diagram, come out above. The lamp connections are made to binding posts below, one side of lamp circuit being connected to O and the other to either of those marked 30, 32 and 34, depending on the voltage required at the lamp. This is strictly an indoor type.

Rectangular Out Door Type.

The connections with this type correspond exactly to the circular outdoor type. The case is cast-iron with black japan finish.



CIRCULAR OUTDOOR TYPE



ORNAMENTAL TYPE



RECTANGULAR OUTDOOR TYPE

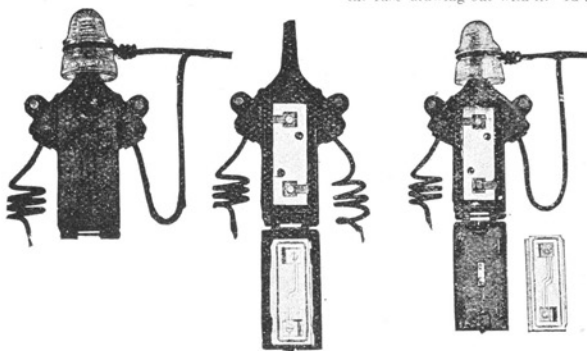
Code Word.	List No.	List Price.
Adamer	25686	Circular Outdoor Type ..... \$15.00
Adanicet	25687	Ornamental Type..... 15.00
Adart	25688	Rectangular Outdoor Type ... 13.00

## Wagner Co.'s High Potential Fuse Cut-Out Boxes.

We illustrate two distinct types of independent single-pole cut-out boxes, for use on the primaries of transformers or as junction boxes on primary circuits. Type XL, operates as follows: On opening the box, the lid comes forward and down, the top porcelain block containing the fuse drawing out with it. In this way the opening of the box breaks

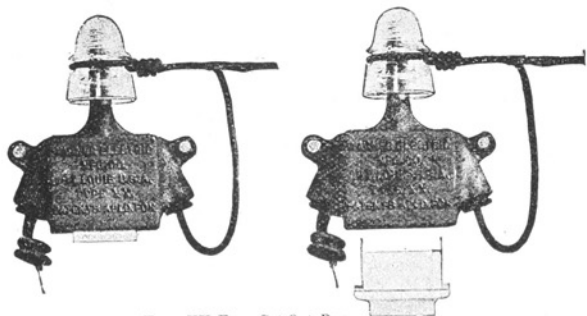
the circuit. The porcelain block containing the fuse is still further removable by simply drawing out from the end of the lid, thus entirely detaching it from the box. A spring between the block and lid, prevents the block sliding out by its own weight.

The porcelain parts fit closely together, the spring in the lid serving also to press the upper half down on the lower half. A rubber gasket completes the perfection of the joint. This cut-out is waterproof, affords perfectly safe replacing of fuses on live circuits and assures reliable blowing of fuses. The insulator pin surmounting it is also a great advantage, saving an insulator fixture for every box installed. This cut-out is recommended for all transformer and junction box service within the following limits:



Type XL Fuse Cut-Out Box.

On 1000 Volt Circuits.....	30 Amperes
" 2000 " " .....	15 "
" 3000 " " .....	10 "
" 4000 " " .....	8 "
" 5000 " " .....	6 "

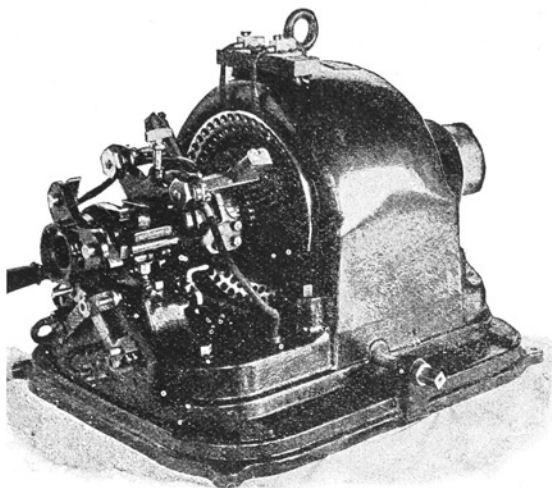


Type XX Fuse Cut-Out Box.

Type XX is peculiarly adapted for transformer work, and is recommended for this service up to a maximum capacity of 5 kilowatts. A removable porcelain plug carries the fuse, and is held securely in position by the tension of the contact clips through which the current passes, reinforced by spring clips. The fuse is enclosed in an airtight chamber, and will blow on a dead transformer short circuit with absolutely no noise or other disturbance. The cut-out also carries the insulator pin.

Code Word.	List No.	List Price.
<i>Adoption</i>	25674	Type XL each.....net \$3.00
<i>Adaptly</i>	25675	Extra Porcelain Block (each half).....net .75
<i>Add</i>	25676	Type XX each.....net 3.00
<i>Addle</i>	25677	Extra Porcelain Plugs.....net .75

## Wagner Electric Co.'s Single Phase Alternating Power Motors.



The Wagner Co. single phase power motors are designed to operate on circuits of either 60 or 133 cycles. They are induction motors in principle, operating in the following manner: For starting, the armature and field windings are connected in series and the motor runs up to speed exactly as would a direct current series motor. When the running speed has been attained, the armature winding is disconnected from the field and completely short-circuited on itself by means of a ring which slides over the commutator. The motor then runs at a speed slightly below synchronous speed, and carries its full rated load with a drop in speed not exceeding two per cent. An overload of from 25 to 50 per cent. will be taken care of without trouble. The heating of the various parts of the machine is practically negligible after continuous duty at full load. The mechanical construction is in all respects first class. The bearings are of the self-aligning, self-oiling variety, and, being made of phosphor bronze, will last indefinitely.

In the smaller sizes the starting operation is performed by hand, a convenient starting switch being mounted directly on the motor frame. In the larger sizes this operation is performed automatically, the only requirement from the attendant being the closing of the main switch.

This main switch may be located at any point convenient to the attendant, in the same room with the motor or elsewhere as desired.

Another admirable characteristic is that these motors may be connected upon the same secondary circuits as are incandescent and arc lamps, thus avoiding the necessity for additional transformers for motor service. There are no reactive or disturbing effects on the lights when thus operated in conjunction with motors, as is so objectionably the case with synchronous motors. Furthermore a momentary disturbance of the current supply, arising from the throwing over of the circuit at the central station from one machine to another, does not affect the running of the motor, unless the motor load is of such character as to ordinarily stop it very quickly when current is cut off.

These motors have practically the same efficiency as the best shunt wound direct current motors, and the fact that there are no brushes running constantly on the commutator gives rise to a noiselessness of operation.

