

KLIEGL

**THEATRICAL
DECORATIVE
SPECTACULAR**

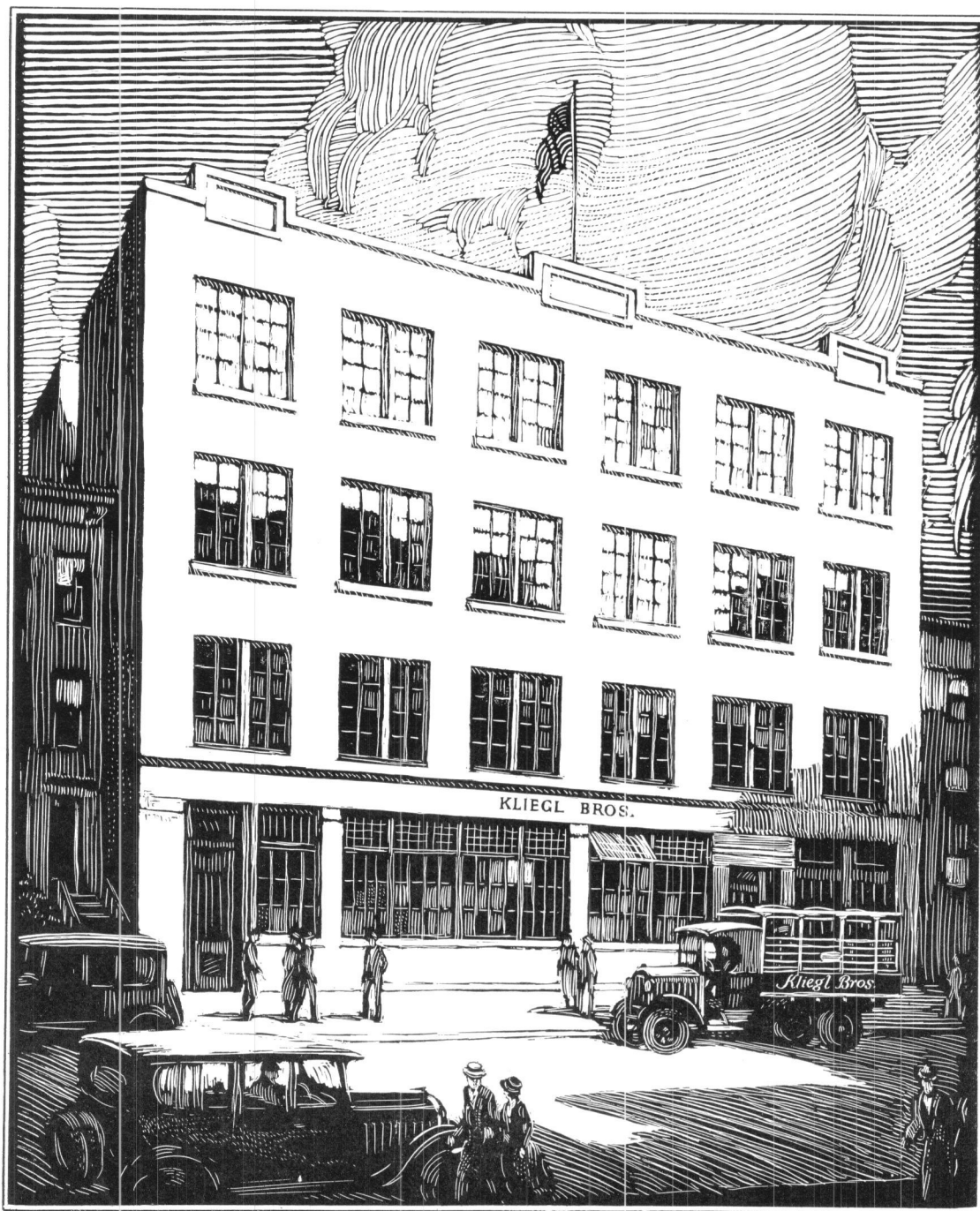
LIGHTING



A COMPLETE LINE of lighting specialties, electrical devices, and lighting effects; for the stage, theaters, motion picture studios, window displays, show rooms, exhibitions, pageants, outdoor theatricals, outdoor flood-lighting, spectacular advertising, ballrooms, cabarets, schools, lodge rooms, industrial plants and countless other applications.



