

# Electric Stage Lighting Apparatus and Effects

UNIVERSAL ELECTRIC  
STAGE LIGHTING CO.



240 West 50th Street  
New York



# New Lights for Studios



WE TAKE PLEASURE IN HANDING YOU HERewith OUR LATEST GENERAL CATALOGUE "G", WHICH SUPERSEDES ALL OTHERS. WE HOPE IT WILL PROVE A STANDARD CONVENIENCE, AND A CONSTANT REMINDER TO SEND ALL YOUR ORDERS TO Kliegl Bros.

WITH HEARTY APPRECIATION OF PAST FAVORS, WE LOOK FORWARD HOPEFULLY FOR MORE TO COME AND TO MANY YEARS OF MUTUALLY SATISFACTORY AND PROFITABLE BUSINESS.

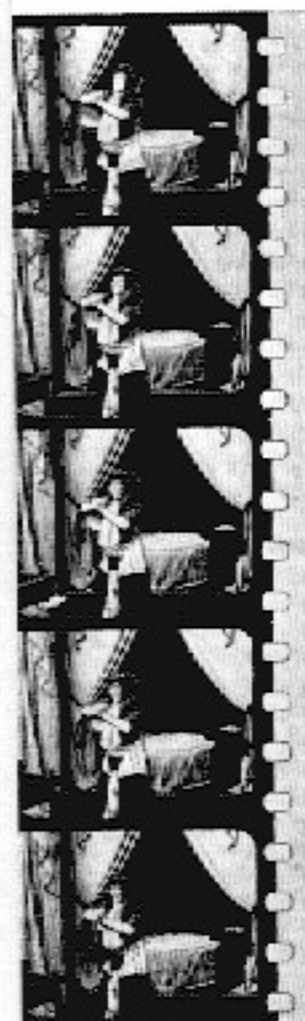
**Universal Electric Stage Lighting Company**



240 WEST 50th STREET

NEW YORK CITY, N. Y.

Everything Electrical for Theatres



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modern Arti-  
st Lighting.

Lamp  
light





SHOW  
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 PICTURES  
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BROS. T. Klieglight and H. Klieglight  
**UNIVERSAL ELECTRIC STAGE LIGHTING CO.**  
 Klieglight Bros. Props.  
 CONTRACTORS AND MANUFACTURERS  
**EFFECTS**

STAGE LIGHTING  
 APPARATUS  
 TELEPHONE COLUMBUS 8041-8042  
 CABLE ADDRESS "KIEGLIGHT" NEW YORK  
 WESTERN UNION TELEGRAPHIC CODE

ELECTRIC SIGNS  
 AND ILLUMINATIONS  
 240 WEST 50TH STREET  
 NEW YORK

## INTRODUCTORY

THE demand of the general public to-day is for the very best motion pictures, which show not only good picture subjects, but which are artistic, and show good contrast in light and shade on performers' faces, scenic surrounding and the action of the play.

The Klieglight Arc Lamp gives the greatest combination of lighting effects for the studio at the least expense. Studios can be situated anywhere as no daylight is required with the Klieglight Arc Lamp.

Enormous sums are spent yearly by film manufacturers for the traveling of their artists to mild and sunny climates where they depend entirely on sunlight in glass covered studios. A studio equipped with Klieglight Arc Lamps is entirely independent of daylight. The light is at all times the same. This is an important factor, for the light in glass roofed studios changes continually, and even while taking a picture the light curtain must be changed. The expense of maintaining a studio equipped with Klieglight Arc Lamps is less, including the electric current consumption of the lamps, and the output in films greater, than with any other method. The labor connected with the Klieglight is lighter, simpler and it takes less time to illuminate pictures artistically at all times.

Besides the studio outfit, we must call attention to the Klieglight Arc Lamp for use outside and away from the studio for the production of

**Medical and Surgical Films** in hospitals, sanatoriums, etc.

**Industrial Films**, factories, coal mines, etc.

**Theatrical Films**, theatres, halls, etc.

**Films** in the home, in museums.

**Technical Films**, architectural, etc.

**Reproductions**, photo-engraving studios.

## Klieglight Arc Lamps

The Klieglight Arc Lamps are especially made for Motion Picture Studios.

The light produced by the Klieglight Arc Lamp is a clear white brilliant light, extremely intense and evenly distributed, and gives fourfold the result obtained with any other light.

Motion Pictures can be taken with the Klieglight Arc Lamp without the aid of daylight. The Klieglight lamp is superior in lighting efficiency, durability, and general usefulness to any other lamp made.

**Klieglight Arc Lamp is automatic!**

**Portable and easily handled.**

**Electric connections are readily made.**

**Always ready for use.**

The Klieglight Arc Lamp, Fig. 1011, is neat in appearance, compact in construction, and consists of a wrought-iron stand with castors for easy transportation, a small windlass is attached to stand for raising and lowering the hood at will. On the bottom of stand is fastened an adjustable rheostat, wound to take 20 to 35 amperes, 110 volts, all enclosed, well ventilated and furnished with enclosed switch and 25 ft. No. 8 flexible stage cable.



Fig. 1011

The hood holding the double burner arc lamp is made of galvanized steel with grooves in front for slide, and is furnished with a removable metal slide or frame holding prism glass. Each Klieglight lamp has two sets of carbons (4 carbons), the mechanism operating same is of the automatic type and arranged for direct current or alternating current, 35 amperes, 110 volts. The two arc lamps are connected one behind the other, consequently do not take more current than one arc lamp. The light is regulated by the adjustable rheostat and for time exposures 20 to 25 amperes are sufficient, for special purposes 30 and 35 amperes can be used.

The light weight of the Klieglight lamp commends it for rapid and easy transportation which permits better placing and distribution of the light. Electric connections are easily made for same.

The same type of Klieglight Arc Lamp can be furnished with handfeed arc lamp.



## Klieglight Hanging Lamp

Fig. 1012 is for overhead lighting, and is furnished without stand, but includes an adjustable rheostat which can be fastened against the wall, and is furnished with enclosed switch and 50 ft. No. 8 cable. Same can also be furnished with 2 or 4 double burner hoods.

## Klieglight Stand Lamp (Handfeed)

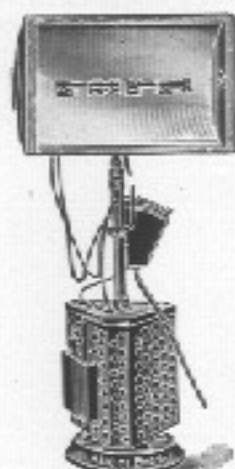


Fig. 1021  
Handfeed, 110-250 Volts

This apparatus, Fig. 1021, is for taking motion pictures away from the studio, or wherever there is temporary lighting required for taking pictures.

It is practically the same apparatus described in Fig. 1011 with the exception that it is furnished with a handfeed arc lamp which can be used either on D. C. or A. C. current. The rheostat is adjustable and wired to take 20 to 35 amperes, 110 to 250 volts. The stand is short, light in weight, very strong and compact for traveling purposes. It is furnished with enclosed switch and 25 ft. No. 8 flexible cable.

## Price List—Klieglight Arc Lamps

### Automatic—Direct Current—35 Amp.

Fig.		Volts	Price	Weight	Code Word
1011	Klieglight Arc Lamp	110	\$150.00	138 lbs.	Aloes
1013	Klieglight Arc Lamp	250	167.00	146 lbs.	Alpen
2011	Klieglight 2 Section	110	300.00	212 lbs.	Aloff
1012	Klieglight Hanging Lamp	110	140.00	70 lbs.	Alpaca
1014	Klieglight Hanging Lamp	250	157.00	77 lbs.	Amas

### Automatic—Alternating Current—35 Amp.

1015	Klieglight Arc Lamp	110	150.00	138 lbs.	Ambit
1017	Klieglight Arc Lamp	250	167.00	146 lbs.	Anal
2015	Klieglight 2 Section	110	300.00	212 lbs.	Amblab
1016	Klieglight Hanging Lamp	110	140.00	70 lbs.	Amcer
1018	Klieglight Hanging Lamp	250	157.00	77 lbs.	Ancon

### Handfeed—D. C. or A. C.—35 Amp.

1019	Klieglight Stand Lamp	110	135.00	90 lbs.	Anise
1021	Klieglight Stand Lamp	250	150.00	98 lbs.	Anode

The weight given on all Klieglight lamps includes lamp hood, rheostat, stand, switch and cable.

On Hanging Lamps the weight includes lamp hood, rheostat, switch and cable.

## Two Section Klieglight Arc Lamps

The Klieglight Arc Lamp is also furnished in 2 sections as shown in Fig. 2011. This apparatus has two double burner hoods on one stand, and gives a very large volume of direct light. Each hood has a separate windlass on stand for raising and lowering hood at will.

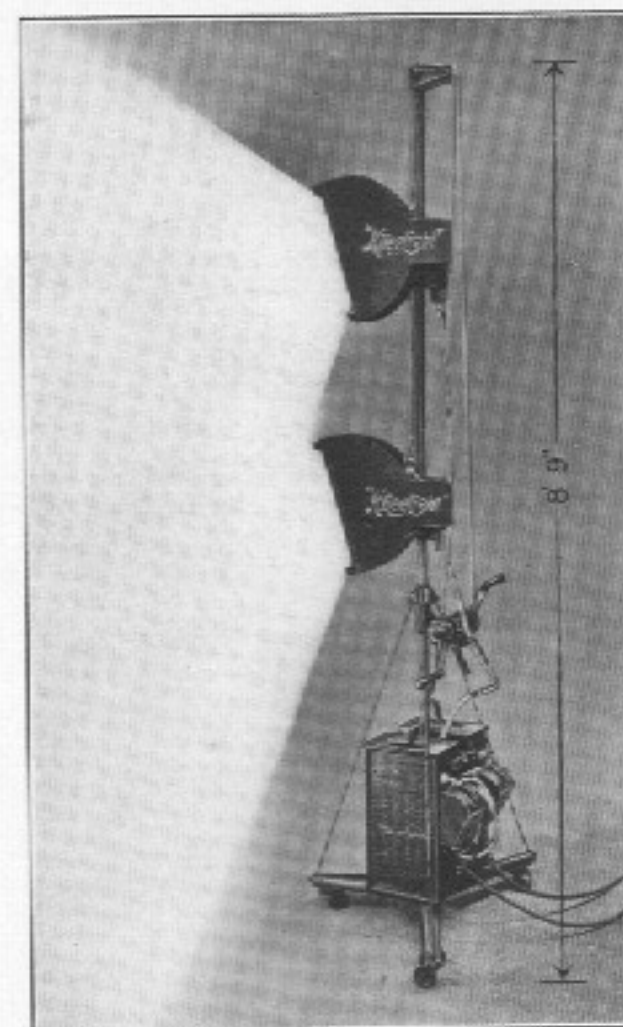


Fig. 2011

The arc of the top hood can be raised 8 ft. 4 in. from the floor while the arc of the second hood can be lowered to 4 ft. 2 in. from the floor, making the distance from arc to arc, 4 ft. 2 in. The two section Klieglight Arc Lamp takes the same floor space as the single light, which is very economical, and at the same time covers a greater area with their powerful light.

Each double burner hood takes 35 amperes, 110 volts, and lamps are furnished complete with two lengths of 25 ft. No. 8 stage cable and two metal frames with prism glass.



## Klieglight Carbons

We supply a special scientifically perfect carbon which develops a rich actinic and extremely intense light. Each carbon is stamped with the word Klieglight, and is to be used exclusively in the Klieglight Arc Lamps, either for D. C. or A. C. current.

Size	Price	Code Word
Klieglight Carbons $\frac{1}{2}$ " x $4\frac{3}{4}$ " (13 x 120 m/m) .....	\$36.00 per 1000	Antler

## Prism Glass Frames

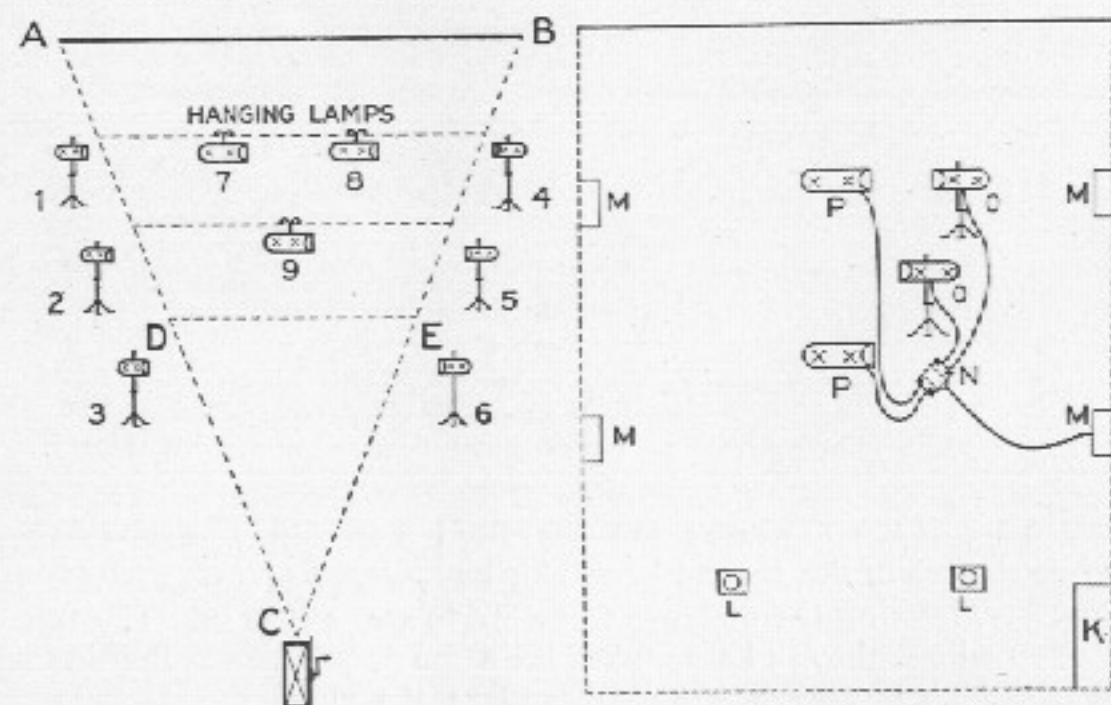
With each Klieglight Arc Lamp we furnish a metal frame holding strips of prism glass which produces a soft subdued light of great efficiency, and distributes the light in a manner ideal for studio lighting. The glass absorbs only two per cent of the value of the light.

Fig.	Price	Weight	Code Word
1044 Metal Frame with Prism Glass .....	\$4.00	10½ lbs.	Apsiso

## Studio Outlay

For Studio Work, we hereby give a sketch showing an outfit placed in position. There are nine Klieglight Arc Lamps used, six stand lamps and three hanging lamps, all of the automatic type.

The hanging lamps are arranged so that they will travel sideways, as well as up and down.



A and B. . . . . Background  
C . . . . . Camera  
D and E. . . . . End of stage for players  
1, 2, 3, 4, 5, 6. . . . . Klieglight Arc Lamps  
7, 8, 9 . . . . . Klieglight Hanging Lamps

### GROUND PLAN

K . . . . . Switchboard  
L . . . . . Stage Pockets  
M . . . . . Wall Pockets  
N . . . . . Plugging Box with cable to reach wall pocket  
O . . . . . Klieglight Arc Lamps  
P . . . . . Klieglight Hanging Lamps

## TESTIMONIALS

**NEW YORK HIPPODROME**  
THE LARGEST THEATRE IN THE WORLD  
42nd Street, New York City

**TRANSDUCER FILM CORPORATION**  
MEMBERS OF PHOTOPLAY  
NEW YORK, N. Y.

April 9, 1916

Dear Sirs: We have been using the Klieglight apparatus and can only say that the superior quality of the pictures produced is a very real recommendation of the Klieglight.

Very truly yours,  
S. J. Hite  
President

**Thomas A. Edison, Inc.**  
Orange, N. J., U. S. A.  
Edison Photographs and Records  
Edison Primary Cellulose  
Edison Kinetoscopes and Motion Picture Film  
Edison Business Photographs

July 27th, 1916.

Kliegl Brothers,  
240 West 50th Street,  
New York City.

Gentlemen:

Confirming our light tests of the 24th inst., made with your new lamp against 4 Aristo lamps, I enclose clippings of film for your satisfaction.

We projected the positive print of this work and I feel justified in stating that your lamp is a little more powerful than a combination of 4 Aristos.

Yours very truly,

Thomas A. Edison, Inc.,  
Kinetograph Department,  
Horace G. Elington,  
Mgr. Neg. Production,  
Per *Thiss*

### Studios using the Klieglight Apparatus

Carlton Motion Picture Laboratories  
Commercial Motion Picture Co.  
Eclair Film Co.  
Thomas A. Edison, Inc.  
Famous Players Film Co.  
Gene Gauntier Feature Players, Inc.  
Kalem Co.  
James Keane, United Kineograph Film Mfg. Co.,  
Fairfax, Cal.

Lubin Mfg. Co.  
Mittenthal Film Co.  
North American Films Corp.  
Peerless Features Producing Co.  
Playgoers Film Co.  
Ramo Film Co.  
Rockefeller Institute of Medical Research  
Thanhouser Film Corp.



## Accessories

In addition to the Kliegl Arc Lamp, we desire to call attention to the general line we manufacture of illuminating apparatus, such as powerful spot lights, reflectors, illuminated fire places and wood logs, etc. Electric effects, such as moving clouds, moon-light ripple, etc., for photographic purposes.

We also manufacture stage and wall pockets and plugs with carrying capacity of from 50 to 200 amperes. Spider pockets or plugging boxes and plugs of 50 ampere capacity each outlet, for connecting lights for standard or temporary lighting outfits in the studio or outside.

### "Kliegl" Portable Pockets and Plugs

Plugging Boxes or Spider Pockets

Built for rough stage usage. Can be used anywhere.

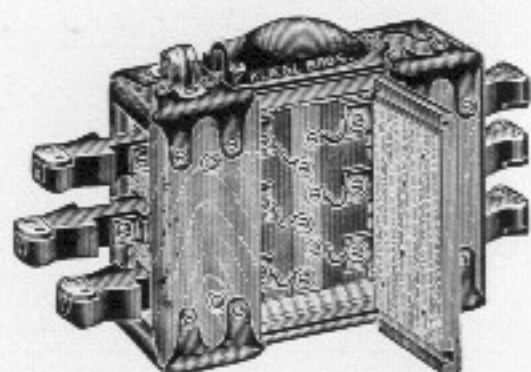


Fig. 392

10 to 50 Amp., 125 Volts.

Fig.	No. Sections	Price	Weight Each Unit	Code Word
390	2	\$9.00	11½ lbs.	Latch
391	4	18.00	15 "	Lannd
392	6	27.00	20 "	Lawn
393	8	36.00	26½ "	Lean
394	10	45.00	37½ "	Lovyne
395	12	54.00	44½ "	Liege
391	Extra Plug	2.00	1 "	Harsh

Portable plugging boxes are furnished with "Kliegl" Universal plugs and fuses.

Portable plugging boxes for 3 wire main, \$2.00 Extra

Code Word

Limp

We carry a full line of Kliegl Stage Connectors from 5 to 200 amperes capacity each.

Stage Cable, exceedingly flexible and substantial. Sizes kept in stock range from No. 18 to 00 stage cable.

Asbestos Covered Wire, flexible, sizes range from No. 10 to No. 4.

We are prepared to draw plans and specifications, furnish estimates, and take bulk contracts for studio lighting, including switchboards and everything that will make studio illumination a perfect unit.

## UNIVERSAL ELECTRIC STAGE LIGHTING CO.



240 WEST 50th STREET, NEW YORK

Send for Catalogue G.



Catalogue G  
on  
Electric Stage Lighting

Universal  
Electric Stage Lighting  
Company



240 West Fiftieth Street  
NEW YORK

Telephone COLUMBUS { 8041  
8042

Cable Address: KLIEGLIGHT, NEW YORK  
Western Union Telegraphic Code

*Manufacturers and Designers of*

Electric Stage Lighting Apparatus, Electro-  
Mechanical Effects, Electrical Spectacular Productions  
Electric Signs and Illuminations

OUR GOODS ARE KNOWN THE WORLD OVER FOR THEIR QUALITY

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### PRICES

All former prices are hereby annulled.

It is understood that the prices quoted in this catalogue are subject to change without notice, and therefore are not to be considered as binding on receipt of order.

No charge for packing or boxing.

Cartage and postage will be charged at cost.

### SHIPMENTS

We request customers to give shipping directions with their orders, but if not given we will use our best judgment in making selection of routes. As experienced packers are employed, we cannot be responsible for breakage after having obtained receipts from the transportation companies for delivery of the goods in good order.

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

All transportation charges to be paid by purchasers.

### TERMS

Our terms are net cash, except to parties of established credit, to whom they are 30 days net. Unless your standing is known to us, please have statement of your financial condition and satisfactory references accompany your order.

All remittance must be made in New York funds in the form of Post Office or Express Money Order, or New York draft.

We will not be responsible for remittances lost in transit.

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.

### GUARANTEE

All Kliegl Bros. apparatus and effects are sold under full guarantee. Any defects in material or workmanship will be promptly rectified. All claims must be made within five days after receipt of goods. All defective parts must be returned to us free of charge for examination.

See page 79 for Telegraph Code Words, which you will find very economical when ordering by wire.

Cable Address, "Klieglight," New York.

Western Union Telegraphic Code used.



UNIVERSAL ELECTRIC STAGE LIGHTING CO.  
Kliegl Bros., Props.  
CONTRACTORS AND MANUFACTURERS

STAGE LIGHTING APPARATUS  
ELECTRIC SIGNS AND ILLUMINATIONS

TELEPHONE COLUMBUS 3041-3042  
CABLE ADDRESS "KLIEGLIGHT" NEW YORK  
WESTERN UNION TELEGRAPHIC CODE

240 WEST 50TH ST.,  
NEW YORK.

THIS CATALOGUE SUPERSEDES ALL PREVIOUS ISSUES

### INTRODUCTORY

The issue of our new Catalogue G illustrates the latest and newest developments for stage illumination, for stage electrical equipments and the producing of electrical effects.

Our experience, extending over seventeen years, enables us to supply the theatre manager with exactly what he requires; viz.—Equipping his stage with the newest electrical devices in switchboards, border lights, stage pockets, dimmers, etc., and furnishing electrical effects and apparatus for his productions, and further by making the best and most attractive electric signs which catch the eye and bring business.

We have introduced and improved new designs and apparatus for stage lighting purposes.

A perfectly illuminated scene is pleasing to the eye, and will call forth applause on the rising of the curtain, and is the prime factor in contributing to the consummation of a grand success. Practical experience in designing and manufacturing the illuminations and effects for some of the most successful productions in this city and throughout the country, with the best and most complete facilities for designing and manufacturing electric stage lighting apparatus and effects, has enabled us to give universal satisfaction. We can safely assert that our apparatus and workmanship are to-day without their equal in the trade. Our special aim has been to make each article that we manufacture the best of its kind in the market, and that we have largely succeeded is amply proven by the encomiums of theatrical managers who have favored us with their patronage.



## OLIVETTE OR OPEN BOX ARC LAMP

Fig. 1

This Lamp is specially designed and adapted for use in the wings to throw an equally spread light of 4,000 C. P. on the scene of the play, and will illuminate an area of 40 feet.

It consists of a handfeed arc lamp for direct or alternating current, sheet iron hood with screen door, provided with grooves for color slides, wrought iron telescopic stand, on which the light can be raised or lowered to any required height. An enclosed rheostat is fastened on the bottom of the stand, and is wound for 110 volt current, and is furnished with an enclosed knife switch with removable base, asbestos wire from rheostat to hood, and 25 feet No. 10 approved stage cable. All terminals are enclosed. It is absolutely spark-proof and well ventilated.

The head is movable, which enables the operator to throw the light rapidly and easily in any direction.

It is the lightest, most complete and durable arc lamp on the market for stage illuminating purposes.

It is used to produce colored light "Effects" by means of colored gelatine mediums. Our silk medium effect (Twilight Effect), described on page 25, is used in front of Hood.

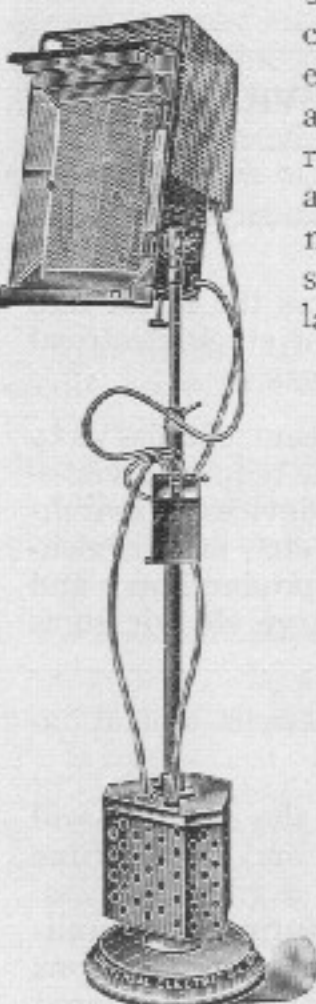
Fig. 2 is provided with a protective Hood. We also make 2 and 4 Burner Flood Light.



Fig. 1



Fig. 1003



Open Box Arc Lamp with Protective Hood.

Fig.		25 Amp.	125 Volt	Price	Weight	Code Word
1	Open Box			\$40.00	71 Lbs.	Abaca
2	" " with Hood	25	125	43.00	75	Abait
3	" " " "	25	250	50.00	81 3/4	Abut
4	" " with Hood	25	250	53.00	85 3/4	Abyss
1001	2 Burner	30	125	55.00	82 3/4	Adept
1002	" " "	30	250	75.00	104 3/4	Adult
1003	" " "	30	125	120.00	171	Allay
1004	" " "	30	250	140.00	201	Allot

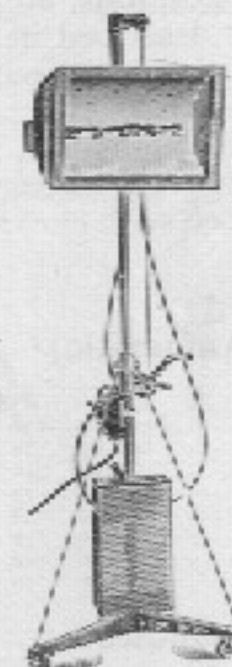
## KLIENGLIGHT ARC LAMPS

For taking motion pictures, (films) photographing in studios, ateliers, theatres, operations in hospitals, and machinery in motion in factories, photo-engraving studios, etc.

Motion Pictures can be taken with the Klieglight Arc Lamp without the aid of daylight. The Klieglight lamps is superior in efficiency, durability, and general usefulness to any other lamp made.

The light produced by the Klieglight Arc Lamp is a clear white brilliant light, extremely intense and evenly distributed, and gives fourfold the result obtained with any other light.

The Klieglight Arc Lamp, Fig. 1011, is neat in appearance, compact in construction, and consists of a wrought iron stand with castors for easy transportation, a small windlass is attached to stand for raising and lowering the hood at will. On the bottom of stand is fastened an adjustable rheostat, wound to take 20 to 35 amperes, 110 volts, all enclosed, well ventilated and furnished with enclosed switch and 25 ft. No. 8 flexible stage cable.