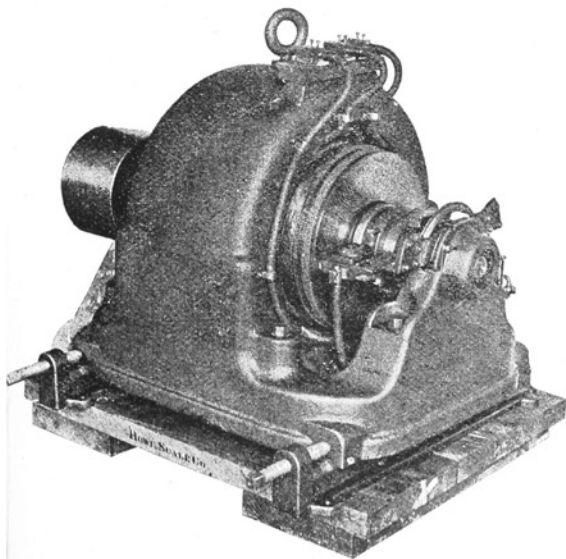
Sizes are now ready for the market as follows:

### 60 Cycles.

Code Word.	List No.	Price
<i>Addice</i>	25678 2 H. P.	\$370.00
<i>Addoom</i>	25679 5 "	500.00
<i>Arpuler</i>	25680 10 "	950.00
<i>Actומר</i>	25681 15 "	1250.00

### 133 Cycles.

<i>Artegor</i>	25682 1 1/2 H. P.	\$370.00
<i>Actopun</i>	25683 4 "	500.00
<i>Actupin</i>	25684 7 1/2 "	950.00
<i>Actuze</i>	25685 10 "	1250.00





72 inch Direct Connected Unit.

### Wagner Electric Mfg. Co.'s Direct-Coupled Ventilating Outfits.

These outfits are built for operation on 110, 220 or 500 volt direct current systems. The motors are multi-polars, with self-aligning, self-oiling bearings. The outfits are noiseless and deliver a maximum volume of air for a minimum consumption of driving energy. They are furnished for erection in two ways, viz.: supported on a substantial cast iron base or carried by means of flanges on the outside of the sheet steel casing.

Prompt delivery can be made on the sizes listed below

Diameter of Fan in Inches.	No. of Speeds	Max. capacity in cubic feet per minute	Max. revolutions per minute	Price
24	12	9,000	1,500	\$ 350
30	12	12,000	1,200	500
34	12	15,000	1,000	600.
36	12	18,000	950	650.
42	12	25,000	900	800.
48	12	30,000	800	950.
54	12	40,000	750	1,100.
60	12	50,000	500	1,200.
72	12	75,000	400	1,500.

Write for Discounts.

### POWER TABLE.

SIZE OF FAN.		AIR VELOCITY FT. PER MINUTE.									
		24	30	34	36	42	48	54	60	72	
600	Cubic feet per M. ....	1884	2940	3780	4236	5772	7536	9540	11778	16962	
	R. P. M. ....	310	247	220	206	177	155	137	124	103	
	H. P. ....	066	103	132	148	208	271	353	435	636	
900	Cubic feet per M. ....	2826	4410	5670	6354	8658	11304	14310	17667	25473	
	R. P. M. ....	464	372	332	310	265	232	206	185	155	
	H. P. ....	139	258	360	413	588	792	1,000	1,253	1,870	
1200	Cubic feet per M. ....	3768	5880	7560	8472	11544	15072	19080	23556	33924	
	R. P. M. ....	618	495	441	412	353	310	275	247	206	
	H. P. ....	256	477	650	754	1,083	1,483	1,908	2,400	3,590	
1500	Cubic feet per M. ....	4710	7350	9450	10590	14430	18840	23850	29445	42405	
	R. P. M. ....	773	620	552	515	441	386	343	308	258	
	H. P. ....	400	735	1,012	1,165	1,700	2,350	3,250	4,320	6,780	
2000	Cubic feet per M. ....	6280	9800	12600	14120	19240	25120	31800	39260	56540	
	R. P. M. ....	1030	822	734	685	586	514	456	410	342	
	H. P. ....	805	1,420	1,854	2,260	3,310	4,570	6,580	9,650	14,580	

Bare Copper Wire.

SPECIAL PRICES QUOTED ON EITHER SOFT OR HARD DRAWN.



Am. Gauge, B. & S. No.	Diam. Mils.	Area		Weight & L'gth Sp. Gr. 8.9.			Resistance at 75° F			
		Circular Mils (471) 1 Mil. = (3.14) 7854.	Square In. (3.14) 7854.	Lbs. per 1,000 Ft.	Pounds per Mile.	Feet per Pound.	Ohms per 1,000 Feet.	Ohms per Mile.	Feet per Ohm.	Ohms per Lb.
0000	460.000	211600.00	166190	639.33	3375.7	1.56	.04906	.25903	20383.	.000076736
000	409.640	167805.00	131790	507.01	2677.0	1.97	.06186	.32664	16165.	.00012039
00	364.800	133079.40	104520	402.09	2123.0	2.49	.07801	.41187	12820.	.00019423
0	324.950	105592.50	82932	319.04	1684.5	3.13	.09831	.51909	10409.	.00030772
1	289.300	83691.20	65733	252.88	1355.2	3.95	.12404	.65490	8062.3	.00048994
2	257.630	66378.00	52130	200.54	1058.8	4.99	.15640	.82582	6393.7	.00078045
3	229.420	52634.00	41339	159.03	839.68	6.29	.19723	1.0414	5070.2	.0012406
4	204.310	41742.00	32784	126.12	665.91	7.93	.24869	1.3131	4021.0	.0019721
5	181.940	33102.00	25998	100.01	528.05	10.00	.31361	1.6358	3188.7	.0031361
6	162.020	26250.50	20617	79.32	418.81	12.61	.39546	2.0881	2528.7	.0048968
7	144.280	20816.00	16349	62.90	332.11	15.90	.49871	2.6331	2005.2	.0079294
8	128.490	16509.00	12966	49.88	263.37	20.05	.62881	3.3201	1590.3	.012608
9	114.430	13094.00	10284	39.56	208.88	25.28	.79281	4.1860	1261.3	.020042
10	101.890	10381.00	8153.2	31.37	165.63	31.38	1.0	5.2800	1000.0	.031380
11	90.742	8234.00	6467.0	24.88	137.37	40.20	1.2607	6.6568	793.18	.050682
12	80.808	6529.90	5128.6	19.73	104.18	50.69	1.5898	8.3940	629.02	.080585

Dimensions and Resistances of Copper Wire.

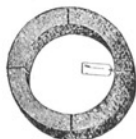
LARGER THAN No. 0000 B. & S.

No. B. & S.	Diameter, In.	Circular Mils.	Feet per Lb.	Lbs. per Foot.	Feet per Ohm.	Ohms per Mile.	Approximate Safe Carrying Capacity Amperes.	H. P. Carried at 500 Volts.
5"	5 1/2	265225	1.2863	.8023	24658	205776	375	251.3
6"	6 1/2	330625	9988	1.0000	31986	1.65075	457	306.3
7"	7 1/2	409600	.8070	1.2391	38843	1.33244	533	342.2
8"	8 1/2	504100	.6557	1.5250	48769	1.08266	620	414.2
9"	9 1/2	616225	.5364	1.8642	59615	.88566	709	476.5
10"	10 1/2	748225	.4416	2.2535	73385	.72941	786	526.8
11"	11 1/2	902500	.3662	2.7302	87302	.60495	849	569.
12"	12 1/2	1081600	.2131	3.2720	104641	.50450	940	630.

Galvanized Iron Telegraph Wire.

SPECIAL PRICES QUOTED ON APPLICATION

Can be Furnished also in Two Ply Twisted, for Guy Purposes. Western Union Standard Sp. Grav. 7.74.