Catalog 30



*I*N a modern plant just off Broadway, near the center of New York's theatrical district, Kliegl Lighting Specialties and Lighting Effects are planned, designed, and produced—bearing the mark "Kliegl Bros."—a symbol of quality and fine craftsmanship known the world over.

KLIEGL

THEATRICAL · DECORATIVE · SPECTACULAR

LIGHTING

SECTIONAL CATALOG

Classification of Contents

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LIGHTING APPARATUS Complete portable units such as Spotlights, Floodlights, Stage Lamps, Music Stands, Motion Picture Studio Lights, Stereopticons, and a variety of special lamps	200-299
STAGE AND SCENIC EFFECTS All the various forms of special devices for producing stage and scenic illusions	300-399
ACCESSORIES, SPECIALTIES APPLIANCES Lighting accessories and appliances used in conjunction with lighting apparatus and equipment—such as Color Wheels, Color Frames, Lenses, Slide Carriers, Shutters and Blinders, et cetera	400-499
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PARTS AND SUPPLIES All necessary parts, materials, and supplies for Kliegl lighting equipment and apparatus	600-699
GENERAL DATA Reference indexes (code words, catalogue numbers and alphabetical listing) and information of a general nature pertaining to Kliegl Products	700-799

Cable address: KLIEGLIGHT, N. Y.
Codes used: Private and Western Union

KLIEGL BROS

UNIVERSAL ELECTRIC STAGE LIGHTING CO., INC.

ESTABLISHED 1896

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NEW YORK, N. Y.

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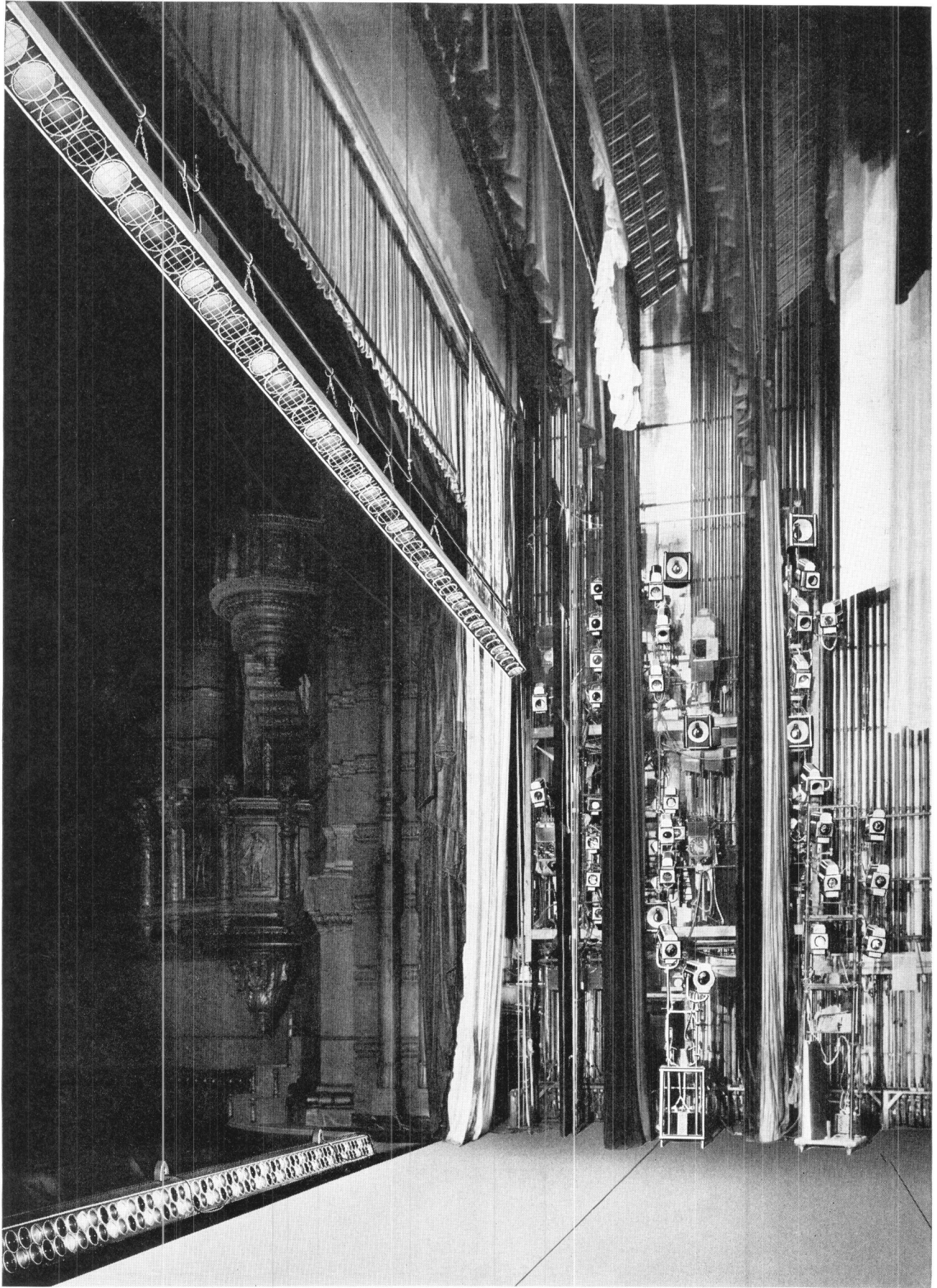
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{ PLEASE NOTE }