Fig. 1011.  
Automatic Feed, 110 Volt.Fig. 1021  
Handfeed, 110-250 Volt

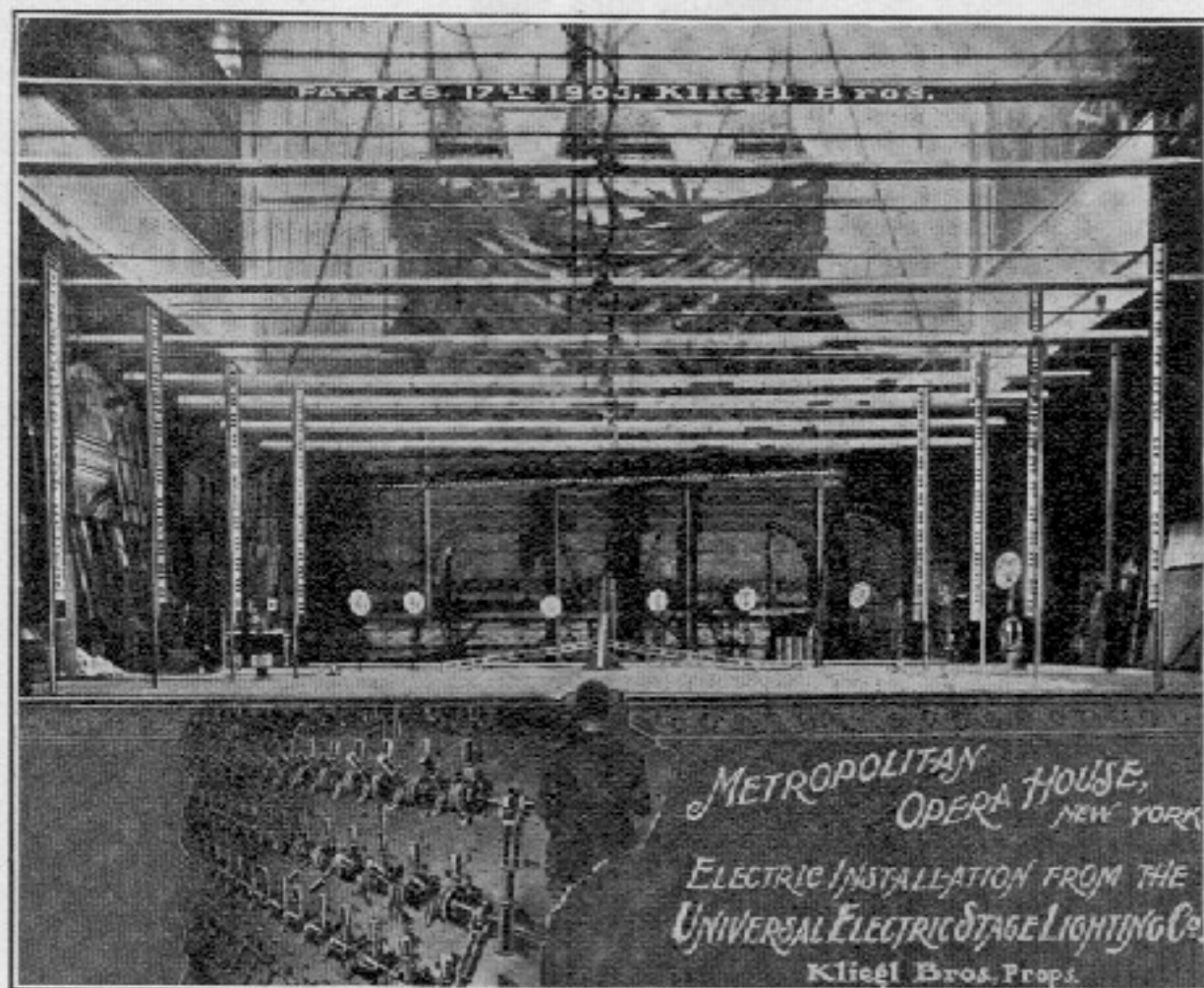
The hood holding the double burner arc lamp is made of galvanized steel, with grooves in front for slide. A wood frame is furnished with a waterproof frosted gelatine; and other colored mediums can be used. Each Klieglight lamp has two sets of carbons (4 carbons), the mechanism operating same is of the automatic type and arranged for either D. C. or A. C. current. The two arc lamps are connected one behind the other, consequently



## A MODERN THEATRE INSTALLATION IN NEW YORK

One of the latest and most interesting electric stage installations in New York is that in the Metropolitan Opera House, Broadway, 39th to 40th Streets.

The entire electric equipment was furnished and installed



by its, and is controlled by one main switchboard underneath the stage floor in the centre. The switchboard (see page 53) is of white marble, and there are absolutely no live parts on the face of the board; the switches and fuses are mounted on separate slates in the rear of the board. Under each switch handle is a dimmer handle which controls the number of lights on each switch. The dimmer handles are interlocking with reversible gear, and have special master wheel to control every dimmer on the board. It is operated by the electrician, overlooking the stage through a special covered opening in the footlight trough. The switchboard controls 11,488 16-C. P. lamps, besides motors, 44 arc pockets, and 228 incandescent stage pockets.

Lamps and pockets distributed as follows:—

## A MODERN THEATRE INSTALLATION IN NEW YORK—Continued

4880—16 C. P. lamps for auditorium illumination and entrances, halls, etc.

700—50 C. P. whites in 8 borders, 1 foot and 2 proscenium lights.

468—32 C. P. ambers in 8 borders, 1 foot and 2 proscenium lights.

468—32 C. P. reds in 8 borders, 1 foot and 2 proscenium lights.

468—32 C. P. blues in 8 borders, 1 foot and 2 proscenium lights.

150—32 C. P. in transparent border light.

150—16 C. P. in paint frame border light.

225—16 C. P. in working lights on stage, in cellar and sub-cellar.

1025—16 C. P. in dressing rooms.

16 quadruple stage pockets, Fig. 365, for Bunchlights (64 pockets), 4 colors, white, amber, red, and blue, 15 amp. capacity each.

16 quadruple stage pockets, Fig. 365, for transparencies (64 pockets), 4 colors, white, amber, red, and blue, 15 amp. capacity each.

16 single stage pockets, Fig. 350, for arc lights on stage, 30 amp. capacity each.

6 single auto pockets, Fig. 305, 3 for each bridge, for arc lights, 30 amp. capacity each.

22 single auto pockets, Fig. 305, for arc lights in fly floor, 30 amp. capacity each.

100 single stage pockets, Fig. 350, for musicians' stands.

The main switchboard is provided with a double set of bus-bars and two master switches for each color of light on stage, so by operating one switch the lights of one color on one half of the stage can be shut off, and by operating the second switch the lights on the other side of the stage can be shut off. This enables the operator to darken one side of the stage while the other half of the stage is illuminated by any of the four colors. This serves the purpose of producing a realistic effect, such as setting sunlight on half the stage, and moonlight on the other half, or vice versa.

## BORDER LIGHTS

There are eight border lights, specially constructed so that each lamp in each border is separated by partitions of highly polished reflector tin, so each lamp throws its colored ray separately on to the stage. This prevents a mixture of color and gives a brighter illumination on the stage. These borders, (Metropole Type, our Fig. 610, page 54), are 64 feet long, made entirely of galvanized iron, and are adjustable, so that they can be hung at any angle. There are four colors in each border.

72—50 C. P. lamps, white

48—32 C. P. lamps, red

48—32 " " " " amber

48—32 " " " " blue

The borders are wired and connected in conjunction with the double set of bus-bars on the switchboard, so that the right half of the borders can be lit while the left half is in darkness, or light of a different color can be used.

## FOOTLIGHTS

The footlights are of the Universal Type, and are curved, with special partitions between the lamps, which prevent the glare of the footlights annoying the occupants of the side boxes. These



## ELECTRO-MECHANICAL SIGNS

The Skyrocket shown in Fig. 765 was made by us for Tilyou's Steeplechase Park, Coney Island, with a number of letters from 12 feet to 5 inches. The rocket is made of galvanized iron with copper lined receptacles, with the surface

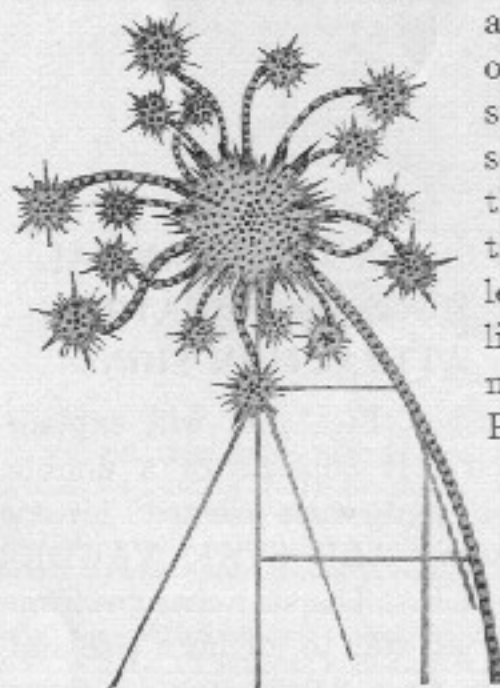


Fig. 765

appropriately painted. It is operated by a commutating switch which gives the illusion of seeing the rocket going up, then the different colored illuminations of the rocket bursting, leaving at the end only the stars lit. It is a very effective illumination for attracting attention. Price on application.

In addition to the illustrations shown, we are prepared to submit special designs to suit the particular requirements of the purchaser.

Contracts undertaken and special estimates made for the construction and erection of Electric Signs and Letters, Electric Fountains, Interior and Exterior Decorations for Buildings, Balls, Banquets, and Special Celebrations, Show Cases, Show Window Illuminations, etc.

We solicit correspondence, which will receive prompt attention.

## TO SAVE TIME

In making inquiries about signs answer these questions:

1. Name or Words.
2. Is the sign to read vertically or horizontally.
3. Is the sign to be single or double faced.
4. Give general dimensions desired.
5. Make rough sketch.
6. Shall we furnish Iron Work.
7. Shall we furnish Lamps.
8. If so, state candle power and voltage.
9. Plain, frosted or colored.

## PRODUCTIONS USING OUR ELECTRICAL APPARATUS AND EFFECTS

## "Creation"

Fleecy Clouds, Rolling Lava, Water Ripples, Automatic Twinkling Stars, Zigzag and Automatic Lightnings, Heavenly Clouds, Flying Angel.

## "The Galveston Flood"

We furnished the entire electrical equipment for this production, including border lights, switchboard, dimmers, etc. Also steam apparatus.

The Great Tidal Wave, Automatic Lightning, Setting Sun, Automatic Rising Moon, Water Ripple, Illumination of Houses, Lighthouse, Automatic Lighting, Moving Clouds, Rain Effect, with Following Rainbow, Stars, Appearing and Disappearing, Thunder Crashes, Automatic Fires.

## "Fall of Pompeii"

We furnished the entire electrical equipment for this production. Volcanic Eruption, Lava—Burning and Rolling, Rain of Ashes, Rain of Fire Stones, Fire Clouds, Flame Effect, Automatic Moon, Sunset, Illumination of Houses.

## "The Johnstown Flood"

Reconstruction and Improvements, Automatic Chemical Smoke for Locomotive, Rainbow, Moving Clouds, Automatic Moon and Water-Ripple Effect, Perspective Lighting of Railroad Bridge.

## "The Land of the Midnight Sun"

Aurora Borealis, highly colored in different designs, Falling Snow, Midnight Sun, Moving Clouds.

## "San Francisco Destruction"

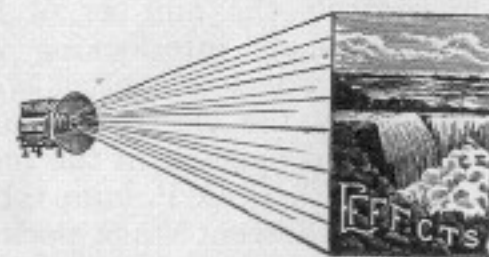
Golden Gate Sunset Effect, Fire Clouds, Flame Effect, Fire and Smoke Effect, Moving Clouds with Rising Moon, Lightning, Explosions.

## "Last Day of the World"

Double Disc Fire Effects, Lava, Flying Angel Effect, Moving Clouds, Waterfall, Lightning, Sunset with Clouds.

## La Loie Fuller

Special Colored Slides, Aurora Borealis, Devouring Flame Effect, Astronomical Illusion, Fluttering Butterflies, Silver Rain, Electric Fountain Effect.





### ELECTRIC WAVING FLAG SIGN

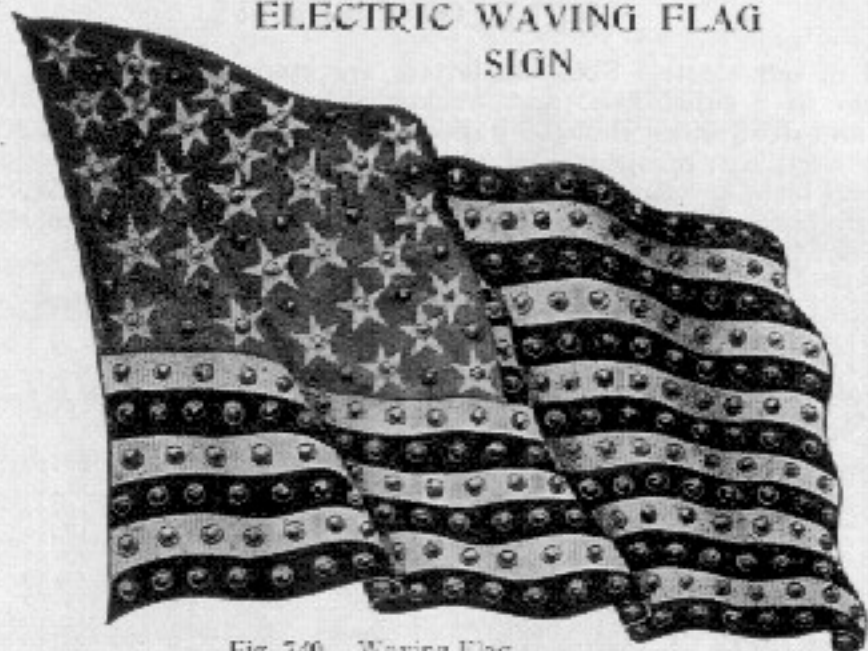


Fig. 740. Waving Flag

One of the many attractive illuminated designs we make. The waving flag never fails to prove a constant theme of admiration and wonder. It is made entirely of galvanized steel, the surface appropriately painted, wired complete to cutout box on sign, and when properly connected to the commutating switch, which is also furnished by us, a constant waving effect is produced across the surface of the flag. The commutating switches are operated by a small motor, complete in every detail. 4 C. P. lamps, red and white, are used in the stripes and plain lamps in each star. Prices on application.

Electric Waving Flags furnished to U. S. Government, Abraham & Straus, Brooklyn, N. Y., and others.

We can also furnish commutating switches and sign flashers of any capacity up to 25 amperes per switch. Price on application. When inquiring, state how many lamps are to be used on one switch.

### ELECTRIC FLUSH SIGN



Fig. 750. Flush Sign

Made entirely of galvanized iron with the lamps extending from the painted letters. Price from \$2.00 to \$3.50 per square foot, completely wired, without lamps.

### ELECTRIC MINIATURE LAMP SIGN

This sign is made entirely of metal, neat in appearance, with candelabra base lamps, for 110 volt current, used in the letters.

Estimates and prices on application.

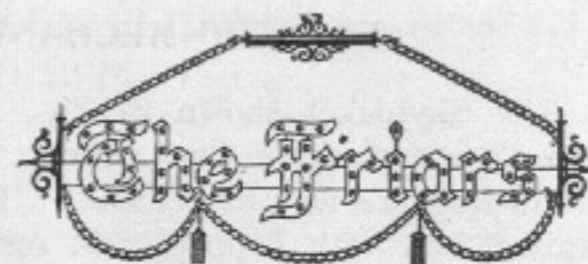


Fig. 755. Miniature Lamp Sign

### ELECTRO-MECHANICAL SIGNS OR THEATRE ATTRACTION SIGNS

Sign, Fig. 760, will explain itself. It consists of a double face sign with electric letters reading ALL STAR VAUDEVILLE. The star changes from a small star to medium size and then to a large star in three different colors. It also has two running snakes in border, and is so constructed that one set of incandescent lamps in the border represents two snakes chasing one another. The snakes can be seen far up and down the street, while only one set of lamps are used in a single border.

### ELECTRIC SIGN FLASHERS

We also furnish commutating switches and sign flashers of any capacity up to 25 amperes per switch. Prices on application. When inquiring, state how many lamps are to be used on one switch.



Fig. 760 Sign with Flasher \$450.00



## ELECTRIC SIGNS

We make a specialty of the manufacture of unique, artistic, STRIKING electric advertisements and signs. We have constructed some of the largest signs in this city.

## ELECTRIC GLASS SIGNS

Illuminated glass signs, as shown in Fig. 710, make a very handsome and readable day and night sign. They are made of a strong iron frame with a white or colored leaded glass background, in which the letters of a different colored glass are inserted, the border and ornaments being made of galvanized iron. The cost of lighting is nominal, only a few lamps being required. We have supplied some of these signs to John Wanamaker, David Belasco, The New York World, etc.



Fig. 710. Illuminated Glass Sign



Panel Sign

Fig. 715. Illuminated Glass Sign

Panel Sign

We furnished to The New York World a perfectly round globe, 36 inches in diameter, made of leaded glass, outlining the map of the earth, illuminated by Yellow Flame Arc Lamps.

Prices on these signs on application.

## SKELETON LETTERS

All of our electric Skeleton letters are made of galvanized iron, put together in a substantial and workmanlike manner, thoroughly waterproof and neat and compact in appearance. We use a special removable copper shell sign receptacle which is mounted on the face of the galvanized iron letters. Rubber covered wire is used, with the ends extending through porcelain bushings in the rear of the letters. The letters are painted white, and can readily be attached to iron frames.

## Letters for Signs Wired Complete Without Lamps

Height of Letters	Average Number of Lights per Letter	Price	Code Word	Height of Letters	Average Number of Lights per Letter	Price	Code Word
	Miniature				Standard		
6 inches	6	\$2.00	Sacan	3 feet	18	\$8.50	Sactze
8 "	8	5.00	Sacchi	4 "	24	11.50	Saeure
10 "	9	6.00	Sacrum	5 "	28	15.50	Safado
				6 "	32	19.50	Safoes
	Standard			7 "	36	23.50	Safwan
10 "	6	3.00	Sacudo	8 "	40	27.50	Sagaz
12 "	7	3.00	Sadala	9 "	44	31.50	Saghar
18 "	9	4.50	Saebel	10 "	48	35.50	Sagely
24 "	12	5.50	Saegst	11 "	52	39.50	Sagena
30 "	15	7.00	Saepsi	12 "	56	43.50	Sagger

## ELECTRIC PANEL SIGNS



Fig. 725. Panel Sign

Background and letters are made entirely of galvanized sheet steel. Letters are finished in white, and are fastened to the background. The background is finished in dark green or blue. The border and ornaments are finished in aluminum.

Price per letter complete without lamps as per Panel Sign.

12-inch..... \$6.00    18-inch..... \$9.00    24-inch..... \$11.00

## ILLUMINATED IRON SIGNS



Fig. 730. Illuminated Iron Sign

Fig. 730 is just as readable in the day time as at night. The cost of lighting is nominal, only a few lamps of small candle power being required.

These signs are made of heavy galvanized iron, with the letters chiseled out, and backed with corrugated opal glass, readable from both sides. Furnished in black or colors. Price of double sign, wired complete, from \$3.00 to \$3.50 per square foot.



## STAGE CABLE

National Electric Code Standard  
and approved by the City Departments.

Our Habirshaw Duplex Stage Cable is especially manufactured for us, it is made exceedingly flexible and substantial. We carry a full stock of different sizes:

No.	18 per 100 ft.	Price	Carrying Capacity	3 Amp.	Code Word
16	.....	\$ 3.90	"	"	Slaaf
14	.....	4.40	"	"	Slaags
12	.....	5.22	"	"	Slaggy
10	.....	6.66	"	"	Slano
8	.....	8.28	"	"	Slatto
6	.....	10.80	"	"	Slave
4	.....	16.20	"	"	Sleazy
2	.....	22.00	"	"	Sleek
	.....	29.70	"	"	Sleety

## BORDER LIGHT CABLE

Approved Flexible Border Light Cable will be made to order. When ordering state number of conductors and size of wire, also length of cable required.

Prices furnished on application.

We carry in stock 3-4 and 6 Conductors No. 12. Border Light Cable.

3 Conductors No.	12 per 100 ft.	Price	Code Word
4	"	\$12.00	Sleuf
6	"	16.00	Slinger
	"	24.00	Slitp

## ASBESTOS COVERED CABLE

Flexible Single Conductor

No.	16 per 100 ft.	Price	Carrying Capacity	6 Amp.	Code Word
14	.....	\$1.80	"	"	Sleep
12	.....	2.00	"	"	Slogan
10	.....	2.36	"	"	Slokop
8	.....	3.60	"	"	Slombi
6	.....	4.55	"	"	Sloops
4	.....	6.30	"	"	Slouch
	.....	9.45	"	"	Sluggy

Above prices are subject to change.

## SUNDRIES

We have at all times in stock a complete line of Sundries, including

Receptacles	Tin Cups for same
Sockets	Mica Insulators
Wire	Mica Washers
Switches	Binding Posts
Porcelain Rollers	Universal Black Tape
Porcelain Insulators	Fuses

All orders promptly executed.

## COLORING FOR INCANDESCENT LAMPS

## "SIGNALOID"

(Registered Trade-Mark)

"SIGNALOID" is a solution chemically prepared for the coloring of incandescent lamps and globes. The process is simple and instantaneous. Merely dipping the lamp in the solution of "SIGNALOID" and withdrawing it immediately, produces a brilliant and durable transparency, giving the lamp the appearance of being made of colored glass.

After many years of careful and scientific chemical experiments, we have succeeded in producing a solution that will not crack, peel or

chip off, and the color will outlast any lamp.

We guarantee "SIGNALOID" to be superior to any other coloring solution on the market.

We carry "SIGNALOID" in the following colors:



	MOONLIGHT BLUE			
RED AMBER PINK	BLUE YELLOW FROSTINE		GREEN PURPLE VIOLET	
	Fig.	Per Doz.	Single Bottle	Code Word
4-oz. Bottle.....	940	\$4.00	\$ .35	Smaad
" ".....	942	8.00	.63	Smaeco
Pint ".....	943	12.00	1.19	Smagri
Quart ".....	944	21.60	1.06	Smalah
Half Gallon.....	945	....	3.15	Smart
Gallon.....	946	....	5.00	Smair

One gallon of "Signaloid" will color 800 8 c.p. lamps.  
Color your own lamps with "Signaloid."

## GENUINE WEATHER-PROOF LAMP COLORING

Guaranteed not to chip, blister or wash off during the life of any lamp outdoors—Transparent, Non-fading, made in Six Colors—Red, Blue, Green, Amber, Canary and White Opal.

	Fig.	Price	Code Word
1/2 Pint.....	1942	\$1.50	Smerli
Pint.....	1943	2.50	Smiela
Quart.....	1944	4.50	Smilzo

Directions on every package.



## SWITCHES AND SWITCH BOXES

The switches, Fig. 525, supplied with Kliegl Bros. apparatus are of the double pole knife switch type, 30 amperes carrying capacity, and are single throw. They are made with heavy solid slate base and are mounted in an approved enclosed Metal Box with slotted hinge cover. Box is provided with a special Aluminum Cable clamp, which acts as a bushing and at the same time holds the Cable firmly by its outer insulation. Box is also provided with a flexible Aluminum Clamping Device for 1-inch or 1 1/4-inch pipe, with wing nuts for fastening same to stand pipes. This arrangement allows permanent connection of cable and asbestos wire to switch.



Fig. 525

Fig.	For 1 -inch Pipe	Amp.	Volts	Price	Code Word
525.	" 1 1/4 "	30	125	\$2.50	Spray
525 A.	" 1 1/4 "	30	125	2.80	Spriggy
526.	" 1 "	50	125	3.50	Sprout
526 A.	" 1 1/4 "	50	125	3.50	Spugna
527.	" 1 "	75	125	4.50	Squall
527 A.	" 1 1/4 "	75	125	4.50	Squash

## MOTION PICTURE TYPE

Double pole knife switch with link fuse connections and lugs mounted on slate base, all enclosed in iron box with cable clamp on side for No. 6 cable.

Fig.	Amp.	Volts	Price	Code Word
528 No. 6 Cable	60	250	\$5.50	Staff
529 " 2 "	100	250	6.50	Stain

## PRICE LIST OF PARTS

Fig.	Price	Code Word
838. Condensing Lens Holder, Aluminum, with condenser for Sciopicon, Fig. 75.....	\$7.50	Seance
839. Slide Carrier, with attachment for Sciopicon..	3.50	Sebago
841. Top Carbon Holder for Fig. 475.....	1.60	Seboso
842. Bottom " " " 475.....	1.85	Seccia
844. Mica Insulation " " 475.....	.50	Secolo
845. Adapter from 6-inch to 5-inch Lens, for spot light.....	1.75	Secui
846. Aluminum Switch Holder for 1 -inch pipe...	1.00	Sedeo
847. " " " 1 1/4 -" " "	1.00	Sedosa
848. " Cable Pullback for Bunchlight stand	.55	Segala
849. " " " Music stands...	.35	Seifia

## "ELECTRA" CARBONS FOR ALTERNATING AND DIRECT CURRENT

(PINK LABEL)	Per 1000 Cored	Code Word	Per 1000 Solid	Code Word
13 x 105 m-m [ 1/2 x 4 1/4 in.]	\$18.00	Silano	15.00	Silano
14 x 105 " [ 1/2 x 4 1/4 " ]	18.75	Silao	16.00	Silao
15 x 120 " [ 5/8 x 4 1/4 " ]	20.50	Silary	18.00	Silary
16 x 125 " [ 3/4 x 5 " ]	23.00	Silca	18.50	Silca
13 x 140 " [ 1/2 x 5 1/4 " ]	21.50	Silcut	19.50	Silcut
15 x 140 " [ 5/8 x 5 1/4 " ]	22.00	Silcut	22.00	Silcut
16 x 140 " [ 3/4 x 5 1/4 " ]	23.50	Silcut	22.50	Silcut
13 x 150 " [ 1/2 x 6 " ]	23.50	Silcut	20.00	Silcut
14 x 150 " [ 1/2 x 6 " ]	23.50	Silcut	22.50	Silcut
15 x 150 " [ 5/8 x 6 " ]	26.50	Silcut	23.00	Silcut
16 x 150 " [ 3/4 x 6 " ]	27.50	Silcut	23.50	Silcut
10 x 150 " [ 1/2 x 6 " ]	3.00	Silcut	32.50	Silcut
13 x 175 " [ 1/2 x 7 " ]	27.50	Silcut	23.00	Silcut
14 x 175 " [ 1/2 x 7 " ]	27.75	Silcut	24.75	Silcut
15 x 175 " [ 5/8 x 7 " ]	28.80	Silcut	25.50	Silcut
16 x 175 " [ 3/4 x 7 " ]	30.70	Silcut	26.50	Silcut
13 x 305 " [ 1/2 x 12 " ]	38.00	Silcut	37.00	Silcut
14 x 305 " [ 1/2 x 12 " ]	42.00	Silcut	40.00	Silcut
15 x 305 " [ 5/8 x 12 " ]	46.00	Silcut	44.25	Silcut
16 x 305 " [ 3/4 x 12 " ]	50.00	Silcut	47.50	Silcut
19 x 305 " [ 1 1/2 x 12 " ]	96.00	Silcut	60.00	Silcut

This brand is commercially known as "Pink Label Electra" Carbons and is equally serviceable on both Alternating and Direct Current. They cannot be equalled in quality and efficiency by any other foreign or domestic make of carbons, and are suitable for Stage Lighting Apparatus, Moving Picture Machines, Photo-engraving and similar Open Arc Lamps, where absolute steadiness of arc and quiet burning is required. Each carbon is stamped "Electra."

## KLIEGLIGHT CARBONS

A scientifically perfect carbon which produces the best light for taking Pictures on a moving film. Used in the Klieglight apparatus. (See Page 9.)

	Price per 1000	Code Word
13 x 120 m/m ( 1/2 " x 4 3/4 " ).....	\$45.00	Antler

## BLUE FLAME CARBONS

These are a special chemical carbon calculated to produce a light Rich in Ultra-violet Rays for medical use.

	Pink Label Cored Per 1000	Code Word
1/2 " x 12 " U. V. ....	\$62.66	Siroco
5/8 " x 6 1/4 " " .....	48.00	Siroc
3/4 " x 12 " " .....	111.98	Siscia
1/2 " x 9 " " .....	110.89	Sisero
1 1/8 " x 12 " " .....	227.17	Siskin

## YELLOW FLAME CARBONS

	Pink Label Cored Per 1000	Code Word
"Yellow Flame" Carbon 1/2 " x 12 " Yellow Flame.....	\$53.75	Sismal
For Stage Lighting 5/8 " x 12 " " .....	71.00	Sissoc
Apparatus. 3/4 " x 12 " " .....	91.00	Sithon

Carbon prices subject to discount according to quantities. Prompt shipment from stock.