No. B. W. G.	Size Bundle 1/2 Mile.	Weight in Pounds.		Resist. in B. A. Ohms at 75° F	
		Per 1,000 Feet.	Per Mile.	Per 1,000 Feet.	Per Mile.
4	1/2	149.25	788.01	1.15	6.09
5	3/4	127.54	673.44	1.35	7.12
6	1	108.6	573.38	1.58	8.37
7	1 1/4	85.38	450.81	2.023	10.65
8	1 1/2	71.74	378.82	2.4	12.67
9	2	57.72	304.77	2.98	15.75
10	2 1/4	47.32	249.84	3.64	19.21
11	3	37.95	200.36	4.54	23.95
12	3 1/2	31.31	165.01	5.51	29.1
13	4	29.94	125.57	7.24	38.22
14	4 1/2	18.15	95.85	9.48	50.07

AMERICAN ELECTRIC COMPANY.

Table showing Difference  
Between Wire Gauges in Decimal  
Parts of an Inch.

No. of Wire Gauge.	American or Brown & Sharpe.	Birmingham or Stubbs	Washburn & Moen Manufacturing Co., Worcester, Mass.	Trenton Iron Co., Trenton, N. J.	New British.	Old English Iron Brass Wire List.	No. of Wire.
000000	.....	.....	46	.....	.....	.....	000000
00000	.....	.....	48	45	.....	.....	00000
0000	.46	.454	.393	.4	.4	.....	0000
000	.40964	.425	.362	.36	.372	.....	000
00	.3648	.38	.331	.33	.348	.....	00
0	.32456	.34	.307	.305	.324	.....	0
1	.2893	.3	.283	.285	.3	.....	1
2	.25763	.284	.263	.265	.276	.....	2
3	.22942	.259	.244	.245	.252	.....	3
4	.20431	.238	.225	.225	.232	.....	4
5	.18194	.22	.207	.205	.212	.....	5
6	.16202	.203	.192	.19	.192	.....	6
7	.14428	.18	.177	.175	.176	.....	7
8	.12849	.165	.162	.16	.16	.....	8
9	.11443	.148	.148	.145	.144	.....	9
10	.10189	.134	.135	.13	.128	.....	10
11	.096742	.12	.12	.1175	.116	.....	11
12	.088938	.109	.105	.105	.104	.....	12
13	.07941	.095	.092	.0925	.092	.....	13
14	.064084	.083	.08	.08	.08	.083	14
15	.057068	.072	.072	.07	.072	.072	15
16	.05082	.065	.063	.061	.064	.065	16
17	.045257	.058	.054	.0525	.056	.058	17
18	.040363	.049	.047	.045	.048	.049	18
19	.03589	.042	.041	.039	.04	.04	19
20	.031961	.035	.035	.034	.036	.035	20
21	.028462	.032	.032	.03	.032	.0315	21
22	.025347	.028	.028	.27	.028	.0285	22
23	.022571	.025	.025	.024	.024	.027	23
24	.0201	.022	.023	.0215	.022	.025	24
25	.0179	.02	.02	.019	.02	.023	25
26	.01584	.018	.018	.018	.018	.0205	26
27	.014195	.016	.017	.017	.0164	.01875	27
28	.012641	.014	.016	.016	.0148	.0185	28
29	.011257	.013	.015	.015	.0136	.0155	29
30	.010025	.012	.014	.014	.0124	.01375	30
31	.008928	.01	.0135	.013	.0116	.01225	31
32	.00795	.009	.013	.012	.0108	.01125	32
33	.00708	.008	.011	.011	.01	.01025	33
34	.006304	.007	.01	.01	.0092	.0095	34
35	.005614	.005	.005	.009	.0084	.009	35
36	.005	.004	.009	.008	.0076	.0075	36
37	.004473	.....	.0085	.00725	.0068	.0065	37
38	.003665	.....	.008	.0065	.006	.00575	38
39	.003031	.....	.0075	.00575	.0052	.005	39
40	.003144	.....	.007	.005	.0048	.0045	40

Equivalents of Wires  
Brown & Sharpe Gauge.

0000	2	No.	4	No.	8	No.	16	No.	32	No.	64	No.
000	2	1	4	3	8	4	16	10	32	13	64	16
00	2	2	4	5	8	8	16	11	32	14	64	17
0	2	3	4	6	8	8	16	12	32	15	64	18
1	2	4	4	7	8	10	16	13	32	16	64	19
2	2	5	4	8	8	11	16	14	32	17	64	20
3	2	6	4	9	8	12	16	15	32	18	64	21
4	2	7	4	10	8	13	16	16	32	19	64	22
5	2	8	4	11	8	14	16	17	32	20	64	23
6	2	9	4	12	8	15	16	18	32	21	64	24
7	2	10	4	13	8	16	16	19	32	22	64	25
8	2	11	4	14	8	17	16	20	32	23	64	26
9	2	12	4	15	8	18	16	21	32	24	64	27
10	2	13	4	16	8	19	16	22	32	25	64	28
11	2	14	4	17	8	20	16	23	32	26	64	29
12	2	15	4	18	8	21	16	24	32	27	64	30
13	2	16	4	19	8	22	16	25	32	28	64	31
14	2	17	4	20	8	23	16	26	32	29	64	32
15	2	18	4	21	8	24	16	27	32	30	64	33
16	2	19	4	22	8	25	16	28	32	31	64	34
17	2	20	4	23	8	26	16	29	32	32	64	35
18	2	21	4	24	8	27	16	30	32	33	64	36
19	2	22	4	25	8	28	16	31	32	34	64	37
20	2	23	4	26	8	29	16	32	32	35	64	38
21	2	24	4	27	8	30	16	33	32	36	64	39

Electric Light Conductors.