THIS is the first published section of our new catalog—which has been devised in loose-leaf form, so as to procure the advantages of flexibility, enabling us to keep pace with the ever changing conditions of the present day, and provide means for presenting the very latest information available concerning our products.

Additional sections on Lighting Apparatus, Scenic and Stage Effects, Electrical Fittings, etc. as above mentioned, are in the course of preparation and will be forwarded to you when published. *In the interim please inform us of any change in your mailing address.*

The immediate insertion of new pages or additional sections as they are received, will keep your copy of our catalog always up to date—a valuable, timely, and informative reference on theatrical, decorative, and spectacular lighting specialties, and electrical devices.



Kliegl Stage Lighting



Roxy Theater



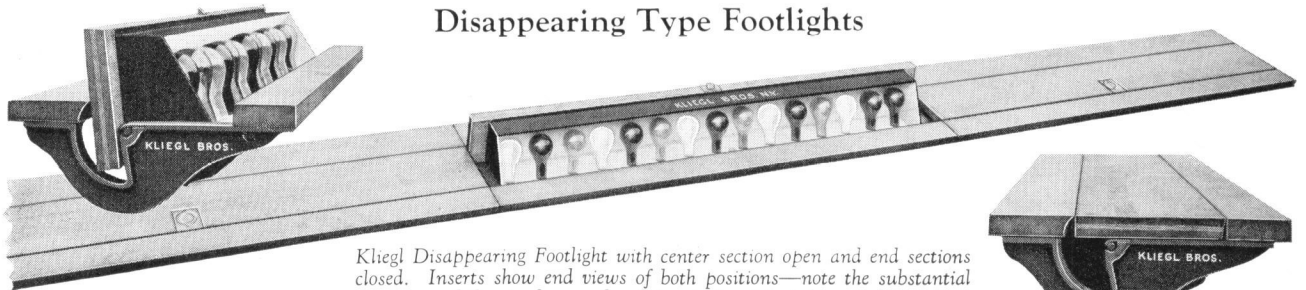
New York

FOOTLIGHTS

LISTED BY UNDERWRITERS' LABORATORIES

KLIEGL FOOTLIGHTS are made in many and various forms, including disappearing types for schools, et cetera; brilliant lighting equipment for the theaters; and small portable units for temporary stages. They are practically designed, efficient, embody superior features reflecting years of intimate experience with stage lighting requirements; and provide an abundance of illumination, with proper control and distribution of the light. When necessary, modifications in standard designs can readily be made to suit individual requirements.