## EXIT SIGNS.—Continued.

## Ruby glass with white letters and numbers.

Fig.	Size	Letters	Numbers	Price	Code Word
694	16" X 11" X 5"	8"		\$4.50	Tame
695	25" X 11" X 5"	8"	8"	5.00	Tang
696	31" X 11" X 5"	8"	8"	5.50	Tansy

## White opal glass with red letters and numbers.

697	16" X 11" X 5"	8"		\$5.50	Tapir
698	25" X 11" X 5"	8"	8"	6.00	Tardy
699	31" X 11" X 5"	8"	8"	6.50	Task

EXIT signs of special design and construction made to order.

## STORAGE BATTERIES



Fig. 900

Fig. 900 shows our Universal Storage Battery. It is a remarkably small, light, and compact form of apparatus, used for electrical effects.

The cases are made of hard rubber and are absolutely water and acid proof, so that there is no danger of spilling. They are supplied with extra soft rubber cases into which they fit, making a handsome and convenient apparatus.

Battery Fig. 901 lights 15-1 C. P. carbon film lamps for twenty minutes, or 30-1 C. P. metal filament lamps for the same time.

## POCKET BATTERIES

Fig.	Height	Width	Depth	Volts	Amp. Hour	Weight	Price	Code Word
899	6 3/4"	2 1/8"	1"	2	12	1 1/2 lbs.	\$3.50	Sanci
900	5 3/4"	3 1/2"	1"	4	12	2"	6.00	Sandyx
901	6 3/4"	3 1/2"	3"	4	18	5"	7.00	Sancar

## REGULAR BATTERIES

Fig.	Height	Width	Depth	Volts	Amp. Hour	Weight	Price	Code Word
902	9"	9 1/2"	3 1/8"	4	60	20 lbs.	12.00	Sanefa
903	9"	8"	5 3/8"	6	60	25"	12.00	Sanies
906	9"	9 1/4"	5 3/8"	6	80	35"	21.00	Sannah
907	9"	9 1/2"	9 1/4"	6	160	60"	30.00	Sanpan

## DRY BATTERIES

These Batteries give absolute satisfaction and prove thoroughly reliable for Miniature and Decorative Lamps, especially when the new metal filament type lamps are used. We carry the following Theatrical Dry Batteries with screw top in stack.

Fig.	Battery No.	Height	Width	Depth	Volts	Price	Weight	Code Word
886	6	6 1/2"	—	2 1/2"	1 1/4"	\$ .30	2 lbs.	Salle
887	10	7"	—	1 3/8"	3 1/2"	.25	1/2"	Saltly
888	24	3 1/2"	4"	1 1/4"	3 1/2"	.35	3/4"	Saluto
889	29	6 1/2"	3"	1 1/4"	5	.55	1 1/4"	Salyes

## MINIATURE LAMPS

Figs. 910 and 911 represent our spring socket and lamp to be used in connection with the Universal Storage Battery. This socket is made of a coiled wire spring set upon a hard rubber base. With this lamp and socket, lights may be placed



Fig. 910. Spring Socket 20c. Code Word Sansal



Fig. 911. Lamp for Socket 35c. Code Word Santad

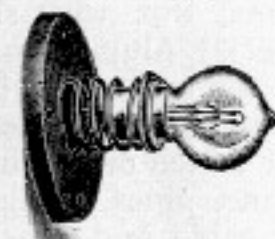


Fig. 912. Socket and Lamp combined 55c. Code Word Santor

at any point on the clothing, with no fear of breakage, as the spring will permit the lamp to be bent in any direction. Lamps and sockets are made to order.

## INCANDESCENT LAMP SUNDRIES

We carry in stock a complete line of *Miniature Metal Filament Lamps* of all voltages.

*Candelabra Base Lamp.*

*Edison Base Carbon Lamps* of 2-4-8-16 and 32 C. P., 110 volts.

*Edison Base Reflector Lamps* of 50 C. P., 110 volts.

*Edison Base Metal Filament Lamps*, wire drawn, 25-40-60-100-250 watt, 110 volts.

*Miniature and Candelabra Base Sockets.*

*E. B. Mica Socket* with grooves for lamp guards for festoon lighting, flower, etc.

*Lamp Guards* for candelabra sockets.

*Lamp Guards* for E. B. Mica sockets for 4-8-16-32 C. P. lamps. The guards are fastened solid to Mica socket, but allow the lamp to be replaced through the front.

*Lamp Guards* for dressing room lamps.

## FOLDING LANTERNS

These Lanterns are made of Metal with fancy colored Gelatine transparencies, very effective for Decoration. Absolutely fire proof, will fold flat for transportation.

Fig.	No.	Folding Lantern	Price	Code Word
931	No. 1	Folding Lantern	\$1.20 per doz.	Saravi
932	" 2	"	2.40 " "	Sarcial
933	" 3	"	4.30 " "	Sarga
934	" 4	"	6.00 " "	Sargos
935	" 5	"	9.00 " "	Sarjar
936	" 6	"	12.00 " "	Sarfac



## MONOGRAM SIGNS

Fig. 700 represents our Star Monogram Sign with keyboard, Fig. 701, complete for Vaudeville Theatres. It is placed on the outside of proscenium wall on both sides of the stage opening, indicating by illuminated letters the part of the program shown on the stage.

The Star Monogram consists of metal box with receptacles, and metal



Fig. 700



Fig. 701

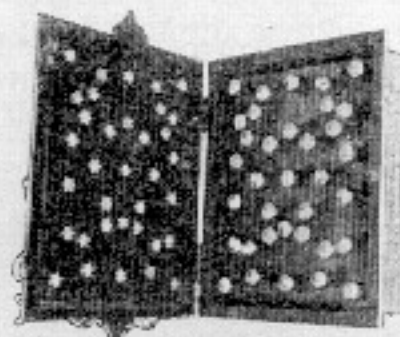


Fig. 700. With door open

door with colored glass front, and is furnished complete with incandescent lamps and keyboard. Keyboard consists of iron box, slate lined, with knife switches, and busbar connection for 21 conductor cable.

Letters are formed of illuminated stars, showing on the colored

glass front of the Program sign, without annoying the audience by the glare of the light, as in other makes.

Fig.		Price	Code Word
700.	Monogram Sign with lamps—Letters from A to O with X.....	\$50.00	Saadja
701.	Keyboard for Monogram Sign.....	45.00	Sabay
702.	Two Monogram Signs with lamps, one Keyboard complete.....	135.00	Saboga
Fig. 700	Size of Metal Box, 22 inches high by 18½ inches wide by 5 inches deep.		
	Size of Surface Plate Door, 25 inches high by 21 inches wide.		

## ACT ANNOUNCER

### For Vaudeville and Moving Picture Shows

Fig. 705 consists of sheet metal box, 5 feet high by 24 inches wide, highly ornamented, with ten compartments. Each compartment is wired for 2-8 C. P. lamps, and furnished with white opal glass front on which the announcements are painted. Act Announcers are placed against proscenium arch and operated by keyboard from the rear of stage, through an 11 conductor cable.

Fig.		Price	Code Word
705.	Single Act Announcer with 10 compartments and keyboard.....	\$35.00	Sabres
706.	Double Act Announcer with 20 compartments and keyboard.....	68.00	Sabtah
707.	Extra opal glasses, size 23¼" x 5¾" x 1½" each.....	.60	Sabus



Fig. 705

## ELECTRIC CARRIAGE CALL

Our Electric Carriage Calls, Fig. 777, are for use at places of amusement to obviate the noise and shouting for carriages when needed.

Carriage Call constructed entirely of metal, each 26 inches high by 19 inches wide, consists of three numbers placed together in one frame, 29½ inches high by 6 feet wide. Each number is distinctly outlined by incandescent lamps and can be seen clearly by day as well as at night.

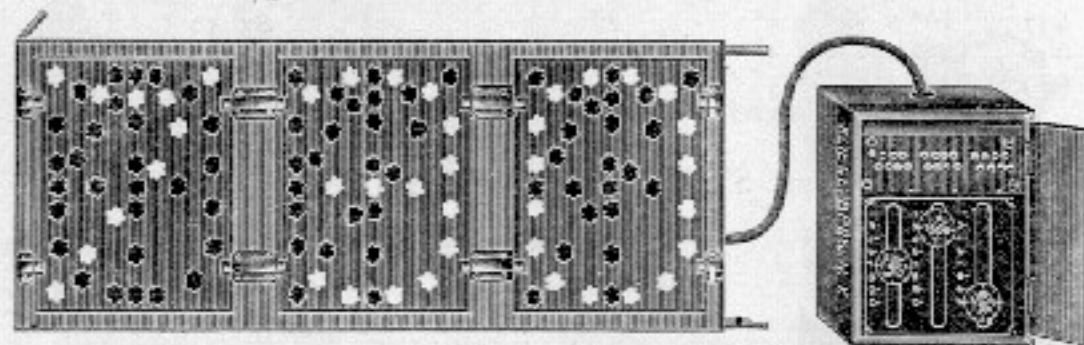


Fig. 777

One special constructed switch which is operated without inserting a card or other contrivance, by simply operating the numbers, units, tens and hundreds on handle and pressing the handle inward, makes the correct connections quickly. The switch is enclosed in a neat iron box, 14½ inches high by 11 inches wide by 6 inches deep, for interior or outdoor use, and can be made to set flush with the wall or placed against it. The door is provided with lock and key. The outfit is furnished complete with 50 feet, 28 conductor cable but without lamps. Twenty Watt lamps are used in calls.

Any printed card with numbers can be given patrons, so that on return of same, the proper carriage can be called by attendant.

Fig.		Price	Code Word
777.	3 Number Call and Switch.....	\$350.00	Saibo

Special size Electric Carriage Calls made to order.

## EXIT SIGNS

Our Exit Signs meet all the requirements of Local Fire Departments and Underwriters' rules. They are made entirely of metal and can be set into or against the wall. The face is frosted ruby glass with white letters and numbers, and successive numbers are furnished.

In Figs. 680 to 691, the glass face slides in from the side.

Figs. 694 to 699 are provided with metal frame hinged doors which hold the glass face.

In place of the frosted ruby glass, we can furnish a white opal glass with red letters and numbers. This is more artistic in appearance and easily readable even when not lit up.



Fig.	Size	Letters	Numbers	Price Each	Code Word
680	10" x 5" x 5"	3"	—	\$3.00	Tabby
685	11½" x 7" x 5"	5"	—	3.50	Tablet
690	16" x 11" x 5"	8"	—	4.00	Tabor
691	25" x 11" x 5"	8"	8	4.50	Tactos



## ELECTRIC TIME BEATER

The Electric Time Beater enables the leader of the orchestra to give the time at the rear of the stage to the chorus or soloists.

The apparatus consists of a time beater, Fig. 670, with handrest and four keys, and the time indicator, Fig. 672,

which has four numbers which illuminate in rotation as soon as

the keys in time beater are pressed down. Low candle power metal filament lamps should be used.

Several of these time indicators at different parts of the stage can be operated by the time beater at one time on the same circuit.

Also a magnet control, Fig. 674, can be enclosed in the circuit to show the leader of the orchestra that the time indicator has operated.



Fig. 670

Fig. 674

Fig. 672

Fig.		Price	Code Word
670.	Time Beater, 4 keys.....	\$35.00	Raphon
671.	" " 6 " .....	45.00	Rapido
672.	" Indicator, 4 numbers.....	12.00	Raposo
673.	" " 6 " .....	18.00	Rappa
674.	Magnet Control.....	15.00	Rapsen

## AISLE LIGHTS

Fig. 676 for illuminating the aisle and steps in the Auditorium of the theatre are placed about 10 feet apart. The light illuminates only the floor and will not shine in the audience's eyes, nor will it interfere with the performance. All aisle lights can be placed on one separate circuit and operated from the box office.

The Aisle Light can also be used in Elevator Cars, for use when passengers enter or leave.

The Aisle Light is made round or square, 14 inches high, and made entirely of metal; it is strong and durable, neat in appearance, and provided with a receptacle for incandescent lamp.

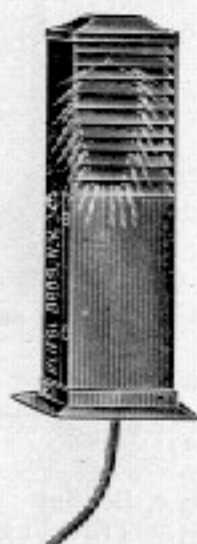


Fig. 676

Fig.	Price	Code Word
676.	Aisle Light.....	\$8.50

Raquel

## STAGE CHANDELIERS, SCENE BRACKETS AND FIXTURES

We are prepared to furnish Stage Chandeliers, Scene Brackets and Fixtures of designs corresponding to the character of the scene. Fixtures are made in the most substantial manner, of approved patterns and are practical for packing and transportation. They are furnished completely wired. Sketches with prices will be furnished on application.

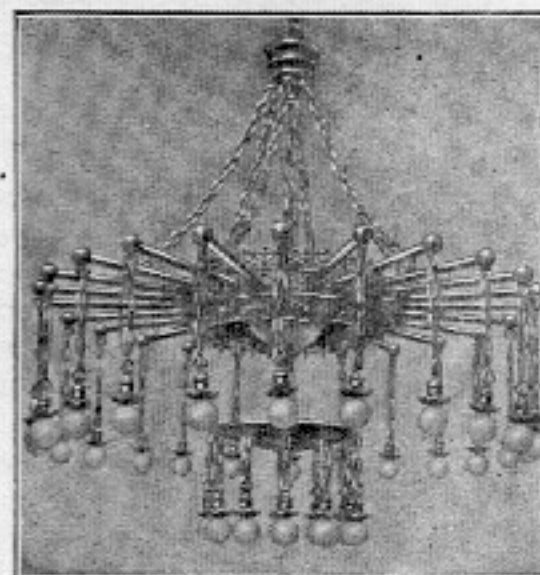


Fig. 791

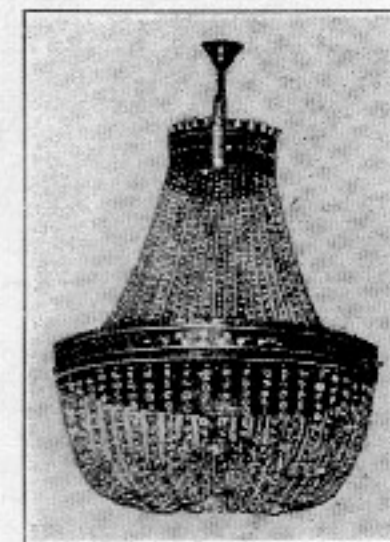


Fig. 792

These illustrations show stage chandeliers we made for John Cort's production, Joseph Hart and Martin Beck's production, etc.

Cut, Fig. 797, shows our approved type of candle wall bracket, having Edison Base lamps. The candles are of the ordinary size, about 6 inches high, and the illustration will explain itself. They are furnished completely wired, with approved fastening device for scenery and include 3-foot connection.

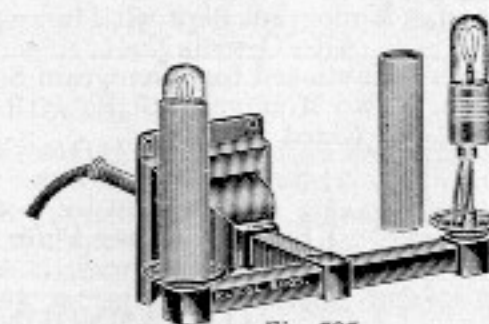


Fig. 797

Fig.	Price	Code Word
797.	2 Candle Wall Bracket.....	\$8.50
798.	Candle Socket separate.....	.35
799.	Candle Lamp separate.....	.28

Salica  
Salify  
Salito

## CURLING IRON HEATER

For Gas

For Use in Dressing Rooms.

Fig. 999 consists of an iron box, well protected and ventilated and arranged to hold and heat several curling irons at one time. Can be set into or against the wall. A practical device, absolutely safe and fireproof.

Fig.	Price	Code Word
999.	Curling Iron Heater.....	\$3.50

Quack



Fig. 999



## STRIP LIGHTS

as shown in Fig. 65c are made of galvanized iron in any desired length and are adapted for lighting the wings and for ground row lights, etc. The lamp receptacles and wires are specially enclosed, while the incandescent lamps are enclosed on three sides.

Fig. 650. Strip Light, completely wired. Price per light, \$1.10. Code word Radreg.



Fig.	We carry in stock Strip lights:		Price	Code Word
651.	5 feet long with	6 lights each.....	\$ 6.60	Radreif
652.	8 " " "	10 " " ".....	11.00	Radslot

We also make special Strip lights with 3 to 4 lights to a foot, where more than one color is used.

Prices furnished on application

## CLEANER STANDS

We make several Styles of cleaner stands, with 1-3 and 5 lights. They are made of a solid but light tripod base with  $\frac{1}{2}$ -inch pipe, on which is mounted a  $\frac{3}{8}$  socket or cluster. The Cable extends through the pipe and out at the Base.

Fig. 657 is provided with cable wheel, on which is mounted a 5-light cluster. This is a convenient and most satisfactory way of taking care of 50-foot cable, which is generally

required. Height to centre of cluster, 42 inches.

Fig.		Price	Code Word
655.	1 light.....	\$3.50	Rambeh
656.	3 " cluster.....	3.85	Ramiah
657.	5 " " with telescopic stand and cable wheel.....	8.00	Rarnify

Feed cable extra.

## CLEANER STANDS FOR GARAGES

Fig. 658. These are heavier in construction than our regular cleaner stands. A 4-light cluster is placed on the side and is provided with a Reflector, stand is adjustable and is 36 inches high to center of cluster. Lamps are protected by wire screen.

Fig.		Price	Code Word
658.	4-light cluster.....	\$8.50	Ramiro



Fig. 658



Fig. 655



Fig. 657

## MUSIC STANDS

Fig. 660 illustrates our Music Stand and Electric Light Outfit complete for Orchestra use. The Music Stand is mounted on a cast-iron tripod base, adjustable stand, which can be raised or lowered to any required height, wooden music holder, and tin hood with lamp socket. Held by its outer shell. The entire

socket is enclosed in tin shade, with operating key extending through. The tin hood is provided with a slot through which the light is thrown only upon the music.



Fig. 660

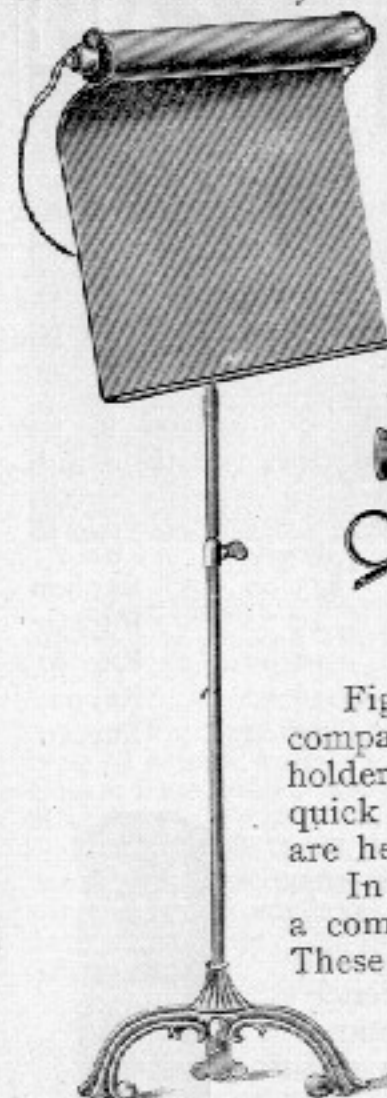


Fig. 666



Fig. 662

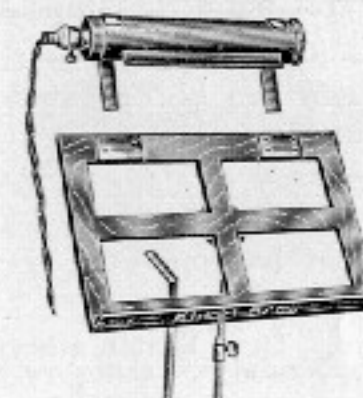


Fig. 665

Fig. 665 is a music stand for traveling companies. The light fixture, wooden music holder, and stand pipe are removable to allow quick packing. The parts slide together and are held fast by set screws.

In addition to the above, we manufacture a complete metal stand as shown in Fig. 666. These are made with or without light fixtures, and are particularly serviceable for out-of-door use, roof gardens, traveling shows, parks, etc.

Fig.	Description	Price	Code Word
660.	Music Stand, complete with 5-foot cable.....	\$4.75	Ramner
661.	" " without light fixture.....	3.00	Ramoon
662.	" " Light Fixture.....	1.65	Ramot
663.	Leader " larger, double light.....	6.00	Rapeux
665.	Traveling Music Stand complete.....	4.75	Ramrod
666.	Metal " " ".....	5.00	Ramtil
667.	" " " " without light fixture.....	3.75	Ranft
668.	Piano Light to clamp to Music Rack.....	1.90	Rangue
660.	" " Brass with Stand.....	4.50	Rankig

ALWAYS ON HAND



## FOOTLIGHTS

Our Universal Semi-flush Type Footlights, Fig. 622, conform with the latest Underwriters' rules, and are furnished with a metal trough for single row, into which the footlights proper, with receptacles completely wired, are placed, and are painted white. The lamp protecting hood is of double iron which makes it specially strong and is not more than  $2\frac{3}{4}$  inches to  $3\frac{1}{4}$  inches above the stage level, according to the style lamps used. The lamps are placed in such a position that they give equal light to the dancers' feet as well as the backdrop.

Footlights are provided with splicing boxes, Fig. 624, the same type footlight with double row of lights.

Fig. 626, footlight with inverted lights; furnished only in single row.

Fig. 627, Portable Footlights, very neat and light, are set on the stage floor, and no recess in floor is required. The lamps are well protected and placed in a horizontal position, and footlights are furnished completely wired with 3-foot cable for connection. This type footlight is generally used for portable stages, in hotels, schools, etc.

If the Footlights are much curved, we can supply our Metropolitan Type, Fig. 628, which has special partitions between the lamps, which prevents the glare of the footlights annoying the occupants of the side boxes, and at the same time prevents

a mixture of colors and gives a brighter illumination on the stage. We have supplied the Border and Foot Lights for the Metropolitan Opera House, Belasco Theatre, Century Opera House, New York, Metropolitan Opera House, Philadelphia, etc., etc.

The Disappearing Footlight, Fig. 629, illustrated on page 54, is an adjustable footlight, which can be raised or lowered at will and covered over with floor panels. It is curved and has a double row of lights. This footlight is installed at the Albany High School, Albany, N. Y.

## WHEN ORDERING BORDER AND FOOTLIGHTS

1. State length of border.
2. State length of footlight, whether curved or straight.
3. State number of colors used in borders and footlight.
4. State number of lamps to each color.
5. State candle power and voltage of lamps.
6. State location of cable splicing box, whether in the center, or right or left facing the audience.

Allow 3-32 C. P. or 4-16 C. P. lamps per foot.

Prices on application.

## PROSCENIUM LIGHTS

Proscenium lights are made of galvanized iron any height desired, with receptacles, wired complete to splicing box at bottom, ready for erection.

The Universal Type, Fig. 638, Proscenium lights are generally made 16 feet high and wired for 24-16 C. P. or 32 C. P. lamps. Size, 6 inches front, 3 inches rear, and 5 inches deep. Lamps are in a vertical position.

Allowance should be made by the builder to leave sufficient space in the stone proscenium wall to hold Proscenium Strips flush with the wall.

Fig. 638. 16 ft. long, 24 lights. Price \$26.40. Code Word Radoub

## BUNCH LIGHTS

The Universal Light Round-Head Bunch, Fig. 630, is mounted on a movable attachment on a telescopic stand, which can be raised or lowered.

The Bunch Light Head is made of reflector tin with an extra reflector in the centre, around which are set incandescent lamps. The conical centre piece not only prevents any waste of light or casting of shadows, but gives an extra reflecting bower. We make this Bunch Light in two sizes, viz: with seven and ten lamps.

Our Universal Square-Head Bunch Light, Fig. 641, is made in three sizes, viz: eight, twelve and eighteen lamps. The Square Bunch Light-Head is made of galvanized iron, painted white inside, and is provided with two grooves for color slides.

It is mounted on a telescopic stand and movable attachment so that the light can be thrown

in any direction, and will cover an area of 40 feet. Bunch Lights are provided with receptacles, and are completely wired, with three feet No. 14 approved stage cable attached.

Open Box Bunch Light, a new type of bunch light with great illuminating power. It is wired for 10-100-Watt Metal Filament Lamps (five on top and five on the bottom), otherwise the bunchlight is similar in construction to our Fig. 641. The stand is provided on the bottom with a cable pullback, through which the cable passes; this prevents the bunch light from being thrown over by the accidental pulling of the cable.

Fig. 647 shows our double bunch light arranged for 20-100-Watt Tungsten lamps. It is very effective for color changes, as two colors can be used at one time.

Fig.		Price	Weight	Code Word
630.	Round Head for 7 lights.....	\$11.00	37 1/2 lb.	Raidir
631.	" " " 10 " .....	13.00	40 "	Raido
640.	Square " " 8 " .....	12.00	44 "	Raigus
642.	" " " 12 " .....	13.00	44 1/2 "	Raixa
643.	" " " 18 " .....	18.00	46 1/2 "	Rajas
645.	For 10-100-Watt Lamps.....	15.00	46 1/2 "	Rakel
647.	Double for 20-100-Watt Lamps.....	27.00	73 "	Raleo
648.	Metal Filament Lamps 100-Watt, 110 V.....	.80		Ralhos



Fig. 630.



Fig. 641



Fig. 647



## BORDER LIGHTS—Continued

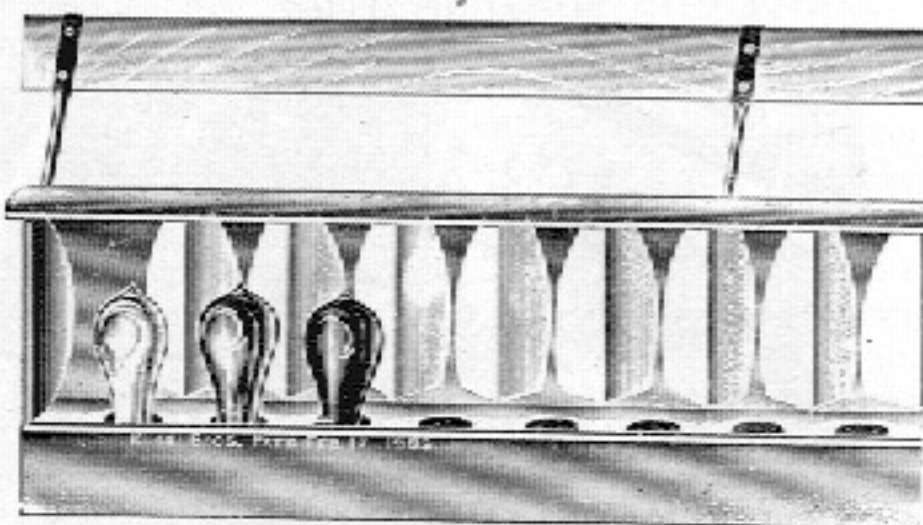


Fig. 610. Metropole Type Border Light

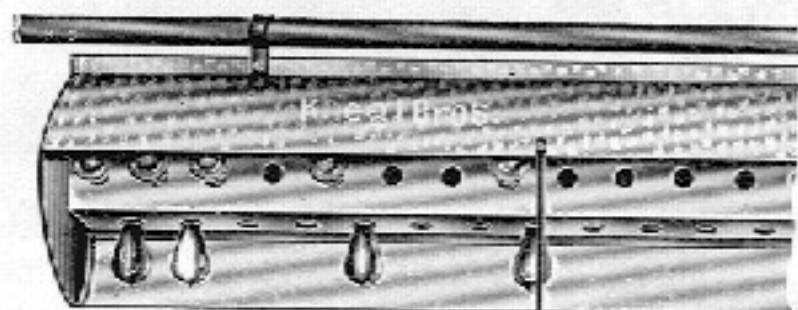


Fig. 620. Manhattan Type Border Light



## BORDER LIGHTS—Continued

Fig. 600, Universal Type Border Lights are most in demand by architects and theatrical managers for its light-throwing quality and saving of space between drops. Border light in position will take 9 1/4 inches with a 60-Watt Tungsten lamp inserted. They are furnished with receptacles and completely wired to cable splicing box, ready for erection and connection to border light cable. Border lights are adjustable and are provided with 1 1/4-inch pipe for hanging. Borders are painted with our special C. W. white paint on the inside, which does not get yellow from the heat.