BROWN & SHARPE.	DIAMETER.		SQUARE OR DIAMETER.	SECTIONAL AREA.	SAFE CARRYING CAPACITY IN AMPERES.			WEIGHT.			LENGTH.		RESISTANCE OF PURE COPPER WIRE AT 75 DEGREES F. (26.89 DEG. CENT.)								
	Mils.	Millimetres.			National Code.	New England.	Chicago Code.	BARE.	WEATHER PROOF INSULATION.	WEATHER PROOF INSULATION.	Feet per Pound.	Feet per Pound.	Ohms per Mile.	Feet per Ohm.	Ohms per 1,000 Feet.	Ohms per Pound.					
0000	460	0.000 11	684	211600.0	1107	219	175	300	218	312	639	23	3559	758	4000	1	1.25	0.4906	25403	20883	.000076736
000	409	0.010 405	167805.0	85	028	145	245	181	262	507	01	2663	606	3200	1	1.75	.06186	.92664	16165	.000120359	
00	364	0.040 9	266	133079.4	47	431	120	215	150	220	402	09	2112	492	2600	2	2	.07801	.41187	12820	.000194223
0	324	0.050 8	254	105392.5	53	504	100	190	125	185	319	04	1661	385	2036	3	2.50	.09831	.51909	10409	.000307772
1	299	0.070 7	348	83694.2	42	409	95	160	105	156	252	88	1328	508	1628	4	3.25	.12404	.65490	8062.3	.000485044
2	257	0.100 6	544	66373.0	33	632	70	135	88	131	200	54	1069	250	1310	5	4	.15640	.82582	6393.7	.000780445
3	229	0.120 5	627	52934.0	28	670	60	115	75	110	259	03	835	201	1060	6	5	.19723	1.0414	5070.2	.00124005
4	204	0.150 4	718	41742.0	21	711	50	100	63	92	126	12	632	163	862	8	6	.24869	1.3131	4021.0	.0016721
5	181	0.180 3	821	33102.0	16	773	45	90	53	77	100	.01	526	134	706	10	7.50	.31361	1.6538	3188.7	.0031361
6	162	0.200 2	915	26250.5	13	801	35	80	45	65	79	32	417	110	577	12	9	.36546	2.0881	2528.7	.0048808
7	144	0.240 1	1038	20816.0	10	848	30	67	35	62	90	350	90	475	16	11	.49871	2.6331	2005.2	.0073224	
8	128	0.280 0	1169	16509.0	8	906	25	60	33	46	49	80	262	74	362	20	13.50	.62881	3.3201	1590.3	.012608
9	114	0.320 0	1309	13094.0	6	935	20	50	32	39	56	208	62	328	25	16	.79281	4.1860	1261.3	.020042	
10	101	0.360 0	1468	10381.0	5	969	20	40	25	32	31	37	165	52	275	32	19	1.	5.2800	1000.0	.031380
11	90	0.420 0	1636	8234.0	4	172	20	35	20	24	38	131	44	44	231	40	22.75	1.2607	6.5508	793.18	.050082
12	80	0.480 0	1853	6529.9	3	209	15	30	17	23	19	73	103	36	193	51	27.25	1.5808	8.3940	629.02	.060585
13	71	0.540 0	2098	5178.4	2	248	10	20	11	15	15	65	82	31	162	64	32.50	2.0047	10.585	498.83	.081241
14	64	0.640 0	2628	4106.8	2	081	10	22	12	16	12	41	65	26	135	81	39	2.5908	13.680	385.97	.20880
15	57	0.760 0	3256.7	3150	1	150	5	18	11	11	102	47	50	3	1150	105	47.50	3.1150	105.477	321.02	.31658
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1042	110	1170	469	1375	354	1491	350	1660	485
1043	110	1171	469	1376	354	1492	350	1661	485
1044	110	1172	469	1384	354	1493	350	1662	485
1045	110	1173	469	1385	354	1494	350	1663	485
1046	110	1174	469	1387	354	1495	350	1664	485
1047	110	1175	467	1388	354	1496	350	1665	485
1048	110	1177	467	1389	354	1497	350	1666	485
1049	110	1178	241	1390	354	1498	350	1667	485
1050	110	1179	241	1397	354	1499	350	1668	485
1051	110	1180	242	1398	354	1500	350	1669	485
1052	110	1183	242	1399	354	1501	350	1670	485
1053	110	1184	243	1401	354	1502	350	1671	485
1061	110	1185	250	1402	354	1503	350	1672	485
1062	110	1187	250	1403	354	1504	350	1673	485
1063	110	1188	250	1404	345	1505	350	1674	485
1064	110	1189	250	1405	345	1506	350	1675	485
1065	110	1190	250	1406	345	1507	351	1676	485
1066	110	1193	242	1407	345	1508	351	1677	485
1067	110	1194	242	1408	345	1509	351	1678	485
1068	110	1195	242	1409	345	1510	351	1679	485
1069	110	1196	242	1410	351	1511	351	1680	485
1070	110	1197	242	1411	351	1512	351	1681	485
1071	110	1198	242	1412	351	1513	351	1682	485
1072	110	1199	242	1413	354	1514	351	1683	485
1073	110	1229	468	1415	354	1515	351	1684	485
1080	251	1230	468	1416	354	1516	351	1685	485
1081	110	1231	468	1417	345	1517	351	1686	485
1082	110	1232	468	1418	351	1518	351	1687	485
1083	110	1233	468	1419	345	1519	348	1688	485
1084	110	1234	468	1420	345	1524	348	1689	485

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1600	485	1887	153	1944	251	2107	249	2222	26
1601	485	1888	153	1945	251	2108	249	2223	25
1602	485	1889	153	1946	251	2109	249	2229	13
1603	485	1840	153	1947	251	2110	245	2230	13
1604	485	1841	153	1948	94	2111	245	2255	207
1605	485	1842	153	1949	95	2112	249	2260	268
1606	485	1843	153	1950	473	2113	249	2361	268
1607	485	1844	153	1951	473	2114	249	2365	379
1608	485	1845	10	1952	473	2115	249	2381	269
1609	485	1846	10	1953	473	2116	245	2382	240
1700	483	1847	10	1954	473	2117	245	2383	240
1701	483	1848	10	1955	473	2118	249	2384	240
1702	483	1849	153	1956	473	2119	249	2385	240
1703	483	1850	153	1957	473	2120	245	2386	240
1704	483	1851	151	1958	473	2120½	246	2387	240
1705	483	1852	151	1959	473	2121	245	2388	240
1706	483	1853	151	1960	473	2121½	246	2389	240
1707	483	1854	151	1961	473	2122	245	2390	240
1708	483	1855	151	1962	473	2123	245	2391	240
1709	483	1857	437	1963	473	2124	246	2392	240
1710	483	1858	194	1964	473	2125	245	2393	240
1711	483	1867	101	1965	473	2126	245	2394	240
1712	483	1868	93	1966	473	2127	246	2395	257
1713	483	1869	469	1967	473	2128	246	2396	257
1714	483	1870	469	1968	473	2131	246	2397	257
1715	483	1871	469	1969	473	2132	246	2398	257
1716	483	1872	469	1970	473	2133	246	2399	257
1717	483	1873	469	1971	473	2134	246	2400	64
1718	483	1874	469	1972	473	2135	246	2401	64
1719½	483	1875	469	1973	473	2136	246	2402	65
1720	483	1876	469	1974	473	2137	246	2403	65
1721	483	1877	469	1975	473	2138	246	2404	65
1722	484	1878	469	1976	473	2139	246	2405	257
1723	484	1879	469	1977	473	2140	246	2406	257
1724	484	1880	469	1978	473	2141	246	2407	257
1725	484	1881	469	1979	473	2142	246	2407½	257
1726	484	1882	469	1980	473	2143	246	2408	257
1727	484	1883	469	1981	473	2144	246	2409	257
1728	484	1884	469	1982	473	2145	246	2410	257
1729	484	1885	469	1983	473	2146	246	2411	258
1730	484	1886	469	1984	473	2147	246	2412	258
1731	484	1887	469	1985	473	2148	246	2413	258
1732	484	1888	469	1986	473	2149	246	2414	258
1733	484	1889	469	1987	473	2150	246	2415	258
1734	484	1890	469	1988	473	2152	248	2416	258
1735	484	1891	469	1989	473	2153	248	2417	258
1736	484	1892	469	1990	473	2155	248	2418	258
1737	484	1893	469	2000	258	2156	248	2419	258
1738	484	1894	469	2001	101	2158	248	2420	258
1739	484	1895	469	2002	167	2159	248	2421	258
1740	484	1896	469	2003	167	2160	247	2422	258
1741	484	1897	469	2050	273	2161	248	2423	258
1742	484	1898	469	2051	273	2162	248	2424	258
1743	484	1899	469	2052	273	2163	248	2425	258
1744	484	1900	469	2060	248	2164	248	2426	258
1745	484	1901	469	2061	248	2165	248	2427	258
1746	484	1902	469	2062	248	2166	247	2428	258
1747	484	1903	469	2063	248	2167	248	2429	258
1748	386	1904	469	2064	248	2168	248	2430	258
1749	386	1905	469	2065	248	2169	247	2431	258
1750	386	1906	469	2066	248	2170	248	2432	419
1751	386	1907	469	2067	248	2171	248	2433	419
1752	386	1908	469	2068	248	2172	247	2434	420
1753	386	1909	469	2069	248	2173	247	2435	423
1804	152	1910	469	2070	248	2174	248	2436	423
1805	152	1911	469	2071	248	2175	248	2439	423
1806	152	1912	469	2072	248	2176	247	2441	432
1807	152	1913	469	2073	248	2177	248	2444	437
1808	152	1914	469	2074	248	2178	248	2445	437
1809	152	1915	469	2075	248	2179	247	2446	438
1810	152	1916	469	2076	248	2180	248	2447	438
1811	152	1917	469	2077	248	2181	248	2448	437
1812	152	1918	469	2078	248	2182	247	2449	417
1813	153	1919	469	2079	248	2183	248	2450	417
1813½	153	1920	469	2080	248	2184	248	2451	418
1814	153	1921	469	2081	248	2185	247	2452	418
1815	153	1922	469	2082	248	2186	248	2453	406
1816	153	1923	436	2083	248	2187	248	2454	419
1817	153	1924	437	2084	248	2188	247	2455	222
1818	153	1925	437	2085	248	2189	247	2456	222
1819	153	1926	438	2086	248	2190	247	2457	222
1820	153	1927	438	2087	248	2191	247	2458	222
1821	153	1928	438	2088	248	2192	247	2459	222
1822	153	1929	438	2089	248	2193	247	2460	222
1823	153	1930	438	2090	248	2194	246	2461	222
1824	153	1932	472	2091	248	2197	246	2462	222
1825	153	1933	472	2092	248	2198	246	2463	222
1826	153	1934	472	2093	248	2199	246	2464	222
1827	153	1935	472	2094	248	2206	246	2465	222
1828	153	1936	472	2095	248	2213	12	2466	222
1829	153	1937	472	2096	248	2214	12	2467	222
1830	153	1938	472	2100	240	2215	12	2468	222
1831	153	1939	472	2101	240	2216	12	2469	223
1832	153	1940	472	2102	240	2217	12	2470	223
1833	153	1941	250	2103	240	2218	12	2471	281
1834	153	1942	250	2104	240	2219	21	2472	281
1835	153	1942½	250	2105	240	2220	21	2473	281
1836	153	1943	250	2106	240	2221	21	2474	281