Disappearing Type Footlights



Kliegl Disappearing Footlight with center section open and end sections closed. Inserts show end views of both positions—note the substantial flooring; and the sturdy cross brackets which support the movable sections provide a solid rest for the floor panel in its open or closed position, and securely hold the parts together in their exact and proper relationship.

KLIEGL DISAPPEARING FOOTLIGHTS are for use wherever footlights are required only occasionally, and are so constructed that when not in use they may be closed down flush with the stage floor, leaving an unobstructed platform—very serviceable in instances where the stage is used sometimes for entertainments and at other times for speakers and lecturers, as in schools, clubs, lodge rooms, auditoriums, lecture halls, concert halls, assembly rooms, gymnasiums, little theaters, community centers, and the like.

They are furnished completely assembled, and wired, in standard five-foot lengths; are compact, exceptionally rugged, well ventilated, and highly efficient. They provide a continuous footlight of unbroken front, which when open extends but a few inches above the stage floor, and is imperceptible to the audience.

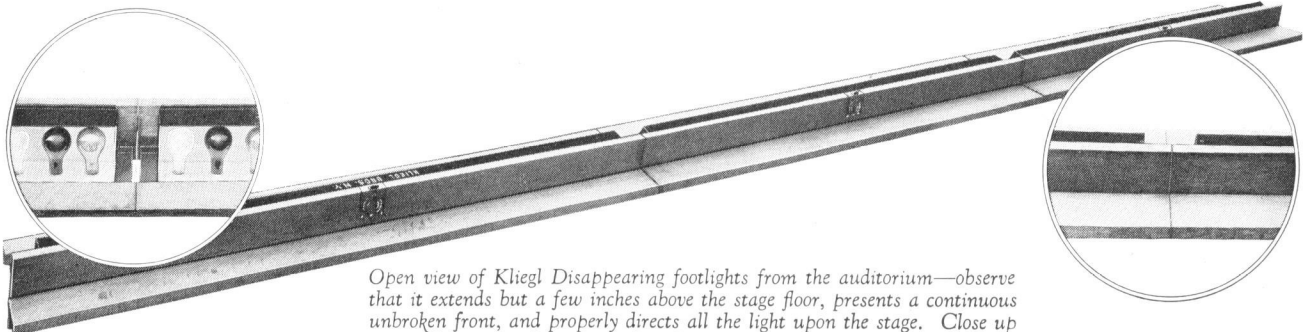
The lamp receptacles and other electrical parts are a self contained unit completely encased, in an all-metal fire-proof housing, having pivoted supports on the ends, and a suitable hardwood floor panel attached. The flooring is $1\frac{1}{16}$ inches thick, of oak, made of strips notched and glued together, with cross grain in opposite directions, to prevent warping or cracking, is impregnated against moisture, and will withstand severe treatment. The hardwood

panel fastened to the back of the footlight section, serves as part of the stage floor when the footlight is closed, and rests securely on heavy malleable-iron supporting brackets.

The footlight is released from its closed position by a simple flush-ring-pull attached to a spring-latch at the center of each section. It swings easily on its pivoted support through a short arc into its full open position, being held open by a suitable catch. No appreciable effort, and no keys or extraneous tools of any kind are required to open or close the footlight.

Each section is equipped with switches which automatically connect the lamp circuits when the footlight section is opened, and disconnect the circuits when it is closed—thus eliminating all possibility of the lights being accidentally left on with the footlight closed, and also being instantly ready for use when the footlight is opened. Each section can be equipped, if desired, with a motor-driven device for opening and closing the panel automatically, admitting complete remote control operation of the footlight from the switchboard or other distant point.

Kliegl Disappearing Footlights comply with Underwriters' requirements; are easily installed; match the finished stage floor when in place, and are permanently con-



Open view of Kliegl Disappearing footlights from the auditorium—observe that it extends but a few inches above the stage floor, presents a continuous unbroken front, and properly directs all the light upon the stage. Close up views of the joints show the perfect alignment of the adjoining sections.

ected to the switchboard, ready for service at all times. They are made in several standard designs hereinafter described, and are supplied in straight sections with sufficient allowance to permit mitering of the ends for curved installations. Special lengths and flooring, other than oak, can be furnished if required.