Fig. 600. Weight 6 1/4 lb. per ft. Code Word Rahmag

Fig. 605, Concert Type Border Light, generally used for No. 1 border for interior settings with ceilings.

Fig. 605. Weight 1 lb. per ft. Code Word Rabote

Fig. 608, Portable Type Border Light, a very small, neat border light with one row of lights, adapted for schools, clubs, motion picture and small vaudeville theatres.

Fig. 608. Weight 4 1/4 lb. per ft. Code Word Racaille

Fig. 610, Metropole Type Border Light. This is provided with special reflectors between the lamps to prevent the mixing of the colors of the lamps in border lights.

Fig. 610. Weight 7 1/4 lb. per ft. Code Word Racamas

Fig. 611, New Type Border Light, very effective for metal filament lamps, has two rows of lamps and is adjustable.

Fig. 611. Weight 10 1/4 lb. per ft. Code Word Raccatto

Fig. 620, Manhattan Type Border Lights, has two rows of lamps alternately placed and wired. This type is not adjustable, as it is made to hang at the required angle.

Fig. 620. Weight 11 1/4 lb. per ft. Code Word Racily

## BORDER LIGHT CABLE SUPPORTS

Approved and Recommended by the Department of Water Supply, Gas and Electricity, New York City.

We make a special Border Light Cable Support, Fig. 635, for taking the strain of the cable off the border light. It is fastened to the 1 1/4-inch pipe.

Fig. 636, Border Light Cradle for holding and supporting the cable when raised or lowered. Both articles will take any size border light cable from 3/8-inch to 1 1/4-inch diameter.

Fig. 635. Border Light Cable Support. Price \$3.00 Code Word Radloch

Fig. 636. Border Light Cradle. Price 5.00 Code Word Radnaaf

Border Light Cable. See Page 68.



Fig. 605

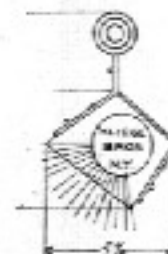


Fig. 608

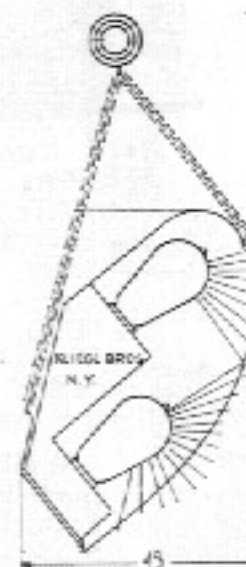
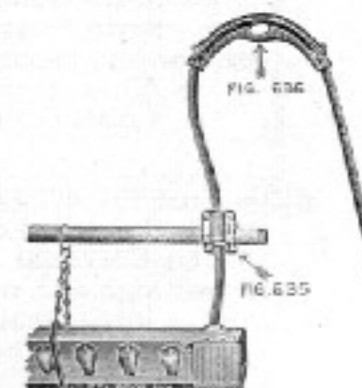


Fig. 611



This shows the Border Light Cable Support and Border Light Cradle in position

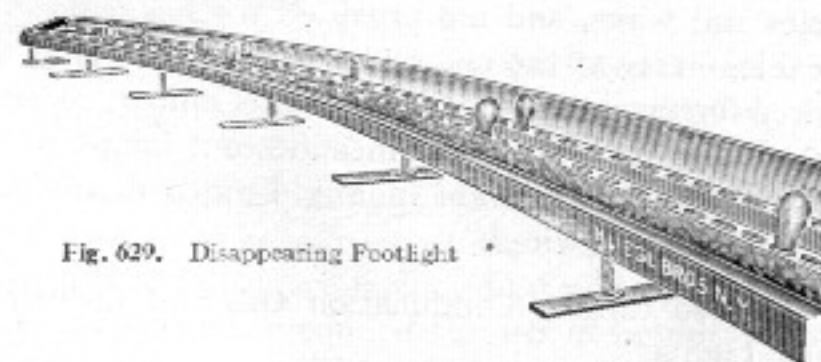
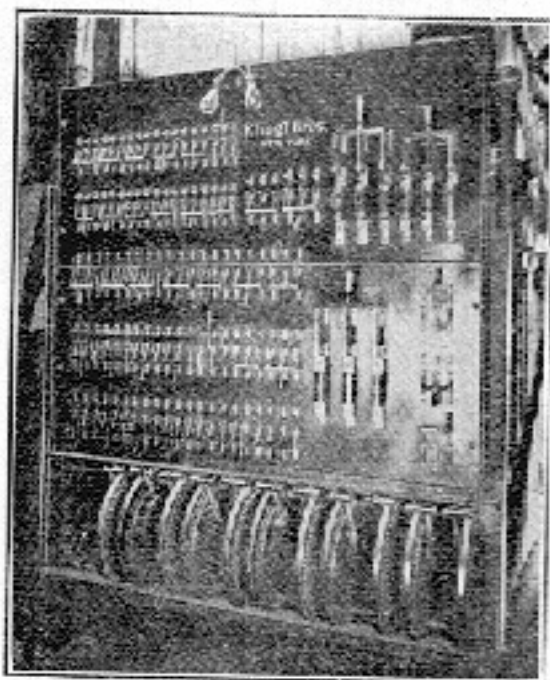


Fig. 629. Disappearing Footlight

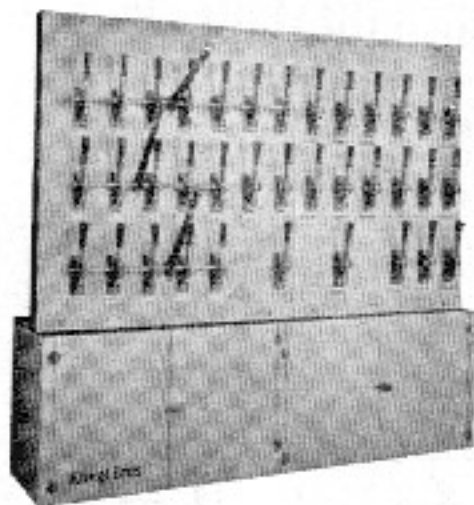


## SWITCHBOARDS



Stage Switchboard, Prenter's 5th Ave.  
Theatre, N. Y.

the National Board of Fire Underwriters and City Inspection.



Deadface Type

The switches are of a specially constructed Type, the Handles extending through the face-front of Main Board. The switch Handles on face of Board are mounted on a shaft and arranged in gangs, so any Number can be thrown in or out by Master Handle.

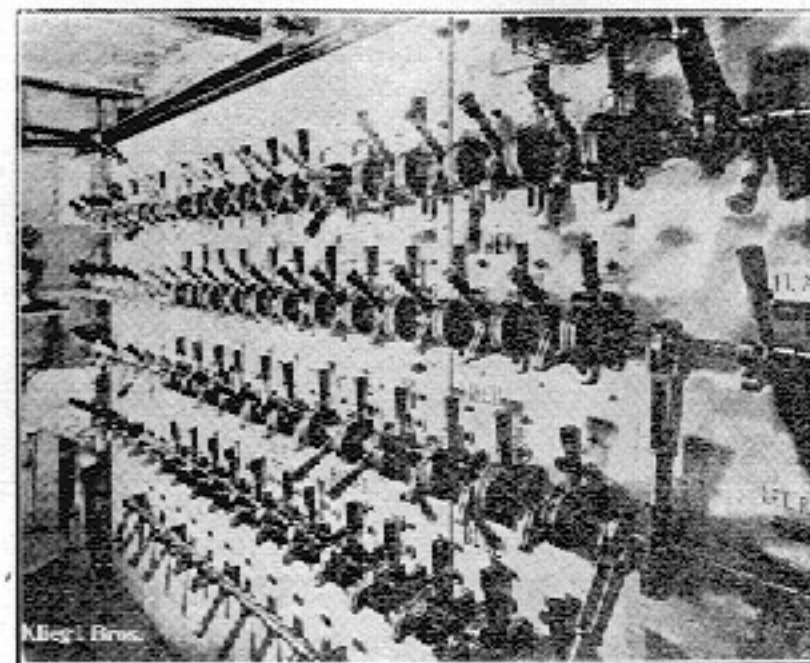
We design and manufacture switchboards for all of the numerous purposes for which they are required in theatrical work. All necessary precautions are given to insure the utmost durability, safety and efficiency, and we guarantee that they are the best that can be had for the purpose.

All switches are mounted on marbleized slate, or marble, and the conducting portions are of copper. The switches are fused and comply in every detail with the requirements of

New York City Rules require all Theatre Switchboards to be of the DEADFACE TYPE, similar in construction to the one supplied by us to the Metropolitan Opera House, New York (see page 76 for particulars of Electrical Installation at the Metropolitan Opera House, New York).

There is absolutely no live parts on the face of the board; all switches and fuses are mounted on separate slate panels in rear of Board.

## SWITCHBOARDS—Continued



Stage Switchboard, Metropolitan Opera House, N. Y.

We are prepared to draw plans and specifications, furnish estimates, and take bulk contracts for theatre lighting, including everything that will make theatre illumination a perfect unit.

## BORDER LIGHTS

We manufacture and undertake to furnish and install all kinds of Electric Border Lights, Proscenium Lights, Foot Lights and Strip Lights, in the best and most economical manner, combined with durability, strength and efficiency for light-throwing purposes.

Our Border Lights conform to the latest Underwriters' rules and are made of No. 20 galvanized iron, with grooves to hold receptacles and wires, and are provided with splicing boxes for border cable, either at the end or in the centre. They are generally wired for three or four colors—white, amber, red and blue, about 4-16 C. P. or 3-32 C. P. incandescent lamps to the foot in one Row. They are made in any Length desired, and are furnished completely wired.

We can also furnish Combination Gas and Electric Border and Foot Lights.

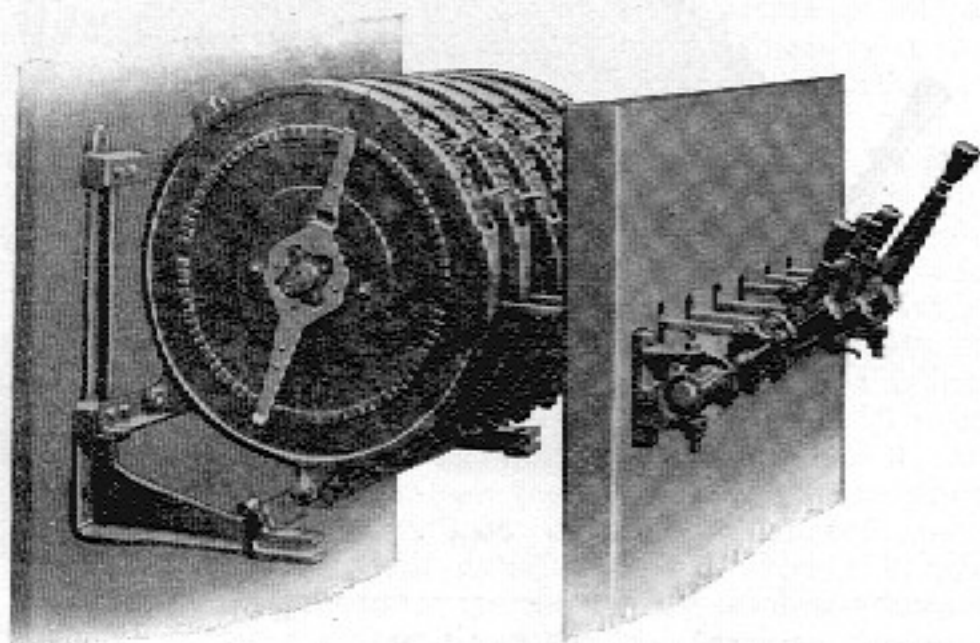


## THEATRE DIMMERS—Continued

## Round Type Interlocking Dimmers.

end frame, an angle iron at the lower back of the frame, and an angle iron bar placed midway on the horizontal arm of the frame.

The operating levers are mounted on a shaft which is carried on self-centering bearings on an extension of the horizontal arm of the end frame, and the levers are so mounted in both the interlocking and non-interlocking types.



Cut C

Cut C indicates arrangement of dimmers for rear of board mounting with operating handles mounted on the front of switch board. This construction costs approximately twenty per cent. more than Cut A arrangement.

See page 51 for additional cuts showing dimmers, mountings and dimensions.

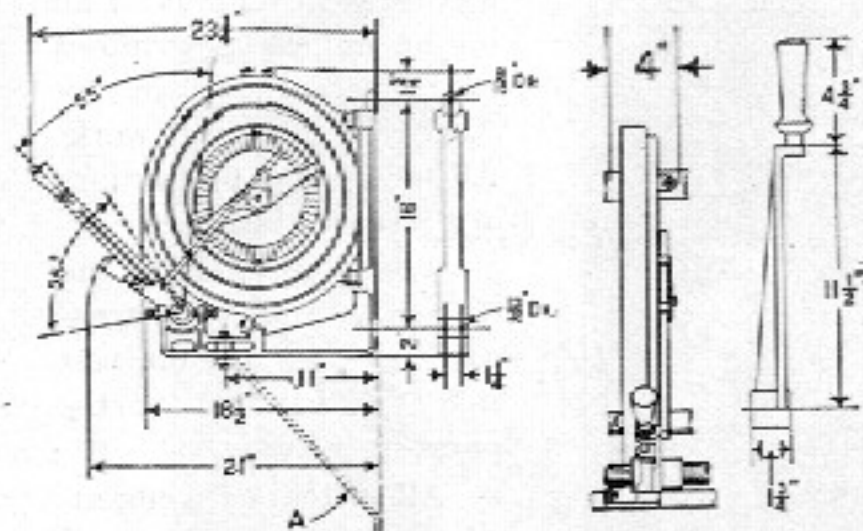
We will gladly furnish estimates on special arrangements to suit particular requirements.

## INFORMATION REQUIRED

1. State whether system is 2 or 3 wire.
2. Voltage of circuit.
3. Number and type of lamp i. e., carbon or metal filament, per dimmer.
4. State cut showing arrangement of dimmers desired.
5. Give complete information regarding space limitations.
6. State arrangement of colors desired.

## THEATRE DIMMER-DIMENSION-DIAGRAMS

In estimating the total length of a bank of interlocking dimmers allow 4 inches for each plate,  $1\frac{1}{4}$  inches for each master lever, and  $2\frac{1}{4}$  inches for each end frame. Two end frames are required for six plates or less, three for 12 plates, four for 18 plates, five for 24 plates, and so on.



"A" indicates where extra supporting bracket can be placed, if necessary. This bracket is not supplied with the dimmer.

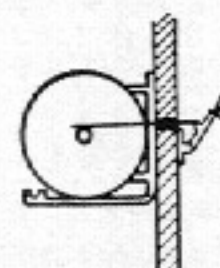
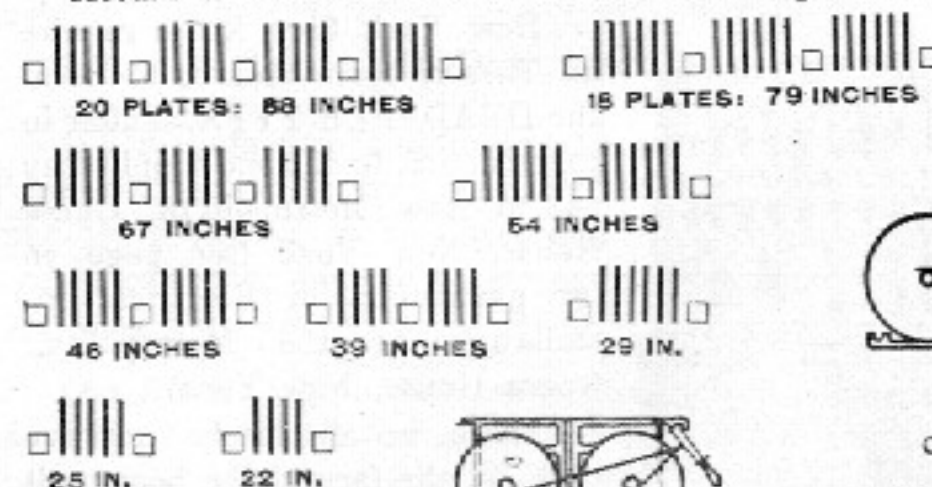
Space occupied by a single plate.

Space occupied by master lever.

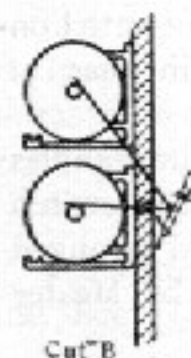
## READY REFERENCE CHART

from which approximate dimensions (height, width and depth) of any ordinary combination of Round Type dimmer plates can be quickly calculated.

Actual dimensions will not exceed those given here.



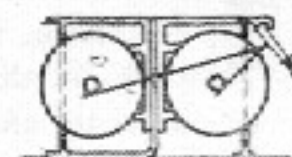
Cut H



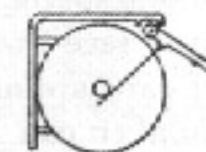
Cut B



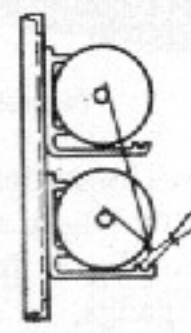
Cut D



Cut G



Cut E



Cut F



## THEATRE DIMMERS

Figs. 533, 536 and 539 show our Round Type Dimmers for either Direct or Alternating Current, for use in churches, town halls, lodge rooms, motion picture theatres, etc. This type can be mounted flat on the wall or switchboard. Each dimmer consists of a circular base of soapstone on which are mounted the successive steps of resistance, the copper contact segments and the terminals. The resistance material is completely covered by a cement composition, rendering the dimmer moisture proof, and fire proof. The soapstone base is encased in (and insulated from) an enameled cast iron cover which, when adjusted over the base plate, covers the whole face of it except the central portion, or part on which the copper contact segments are mounted.

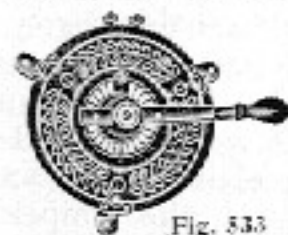


Fig. 533



Fig. 536



Fig. 539

The cover is fastened to the base by four insulated bolts and is provided with lugs through which pass the screws that secure the dimmer plates to the frame in which they are assembled. The contact segments are arranged in a circle, and over them rides a double-ended contact lever carrying a contact shoe at each extremity. All current carrying parts are thoroughly insulated from the framework and operating mechanism

and in assembling the plates sufficient allowance is made to permit of easy access to any part of the installation.

## ROUND TYPE DIMMERS

## FOR 2 WIRE, 110 VOLT CIRCUIT

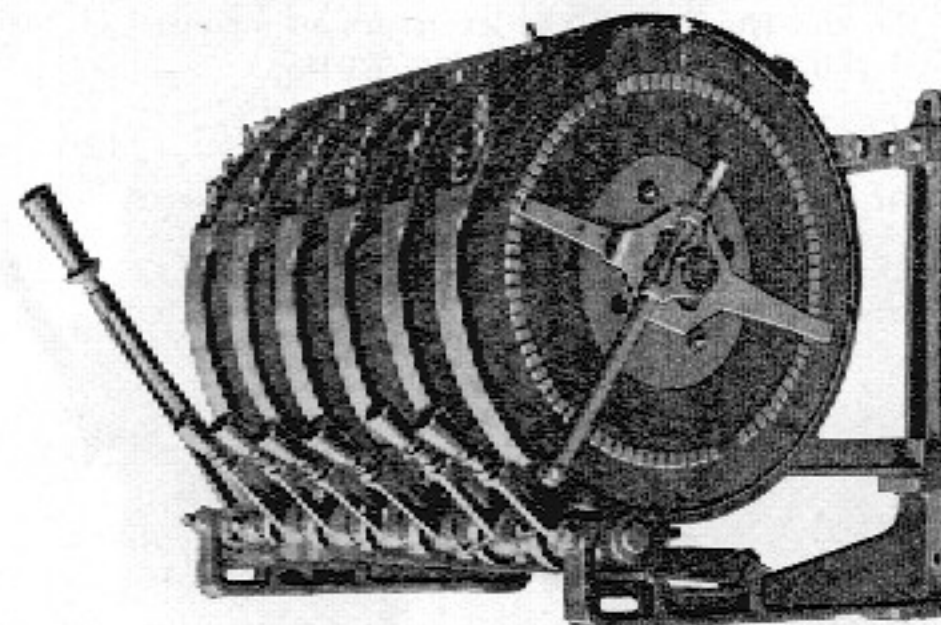
## FOR 2 WIRE, 220 VOLT CIRCUIT

No. of Metal- lic Filament Lamps		No. of Car- bon Lamps	No. & Size of Plates	Code No.	List Price	No. of Metal- lic Filament Lamps		No. of Car- bon Lamps	No. & Size of Plates	Code No.	List Price
60 watts	40 watts					60 watts	40 watts				
2	2	2	1-6"	530 A	\$ 2.30	2	2	2	1-6"	530 A	\$ 2.30
4	4	4	1-9"	531	8.50	4	4	4	1-9"	531	12.00
5	5	5	1-9"	531	8.50	5	5	5	1-9"	531	12.00
9	14	10	1-9"	532	8.50	9	14	10	1-9"	532	12.00
11	17	12	1-9"	533	8.50	11	17	12	1-9"	533	12.00
14	21	15	1-12"	534	12.00	14	21	15	1-12"	534	12.00
18	27	20	1-12"	535	12.00	18	27	20	1-12"	535	12.00
23	34	25	1-12"	536	12.00	23	34	25	1-12"	536	12.00
27	41	30	1-16"	537	17.00	27	41	30	1-16"	537	17.00
30	55	40	1-16"	538	17.00	30	55	40	1-16"	538	17.00
40	70	50	1-16"	539	17.00	40	70	50	1-16"	539	17.00
53	82	60	2-10"	541	30.00	53	82	60	2-10"	541	30.00
74	110	80	2-10"	542	30.00	74	110	80	2-10"	542	30.00
100	140	100	2-10"	543	30.00	100	140	100	2-10"	543	30.00
100	140	100	2-10"	544	30.00	100	140	100	2-10"	544	30.00

## THEATRE DIMMERS—Continued

## Round Type Interlocking Dimmers.

The arrangement adopted in the Round Type Theatre Dimmers as per Cut A, makes them more compact than any other type of dimmer apparatus. At the same time sufficient space allowance is made to permit easy access to all parts.



Cut A

CAPACITY OF DIMMER			2-WIRE, 110 VOLTS			3-WIRE, 110-220 VOLTS		
No. of Metallic Filament Lamps		No. of 16 C. P. Car- bon Lamps	Cat. No.	No. Plates	List Price	Cat. No.	No. Plates	List Price
60 Watt	40 Watt							
12	30	22	530	1	\$30	2530	1	\$35
12	41	33	531	1	30	2531	1	38
12	50	44	532	1	30	2532	1	38
12	71	55	533	1	30	2533	1	38
12	90	65	534	1	38	2534	1	38
12	120	87	535	2	57	2535	2	57
12	150	110	536	2	57	2536	2	57
12	180	130	537	2	65	2537	2	74
12	200	150	538	2	74	2538	2	74
12	225	165	539	3	84	2539	3	93
12	240	175	540	3	84	2540	3	93
12	255	185	541	3	101	2541	3	101
12	270	200	542	4	112	2542	4	112
12	300	220	543	4	112	2543	4	112

As will be noted from the cuts, these dimmers consist of circular plates, mounted in a frame which is essentially a bench, made up of cast iron end frames with angle and flat iron connecting pieces. These connecting pieces are disposed as follows: A flat iron bar at the top and back of the



## ARC LAMP FOR STEREOPTICON

Fig. 480 shows our Handfeed Arc Lamp for use with the Stereopticon. The lamp may be used on either direct or alternating current. Both of the carbons can be adjusted together by the wooden handle. The lamp is similar in construction to our Universal Arc Lamp, Fig. 475.

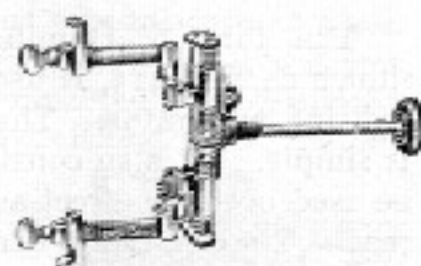


Fig. 480

Fig. 481 shows Stereopticon Arc Lamp with focusing frame, which has a brass spindle with wooden handle extending through rear of lamp hood, by which operator can focus the lamp at will. The Arc Lamp is fastened to the focusing frame by an automatic swinging joint, allowing the lamp to be adjusted vertically by handle of arc lamp without the customary set screws or second adjustment handle.

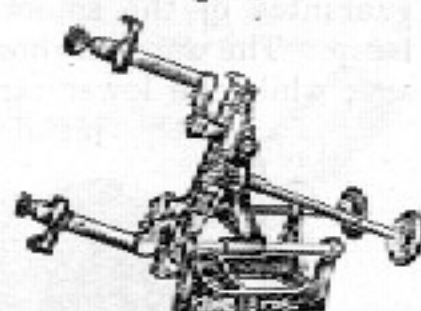


Fig. 481

Fig. 482, Right Angle Handfeed Arc Lamp for D. C. or A. C. current.

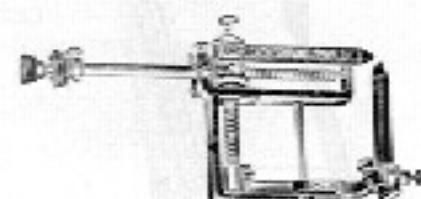


Fig. 482

Fig.	Price	Code Word
480. 15 to 30 Amp. . . . \$ 9.00	Pesais	
481. 15 to 30 " . . . . 14.00	Pescan	
482. 10 to 20 " . . . . 15.00	Pescota	

## AUTOMATIC ARC LAMP

We have Automatic Arc Lamps for Open Arc, for direct or alternating current, in several sizes—15, 25, 50 and 100 amperes. These Automatic Arc Lamps are generally used to illuminate fountains, and for photo-engraving lamps, but they are also used as stationary front balcony lights, as no operator is required to keep the lamp working. When ordering, state if for direct or alternating current. Fig. 485 to 487 are for Direct Current.

Fig.	Price	Code Word
485. Automatic Arc Lamp, 15 to 25 Amp., 125 V. . . . \$40.00	Peser	
486. " " " " 50 " " . . . . 50.00	Pesons	
487. " " " " 100 " " . . . . 65.00	Peteus	

## AUTOMATIC COLOR CHANGER

This is an electric device made for a regular spot light in the balcony to cover the entire stage automatically with different colored lights. The colors are changed from the stage by simply turning on and off a switch which controls the electric magnet.

Six-inch Spot Light with Automatic Lamp and Automatic Color Changer, Fig. 490. Price complete, \$150.00. Code Word, Petit.

## UNIVERSAL FIXED RHEOSTATS

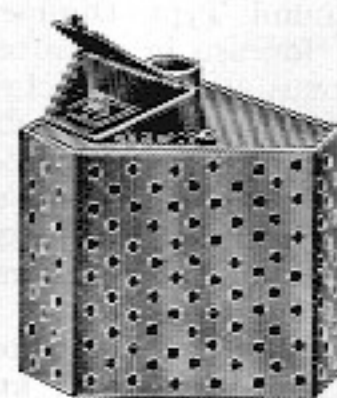


Fig. 500

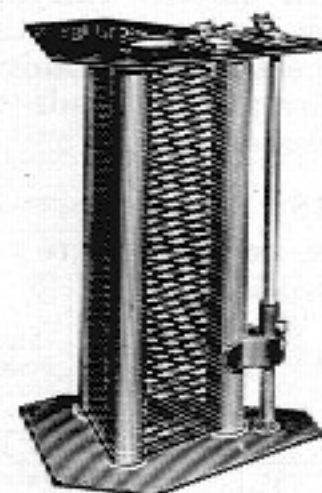
Fig. 500 shows the coil complete, all enclosed in strong iron casing. It can be used on either direct or alternating current.