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2975	281	2798	244	2735	228	2850	163	3034	467
2976	281	2799	244	2736	228	2851	163	3035	467
2977	281	2800	244	2737	228	2852	163	3036	467
2978	281	2801	244	2738	228	2853	163	3037	467
2979	281	2802	244	2739	228	2854	163	3038	467
2980	281	2803	244	2740	228	2855	163	3039	467
2981	280	2804	244	2741	228	2856	163	3041	248
2982	280	2805	244	2742	228	2857	163	3042	271
2983	280	2806	244	2743	228	2858	163	3043	248
2984	280	2807	244	2744	228	2859	163	3044	248
2985	280	2808	244	2745	228	2860	163	3045	241
2986	281	2809	241	2746	226	2861	163	3046	241
2987	405	2810	241	2747	225	2862	163	3047	243
2989	400	2811	241	2748	226	2863	163	3047 1/2	245
2993	400	2812	241	2749	226	2864	163	3050	270
2994	61	2813	241	2750	226	02966	485	3051	250
2997	61	2814	254	2751	226	02968	485	3052	489
2996	436	2815	254	2752	226	2867	163	3053	489
2997	436	2816	254	2753	226	2868	163	3054	489
2998	436	2817	254	2754	226	2869	163	3055	489
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3003	436	2822	254	2759	226	2874	163	3060	489
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3005	436	2824	254	2761	227	2876	163	3062	489
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3008	436	2827	255	2764	227	2879	163	3067 1/2	246
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3161	470	3373	240	3608	83	3810	444	3929	356
3162	470	3374	240	3609	83	3820	444	3930	356
3163	470	3375	240	3610	432	3821	444	3931	356
3164	470	3376	240	3611	106	3822	444	3948	489
3165	470	3377	249	3619	106	3823	444	3956	489
3166	470	3378	240	3622	374	3824	444	3957	489
3167	470	3379	240	3623	407	3825	444	3958	489
3168	470	3380	249	3630	103	3832	444	3959	489
3169	470	3381	240	3631	103	3833	397	3960	489
3170	470	3382	240	3632	103	3834	415	3961	489
3171	470	3383	240	3633	103	3835	415	3962	489
3172	470	3383½	89	3634	103-106	3836	444	3963	489
3173	470	3384	89	3635	337	3837	444	3964	489
3174	470	3394	451	3636	103	3838	415	3965	489
3175	470	3415	438	3637	183	3839	415	3966	489
3176	471	3416	438	3638	107	3840	415	3967	489
3177	471	3417	438	3639	407	3841	415	3968	489
3178	471	3418	438	3640	407	3842	415	3969	489
3179	471	3419	438	3641	407	3843	415	3971	353
3180	471	3420	438	3642	407	3844	416	3972	353
3181	471	3421	438	3643	407	3845	416	3973	353
3182	471	3446	270	3644	407	3846	416	3974	353
3183	471	3450	415	3645	407	3847	416	3975	353
3184	471	3451	415	3646	407	3848	416	3976	353
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3186	471	3453	415	3654	104	3850	416	3978	353
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3197	106	3470	427	3679	243	3861	416	3989	344
3198	106	3472	444	3680	270	3862	416	3999	412
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3202	89	3474	444	3682	270	3864	416	4505	86
3203	89	3475	411	3683	270	3865	416	4506	87
3204	89	3476	411	3684	256	3866	416	4975	301
3205	401	3477	411	3685	257	3867	416	5569	98
3206	401	3478	411	3686	266	3868	416	6090	104
3207	401	3479	411	3687	265	3869	374	6601	98
3211	470	3480	411	3687½	375	3870	374	6538	262
3212	470	3481	411	3688	375	3872	418	6539	262
3213	470	3482	411	3688½	375	3873	418	6540	261
3214	470	3483	411	3689	389	3879	483	6541	261
3215	470	3484	411	3689½	374	3881	483	6542	261
3216	470	3485	411	3690	360	3882	483	6542½	261
3217	470	3486	411	3690½	374	3883	483	6543	261
3218	470	3487	411	3691	266	3884	483	6544	261
3219	470	3488	411	3692	266	3885	483	6555	262
3220	470	3489	283	3693	266	3886	483	6556	262
3221	470	3490	288	3693½	375	3887	483	6556½	262
3222	470	3491	288	3694	266	3888	483	6557	262
3223	470	3492	288	3694½	375	3889	483	6558	262
3224	470	3493	283	3695	266	3890	483	6558½	262
3225	470	3494	377	3695½	375	3891	483	6559	262
3226	470	3495	377	3695¾	266	3892	483	6560	262
3227	470	3496	387	3697	266	3893	483	6560½	262
3228	470	3497	387	3698	266	3894	483	6561	262
3229	471	3498	387	3700	270	3895	483	6562	262
3230	471	3499	387	3705	377	3896	483	6562½	262
3231	471	3500	387	3706	377	3897	483	6563	261
3232	471	3501	387	3719	419	3898	483	6566	261
3233	471	3507	406	3728	89	3899	483	6568	261
3234	471	3508	406	3730	390	3900	483	6567	261
3235	471	3509	406	3731	407	3901	483	6567½	261
3236	471	3510	406	3732	407	3902	484	6568	261
3237	471	3511	406	3733	407	3903	484	6569	261
3238	471	3512	406	3734	374	3904	484	6569½	261
3239	471	3513	401	3731	401	3905	484	6570	261
3240	471	3514	401	3732	374	3906	484	6570½	261
3241	471	3515	401	3733	374	3907	484	6571	261
3242	471	3516	401	3737	374	3908	484	6572	261
3243	471	3517	401	3738	397	3909	484	6572½	262
3244	471	3518	401	3739	384	3909½	83	6573	262
3245	471	3519	401	3740	384	3910	484	6574	262
3246	471	3520	401	3741	384	3911	484	6575	262
3247	471	3521	401	3742	384	3912	484	6576	262
3248	471	3522	207	3744	383	3913	484	6577	262
3249	411	3523	457	3745	383	3914	484	6577½	262
3250	411	3524	457	3746	383	3915	484	6578	431
3251	411	3525	457	3747	383	3916	484	6579	261
3252	411	3526	457	3748	383	3917	484	6579½	261
3253	411	3527	457	3749	383	3918	484	6580	261
3254	411	3528	457	3750	383	3919	484	6581	321
3255	411	3529	457	3801	383	3920	484	6710	321
3256	411	3530	457	3802	383	3921	484	6711	321
3257	411	3531	457	3803	106	3922	484	6712	321
3258	401	3532	457	3804	106	3923	484	6713	321
3259	401	3533	457	3814	438	3924	484	6715	321
3260	401	3534	457	3815	438	3925	484	6716	321
3261	401	3535	104	3816	444	3926	356	6717	321
3262	412	3561	104	3817	444	3927	356	6718	323
3263	412	3564	414	3818	444	3928	356	6719	323