Fig. 1—View of the switches which automatically disconnect the circuits when the section is closed, eliminating all possibility of leaving lamps on accidentally with the footlight down, also automatically connecting the circuits when the section is opened—making it instantly available for use. They are fifteen-ampere single-pole toggle-switches, enclosed in a suitable casing.

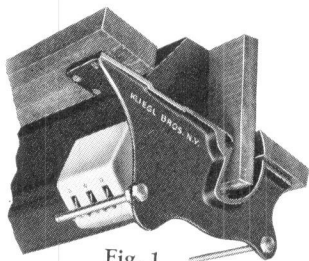


Fig. 1

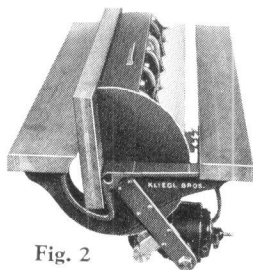
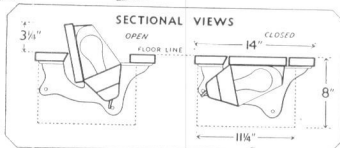
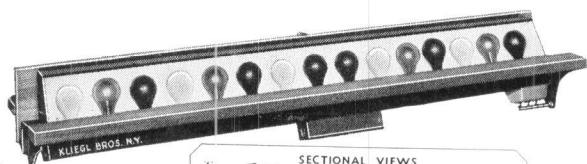


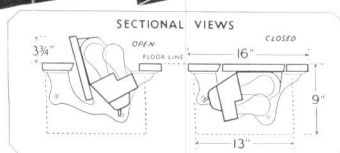
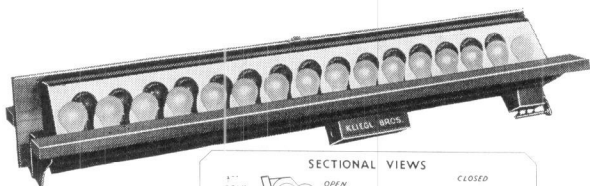
Fig. 2

Fig. 2—When specified, the motor driven device here shown is furnished attached to each section for opening and closing the footlight electrically from a remote point—usually from the switchboard.



No. 829

Kliegl Disappearing Footlight No. 829—simplest form of disappearing footlight with a single row of lamps, good lighting characteristics, and color effects obtained by means of clear and natural-colored lamps. Open trough type; with single row of medium-screw-base receptacles spaced $3\frac{1}{2}$ inches on centers; accommodates fifteen 60-, 75-, or 100-watt lamps. Completely wired on three 2-wire circuits for independent control of three colors, usually white, red, and blue. Reflecting surfaces painted a permanent white. Provided with splice box and automatic cut-off switches. Furnished complete, except for lamps, in straight five-foot sections, with oak flooring.



No. 828

Kliegl Disappearing Footlight No. 828—similar to No. 829 but with double row of lamps giving proportionately more intensified lighting. Open trough type; with two

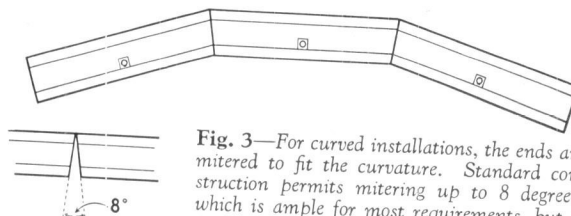
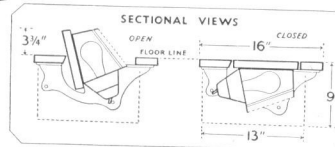
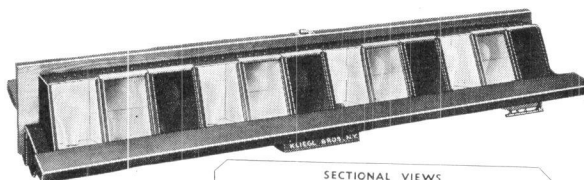