A resistance wire giving a specific resistance three to four times greater than that of German silver, is wound around a triangular frame on porcelain rollers, and as the wire heats but little, the temperature never attains a high degree. This Rheostat is therefore the lightest and most compact on the market. Two terminal posts are provided, one for each end of the wire.

The resistance wire extends through the iron frame, and is fastened to our special terminal post by set screw on the outside, which can be adjusted at any time without taking Rheostat apart—this ingenious device avoids the breaking of the porcelain insulation under terminal post. This Rheostat is regularly furnished with *open box* and *lens box* arc lamps.

Fig.	Amp.	Volts.	Weight.	Price	Code Word
499	35	125	13 1/2 lbs.	\$8.00	Rabalde
500	25	125	13 1/2 "	8.00	Rabalva
501	15	125	13 1/2 "	8.00	Rabato
502	10	125	13 1/2 "	8.00	Rabbah

## UNIVERSAL ADJUSTABLE RHEOSTAT

Fig. 510  
Interior of Coil.

For 52—125 to 250 Volts

Our Adjustable Rheostat as illustrated in Fig. 510 showing the interior of the coil, and Fig. 511, all enclosed, can be regulated to suit any voltage up to 125 volts. It is wound on the same principle as the Fixed Rheostat, and is furnished with the Sciop-ticon.

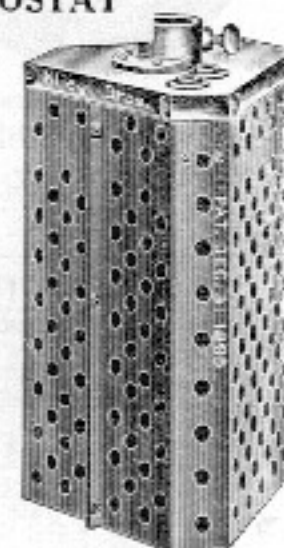


Fig. 511

Fig.	Amp.	Volts.	Weight.	Price	Code Word
511	25	52 to 125	14 lbs.	\$10.00	Rabbino
515	25	52 to 250	26 1/2 "	20.00	Rabello
516	25	Fixed 250	26 1/2 "	18.00	Rabeta
517	25 to 35	125	28 "	26.00	Rabisco
518	25 to 35	125 to 250	34 "	38.00	Rabiza

We also manufacture complete Rheostat Boxes and Outfits for all purposes, and for the use of traveling companies.







## BRANCHOFF CONNECTOR

This is a device for taking several electric connections from one main feed cable without making splices on your cable. The splices made on a stage cable, no matter how perfectly made, weaken the stage cable at this point, and allow the cable to bend and break and cause short circuits.

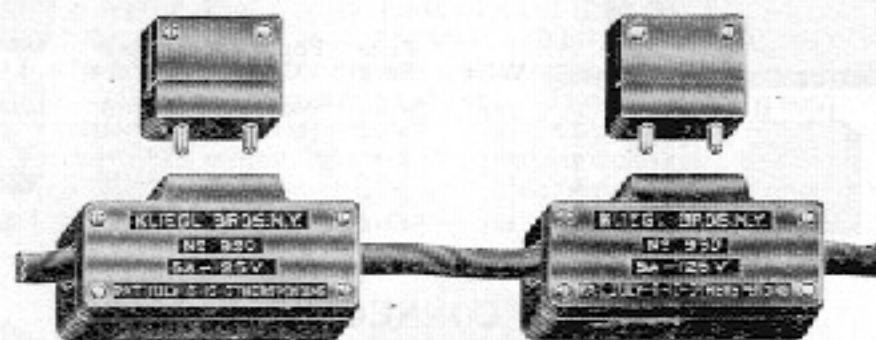


Fig. 990

Our new Branchoff connector, Fig. 990, eliminates all these defects. It is a simple connector made in two parts, of hard fibre. The main cable passes through the receptacle and into this the conductors are fastened by set screws to the female contacts. The cable is held firmly by its outer insulation in the branchoff receptacle by an approved cable clamp. The plug which holds the male contacts is our regular Fig. 350 approved type, which fits the receptacle and is interchangeable.

The Branchoff connector can be used anywhere on the stage for connecting scene brackets, music stands, garlands, etc. An indispensable connector for road companies.

Fig.		Amp.	Volt	Price	Code Word
990.	Branchoff complete.....	5	125	\$2.45	Perlano
991.	" Receptacle.....	5	125	2.00	Perlino
992.	" Plug for No. 14 cable	5	125	.45	Permis
993.	" " " " 16 "	5	125	.45	Permolo

## "KLIEGL" SIGN CONNECTORS

A small, neat device for connecting electric letters to signs which are changed frequently. A rapid interchangeable connector.



Fig. 971.

Fig.		Price	Code Word
971.	5 Amp., 125 Volts.....	\$ .20	Paver

## "KLIEGL" CONNECTOR FOR B &amp; X CONDUIT

This is our regular 15 Amp. Stage Connector, provided with aluminum ends for holding and clamping flexible steel armored cable.



Fig.

Fig.		Price	Code Word
977.	15 Amp., 125 V.....	\$3.00	Pawl

## CHANDELIER CONNECTING BOXES

With flexible connector, allowing the electric connections to be made rapidly for lowering chandelier for relamping. All enclosed in iron box. Made up at short notice.

Fig.		Price	Code Word
433	Box with 6-conductor connection.....	\$5.40	Penny

Approved by the Dept. of Water Supply, Gas & Electricity, City of New York.

## STAGE CONNECTORS

## Lace Type

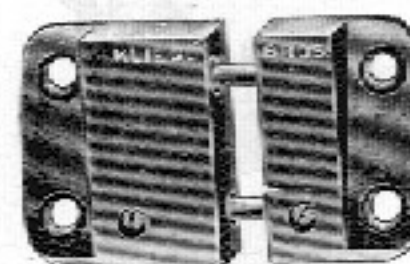


Fig. 400

Lace Type Stage Connectors are made of hard fibre and cut diagonally on the ends. Each end is drilled with two eye-holes to allow the cable ends to be laced to the connectors, taking off all strain from connecting screws.

Fig.		Amp.	Volts	Price	Code Word
400	Fibre 2-Pole	5	125	\$ .90	Pearl
405	" " "	25	125	1.50	Pebble
410	" " "	50	125	3.50	Pecan

## STAGE CONNECTORS FOR DRY BATTERIES

Figs. 445 to 447 Connectors are made of Hard Rubber. They are extremely neat and make efficient connection, and will be found invaluable where a light, compact and readily manipulated connection is desired.

Fig.		Amp.	Volts	Price	Code Word
445	2-Pole	5	20	\$ .45	Pepsin
446	" "	10	20	.55	Peril
447	" "	2	20	.55	Perky



Fig. 446

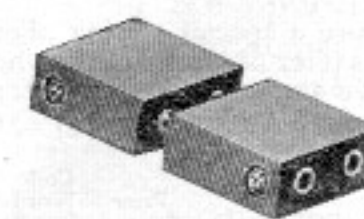


Fig. 445



Fig. 447



**"KLIEGL" STAGE CONNECTORS****Approved Type**

For all Theatrical and Electrical purposes. Extremely simple and rigid in each part.

This device is suitable for making rapid and frequent electric connections, and is therefore indispensable for road companies. They are an addition to Kliegl Bros. accessories for Stage Lighting apparatus.

Stage connector, Fig. 955, is made of hard fibre having brass split pins that fit tightly and make good contacts. The spacing of the pins is in accordance with the Underwriters requirements and New York City Inspection. All live parts are enclosed. The stage connector is provided on each end with an approved cable clamp (see Fig. 955B) which is provided with teeth which bite into the cable, and hold the cable firmly by its outer insulation, preventing any mechanical strain upon the connections. Superior to any other made.

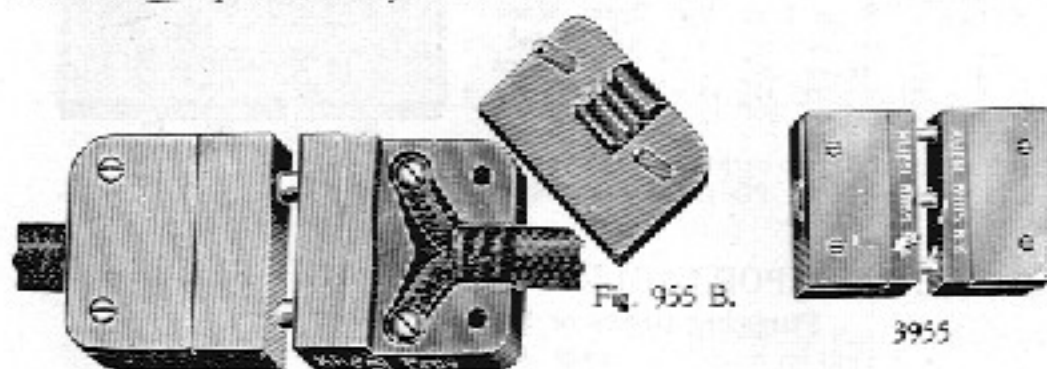


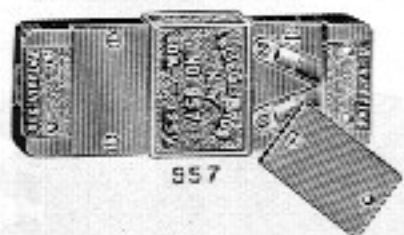
Fig. 955.

**Approved Type, 2-Wire**

Fig.	Amp.	Volts	Price Each	For Stage Cable	Code Word
950	5	125	\$0.90	No. 14	Pack
951	5	125	1.00	16	Paddle
952	15	125	1.25	18	Pail
953	30	125	2.00	20	Pallid
954	50	125	3.00	22	Pallor
955	100	125	8.00	24	Palmy
956	200	250	18.00	26	Pander

**3-Wire**

Fig.	Amp.	Volts	Price Each	For Stage Cable	Code Word
3050	5	125-250	\$2.00	14	Pang
3051	5	125-250	2.00	16	Parity
3052	15	125-250	3.00	18	Parade
3053	30	125-250	4.25	20	Parch
3054	50	125-250	6.50	22	Parole



957



958

Fig. 957, 958 and 959 are especially adapted for charging storage batteries in garages and are approved for this purpose. They are not reversible. The male pins are protected by an aluminum sleeve and all live parts are enclosed. They are provided with aluminum cable clamps and lugs, easily connected and substantially built to stand rough usage.

Approved and recommended by the Dept. of Water Supply, Gas and Electricity, City of New York

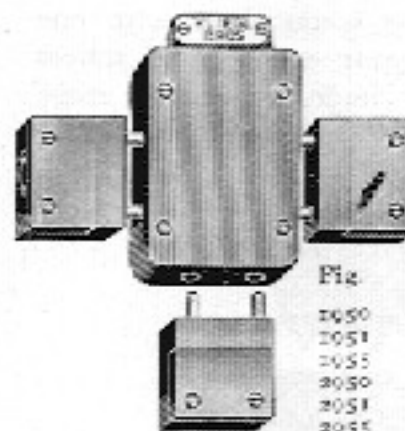
**MULTIPLE STAGE CONNECTORS**

Fig. 1955

Designed to take two separate connections from one feed cable. We also make special connectors for any number of circuits to order.

Fig.	Amp.	Volts	Price Each	For Stage Cable	Code Word
1950	5	125	\$2.00	No. 14	Parrot
1951	5	125	2.00	16	Parcell
1952	15	125	3.50	18	Pathos
1953	5	125	3.00	14	Patkul
1954	5	125	3.00	16	Patols
1955	15	125	4.25	18	Patols



Fig. 1955

**"KLIEGL" ARC CONNECTOR****For Asbestos Wire**

For connecting asbestos wire on arc lamps, provided with cable clamps and each furnished with four Kliegl Solderless Lugs.

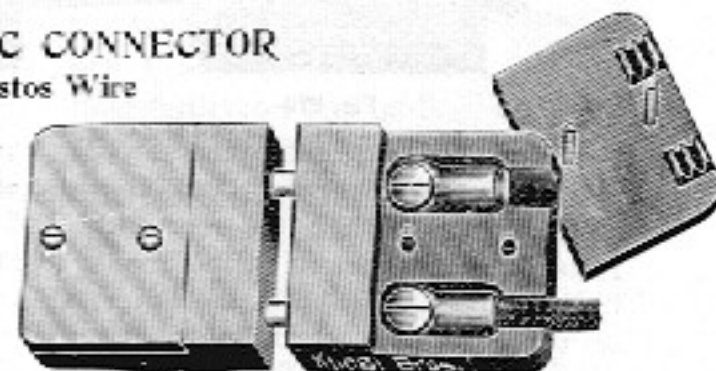


Fig. 960

Fig.	Amp.	Volts	Price Each	Asbestos Cable	Code Word
960	30	125	\$1.75	No. 10	Pauper

**"KLIEGL" AUTO CONNECTOR**

Is made in two parts, the inner of fireproof insulating material in which the contact pins are mounted, and the outer casing of aluminum, with a clamp door on each end for holding No. 6 stage cable by its outer insulation.

The ends of the cable conductors should be soldered and are then held by two set screws in each contact pin.

Fig. 965 shows the two parts combined, the projecting casing effectively prevents the short-circuiting of the exposed male terminals. This connector is very strong and durable and is not reversible, and therefore specially adapted for garages for charging storage batteries, etc. All live parts are enclosed.

They are superior to any solid wall connection.

Fig.	Amp.	Volts	Price Each	Code Word
965	50 Amp.	125 Volts	\$4.00	Parting

Approved and recommended by the Dept. of Water Supply, Gas and Electricity, City of New York

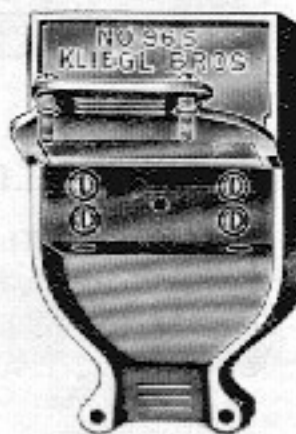
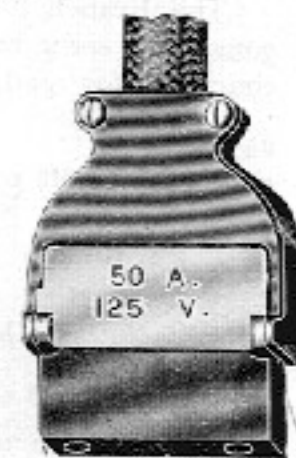


Fig. 965



**"KLIEGL" 100 AMP. POCKETS AND PLUGS**

Approved and Listed by the Underwriters' National Electrical Association

They are designed for 100 amp., 250 volts, and have a larger receptacle with double set of contact plates, otherwise similar in construction to our 50 amp. pocket, Fig. 350. The plug is similar to our Fig. 301 and is of the double pattern with two sets of spring copper terminals, and is made of fibre. The handle is capable of holding No. 2 stage cable.

**FLOOR TYPE. 100 Amp., 250 Volts.**

Fig.	No. Sections	Pockets and Plugs	Price	Code Word
1350	1	" " "	\$18.00	Hedge
1355	2	" " "	16.00	Heel
1360	3	" " "	54.00	Heir
1365	4	" " "	72.00	Helm
1301	Extra Plug	" " "	5.00	Hemp

Size is the same as given for 50 Amp. Pockets, Fig. 350 to 365.

**FLUSH WALL TYPE. 100 Amp., 250 Volts.**

Fig.	No. Sections	Pockets and Plugs	Price	Code Word
1310	1	" " "	\$18.00	Herb
1311	2	" " "	16.00	Heron
1312	3	" " "	54.00	Hide
1313	4	" " "	72.00	High
1301	Extra Plug	" " "	5.00	Hemp

Size is the same as given for 50 Amp. Pockets, Fig. 310 to 313.

**"KLIEGL" 3-WIRE POCKETS AND PLUGS**

The 3-wire Pockets have large receptacles with busbars on three sides. The Plug 2301, fits receptacle only one way, and cannot be reversed, and the polarity once placed right is always right. These pockets are similar in design to those shown in cuts on preceding pages.

**FLOOR TYPE**

50 Amp., 125 to 250 Volts.

Fig.	No. Sections	Pockets and Plugs	Price	Code Word
2350	1	" " "	\$20.00	Hinder
2355	2	" " "	40.00	Hispid
2360	3	" " "	60.00	Hobby
2365	4	" " "	80.00	Hoist
2301	Extra Plug	" " "	5.00	Holly

Size the same as given for 50 Amp. Stage Pockets, Fig. 350 to 365.

**FLUSH WALL TYPE**

50 Amp., 125 to 250 Volts.

Fig.	No. Sections	Pockets and Plugs	Price	Code Word
2310	1	" " "	\$20.00	Honey
2311	2	" " "	20.00	Horde
2312	3	" " "	60.00	Hosier
2313	4	" " "	80.00	Hostel
2301	Extra Plug	" " "	5.00	Holly

Size the same as given for 50 Amp. Wall Pockets, Fig. 310 to 313.

**"KLIEGL" 500-VOLT POCKETS AND PLUGS**

The only pockets and plugs made of their kind, a safe and practical device for outdoor or indoor service. 500-Volt Pockets have two receptacles holding one busbar in each, furnished with a special plug to fit both receptacles.

Fig.	50 Amps. 500 Volts	Price	Code Word
333	Flush Floor Pocket and Plug	\$20.00	Hound
334	" Wall	20.00	Hourly
335	Weatherproof	22.00	Hovel
331	Extra Plug	5.00	Howdah

Weatherproof pocket, Fig. 335, can be used on poles, etc., for outdoor work and in connection with iron conduit system.

**"KLIEGL" PANEL POCKETS AND PLUGS**

For use in Balcony, Bridges and Moving Picture Booths. Made in 2, 4, 6 and 8 outlets of 50 Amp., 250 V. each, furnished with a slate panel with 2 or 3 wire main busbars arranged for N. E. C. or link fuses for each pocket, completely wired and connected. All enclosed in iron box, ready for conduit connection.

Busbars have special arrangement so that link fuses can be substituted for N. E. C. fuses, when used in Motion Picture Booth.

**WALL TYPE. 50 Amp., 250 Volts**

Fig.	No. Outlets	Price	Size L'gh Hgt. Dpth.	Code Word
372	2	\$27.00	15" 8" 3 1/2"	Label
374	4	54.00	20" 13 1/2" 3 1/2"	Labrus
376	6	82.00	25" 15 1/2" 3 1/2"	Lack
378	8	108.00	30" 13 1/2" 3 1/2"	Lackey
301	Extra Plug	5.00		Harsh

Panel Pockets with more outlets made to order.

"Kliegl" Universal Plug, Fig. 301, is used and furnished with all our pockets.

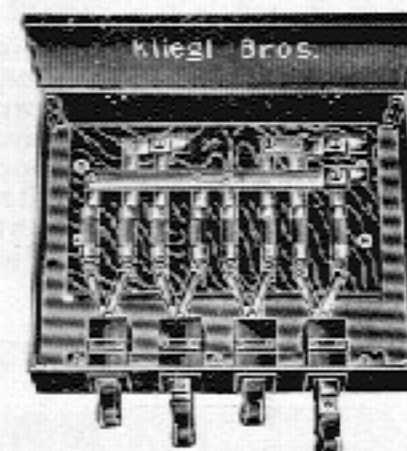


Fig. 374

**"KLIEGL" PORTABLE POCKETS AND PLUGS**

Plugging Boxes or Spider Pockets

Built for rough stage usage. Can be used anywhere.

Fig. 392 shows our 6-section Spider pocket and plugs. They are made with 2, 4, 6, 8, 10 and 12 Receptacles, each fused separately. There can be no short circuit in our spider pocket, as the polarities are separated by slate, carrying the busbars and fuses on either side, all enclosed in strong wood casing lined with asbestos and having iron bindings. A special iron cap is furnished for cable protection.

These Portable Stage or Spider Pockets are especially useful for traveling companies, as they can then be independent of theatre pockets, and in always having the same plug used on arc, bunch, and strip lights, music stands, etc., a great saving of time and material is gained for the electrician of the company, and quicker changes can be made in scenes. The entire electrical apparatus can be installed and removed quickly for traveling. The Spider Pockets can be used anywhere on the stage, flies, cellars, etc.

**10 to 50 Amp., 125 Volts.**

Fig.	No. Sections	Price	Weight Each Outfit	Code Word
390	2	\$0.00	11 1/4 lbs	Latch
391	4	18.00	15 "	Laund
392	6	27.00	20 "	Lawn
393	8	35.00	26 1/4 "	Lear
394	10	45.00	31 1/2 "	Levyne
395	12	54.00	44 1/4 "	Liege
301	Extra Plug	5.00	1/2 "	Harsh

Portable plugging boxes are furnished with "Kliegl" Universal plugs and fuses.

Portable plugging boxes for 3 wire main, \$2.00 Extra

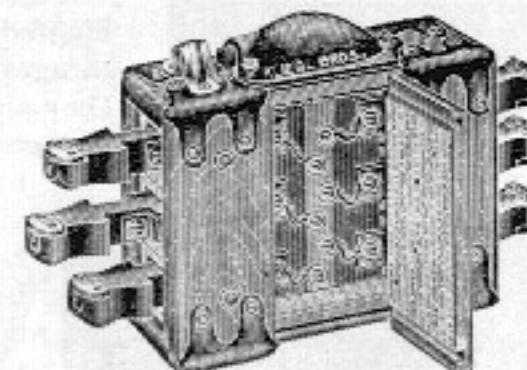


Fig. 392







**"KLIEGL" WATERPROOF FLOOR OUTLET BOX AND  
PLUG**

Approved and Listed by the Underwriters' National Electrical Association

This box is made of cast iron, drilled for 1 inch conduit. Two covers are furnished for closing the Waterproof Box, and the plug cover is provided with Waterproof Cable Outlet. All current carrying parts are mounted into a solid glazed porcelain pocket, and can readily

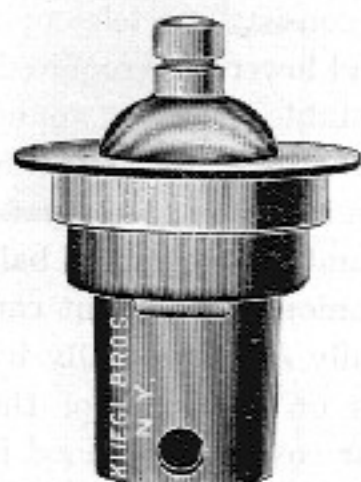


Fig. 300



Fig. 301

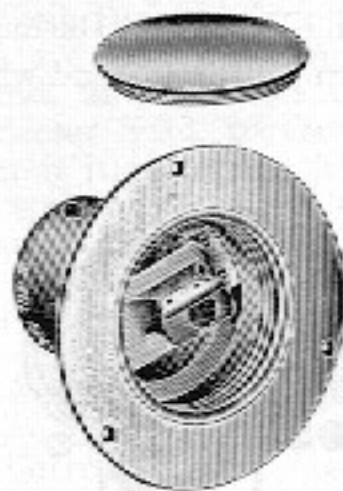


Fig. 200

be removed from the box for connecting purposes by merely taking out the four screws. The box itself is secured firmly to the floor by means of screws on the outside rim.

"Kiegl" Universal Plug is made of fibre, and designed to withstand rough usage and provided with a handle for pulling and inserting plug in pocket. A special metal plate on the side near the top of the plug handle, is for securing the cable firmly to plug by its outer insulation thus preventing any strain on the screw terminals.

FLOOR TYPE.		50 Amp.	250 Volts.	Code
Fig		Price	Weight	Word
300	Pocket and Plug, Iron.....	\$18.00	17 lbs.	Hum
304	" " " Brass.....	20.00	17 1/4 "	Humble
301	Extra Plug for No. 10 cable.....	2.00	1/2 "	Harsh
303	" " " " 6 ".....	2.00	1/2 "	Humid

### "KLIEGL" AUTOMOBILE CHARGING POCKET AND PLUG

Approved and Listed by the Underwriter's National Electrical Association

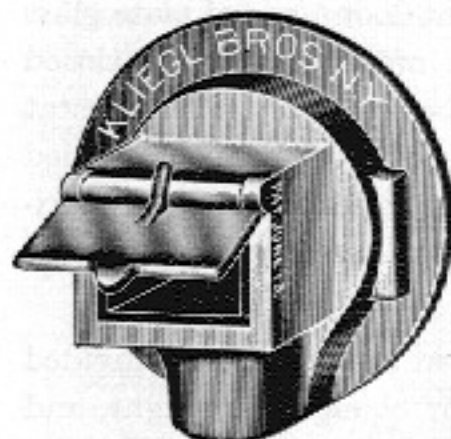


Fig. 305



Fig. 301

Fig. 305 is attached to the wall by rear plate, on to which the receptacle and outer casing are fastened. The box is made entirely of iron, and is provided at one side of the hood with outlet for 1-inch conduit. The opening for plug is provided with an automatic drop door, which serves to keep the dust from receptacles when not in use. The inner receptacle is made of porcelain, highly glazed, into which are mounted all current carrying parts.

Our regular "K-Beg" Universal Stage Plug, Fig. 301 is furnished, and can enter the pocket only one way, and the polarity once put right is always right. This pocket and plug has found great favor for theatre use, as it can be placed anywhere on the fly-floors, bridges, balcony, or stage walls, etc.

WALL TYPE. 50 Amp. 250 Volts.				
Fig.		Price	Weight	Code Word
305	Pocket and Plug (for 1 inch Conduit on Bottom)	\$10.00	9 lbs.	Hunch
306	" " " " " " " " (Top)...	10.00	9 "	Hyal
301	Extra Plug.....	2.00	....	Harc

## "KLIEGL" BREWERY WALL POCKETS AND PLUGS

Fig. 307 has one receptacle encased in iron box which can be mounted in a horizontal, vertical or angular position, as desired. Conduit connection can be made either from the top or rear, or both sides. Pocket extends but 3 inches from the wall.

Furnished with "Klued" Universal Type Stage Plug, Fig. 301.

Fig.	Wall Type	Price	Weight	Code
307.	Pocket and Plug in A, see V...	\$5.00	5 lbs.	Howl
308.	Extra Plug	2.00	1/4 "	Harsh
	Size: High 6"    Wide 4 1/2"    Deep 2 1/2"			



Fig. 307

**"KIEGL" BRASS FLUSH WALL  
POCKET AND PLUG**

High School Type

Fig. 308 shows a side and front view of our High School Type Pocket which is flush with the wall, with heavy beveled edge brass face plate, flush door with lock and key, mounted in iron box. Furnished with Kliegl 301 Plug.

Fig.	50 Amp., 250 Volts	Price	Weight	Code
308.	Pocket and Plug	\$12.50	6 1/4 lbs.	Huddle
309.	Without lock and key	11.50	6 1/4 "	Huge
301.	Extra Plug	2.00	1 1/2 "	Harsh
	Size: High 5"      Wide 5"		Deep 5"	

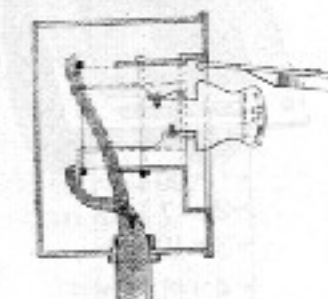


Fig. 308

## "KLIEGL" FLUSH WALL POCKETS AND PLUGS

Approved and Listed by the Underwriters' National Electrical Association.

These are designed for use wherever a locked outlet box is needed. The frame is cast iron and fits flush with the wall, and the receptacle is protected by a dustproof door, with lock and key, as shown in Fig. 310. Our regular Kliegl stage plugs, Fig. 301, furnished with these pockets.