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6720	323	6854 1/2	261	8078	43	8170	45	8274	41
6721	323	6855	261	8079	43	8177	45	8275	41
6722	323	6864	261	8080	43	8178	45	8276	41
6723	323	6864 1/2	261	8081	43	8179	45	8277	41
6724	323	6865	261	8082	43	8180	45	8278	41
6725	323	6865 1/2	261	8083	43	8181	45	8279	41
6726	322	6866	261	8084	43	8182	45	8280	41
6729	322	6866 1/2	262	8085	44	8183	45	8281	41
6730	322	6867	262	8086	44	8184	45	8282	41
6731	322	6867 1/2	261	8087	44	8185	45	8283	41
6732	322	6867 3/4	262	8088	44	8186	45	8284	41
6734	321	6868	261	8089	44	8187	45	8285	41
6735	321	6868 1/2	261	8090	44	8188	45	8286	41
6736	322	6868 3/4	266	8091	44	8189	45	8287	41
6737	322	6870	266	8092	44	8190	45	8288	41
6738	322	6870 1/2	262	8093	44	8191	45	8289	41
6739	322	6871 1/2	262	8094	44	8192	45	8290	41
6740	322	6872 1/2	262	8095	44	8193	45	8291	41
6741	322	6873 1/2	262	8096	44	8194	45	8292	41
6742	322	6873 3/4	262	8097	44	8195	45	8293	41
6743	322	8000	41	8098	44	8196	45	8294	41
6744	322	8001	41	8099	44	8197	45	8295	41
6745	322	8002	41	8100	44	8198	45	8296	41
6746	322	8003	41	8101	44	8199	45	8297	41
6747	322	8004	41	8102	44	8200	45	8298	41
6748	322	8005	41	8103	44	8201	45	8299	41
6749	322	8006	41	8104	44	8202	45	8300	41
6750	322	8007	41	8105	44	8203	45	8301	41
6751	322	8008	41	8106	44	8204	45	8302	41
6752	322	8009	41	8107	44	8205	45	8303	41
6753	322	8010	42	8108	44	8206	45	8304	41
6754	322	8011	42	8109	44	8207	45	8305	41
6755	322	8012	42	8110	44	8208	18	8306	41
6756	322	8013	42	8111	44	8209	18	8307	41
6757	322	8014	42	8112	44	8210	18	8308	41
6751	487	8015	42	8113	44	8211	19	8309	46
6762	487	8016	42	8114	44	8212	19	8311	46
6763	487	8017	42	8115	44	8213	19	8312	46
6764	487	8018	42	8116	44	8214	19	8314	46
6765	487	8019	42	8117	44	8215	19	8316	46
6766	487	8020	42	8118	44	8216	19	8317	46
6768	487	8021	42	8119	44	8217	19	8318	46
6769	487	8022	42	8120	44	8218	19	8320	46
6770	487	8023	42	8121	44	8219	19	8321	46
6771	487	8024	42	8122	44	8220	19	8323	46
6772	487	8025	42	8123	44	8221	19	8324	46
6773	487	8026	42	8124	43	8222	19	8326	46
6774	487	8027	42	8125	43	8223	20	8327	46
6775	487	8028	42	8126	43	8224	20	8329	46
6776	487	8029	42	8127	43	8225	20	8330	46
6777	487	8030	42	8128	43	8226	20	8332	46
6778	487	8031	42	8129	43	8227	20	8333	46
6779	487	8032	42	8130	43	8228	20	8335	46
6780	487	8033	42	8131	43	8229	20	8336	46
6781	487	8034	42	8132	43	8230	20	8338	46
6782	487	8035	42	8133	43	8231	20	8339	46
6783	487	8036	42	8134	43	8232	20	8341	46
6786	288	8037	42	8135	43	8233	20	8342	46
6787	288	8038	42	8136	43	8234	20	8344	46
6788	288	8039	42	8137	43	8235	16	8345	47
6789	288	8040	42	8138	43	8236	16	8347	47
6790	288	8041	42	8139	43	8237	17	8348	47
6791	288	8042	42	8140	43	8238	17	8350	47
6793	429	8043	42	8141	43	8239	17	8351	47
6796	437	8044	42	8142	43	8240	17	8353	47
6799	437	8045	42	8143	43	8241	17	8354	47
6800	438	8046	42	8144	43	8242	17	8355	47
6807	381	8047	42	8145	43	8243	17	8357	47
6808	381	8048	42	8146	43	8244	17	8359	47
6809	381	8049	42	8147	43	8245	17	8360	47
6810	381	8050	42	8148	43	8246	17	8362	47
6812	381	8051	43	8149	43	8247	18	8363	47
6813	262	8052	43	8150	43	8248	18	8365	47
6813 1/2	262	8053	43	8151	43	8249	18	8366	47
6814	262	8054	43	8152	43	8250	18	8368	47
6815	262	8055	43	8153	43	8251	46	8369	47
6815 1/2	262	8056	43	8154	43	8252	46	8371	47
6816	262	8057	43	8155	43	8253	46	8372	47
6817	381	8058	43	8156	43	8254	46	8374	47
6818	381	8059	43	8157	43	8255	45	8375	47
6819	381	8060	43	8158	43	8256	45	8377	47
6820	381	8061	43	8159	43	8257	44	8378	47
6821	381	8062	42	8160	44	8258	45	8380	47
6822	381	8063	43	8161	44	8259	45	8381	47
6823	381	8064	42	8162	44	8260	45	8383	47
6824	381	8065	42	8163	44	8261	46	8384	47
6825	381	8066	42	8164	44	8262	44	8386	47
6823	322	8067	42	8165	44	8263	46	8387	47
6824	322	8068	42	8166	44	8264	46	8390	47
6825	322	8069	42	8167	44	8265	11	8391	47
6823	361	8070	42	8168	45	8266	41	8393	47
6825	362	8071	29	8169	45	8267	41	8394	48
6824	362	8072	12	8170	45	8268	41	8396	48
6829	262	8073	43	8171	45	8269	41	8397	48
6830	261	8074	43	8172	45	8270	41	8399	48
6830 1/2	262	8075	43	8173	45	8271	45	8400	48
6831	261	8076	43	8174	45	8272	41	8402	48
6834	261	8077	43	8175	45	8273	41	8403	48