Fig. 310



Fig. 301



Fig. 311

Fig. 310

Fig.	No. Section	30 Amp.	250 Volts	Price	Weight	Code Word
310.	1 Pocket and Plug.....			\$10.00	16 3/4	Haven
311.	2 " " ".....			20.00	20 3/4	Hawk
312.	3 " " ".....			30.00	28 3/4	Hawser
313.	4 " " ".....			40.00	35 3/4	Haze
301.	Extra Plug.....			2.00	....	Harsh
	\$1.00 Extra for lock and key per pocket.....			....	....	Heath

Fig.	Size of Iron Box				Size of Surface Plate			
	5 3/4 in. high x	5 3/4 in. wide x	7 in. deep	7 3/4 in.	high x	6 3/4 in.	wide	
310.	5 3/4 in. high x	5 3/4 in. wide x	7 in. deep	7 3/4 in.	high x	6 3/4 in.	wide	
311.	4 3/4 " " " X 9	" " " X 7	" " " X 7	7 1/4 "	" X 11 3/4	" "	" "	
312.	4 3/4 " " " X 11	" " " X 7	" " " X 7	7 1/4 "	" X 13 3/4	" "	" "	
313.	4 3/4 " " " X 14	" " " X 7	" " " X 7	7 1/4 "	" X 16 3/4	" "	" "	



## REFLECTORS

These we make in three sizes, 9 inches (23 cm.), 13½ inches (34 cm.) and 15 inches (38 cm.) in diameter.

The Reflector is lined with corrugated silvered glass, and in general shape is parabolic, with grooves for color slides. Each Reflector is fitted with a hand feed arc lamp, telescopic wrought iron stand, and movable attachment for Reflector head, to throw the light wherever it is required. The enclosed rheostat is wound for 110 volts, direct or alternating current, and is fastened to the bottom of the stand. This lamp is furnished with an enclosed switch, asbestos wires from rheostat to hood, and 25 feet No. 10 approved stage cable.

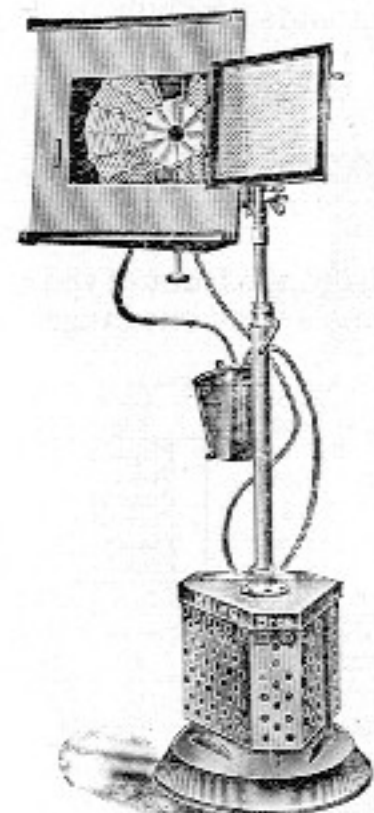


Fig. 290. 25 Amp. 125 Volts

One of these Corrugated Arc Light Reflectors, Figs. 290 and 291, is capable of throwing a powerful light of over 6000 C. P. upon the stage.

Long Distance Reflector, Fig. 292, is silver-plated.

Fig		Price	Code Word
290.	13 1/2-inch.....	\$45.00	Ghume
291.	15 ".....	48.00	Ghuten
292.	9 " Long Distance Re- flector.....	45.00	Gnarf

## REFLECTORS FOR FOUNTAIN and FIRE DANCE EFFECTS

In connection with the corrugated reflectors, we make to order reflectors with silver mirror for fire dancer, in which the reflectors are placed under the stage, and several used to produce the Fire Dance effect. They are similarly used to illuminate Fountains. These reflectors are cylindrical in form and reflect a beam of light vertically. The light is thrown through a glass floor, and colored mediums can be used to throw varied colored rays.

Fig.		Price	Weight	Code Word
293.	Size 24x10 inch.....	\$40.00	33 lbs.	Gnash



Fig. 294.

## INCANDESCENT LAMP REFLECTORS

These Reflectors are spun of aluminum, polished or white opaque on inside for high candle-power Tungsten lamps, furnished with E. B. Receptacle and 3 feet cable. Has proved very satisfactory for church work, illuminating pictures, windows, fountains, etc.

Fig.		Price	Code Word
294.	Size 9 inch.....	\$9.50	Gnosis
294A.	250-watt Tungsten lamp, 110 v.....	2.00	Gobble

## SEARCHLIGHT PROJECTOR

Fig. 295 shows our regular Searchlight Projector for theatrical productions, and for use wherever a specially powerful beam of light is required. It is in use in "Ben Hur" and Belasco's "Darling of the Gods." It consists of a telescopic wrought iron stand which can be raised and lowered as required.

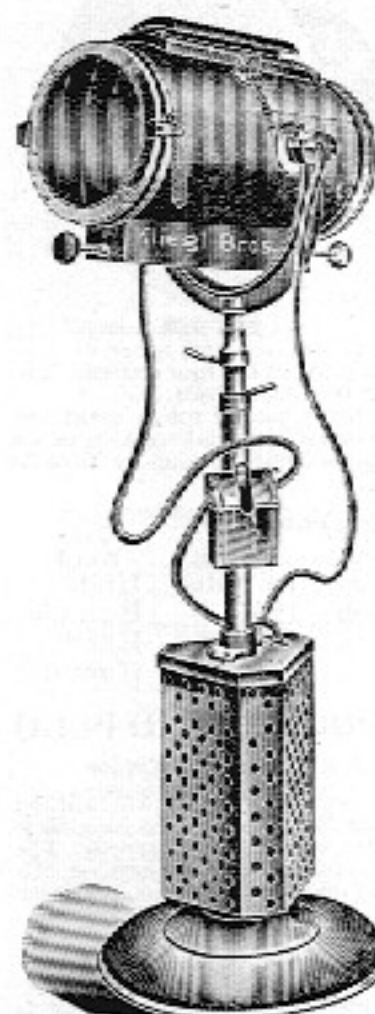


Fig. 295

An enclosed adjustable rheostat, wound for 120 volt current, is fastened to the bottom of the stand. The hood is made of Russian iron and is accurately balanced on the trunnions. The light can be trained vertically or horizontally by means of handles on the sides of the hood. In the rear cover of the hood is mounted our glass mirror, ground, polished and heavily silvered, of the parabolic type, mounted in a metal ring. The hand feed lamp is made of brass and is fastened in the hood horizontally, provided with slender carbon holders which cast no shadow. It is fed, and the focus is regulated, by wooden handles underneath and in the rear of the hood. There is supplied with each Searchlight Projector a front door made of plate glass strips set in a metal ring, an enclosed switch and asbestos wire from rheostat to hood. Fig. 296 and 297 are provided with automatic mechanism and horizontal and vertical movements, and are to be directed by hand.

They are automatic and will burn in any position, provided with focusing screw and handwheel for changing the light, and furnished with silvered copper reflector.

Fig		Price	Code Word	CARBONS	
				Positive Cored	Negative Solid
295	9 inch (23 cm), 20-25 amp.....	\$130.00	Goiter	9/16	1/2
296	13 " (33 cm) 20-25 " ...	180.00	Gomuti	5/8	1/2
297	18 " (41 cm) 25-35 " ...	270.00	Gonad	3/4	9/16



## STEREOPTICON OBJECTIVES

The price quoted on our Stereopticon includes one  $\frac{1}{4}$  size Objective, but we can furnish any other focusing objectives separately.

The Objectives are of the most perfect optical construction obtainable, and can be supplied in matched pairs of equal focus.



Figs. 270, 269, 268, 267, 266, 265  
Stereopticon Objectives

Fig.	Size	Focus in.	10 ft.	20 ft.	30 ft.	40 ft.	50 ft.	60 ft.	70 ft.	80 ft.	90 ft.	100 ft.	110 ft.	120 ft.	Price each	Code Word
265	$\frac{1}{4}$	4	7	14	21										\$9.00	Pisler
266	$\frac{1}{4}$	6	5	10	15	20									8.00	Pisler
267	$\frac{1}{4}$	8	4	8	12	16	20	24							14.50	Pisler
268	$\frac{1}{4}$	10		6	9	12	15	18	21	24					14.50	Pisler
269	$\frac{1}{4}$	12			7	10	13	16	19	22	25				21.00	Pisler
270	$\frac{1}{4}$	15			6	8	10	12	14	16	18	20	22	24	21.00	Pisler

## LONG DISTANCE OBJECTIVES

Besides the regular size Stereopticon Objectives, we carry Objectives for long distances. These are mounted in  $\frac{1}{2}$  size tubes in the following focus:

Figure	Diameter of Lenses	Focus in	50 ft.	60 ft.	70 ft.	80 ft.	90 ft.	100 ft.	110 ft.	120 ft.	130 ft.	140 ft.	150 ft.	Price each	Code Word
271	$2\frac{1}{2}$	15	10	12	14	16	18	20	22	24	26	28	30	\$22.00	Firmis
272	$2\frac{1}{2}$	20	7.5	9	10.5	12	13.5	15	16.5	18	19.5	21	22.5	24.00	Firmis
273	$2\frac{1}{2}$	24	6	7.5	9	10.5	12	13.5	15	16.5	18	19.5	21	22.00	Firmis
274	$2\frac{1}{2}$	30	5	6	7	8	9	10	11	12	13	14	15	23.00	Firmis

The top figures (10, 20, 30, etc.) represent the number of feet distant from the screen; the lower figures represent the size of the picture obtained in feet.

## POLYSCOPE LENS

Make any size picture at any distance from 40 to 80 feet by simply adjusting the combination.

Fig.	Price	Code Word
278. Polyscope Lens.....	\$42.00	Pisema

## SCIOPTICON OBJECTIVES

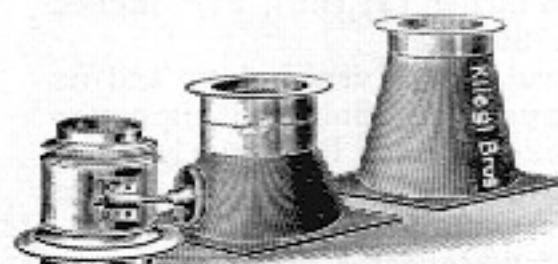


Fig. 285 Fig. 283 Fig. 281  
Short Range Objectives

These objectives are specially made for our Sciopticon, Fig. 75, page 17, and are intended for use on the stage where the distance from the screen or drop is limited. They will produce a picture at the ratio of one to two feet in diameter for

every foot of distance from the screen.

Objectives No. 280 and 281 are also used from the front of the theatre to cover the entire stage opening when showing our Stage Effects.

Fig.	Focus Inches	15 ft. Distance	50 ft. Distance	Price Each	Code Word
280	12	6-10	24-34	\$20.00	Pisgato
281	10	8-12	32-42	20.00	Pisgar
282	8	14-18	38-54	20.00	Pisgona
283	6	20-34		20.00	Pismoll
284	4	40-60		20.00	Pisoda
285	4	12-16	54-60	30.00	Pispei

## CONDENSING LENSES

These lenses are made of carefully selected optical glass. We carry a full supply of condensers for Stereopticons, Lens Box Arc Lamps, Moving Picture Machines, etc., in the following sizes:

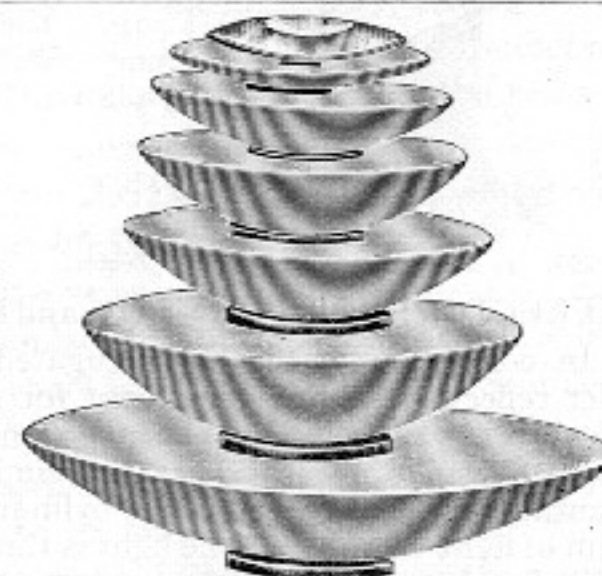


Fig. 288

## PLANO-CONVEX

Diameter Inches	Focus Inches	Price	Code Word	Diameter Inches	Focus Inches	Price	Code Word
4	5	\$0.90	Glove	6	12	\$2.25	Glums
4 1/2	6 1/2	.90	Gloax	8	10	6.00	Glutar
4 3/4	7 3/4	.90	Glomax	8	12	6.00	Glottis
5	5 1/2	2.25	Glost	8	18	6.00	Glottis
5	7	1.50	Glad	9	11	10.00	Glaft
5	9	1.50	Gloam	10	12	18.00	Glaks
6	7	2.80	Glatos	12	18	27.00	Gloss
6	8	2.25	Glessa	14	21	40.00	Glowd
6	10	2.25	Glux				

Special Prices for Quantities

Breakage of condensers is due to unequal expansion or contraction, therefore the lenses when hot should be protected from draughts of cold air.



## STEREOPTICON

Our Fig. 260 is the most compact and efficient Stereopticon made, well adapted for lectures and traveling companies. In construction it is similar to our double dissolving Stereopticon. It consists of metal hood, well ventilated, with handfeed arc lamp, for direct or alternating current. The condensers are  $2\frac{1}{2}$  inches in diameter; one is mounted in the hood, the second is fastened into the aluminum condensing lens holder which slides in grooves, and is attached to the hood by set screws.

The quarter size objective with which the apparatus is furnished, slides on to the aluminum holder which also holds the slide carrier. The entire outfit is fastened by a movable attachment to a telescopic stand, with enclosed rheostat fastened to the bottom. Stereopticon is provided with enclosed switch, asbestos wires, and 25 feet No. 10 approved stage cable.

This Stereopticon can be used as a spotlight by simply removing the aluminum condensing lens holder, and color changes can be made. No other Stereopticon has these features.

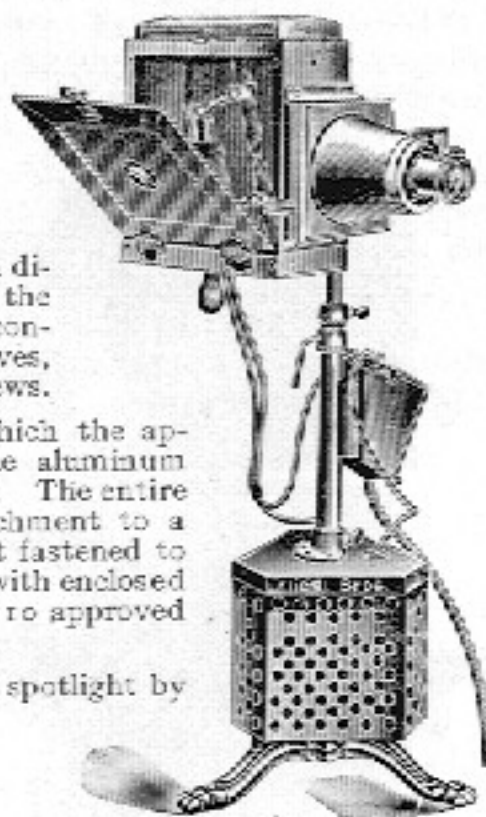


Fig. 260

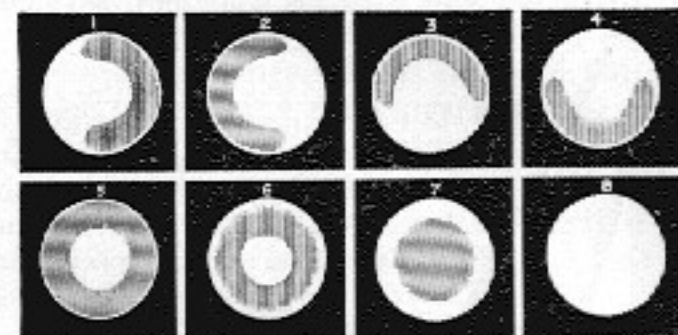
Fig.		Price	Weight	Code Word
260.	25 amp., 125 volts	\$48.00	66 lbs.	Finiras
260A.	25 " 250 "	58.00	79 "	Finitos

## Size and Length of Carbons for Stereopticons Figs. 255 and 260

The best Pink Label "Electra" Carbons should be used.

Fig.		Price	Code Word
D. C.	Positive (upper) cored $16 \times 110$ m/m ( $\frac{1}{8}$ in. $\times$ $2\frac{1}{2}$ in.)	\$820.30	Sibary
	Negative (lower) solid $13 \times 105$ " ( $\frac{1}{8}$ " $\times$ $4\frac{1}{8}$ " )	15.00	Siarno
A. C.	Upper cored $14 \times 105$ " ( $\frac{1}{8}$ " $\times$ $4\frac{1}{8}$ " )	18.75	Siarno
	Lower " $14 \times 105$ " ( $\frac{1}{8}$ " $\times$ $4\frac{1}{8}$ " )	18.75	Siarno

## CIRCLE OF ILLUMINATION



- (1) The Radiant, i. e., the crater, is too far to the right;  
 (2) The crater is too far to the left;  
 (3) The crater is too high;  
 (4) The crater is too low;

- (5) The crater is too far from the lamp condenser;  
 (6-7) The crater is too near the condenser;  
 (8) The crater is in the correct position.

Successful results on Stereopticons depend very much upon the adjustment of the lamp, especially the relation of the carbons to each other.

The following illustrations will enable one to quickly adjust the lamp under various conditions. After having focused the objective upon the screen, remove slide and examine the illuminated circle upon the screen.

## IRIS DISSOLVER

The Iris Dissolver, Fig. 256, meets all practical and theoretical requirements, is easy to operate and is perfect in efficiency. By simply moving the rod up or down, one diaphragm is closed, while the other opens or vice versa. The result is a gradual transition from one view to another.

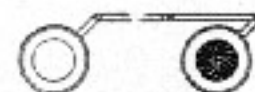


Fig. 256

It is furnished with our Dissolving Stereopticon and fits  $\frac{1}{2}$  size Objectives.

Fig.	Price	Code Word
256. Iris Dissolver	\$25.00	Finjan

## KLIEGL BROS'. IRIS SHUTTER

Fig. 257 fits the grooves of our standard Lens Box Arc Lamp, Fig. 5 to 7, page 10-11. It is made entirely of brass, very strong and easily operated. By moving the extended lever the diaphragm is opened or closed to the smallest possible opening. The result is a gradual change in size of the illumination.

Our regular Gelatine frame, Fig. 36, can be used and will fit Iris shutter for color changes.

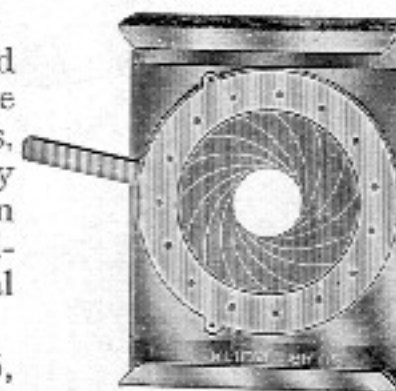


Fig. 257

Fig.	Price	Weight	Code Word
257. Iris Shutter	\$15.00	1 $\frac{3}{4}$ lbs.	Pinnaal

## POSE SLIDE SHUTTER

We make a special metal shutter for Pose Plastique slides, which opens from the centre, right and left allowing the poser to be seen first.

Fig.	Price	Code Word
259. Pose Slide Shutter	\$7.50	Fioco

## SLIDE CARRIERS

The Slide Carriers, which we supply with our projecting apparatus, are of the type generally accepted as convenient for the quick changing of slides. The carrier holds two ordinary lantern slides, which are inserted in the top of the carrier.

Fig.	Price	Code Word
261. Hold Slides, $3\frac{1}{4} \times 4$ inch (8 cm. $\times$ 10 cm.)	\$0.70	Finnen
262. " " $4\frac{3}{4} \times 5\frac{1}{4}$ " (12 " $\times$ 13 $\frac{1}{2}$ " )	1.50	Finnois.
263. " " $6\frac{1}{4} \times 6\frac{1}{8}$ " (16 " $\times$ 17 $\frac{1}{2}$ " )	2.50	Finora
Double Slide Carrier (Russia Iron)		
264. Hold Slides, $3\frac{1}{4} \times 4$ inch (8 cm. $\times$ 10 cm.)	\$1.50	Fioche



## TRANSPARENT PROJECTION APPARATUS

## Kliegl Sketch Lamp

Fig 251 shows the Kliegl Sketch lamp in operation. It is the newest and most unique design for drawing and sketching transparent pictures, which are projected on the screen while they are drawn.

Fig. 251 consists of a table with concealed arc lamp, perfectly light-tight, with achromatic objective with reversing mirror, switch, rheostat and cable. The slide projected is 5 inch round, which is coated with a black substance before used. It gives a 12 to 15-foot picture at a distance of 15 feet.

The arc lamp is easily operated from the top and the apparatus is light and portable, and results obtained prove exceptionally satisfactory.



Fig 251. Sketch Lamp. Price \$250.00 Weight 41 lbs. Code Word Fingha. Weight with rheostat, 61 lbs.

## OPAQUE PROJECTION APPARATUS

Opaque projection has become very popular. It is a new development in projecting, and is used for showing kodak views, maps, drawings, small live animals and insects, merchandise, also for making drawings and paintings, illustrating same in the natural form and colorings.

Also used for professional acts for theatre purposes.

This apparatus is entirely different from the one described above. They do practically the same work, and give excellent results.

It is equipped with handfeed arc lamp, rheostat, cable, condensers and furnished with a double achromatic objective of special design. The size of surface illuminated is 6 inch x 8 inch, which is projected 8 feet by 10 feet.

## DISSOLVING STEREOPTICONS

Kliegl Bros' Fig. 255 Double Stereopticon with Iris Dissolver is adapted for theatre, school, and institute entertainments. It is accurate and steady and especially well adapted for showing Pose Plastique slides.

One Lamp Hood is mounted above the other in such a way as to make the whole a compact and efficient equipment. The hoods are made of

Russian iron, well ventilated, and are furnished with our Stereopticon Handfeed Arc Lamp, Fig. 481, page 46. The lamp itself is the best of its kind for either direct or alternating current, and is adjusted by handle on rear of hood.

The condensers are 4 1/4 inches in diameter, and the mounting of same deserves special attention; one condenser is fastened in the hood, the second is fastened into the aluminum

condensing lens holder, which also carries the slide carrier and has grooves for the objective.

Two 1/2 size objectives of the best quality, and Iris Dissolver for same, are supplied with Fig. 255, as well as two adjustable rheostats with switches, 25 feet approved stage cable on each lamp and two slide carriers.

The use of the third lantern as shown in Fig. 259 is to project small Electric Effects on your scene and Pose Plastique slides — such as falling snow, fire, water, flying birds, butterflies, etc.

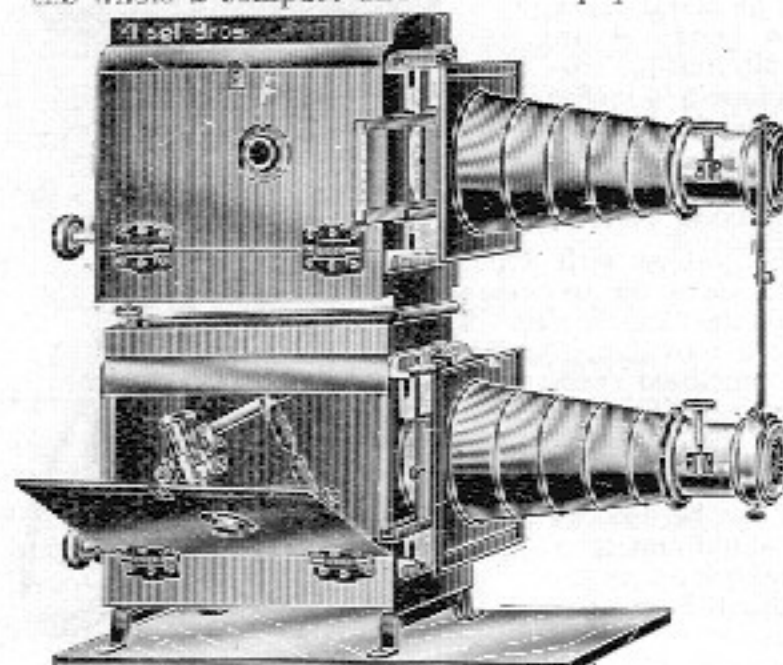


Fig. 255. Double Dissolving Stereopticon.

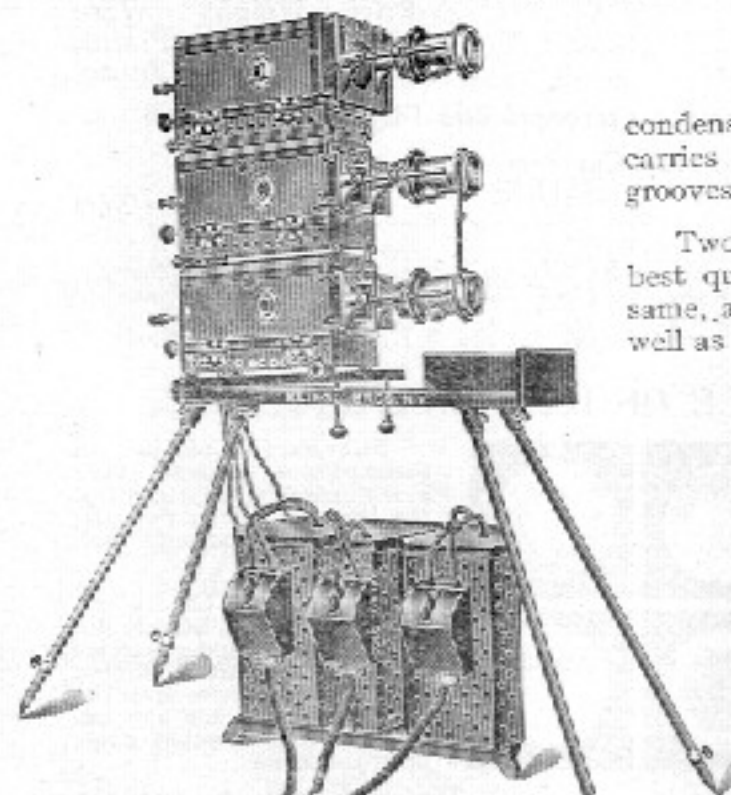


Fig. 259. Triple Dissolving Stereopticon.

Fig.	25 amp., 125 volts each	Price	Weight	Code Word
255.	Double Stereopticon.....	\$140.00	53 lbs.	Finify
259.	Triple .....	250.00	72 1/2 "	Finir



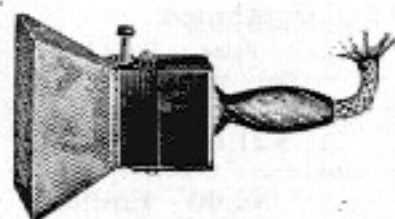


Fig. 230

### LIGHTNING EFFECTS

Hand Lightning, Fig. 230, is portable and operated by fibre button near handle of apparatus and is used to produce lightning flashes at any place on the stage. It is also enclosed and takes the place of the old carbon and file lightning.