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8405	48	8562	51	8708	165	8858	211	9129	205
8406	48	8563	51	8709	165	8859	211	9130	205
8408	48	8565	51	8710	165	8860	211	9131	205
8409	48	8566	51	8711	165	8861	211	9132	205
8411	48	8568	51	8712	208	8862	211	9133	206
8412	48	8569	51	8716	165	8863	211	9134	204
8414	48	8561	51	8717	165	8864	211	9135	204
8415	48	8562	52	8720	182	8865	211	9136	204
8417	48	8564	52	8723	106	8866	211	9137	204
8418	48	8565	52	8724	106	8867	211	9138	205
8420	48	8567	52	8725	175	8868	211	9140	205
8421	48	8568	52	8725½	239	8869	211	9141	205
8423	48	8570	52	8726	175	8870	211	9142	16
8424	48	8571	52	8726½	412	8871	211	9090	422
8426	48	8573	52	8727	412	8872	211	9256	432
8427	48	8574	52	8728	412	8873	211	9290	292
8429	48	8576	52	8729	412	8874	211	9238	261
8430	48	8577	52	8730	412	8875	211	9301	434
8432	48	8579	52	8731	424	8876	211	9308	422
8433	48	8580	52	8732	224	8877	211	9315	422
8435	48	8582	52	8734	224	8878	208	9319	86
8436	49	8583	52	8735	224	8881	412	9327	442
8438	49	8585	52	8736	234	8882	291	9328	201
8439	49	8586	52	8737	225	8883	291	9378	14
8441	49	8588	52	8739	225	8869	444	9379	14
8442	49	8589	52	8740	225	8890	444	9380	14
8444	49	8591	52	8741	225	8901	444	9381	14
8445	49	8592	52	8742	433	8902	444	9382	14
8447	49	8594	52	8746	407	8903	444	9383	14
8448	49	8595	52	8747	225	8904	444	9383½	14
8450	49	8597	52	8748	225	8905	444	9384	14
8451	49	8598	53	8749	487	8906	444	9386	291
8453	49	8599	53	8750	487	8907	431	9387	291
8454	49	8600	53	8751	487	8908	431	9388	291
8456	49	8601	53	8752	487	8909	431	9389	291
8457	49	8602	53	8753	487	8910	431	9391	291
8459	49	8603	53	8755	209	8913	465	9392	292
8460	49	8604	53	8756	209	8906	464	9393	292
8462	49	8605	53	8757	210	8907	464	9394	292
8463	49	8606	53	8758	210	8908	464	9395	292
8465	49	8607	53	8759	210	8909	464	9400	292
8466	49	8608	53	8760	208	8910	465	9400	292
8468	49	8609	53	8771	208	8911	465	9400½	247
8469	49	8610	53	8772	208	8912	465	9402	247
8471	49	8611	53	8773	209	8913	465	9403	247
8472	50	8612	53	8788	381	8914	465	9404	247
8474	50	8613	53	8789	381	8915	465	9405	247
8476	50	8624	400	8790	111	8916	151	9406	247
8477	50	8625	400	8791	111	8917	151	9407	247
8478	50	8626	400	8792	111	8918	152	9408	247
8480	50	8627	400	8793	111	8919	152	9410	247
8481	50	8632	385	8794	111	8920	152	9411	247
8483	50	8633	385	8795	111	8921	152	9412	247
8484	50	8634	385	8796	111	8922	152	9413	247
8486	50	8635	402	8797	111	8923	108	9414	247
8487	50	8636	402	8798	111	8924	108	9415	247
8489	50	8637	402	8799	111	8925	108	9416	247
8490	50	8638	402	8800	111	8930	108	9417	247
8492	50	8639	402	8801	441	8987	108	9419	247
8493	50	8640	458	8802	184	8988	108	9418	247
8495	50	8641	458	8803	184	8989	108	9419	247
8496	50	8642	400	8804	184	8990½	442	9420½	460
8498	50	8643	400	8805	185	8990	406	9420	292
8499	50	8644	400	8806	185	8992	461	9421	292
8501	50	8647	400	8807	185	8993	461	9532	292
8502	50	8648	400	8808	186	8994	461	9533	292
8504	50	8649	400	8809	186	8995	461	9534	293
8506	50	8650	406	8810	186	8996	461	9538	293
8507	50	8651	406	8811	186	8997	441	9539	293
8508	50	8652	406	8815	199	8998	462	9540	293
8510	50	8653	406	8816	199	9001	270	9542	294
8511	50	8654	406	8817	199	9003	270	9543	293
8513	50	8655	406	8818	199	9005	462	9544	293
8514	50	8656	406	8819	199	9006	462	9547	293
8516	50	8657	459	8820	199	9007	462	9548	293
8517	50	8658	459	8821	203	9009	463	9549	293
8519	50	8659	459	8822	203	9010	463	9550	293
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8522	51	8661	459	8824	209	9012	463	9553	294
8523	51	8662	459	8825	209	9013	463	9554	294
8525	51	8663	459	8826	210	9014	463	9557	294
8526	51	8664	459	8827	210	9015	463	9558	294
8528	51	8665	459	8828	210	9016	463	9559	294
8529	51	8666	459	8829	210	9017	463	9560	294
8531	51	8669	459	8830	36	9018	463	9561	294
8532	51	8670	459	8831	36	9019	463	9562	294
8534	51	8671	459	8832	36	9020	463	9563	294
8535	51	8672	459	8833	36	9021	463	9564	294
8537	51	8673	459	8834	36	9022	463	9565	294
8538	51	8674	459	8835	36	9023	463	9566	294
8539	51	8675	459	8836	36	9024	463	9567	294
8541	51	8676	459	8837	36	9025	463	9568	294
8543	51	8677	459	8838	36	9026	463	9569	294
8544	51	8678	459	8839	36	9027	463	9570	294
8546	51	8679	459	8840	36	9028	463	9571	294
8547	51	8680	459	8841	36	9029	463	9572	294
8549	51	8681	459	8842	36	9030	463	9573	294
8550	51	8682	459	8843	36	9031	463	9574	294
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8553	51	8684	459	8845	36	9033	463	9576	294
8554	51	8685	459	8846	36	9034	463	9577	294
8555	51	8686	459	8847	36	9035	463	9578	294
8557	51	8687	459	8848	36	9036	463	9579	294
8558	51	8688	459	8849	36	9037	463	9580	294
8559	51	8689	459	8850	36	9038	463	9581	294
8560	51	8690	459	8851	36	9039	463	9582	294
8561	51	8691	459	8852	36	9040	463	9583	294
8562	51	8692	459	8853	36	9041	463	9584	294
8563	51	8693	459	8854	36	9042	463	9585	294
8564	51	8694	459	8855	36	9043	463	9586	294
8565	51	8695	459	8856	36	9044	463	9587	294
8566	51	8696	459	8857	36	9045	463	9588	294
8567	51	8697	459	8858	36	9046	463	9589	294
8568	51	8698	459	8859	36	9047	463	9590	294
8569	51	8699	459	8860	36	9048	463	9591	294
8570	51	8700	459	8861	36	9049	463	9592	294
8571	51	8701	459	8862	36	9050	463	9593	294
8572	51	8702	459	8863	36	9051	463	9594	294
8573	51	8703	459	8864	36	9052	463	9595	294
8574	51	8704	459	8865	36	9053	463	9596	294
8575	51	8705	459	8866	36	9054	463	9597	294
8576	51	8706	459	8867	36	9055	463	9598	294
8577	51	8707	459	8868	36	9056	463	9599	294
8578	51	8708	459	8869	36	9057	463	9600	294
8579	51	8709	459	8870	36	9058	463	9601	294
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8581	51	8711	459	8872	36	9060	463	9603	294
8582	51	8712	459	8873	36	9061	463	9604	294
8583	51	8713	459	8874	36	9062	463	9605	294
8584	51	8714	459	8875	36	9063	463	9606	294
8585	51	8715	459	8876	36	9064	463	9607	294
8586	51	8716	459	8877	36	9065	463	9608	294
8587	51	8717	459	8878	36	9066	463	9609	294
8588	51	8718	459	8879	36	9067	463	9610	294
8589	51	8719	459	8880	36	9068	463	9611	294
8590	51	8720	459	8881	36	9069	463	9612	294
8591	51	8721	459	8882	36	9070	463	9613	294
8592	51	8722	459	8883	36	9071	463	9614	294</

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13212	409	14917	374	15163	394	15493	467	20015	12
13213	409	14918	374	15164	394	15494	467	20017	12
13214	409	14919	374	15165	397	15495	467	20018	12
13215	409	14921	374	15170	397	15499	491	20020	13
13216	409	14923	374	15175	397	15504	491	20021	13
13217	409	14925	375	15180	398	15505	491	20022	13
13218	409	14926	375	15181	398	15510	491	20023	13
13219	409	14927	375	15182	398	15511	491	20024	13
13220	409	14928	375	15183	398	15512	491	20025	13
13221	409	14929	375	15184	398	15513	491	20026	13
13222	409	14930	375	15186	398	15520	491	20027	13
13223	409	14931	375	15187	398	15521	491	20028	13
13224	409	14932	375	15190	398	15522	491	20029	13
13225	409	14933	375	15191	398	15523	491	20030	13
13226	409	14935	377	15192	398	15524	491	20040	33
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13228	409	14937	377	15195	398	15526	491	20042	33
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13237	409	15010	373	15212	399	15545	491	20051	34
13238	409	15011	373	15213	399	15548	492	20052	34
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13247	410	15031	381	15241	409	15559	492	20061	32
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13251	410	15035	381	15248	409	15564	492	20065	32
13252	410	15036	381	15249	409	15565	492	20066	32
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13340	411	15125	388	15346	409	15654	493	20154	47
13341	411	15126	388	15347	409	1			



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20126	47	20234	92	20434	36	20437	118	20642	121
20127	47	20235	92	20435	36	20438	118	20643	121
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20232	92	20337	91	20538	114	20539	121	20677	125
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20821	183	20979	169	21100	169	21224	173	21416	263
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20824	186	20982	169	21103	169	21227	173	21419	263
20825	186	20983	169	21104	169	21228	173	21420	263
20826	186	20984	169	21105	169	21229	173	21421	263
20827	186	20985	169	21106	170	21230	173	21422	263
20828	186	20986	169	21107	170	21231	173	21423	263
20829	182	20987	169	21108	170	21232	173	21424	263
20830	187	20988	169	21109	170	21233	173	21425	263
20831	187	20989	169	21110	170	21234	173	21426	263
20832	187	20990	169	21111	170	21235	173	21427	269
20833	188	20991	169	21112	170	21236	173	21428	269





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24137	449	24262	477	24360	482	24460	407	25110	118
24138	449	24263	477	24361	482	24461	407	25111	118
24139	449	24264	477	24362	482	24462	407	25112	118
24140	449	24265	477	24363	482	24463	407	25113	112
24141	449	24266	478	24364	482	24464	407	25114	112
24142	449	24267	478	24365	482	24465	424	25115	112
24143	449	24488	478	24366	482	24467	424	25116	112
24144	449	24269	478	24367	482	24468	424	25117	112
24146	439	24270	478	24368	482	24477	70	25118	112
24147	439	24271	478	24369	479	24478	70	25119	112
24148	439	24272	478	24370	479	24479	70	25120	112
24149	439	24273	478	24371	479	24487	61	25121	110
24150	475	24274	478	24372	479	24488	100	25122	130
24151	475	24275	478	24373	479	24489	100	25123	130
24152	475	24276	478	24374	479	24490	100	25124	130
24153	475	24277	478	24375	479	24491	100	25125	130
24154	475	24278	478	24376	479	24492	100	25126	130
24155	475	24279	478	24377	479	25000	332	25127	130
24156	475	24280	478	24378	479	2501	466	25128	130
24157	475	24281	478	24379	479	25002	466	25129	130
24158	475	24282	478	24380	479	25003	466	25130	120
24159	475	24283	478	24381	479	25004	466	25131	120
24160	475	24284	478	24382	479	25005	466	25132	120
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24163	475	24287	478	24385	479	25008	466	25135	120
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25211	122	25316	138	25474	69	25603	229	25912	495
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30307	340	32174	322	32488	337	61248	74	65200	151
30308	338	32175	322	32490	337	61250	74	65205	151
30308	338	32178	322	32492	337	61265	74	65209	151
30346	340	32190	322	32494	337	61267	74	65213	151
30347	340	32192	322	32496	337	61287	73	65217	151
30348	340	322	322	32497	337	61345	74	65223	151
30349	341	32198	322	32498	337	61363	73	65225	151
30350	341	32198	322	32499	337	61363	74	65241	151
30351	341	32199	322	32502	339	61387	74	65243	151
30381	342	32241	323	32500	339	61385	75	65245	151
30383	342	32242	323	32501	339	61415	76	65245	151
30391	357	32244	323	32502	339	61465	76	65246	151
30392	337-338	32245	323	32503	339	62199	76	66233	86
30393	337	32246	323	32508	341	62265	74	66225	86
30394	337	32247	323	32509	339	62559	75	66236	86
30395	337	32248	323	32511	340	62587	75	66237	86
30396	337	32249	323	32512	339	62845	73	66271	86
30397	337	32250	323	32513	340	62945	75	66273	86
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30404	340	32254	323	32522	341	63558	200	66290	87
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32041	335	32266	323	33135	332	61112	200	66340	76
32072	335	32267	323	33138	332	61113	200	66341	76
32073	335	32273	323	33139	332	63905	15	67361	148
32074	334	32274	323	33140	332	63906	15	67365	148
32075	333	32275	323	33141	332	63907	15	67365	148
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32077	333	32278	323	33144	332	65010	15	67371	148
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32090	330	62855	324	33146	332	65103	16	67420	15
32091	330	62856	324	33147	332	65104	16	67421	15
32092	330	62857	324	33148	332	65105	16	67422	15
32093	330	62858	324	33149	332	65122	15	68020	75
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32133	333	32401	342	33151	332	65152	148	69175	85
32134	333	32402	342	33152	332	65153	148	69176	85
32135	333	32403	342	33153	332	65154	148	69177	85
32136	333	32404	342	33154	332	65157	148	69364	94
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