Fig.		Price	Code Word
230.	Hand Lightning (enclosed).....	\$7.60	Emptos
231.	Hand Lightning (enclosed) with rheostat, switch and 25 feet stage cable.....	23.00	Empuse
232.	Automatic Lightning Striker.....	9.60	Emisiger
233.	Automatic Lightning Striker (with rheostat, switch and 25 feet stage cable).....	25.00	Emuled
122.	Zigzag Lightning, with shutter (produced with sciopicon).....	15.00	Deturpo
123.	Zigzag Lightning between Clouds, with shutter (produced with sciopicon).....	15.00	Detuve
234.	Lightning Flashes (with battery).....	7.50	Emuling
235.	Lightning Bolt (enclosed).....	9.60	Emulsif
236.	Lightning Bolt (with rheostat, switch and 40 feet cable complete, all enclosed).....	25.00	Emungi
236A.	Lightning Bolt (complete with battery and wires).....	7.50	Emutas
237.	Automatic Striker (for open box arc lamp) ..	5.50	Enactor
238.	Extra Lightning Shutter (for sciopicon)....	2.50	Enader
239.	Extra Lightning Shutter (for stereopicon) ..	2.00	Enantho

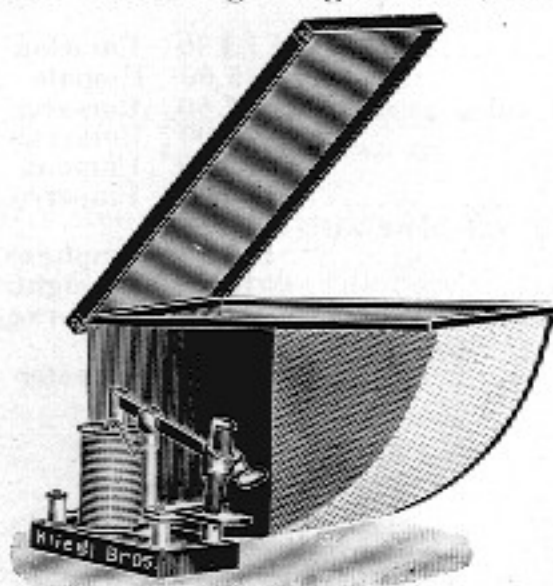


Fig. 232 50 Amperes. 125 Volts

Our Automatic Lightning Striker, Fig. 232, is hung between the wings and is connected to switch on rheostat on stage floor. The lightning flashes are produced by operating the switch on rheostat. Several of these automatic lightning strikers can be operated by the same rheostat, with a lightning panel having as many lightning units as there are automatic lightning strikers in use on the stage. By turning the lever of the lightning panel, the automatic lightning strikers will be operated one after another. The carbon in the striker is adjustable and can be replaced.

### SCENE GAUZE FOR ELECTRIC STAGE EFFECTS

We carry theatrical gauze without seams in the following sizes:

28x150 feet  
32x150 feet

and will furnish drops, hemmed, to any size required.

Gauze Drops are fireproofed and ready for use.

### ELECTRIC EFFECTS PRODUCED WITH LENS BOX ARC LAMPS

Fig.		Weight	Price	Code Word
240.	Optiscope (Lobsterscope).....	4 1/2 lbs.	\$9.50	Empight
242.	Color-Changing Effect for Rising or Setting Sun.....	5 "	15.00	Empopar
257.	Kliegl Bros. Iris Shutter (see page 29)		15.00	Emporos

Fig. 240, the Optiscope, an attachment for the Lens Box, Figs. 5 to 9, pages 10 to 12, which being turned quickly by the operator and the light directed on the performers, produces a weird illusion. A very rapid succession of light-rays is thrown upon the performer by the revolving diaphragm, which has the effect of apparently multiplying the number of performers. This is the result of the rapid succession of impressions made upon the eye. The effect is very startling.

Fig. 242 is an attachment for Lens Box, producing all the colors of a sunset on the drop in a semicircular form, disappearing below the horizon or mountain line, without showing the sun. For sunrise, use above effect in the opposite direction.

### ELECTRIC EFFECTS PRODUCED WITH OPEN BOX ARC LAMPS

Fig.		Price	Code Word
50.	Twilight Effect (rolls of seven colors).....	\$30.00	Cento
51.	Twilight Effect (rolls of five colors).....	25.00	Certes
237.	Automatic Striker.....	5.50	Enactor
246.	Shadowgraph.....	On Application	Emporter
247.	Sunlight Glitter (per frame).....	3.50	Empreza

Fig. 50. TWILIGHT EFFECT.—Made of colored silk, prepared in rolls of different colors to show a gradual transition from sunlight to twilight, and moonlight, or vice versa, from moonlight to dawn and day. This does away with the large and heavy stage dimmers usually carried by traveling companies. The rolls of Silk Mediums for producing these effects, consist of prepared silk in the following colors: white, lemon, amber, light red, dark red, light blue, dark blue, and black, fastened to a double roller on a wooden frame into which a frosted gelatine is fastened. This frame with the silk roller is placed in the grooves on our Open Box Arc Lamp, Figs. 1 and 2, page 6, and can easily be manipulated by the operator in the wings. They give a mild and evenly distributed colored light and will last with a little care for a whole season, as they will neither shrink nor break from the heat, nor fade in color.

Fig. 237, Automatic Striker fastened to arc lamp in hood produces effective lightning flashes for transparent cloud drops.

### FACE-O-GRAPH

A device for showing a live face on a screen. It consists of an iron box with two 50-amp. arc lamps, necessary objective and condensing lenses, rheostat, switches and 50 feet approved stage cable.

Fig.		Price	Code Word
250.	Face-o-graph, complete.....	\$150.00	Emprunt

### ELECTRIC EFFECT PRODUCED WITH REFLECTOR

Fountain and Fire Dance Effect, see page 32.



## ELECTRIC STAGE EFFECTS—Continued

All Electric Effects, from Fig. 77 to 197, are produced with Sciopticon, Fig. 75. We carry several of the 18-inch size in stock for immediate shipment. Weight, 12 lbs. each.

NOTE.—Those effects marked double disc, have two mica discs in one casing, operated by one clock work on one machine.

NOTE.—Those effects, marked two or three machines, can only be shown with two or three sciopticons.

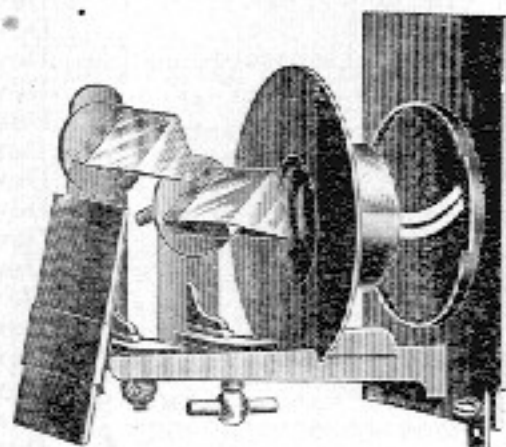


Fig. 161  
Rainbow Prism Effect



Fig. 226  
Noise of Wind Effect

## ELECTRO-MECHANICAL EFFECTS

Fig.		Price	Code Word
200.	Anvil Sparks Effect (the effect of sparks produced between two special metals without using current) .....	On App.	Embusy
201.	Burning Bush (size 5x4 ft., 100 lights with flasher) .....	\$160.00	Emebam
202.	Burning Torch (with flames) .....	7.50	Emenda
204.	Chemical Smoke (a combination of acid and air, producing smoke) complete with air tank .....	35.00	Emender
205.	Electric Fountains, Portable .....	On App.	Emendos.
206.	Electric Garlands .....	On App.	Ementem
207.	Electric Musical Bells .....	On App.	Emenso

Fig. 207 Electric Musical Bells (perfectly tuned to any pitch ordered) Our latest production for hotels, restaurants, cafes and theatres. These bells can be placed in any part of the building separately or collectively and played in conjunction with our special electric keyboard. 18 bells are generally used for a complete set.

207A.	Single Bell .....	3.12	Emerico
207B.	Single Bell with Resonator .....	4.37	Emersao
207C.	Single Staff Bell .....	6.25	Emersos
207D.	Single Staff Bell with Resonator .....	7.50	Emery
207E.	18 Note Keyboard .....	15.00	Emetina
208.	Electric Skipping Rope (with 8 lights and batteries complete, all on rope) .....	12.00	Emeto

## ELECTRO-MECHANICAL EFFECTS—Continued

Fig.		Price	Code Word
212.	Fencing Act (with flashes) .....	On App.	Emettre
213.	Fireflies (made in sets of 12 with battery and keyboard) .....	\$21.00	Emicas
214.	Fireflies (made in sets of 24 with battery and keyboard) .....	42.00	Emilio
215.	Fireflies (made in sets of 36 with battery and keyboard) .....	63.00	Eminada
216.	Fire Place, gas (made entirely of metal, size 18"x12") .....	25.00	Emincer
217.	Fire Place, coal, with electric connection, 18"x9", plain .....	12.00	Eminuli
217A.	Fire Place, coal, with electric connection, 18"x9", fancy .....	18.00	Emiolia
218.	Fire Logs, wood, with electric connection, 18"x9", .....	18.00	Emiope
218A.	Fire Logs, wood, with electric connection, 24"x12", fancy .....	25.00	Emissor
Wood Logs are transparent, made of Metal and Asbestos, all lights concealed, very realistic. Special sizes made to order at shortest notice.			
Chemical smoke, Fig. 204, can be used with same, giving the appearance of smoke coming from Fire Log.			
219.	Flower Illuminated .....	\$1.00 to 3.50	Emitias
220.	Flower Basket, Illuminated .....	On App.	Emitida
221.	Flower Bouquet (6 flowers illuminated, with battery) .....	7.50	Emitir
222.	Halo Effect .....	On App.	Emmalar
223.	Illuminated Balls (8" in diameter, highly colored, complete with battery and light.) .....	3.00	Emolo
224.	Mephisto Hand Sparks Effect (the effect of sparks is produced between two metals without using current) .....	3.50	Emotion
	Attached to gloves. ....	5.00	Empale
225.	Moon Box (13 inch Diameter, cable extra) .....	7.50	Emparer
226.	Noise of Wind Effect .....	25.00	Emparks
227.	Noise of Sand Storm Effect .....	25.00	Empena
227A.	Radium Dance .....	On App.	Emperro
228.	Stars (12 twinkling and falling, complete with battery) .....	100.00	Emphase
228A.	Sun Box (24 inch, cable extra) .....	13.50	Empight
229.	Torches, Lycopodium .....	3.50	Emporar
229A.	Wireless (automatic lightning, with rheostat and cable) .....	30.00	Empoter

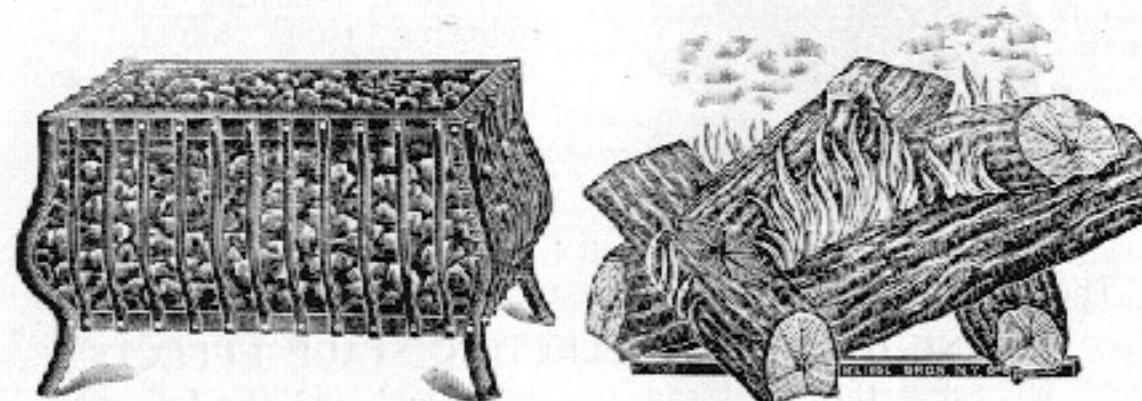


Fig. 217A

Fig. 218A

## ELECTRIC NOVELTIES OF ALL KINDS

Illusions or Black Art, made to order.



## KLIEGL BROS. ELECTRIC STAGE AND SCENIC EFFECTS

Fig.		Code Word
77.	American Waving Flag Effect (slide with moving disc)	Despoil
78.	Aurora Borealis (4 slides, color wheel and clockwork for objective)	Desopio
78A.	Extra Color Wheel and Clockwork for Objective	Despuo
79.	Aurora Borealis Rays (double disc with clockwork)	Desque
79A.	Aurora Borealis Rays (double disc with hand movement)	Desrizo
80.	Avalanche Effect (single disc)	Dessar
82.	Bird's Eye View Motion Picture (18 inch slide)	Destazo
83.	Blizzard Effect (double disc)	Desuasi
84.	Burning Forest, Panorama View (double disc)	Desucto
87.	Chinese Snow (a fine effect for chorus)	Desum
88.	Climbing Monkeys (single disc and slide)	Desumir
89.	Crawling Spider Weaving His Web (for two machines)	Desurco
90.	Cyclone Effect (single disc)	Desure
91.	Cyclone with Flying Object (double disc)	Desurar
93.	Dissolving Colors (3 slides with color slide)	Desutos
95.	Electric Fountain Effect (disc with slide)	Desutum
97.	Falling American Flags	Desvelo
98.	Falling Flower Effect	Deswege
99.	Falling Leaves	Detales
100.	Falling Roses	Detaxer
101.	Falling Star (hand movement)	Deteint
102.	Fata Morgana (8"x3 1/4" slide)	Detengo
103.	Fireworks Effect	Detenir
104.	Flame Effect	Deterge
105.	Flowing Water	Detexes
106.	Flying Angels	Detmar
107.	Flying Birds	Detono
108.	Flying Butterflies	Detorts
109.	Fog Effect (mica disc)	Detraho
110.	Frog Effect	Detrivi
115.	Great Tidal Wave	Dette
117.	Inferno Spectacular Effect (double disc)	Detumui
119.	Jumping Insects (with objective shutter)	Detunso
121.	Lava Effect	Deturns
122.	Lightning, Zigzag (3 brass cut slides with lightning shutter for objective)	Deturpo
123.	Lightning, Zigzag, between the Clouds	Detuve
124.	Live Fish Effect (tank for same)	Deudas
125.	Live Snake Effect (tank for same)	Deudora
128.	Midnight Sun (2-5" discs with clockwork)	Deusi
128A.	Midnight Sun (2-5" discs with hand movement)	Deusos
129.	Moonlight Ripple Effect (Mica slides)	Deuten
130.	Moon Picture Slides with Appearing and Disappearing Clouds	Devale
131.	Moving Clouds with Disappearing Moon (two machines)	Devance
132.	Moving Clouds with Rising or Setting Moon, Appearing and Disappearing Between Clouds (disc and slide)	Devasso
133.	Moving Clouds with Rising or Setting Sun (disc and slide)	Devast
134.	Moving Clouds with Stationary Moon	Deveho
135.	Moving Fleecy Clouds	Develin
136.	Moving Fire Clouds	Devenir
137.	Moving Heavenly Clouds (double disc for angel effect)	Devergo
138.	Moving Storm Clouds	Devesci
139.	Moving Sunset Clouds	Devexos
140.	Moving Clouds with Flowing Water and Appearing Islands (two clockworks, double disc)	Devezal

## ELECTRIC STAGE EFFECTS—Continued

Fig.		Code Word
141.	Moving Film for Swimming Effect	Devicti
142.	Moving Film for Running Effect	Devien
143.	Moving Film for Horse Racing Effect	Devier
148.	Niagara Falls Effect (with slide)	Devious
150.	Ocean Ripple (glass prism slides)	Devior
151.	Ocean Waves	Devium
152.	Ocean Waves with Panaroma (two clockworks, double disc)	Devocao
154.	Panorama, Moving (single disc)	Devoir
155.	Panorama, Moving Scene (13" double disc)	Devomis
155A.	Panorama, Moving Scene (24" double disc)	Devorso
156.	Pyrotechnic Effect (3 effects used on separate machines)	Devow
157.	Planets, Moving	Devrais
157A.	Prairie Fire (single disc)	Devriez
158.	Rain Effect	Dewanny
159.	Rain Effect with Driving Clouds (2 machines)	Dewdrop
160.	Rain of Ashes	Dewelke
160A.	Rain of Fire	Dewijl
161.	Rainbow Prism Effect	Dewlap
162.	Rainbow Slide (glass)	Dexius
162A.	Rainbow Slide (mica)	Dextans
163.	Rising Fire (single disc)	Dexter
164.	Rising Fire and Smoke (double disc)	Dextimi
165.	Rising Mist (mica slides)	Dextral
166.	Rising or Setting Moon	Dextros
166A.	Rising or Setting Moon with Stationary Clouds	Dezena
167.	Rising or Setting Sun	Dezoito
167A.	Rising or Setting Sun with Stationary Clouds	Dholes
168.	River of Souls	Dhows
169.	Rowing Scene Effect (1 wave and 1 panorama, 2 machines)	Dhurra
170.	Running Water	Diabao
175.	Sand Storm Effect (single disc)	Diabase
176.	Sand Storm Effect (double disc)	Diablos
177.	Slides—"Die Walküre" (4 slides)	Diablon
178.	Slides—Pose Plastique—Dressing Act slides of artistic designs	Diaboli

All pose slides are hand painted in very rich and effective colors, with a background appropriate for the subject. The slides are 4 inches long and 3 1/4 inches high and the blank space for the face or figure, as the case may be, comes exactly in the same place on every slide. If interested, special list furnished on request. Entire Pose Acts assembled and furnished with special small electric movable effects for stereopticon, Fig. 259, page 27.

179.	Slides—Moon Picture Slides (11 to a set)	Diachee
180.	Slides—Scenes, Highly Colored	Diacira
180A.	Smoke Effect	Diacono
181.	Snow Effect	Diacope
182.	Snow Storm (2 machines)	Diacrea
182A.	Surf Effect	Diadeem
183.	Swimming Fish Effect	Diadele
184.	Swimming Fish Effect with Flowing Water (double disc)	Diadoco
188.	Twinkling Moon Effect (comical)	Diatota
189.	Twinkling Stars	Diaet
190.	Uncle Tom's Vision with Flying Angels, 1 cloud effect 1 vision with angels—2 machines	Diaetis
191.	Volcano Effect, 1 eruption effect—1 lava effect—1 rain of ashes effect—3 machines	Diaire
192.	Volcano Eruption	Diakon
195.	Waterfall	Diakria
196.	Water Ripple	Dialima
197.	Waving Flags (of all nationalities)	Dialist



## ELECTRIC STAGE EFFECTS

KLIEGL BROS. ELECTRIC STAGE EFFECTS have been in general use for the past seventeen years, during which time they have achieved a reputation for truly realistic representation combined with durability and perfectly working mechanism. They are now universally recognized as the Standard Electric Stage Effects.

All our Effects are specially designed and manufactured for our customers, and every mechanical and optical contrivance possible is employed to make them realistic.

The older tried and proven features in the different types of Electric Stage Effects have been retained, while a number of improvements have been added.

The Effects are generally made on a mica disc, 18 inches in diameter (46 cm.) enclosed in a strong sheet iron casing, operated by clockwork from the center. The clockwork has a double spring movement, and runs for thirty to sixty minutes without winding. It can be wound without stopping or jarring the clockwork. The Flywheel is adjustable to allow faster or slower movement of the effect, and instructions are enclosed in the lid of the box. The casing containing the effect is provided with a revolving eccentric iron frame, which allows the effect to be shown in any desired position. The iron casing is attached to sciopicon by the revolving frame sliding in grooves on aluminum condensing lens holder. The objective lens slides in grooves in front of the casing.

We are pioneers in the manufacture of Electric Stage Effects, and our improved methods of manufacture and increased facilities enable us to carry in stock several of the 18-inch size disc effects for immediate delivery, and prompt shipment can be made of larger disc effects, 24 to 36 inches in diameter (61 cm. to 91 cm.) for slow moving panorama, etc. (as used in "The Garden of Allah," "Creation," "The Lady of the Slipper," etc.).

Our double disc effects, consisting of two mica discs in one casing operated by one clockwork (as used in "The Vanderbilt Cup," etc.), are very realistic when produced, yet simple in operation. A scenic panorama illusion, showing the clouds and distant hills moving very slowly, while the foreground moves more rapidly, with automobiles working stationary in front, with wheels revolving, gives a complete and most realistic illusion, viz.: that of seeing automobiles actually traveling through the country at any speed desired.

In using these Electric Panorama Effects, the costly moving scenic panorama, as used several years ago in "Ben Hur" and "Bedford's Hope," is done away with. One week's cost of installation on the road will more than pay for the entire cost of our Effect, and the first outlay for the old mechanical moving scenic panorama, besides the months of labor required for its construction, will be saved.

To gain the desired results for large scenic productions, two or more effects must be used at the same time; as in "The Rogers Bros. in Panama," showing our Moving Clouds and Flowing Water (double disc) effect,

## ELECTRIC STAGE EFFECTS—Continued

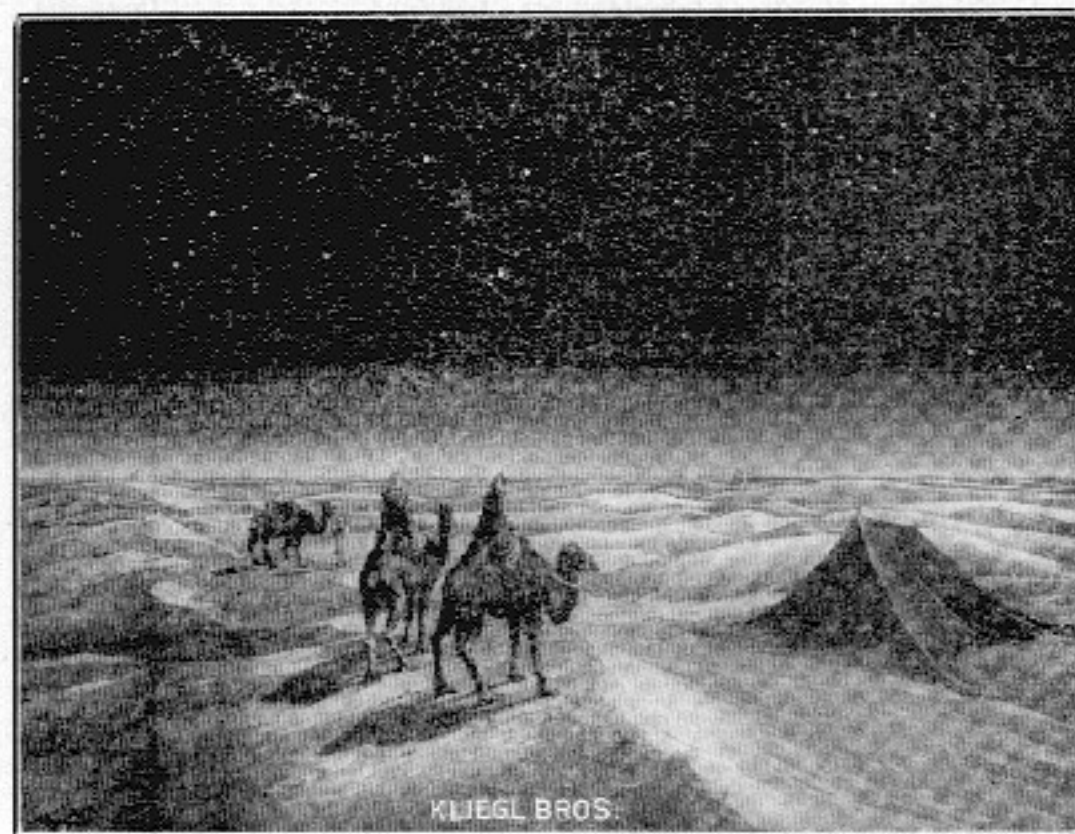
with Island appearing and disappearing, besides a moving film effect showing two men actually swimming in the flowing water. As these effects are shown on a screen on drop one, it allows time for setting the next scene on the stage.

Boat racing, horse racing, etc., can be produced in this way.

To secure the best working and most realistic Electric Effects for productions and scenes, we solicit all particulars of what is required.

We make a specialty of getting up effects for Masonic Temple work and supplying illusionary devices for all the different degrees.

Prices will be furnished on application.



The above is an illustration of the desert scene in the production: "The Garden of Allah," showing the night scene with the brilliantly lighted starry sky; a correct reproduction of a southern sky, with the Milky Way and falling stars. The final scene follows the illusion of the driving sand storm effect in the early part of the scene, with the sand sweeping by in tremendous drifts, and the shrieking wind howling over the desert waste. No words can describe the weird, unearthly effects of this stage phenomenon. The audience involuntarily brushed imaginary sand out of their eyes.

Original effects created for "Madam Butterfly," "Under Two Flags," "Rheingold," "Darling of the Gods," "Ninety and Nine," "Wizard of Oz," "Babes in Toyland," "The Vanderbilt Cup," "Creation," "Galveston Flood," "Fall of Pompeii," "The Land of the Midnight Sun," "The Blue Bird," "The Bird of Paradise," "The Garden of Allah," "The Lady of the Slipper," "The Whip," "The Poor Little Rich Girl," etc.



## BABY SPOT LIGHT

Fig. 60

is a new device for throwing light without using an arc lamp.

A small compact spot light which gives a mild ray of light with a strong center light fading out at the ends.

It consists of wrought iron telescopic stand, Russian iron hood, with aluminum rear and front with grooves, for color frames, and is furnished with 100 C. P. Edison Base Stereopticon lamp with cylindrical filament. This lamp is adjustable in the

hood, in the centre of a 5-inch lens. The rear of the hood is provided with a door. By simply sliding the incandescent lamp in the hood backward or forward, on its brackets, the proper focus is obtained, and the swinging attachment with which the head is provided enables the operator to follow the performer with the light in any required direction. The hood is light-tight and well ventilated. A special small dimmer which acts as a switch is fastened on the stand to control the power of the light, and furnished with 25 ft. No. 14 stage cable. No skilled electrician is required to operate it. The light will not flicker.

We make to order special small Baby spot lights for foot light trough, etc.

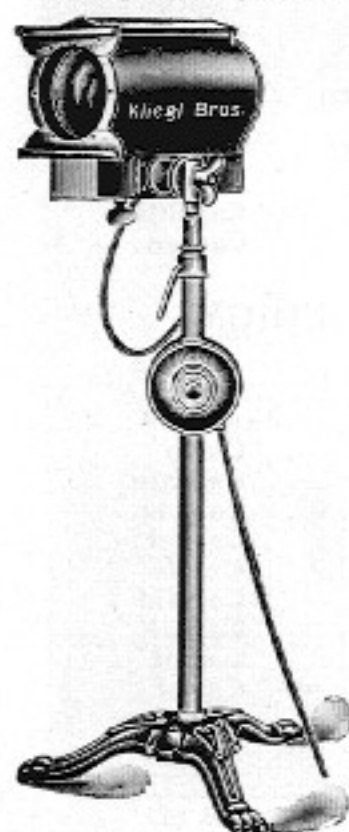


Fig. 60

Fig.		Price	Weight	Code Word
60.	Baby Spot Light, complete.....	\$28.00	30 lbs.	Chaco
61.	Extra Lamp, 50 C. P., 125 volts, conical spiral.....	1.00	.....	Chetah
62.	" 100 C. P., 125 volts, cylindrical spiral.....	2.00	.....	Cheroot
63.	Dimmer for one 100 C. P. Lamp, 125 volts, with dead point, all enclosed.....	7.50	.....	Cheviot
64.	Extra Lamp, 100 C. P. 125 volts, Tungsten.....	2.50	.....	Chined

## BABY SPOT STEREOPTICON

Fig. 65 is the Baby spot light complete with a Stereopticon attachment, consisting of aluminum condensing Lens Holder with condenser, slide carrier and  $\frac{1}{4}$  size objective. A neat and useful apparatus for Lodge Rooms, Parlor Entertainments, etc.

Fig.		Price	Weight	Code Word
65.	4 Amp., 125 volts.....	\$39.50	43 1/4 lbs.	Chino

## SCIOPTICON

Fig. 75 Our Improved Standard Arc Sciopticon is constructed on scientific principles, and is used for producing the various and well-known Kliegl Bros' ELECTRIC EFFECTS designed and manufactured by us. It is similar in construction to our lens box and can be used for the same purpose. The Sciopticon can be used from the rear on a transparent drop, or in front of the drop in the wings, or from the front of the house to throw the effect over the entire stage.

The hood is made of Russian iron with solid aluminum front and rear, well ventilated and light-tight, and is provided with an adjustable handfeed arc lamp for direct or alternating current fastened to a separate iron focusing support, as explained in Fig. 14. The hood is mounted on a movable attachment, and one 5-inch condensing lens is fastened in hood. A second 5-inch condensing lens is fastened in the aluminum condensing lens holder, which slides in grooves, and which is attached to the hood by set screws. The objective lenses used with the sciopticon are of the best quality obtainable, and we furnish our regular 10-inch wide angle objective, with the sciopticon for use from the balcony, or a 6-inch wide angle objective when operated from the stage. See pages 30 and 31 for Sciopticon Objectives.

The telescopic wrought iron stand is heavier in construction than a lens box stand. The rheostat is enclosed, and fastened to the bottom of the stand. It is adjustable and can be used for 50 to 125 volts, direct or alternating current. One enclosed switch with 25 feet No. 10 approved stage cable, and asbestos-covered wire leading from rheostat to switch and hood is included.

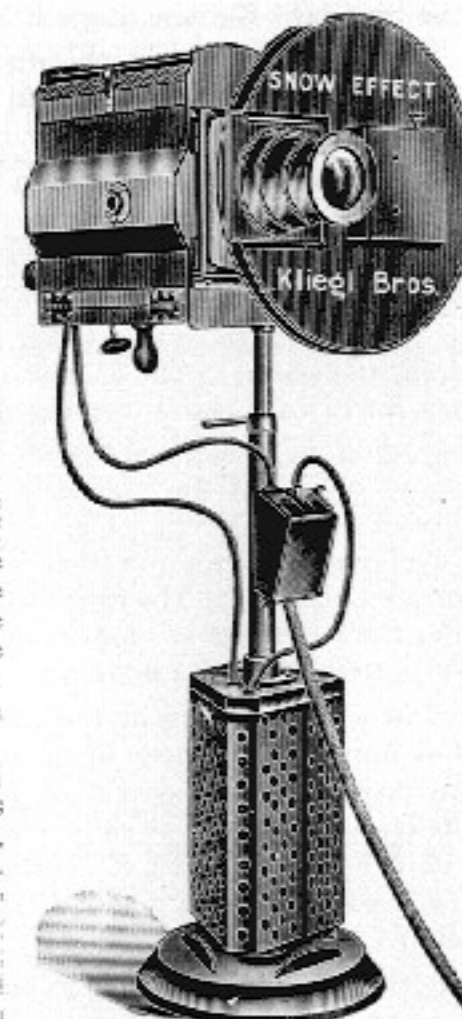


Fig. 75

Fig.		Price	Weight	Code Word
*75.	Sciopticon, 30A 125 V.....	\$75.00	77 lbs.	Cicada
*76.	" 30A 250 V.....	85.00	89 "	Citadel

\*Prices do not include Effects.

Stereopticon views can be shown with Sciopticon with the aid of slide carrier attachment, Fig. 839 (See page 66.)

## Size and Length of Carbons for Sciopticon, Fig. 75

The best Pink Label "Electra" Carbon should be used. Absolutely steady. Brilliant white light. No noise.

			Price per 1000
D. C.	Positive (upper) cored	15 x 175 m/m ( $\frac{1}{2}$ x 7 in.).....	\$28.80
	Negative (lower) solid	13 x 140 m/m ( $\frac{1}{2}$ x 5 1/2 in.).....	19.50
A. C.	Upper cored	15 x 175 m/m ( $\frac{1}{2}$ x 7 in.).....	28.80
	Lower	15 x 140 m/m ( $\frac{1}{2}$ x 5 1/2 in.).....	24.00







## LONG DISTANCE SPOTLIGHT

Approved and listed by the Underwriters' National Electrical Association.

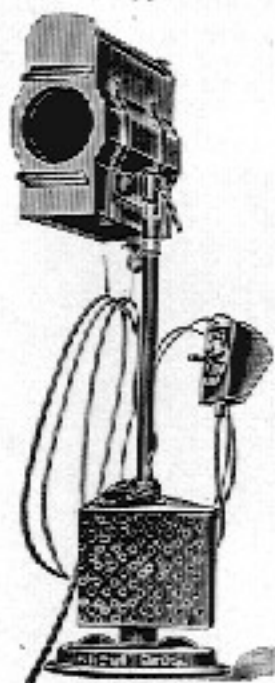


Fig. 9

The new style lamp is superior to any other spotlight for light throwing at long distances. It is designed to give a 3-ft. spot at a distance of 100 feet as well as a 20-ft. spread.

This lamp is neat in appearance, efficient and compact in construction. The hood is made of Russian iron with aluminum front and rear, with large side door on spring hinges, and grooves for color slides or color wheel.

It carries a special arc lamp focusing frame for quick focus, which is controlled by rear wood knob, allowing the operator to change quickly from spot to flood or vice versa without unscrewing set screws or handle. The arc lamp burner is handfeed for A. C. or D. C. current, and is operated by wood knob under hood. The lens used is 6 inches in diameter of a special focus. The hood is well ventilated and thoroughly light-tight, and is fastened by swinging attachment to a telescopic iron stand with enclosed rheostat, detachable switch, asbestos wire and 25 feet approved stage cable.

Fig. 9.

30 Amp. 125 Volts

Fig.		Price	Weight	Code Word
9.	6-inch Lens Box.....	\$50.00	68 lbs.	Betake
22.	Color Wheel.....	3.50	2 1/4 "	Blush
230.	6-inch Lens, plano-convex.....	2.25	1 1/2 "	Glebe

30 Amp. 250 Volts

9A.	6-inch Lens Box.....	\$60.00	81 lbs.	Belch
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## BALCONY OR FRONT LIGHTS

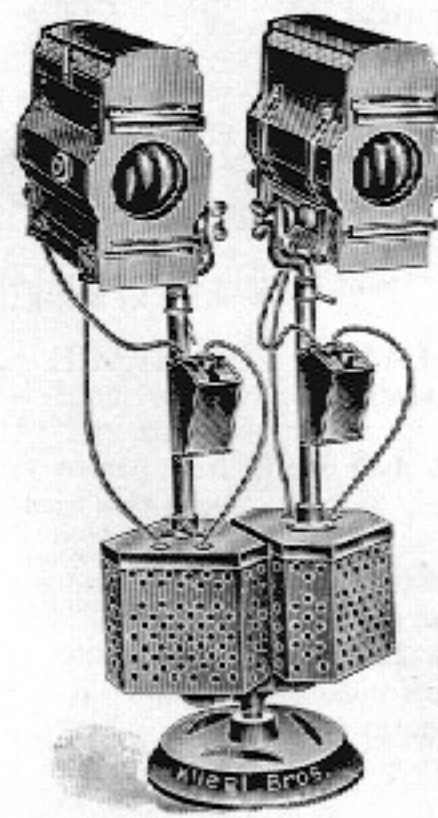


Fig. 10. 25 Amp. 125 V

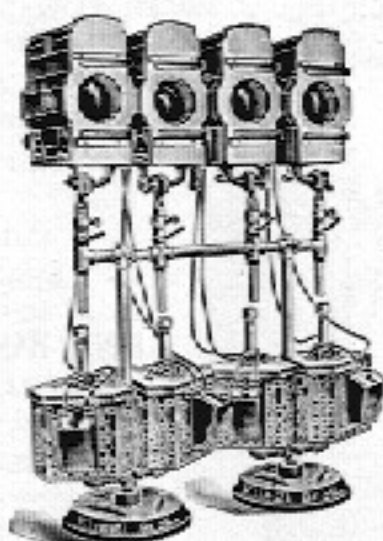


Fig. 15.

These are used to illuminate the entire stage from the balcony or gallery. They are used mostly for musical productions, in which the color changes are a feature of the chorus.

## BALCONY OR FRONT LIGHTS—Continued

The construction of the double and four section Balcony Lights is similar to that described under Fig. 5, page 10, easily taken apart for traveling, and when placed in position save room in the balcony.

Fig.	Each 25 Amp., 125 Volts	Price	Code Word
10.	Double 5-inch Lens Box.....	\$85.00	Beylik
11.	" 6 " " " ".....	90.00	Bezan
12.	" 8 " " " ".....	100.00	Bezel
15.	Four section 5-inch Lens Box.....	200.00	Bias
16.	" " 6 " " " ".....	210.00	Biaxal
17.	" " 8 " " " ".....	220.00	Bice
20.	Color Boomerang for four section Lens Boxes...	20.00	Biceps

Size and Length of Carbons for 5, 6 and 8-inch Lens Box Arc Lamps.

The best Pink Label "Electra" Carbons should be used. Absolutely steady. Brilliant white light. No noise.

Fig.		Price Per 1000	Code Word
D.C.	Positive (upper) Carbons cored 15 x 175 m/m (3/8 x 7 in.).....	\$28.80	Siervo
	Negative (lower) " solid 15 x 140 m/m (3/8 x 5 1/2 " ).....	10.50	Sicidi
A.C.	Upper " cored 15 x 175 m/m (3/8 x 7 " ).....	28.80	Siervo
	Lower " " 15 x 140 m/m (3/8 x 5 1/2 " ).....	24.00	Sichel

## LENS BOX COLOR WHEEL

Fig. 22

shows our Color Wheel for 5 and 6 inch Lens Boxes. It is made of galvanized iron, with sliding attachment to fit the grooves on the Spotlight or Lens Box Arc Lamps.

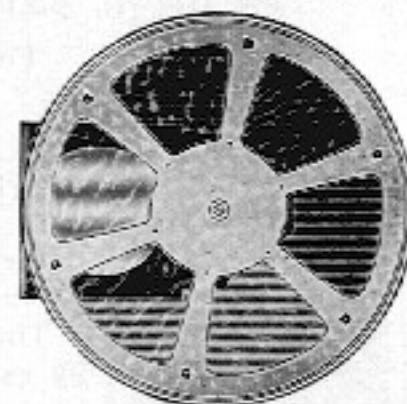


Fig. 22

Fig. 23. Color Wheel for 8-inch Lens Box.

Fig.		Size	Price	Weight	Code Word
22.	For 5 or 6-inch Lens Boxes, 5 openings.....	18 in.	\$3.50	2 1/2 lbs.	Blush
24.	" 5 or 6 " " " " ".....	20 "	4.00	2 3/4 "	Bluster
23.	" 8 " " " " ".....	28 "	8.00	3 1/4 "	Bca

Add \$15.00 to price for Color wheel with clockwork.

Boer

## METAL COLOR BOX

Fig. 25 represents our Metal Color Box. It is fitted with six frames operated from the outside by simply pulling the strings. It will slide in front of the lens box, preserves the color mediums, and gives excellent and quick service.



Fig. 25

Fig.		Price	Weight	Code Word
25.	For 5 or 6-inch Lens Box.....	\$9.00	9 3/4 lbs.	Bogey
26.	" 8 " " " ".....	12.00	14 "	Boggle



## LENS BOX ARC LAMPS

Approved and Listed by the Underwriters' National Electrical Association

Our lamps differ from those of last year's in that aluminum is used freely in their construction, which makes them lighter in weight than those of any other make.

Fig. 5

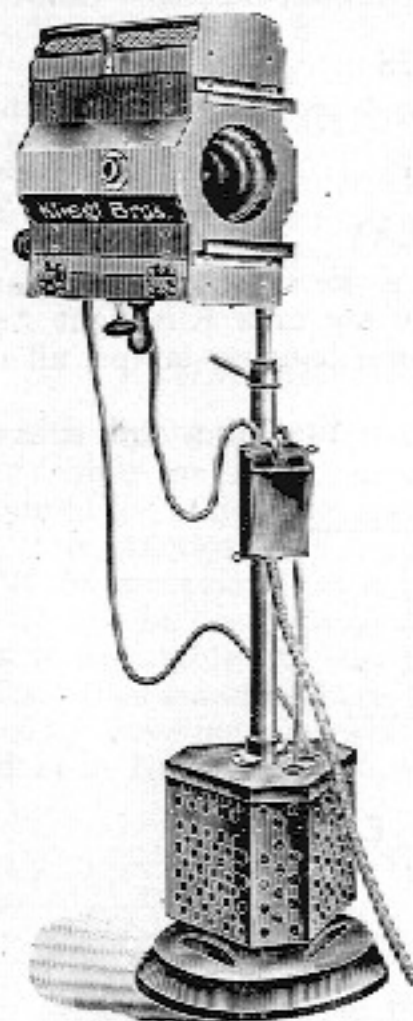


Fig. 5

heat to escape without waste of light. The arc lamp is fed by the lower wooden knob, and the quick and proper focus is obtained by pulling the knob on the rear of the aluminum casting. All terminals are enclosed.

The Lens Box is used on the stage for a spot-light and can also be used in the gallery to illuminate the entire stage, or to give a small spot of light to follow one performer or to light up one object.

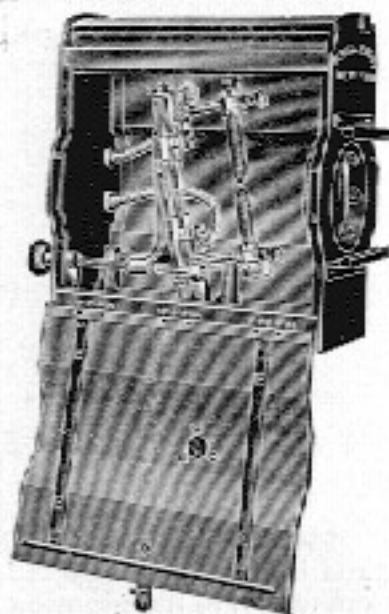


Fig. 14

## LENS BOX ARC LAMPS—Continued

The Lamp House, Fig. 14, with the door open, shows the arc lamp and carbons. The arc lamp is fastened to an iron frame support, which enables the operator to focus his light quickly from the outside by the rear wooden knob without unscrewing set screws or handle. The arc lamp itself is made of brass and is nickel-plated, which is a guarantee of the smooth working of the lamp. The upper carbon holder is stationary and the lower adjustable. The carbon holders are provided with carbon drops. The arc lamp is operated or fed by the wooden handle underneath the box. (See Fig. 477, page 44.)

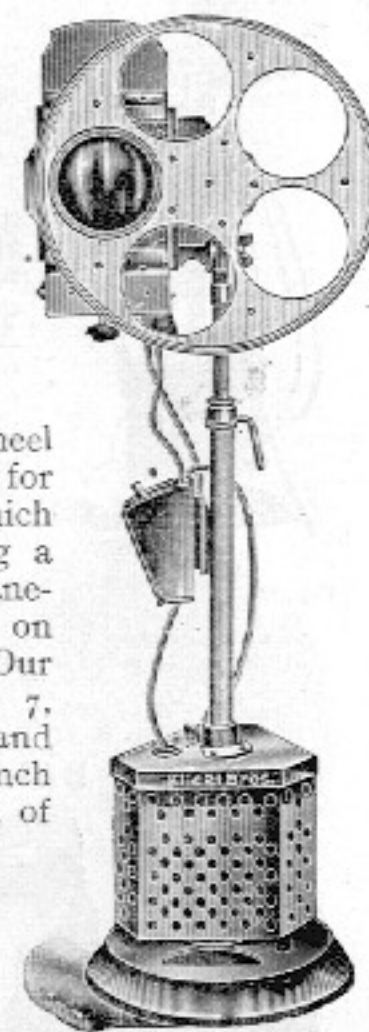


Fig. 7  
6-inch Lens Box Arc Lamp  
with Color Wheel.

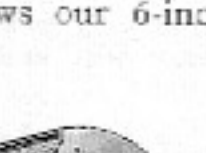


Fig. 7

shows our 6-inch Lens Box with color wheel attachment arranged for five separate colors, which is also used for throwing a change of light instantaneously on a performer or on the scene of the play. Our Lens Boxes, Fig. 6 and 7, fitted with 6-inch lens, and Fig. 8, fitted with 8-inch lens, give a larger spread of light. They are best adapted for the illumination of the entire stage.

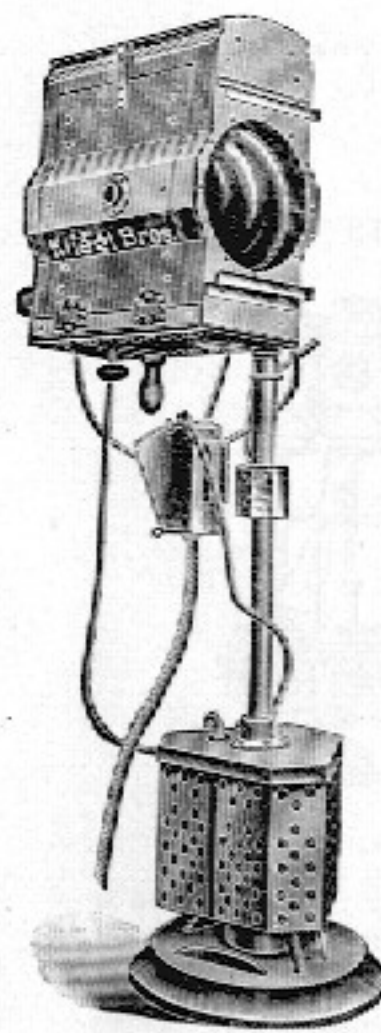


Fig. 8

## LENS BOX ARC LAMPS FOR STAGE PURPOSES

## 25 Amp. 125 Volts

Fig.		Price	Weight	Code Word
5.	3 in. Lens Box	\$42.50	63 lbs.	Beber
6.	6 " " "	45.00	63 "	Bebrins
7.	6 " " " with Color Wheel	48.50	65 "	Bectria
8.	8 " " "	50.00	75 "	Begul

## 25 Amp. 250 Volts

3A. 3-in. Lens Box.....	\$52.50	76 lbs.	Hail
3A. 5 " " " .....	55.00	76 "	Bark
7A. 6 " " " with Color Wheel .....	58.50	78 "	Baffle
8A. 8 " " " .....	60.00	80 "	Badge

Approved and Listed by the Underwriter's Electrical Association.



# KLIEGLIGHT LAMPS—Continued

do not take more current than one arc lamp. The light is regulated by the adjustable rheostat and for time exposures twenty to twenty-five amperes are sufficient, for special purposes thirty and thirty-five amperes can be used.

The light weight of the Klieglight Lamp commends it for transportation, and electric connections are easily made for same.

The same type of Klieglight Arc Lamp can be furnished with handfeed arc lamp.

## KLIEGLIGHT HANGING LAMP

Fig. 1012 is for overhead lighting, and is furnished without stand, but includes an adjustable rheostat which can be fastened against the wall, and is furnished with enclosed switch and 50 ft. No. 8 cable.

## KLIEGLIGHT STAND LAMP (Handfeed)

This apparatus, Fig. 1021, is for taking motion pictures away from the studio, or wherever there is temporary lighting required for taking pictures in factories, hospitals, etc.

It is practically the same apparatus described in Fig. 1011 with the exception that it is furnished with a handfeed arc lamp which can be used either on D. C. or A. C. current. The rheostat is adjustable and wired to take 20 to 35 amperes, 110 to 250 volts. The stand is short, light in weight, very strong and compact for traveling purposes. It is furnished with enclosed switch and 25 ft. No. 8 flexible cable.

## KLIEGLIGHT LAMPS (Automatic)

Fig.		Price	Weight	Code Word
1011.	Stand Lamp, D. C. 20-35 Amp. 120 Volts.....	\$150.00	138 lbs.	Alice
1012.	Hanging Lamp, D. C. 20-35 Amp. 120 Volts.....	120.00	70 "	Alpaca
1013.	Stand Lamp, D. C. 20-35 Amp. 250 Volts.....	207.00	126 "	Alpen
1014.	Hanging Lamp, D. C. 20-35 Amp. 250 Volts.....	157.00	77 "	Amaze
1015.	Stand Lamp, A. C. 20-35 Amp. 110 Volts.....	250.00	138 "	Amint
1016.	Hanging Lamp, A. C. 20-35 Amp. 110 Volts.....	140.00	70 "	Amor
1017.	Stand Lamp, A. C. 20-35 Amp. 250 Volts.....	267.00	146 "	Ana
1018.	Hanging Lamp, A. C. 20-35 Amp. 250 Volts.....	157.00	77 "	Ancon

## KLIEGLIGHT LAMPS (Handfeed)

1019.	Stand Lamp, D. C. or A. C. Current, 20-35 Amp. 120 Volts.....	135.00	90 "	Anise
1020.	Hanging Lamp, D. C. or A. C. Current, 20-35 Amp. 120 Volts.....	130.00	62 "	Annals
1021.	Stand Lamp, D. C. or A. C. Current, 20-35 Amp. 110-250 Volts.....	150.00	98 "	Anode
1022.	Hanging Lamp, D. C. or A. C. Current, 20-35 Amp. 110-250 Volts.....	145.00	70 "	Antif

The weight given on all Klieglight lamps includes lamp hood, rheostat, stand, switch and cable.

On Hanging Lamps the weight includes lamp hood, rheostat, switch and cable.

# KLIEGLIGHT LAMPS—Continued

## KLIEGLIGHT CARBONS

We supply a special scientifically perfect carbon which develops a rich actinic and extremely intense light. Each carbon is stamped with the word Klieglight, and is to be used exclusively in the Klieglight Arc Lamps, either for D. C. or A. C. current.

Size	Price	Code Word
13 x 120 m/m (5/8 inch x 4 3/4 inch).....	\$45.00 per 1000	Antler

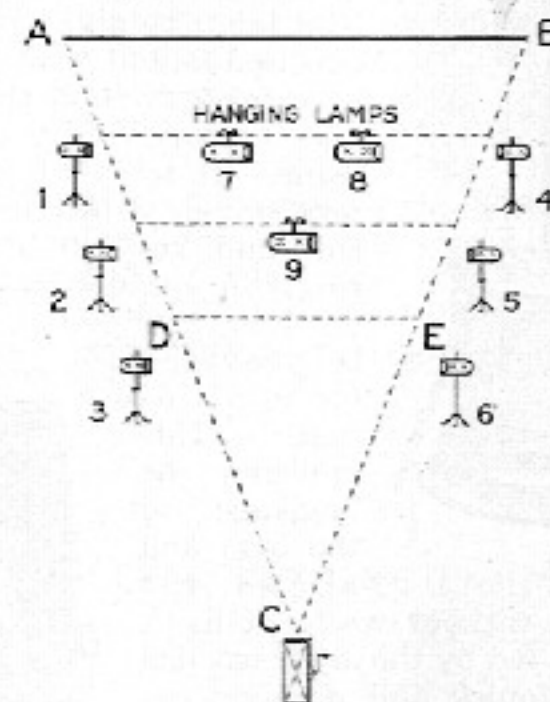
## ACCESSORIES

Fig.			
1040.	Wood Frame for Gelatine.....	\$0.50 per pair	Apathy
1041.	Gelatine Medium—frosted.....	.25 each	Aphia
1042.	Wood Frame with tracing linen.....	.75 "	Apogee

## STUDIO OUTLAY

For Studio Work, we hereby give a sketch showing an outfit placed in correct positions. There are nine Klieglight Arc Lamps used, six stand lamps and three hanging lamps, all of the automatic type.

The hanging lamps are arranged so that they will travel sideways, as well as up and down.



- A and B.....Background
- C.....Camera
- D and E.....End of stage for players
- 1, 2, 3, 4, 5, 6.....Klieglight Stand Lamps
- 7, 8, 9.....Klieglight Hanging Lamps

We are prepared to draw plans and specifications, furnish estimates, and take bulk contracts for studio lighting, including everything that will make studio illumination a perfect unit.

See Page 79 for Edison's Testimonial.



**A MODERN THEATRE INSTALLATION IN NEW YORK—Continued**

partitions permit the light to be thrown directly on to the stage, and illuminate the feet of the performers and dancers, as well as the back drop. The wiring of the footlights is similar to that of the borders. They are also divided, and different colored lights can be used in each half of the footlights. Each color in each half of the footlights is controlled by a separate switch and dimmers.

### PROSCENIUM LIGHTS

The proscenium lights are constructed to fit the wall curve of the proscenium arch. They are made of reflector tin, wired for four colors.

50-32 C. P. lamps, white	36-32 C. P. lamps, red.
36-32 " " " blue	36-32 " " " amber

### DIMMERS

There are 96 2-wire and 20 3-wire Universal Type dimmer plates (see pages 48 to 51), weighing in all 22,000 lbs., fastened against the wall under switchboard in cellar and sub-cellar. These dimmers are set in four rows, one on top of the other, for the four colors in the border, foot and proscenium lights, bunch and transparent pockets. Connections are made by flexible cable for controlling same from dimmer handle on the switchboard.

### ACCESSORIES

There is also installed on the stage one small switchboard to control the electric motor for wind machine and thunder effects, special automatic lightnings (Fig. 232, page 24) and a complete system of signal lights, an electric time beater (Fig. 67c, page 60), operated by the leader of the orchestra to give the cues to the chorus, also a system of light controllers, one on each fly floor and main switchboard, operated by the stage manager when he wishes to communicate with the electrician regarding the colors of the lights, and what part of each should be used.

There are 22 telephones distributed all over the house.

36 electric bells for signals and dressing rooms.

12 open box arc lamps, Fig. 1, page 6.

6-8 inch lens box arc lamps, Fig. 8, page 11.

4-6 inch lens box arc lamps, Fig. 6, page 11.

4-5 inch lens box arc lamps, Fig. 5, page 10.

2 sciopicons for electric effects, Fig. 75, page 17.

12-12 light bunchlights, Fig. 641, page 57.

100 music stands, Fig. 666, page 59.

100 music stands, Fig. 665, page 59.

8 combination strip and wing lights, four colors each; 12-32 C. P. lamps of each color, white, red, amber, and blue, arranged on traveling carriages as shown in cut. They are also used as ground row strips.

36 strip lights, Fig. 650, page 58, in various lengths of from 3 to 12 feet.

### TELEGRAPH CODE WORDS

to be used in connection with this Catalogue

We invite you to use our Code Words in ordering by wire, as it materially reduces expense and avoids mistakes.

No two articles have the same Code Word. Always mail us a duplicate of all telegraphic orders.

### SHIPPING INSTRUCTIONS

Code Word	
Yacare.....	Ship by freight C. O. D.
Yacca.....	Ship by express C. O. D.
Yahoo.....	Ship by express.
Yaksha.....	Ship by freight.
Yapock.....	Can you ship from stock.
Yaup.....	We are in a great hurry.
Yelad.....	If you are unable to ship soon, wire us at our expense.
Yean.....	Quote us prices on.
Yerba.....	Add to our order.
Yodel.....	When will you ship our order of.
Yojan.....	Have you received our order of.

### ANSWERS

Yore.....	Goods will be shipped.
Yourts.....	We beg to quote you the following prices.
Yurga.....	Can ship at once.

### TESTIMONIAL



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Bedford Park, New York

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LONDON  
PARIS  
BERLIN  
SYDNEY  
BUENOS AIRES  
CHICAGO  
"THEATRE NEW YORK"

July 27th, 1912.

Kliegl Brothers,  
240 West 50th Street,  
New York City.

Gentlemen:

Confirming our light tests of the 24th inst., made with your new lamp against 4 Aristo lamps, I enclose clippings of film for your satisfaction.

We projected the positive print of this work and I feel justified in stating that your lamp is a little more powerful than a combination of 4 Aristos.

Yours very truly,

Thomas A. Edison, Inc.,  
Kinetograph Department,  
Horace O. Filapion,  
Mgr. Neg. Production,  
Per *Thiss*



*A Few of the Reasons Why Every Theatre  
and Production Should be Equipped  
with the Universal Electric  
Stage Lighting Com-  
pany's Apparatus,  
Kliegl Bros.,  
Props.*

The greatest combination of lighting effects can be obtained at the least expense.

Any person can operate the apparatus.

They are the simplest combination of stage lighting apparatus and electric stage effects made, and can be produced to the best advantage.

Fire risk is entirely eliminated, there being no exposed parts. Approved by the National Board of Fire Underwriters, and Fire and City Departments.

Endorsed by leading architects, engineers and theatrical managers.

Don't experiment. It is expensive. Profit by our experience. The best is the cheapest.

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We keep on hand a stock of our Electric Stage Lighting Apparatus and Effects for Rental at contract rates, and can furnish expert operators when called for.

Bills for rental of apparatus must be paid in advance.

Goods will be furnished on rental only on New York City security, or for cash for the full amount of the goods, from which rental and express charges will be deducted, and cheque for the balance returned.

All transportation charges to be paid by rental party.

**TERMS ON APPLICATION**

*Special contracts undertaken and carefully executed.*