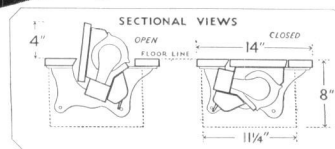
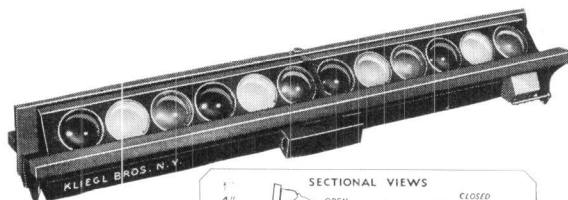
Fig. 3—For curved installations, the ends are mitered to fit the curvature. Standard construction permits mitering up to 8 degrees, which is ample for most requirements, but if desired a greater allowance can be provided.

parallel rows of medium-screw-base receptacles, adjacent receptacles spaced $3\frac{1}{2}$ inches on centers; front row accommodates sixteen, back row fifteen, 60-, 75-, or 100-watt lamps. Completely wired, front row on a single 2-wire circuit for white lighting, and back row on two 2-wire circuits for independent control usually of red and blue lights. Reflecting surfaces painted a permanent white. Provided with splice box and automatic cut-off switches. Furnished complete, except for lamps, in straight five-foot sections, with oak flooring.



No. 827

Kliegl Disappearing Footlight No. 827—allows the use of clear lamps with gelatine color mediums, admitting greater color flexibility. Open-front compartment type; with a single row of medium-screw-base receptacles spaced $4\frac{3}{4}$ inches on centers. Accommodates twelve 60-, 75-, or 100-watt clear lamps; each lamp in a separate compartment, with slide grooves at front for reception of metal frames with gelatine color mediums, and interior surfaces painted a permanent white to reflect the light, also with wire screen guard on front to protect the gelatine mediums from accidental damage by careless feet. Wired on three 2-wire circuits for independent control of three colors. Provided with splice box and automatic cut-off switches. Furnished complete, with metal color frames—but without gelatine colors or lamps—in straight five-foot sections, with oak flooring.



No. 830

Kliegl Disappearing Footlight No. 830—a very efficient single row unit; each lamp being provided with a reflector which controls the direction of the light and naturally-

colored glass-roundels to color the light. Enclosed trough type; with a single row of medium screw-base receptacles spaced $4\frac{5}{8}$ inches on centers. Accommodates twelve 100-watt clear lamps. Receptacles, reflectors, lamps, and wiring completely enclosed in a dirt and dust-proof sheet-metal housing. Each receptacle fitted with an aluminum reflector, permanently fixed in position, having a pure-white, acid-finish, high-reflecting surface, that does not peel or discolor, is unaffected by the heat of the lamps, and can be easily cleaned. Groove and spring-ring clamp provided at the front of each reflector for holding roundels in place.

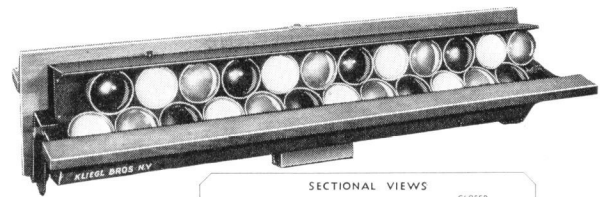
Color roundels are convex, clear and natural-colored, heat-resisting glass-lenses, easily removed for changing colors or replacing lamps, and always of uniform and true color values. For white lighting clear-crystal lenses are furnished, for color lighting red and blue are usually supplied, occasionally also amber or green, additional colors are available.

Wired on three 2-wire circuits for independent control of three colors. Provided with splicebox and automatic cut-off switches. Furnished complete, except for lamps, in straight five-foot sections, with oak flooring.

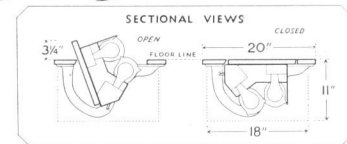
Unless otherwise specified, sections are furnished with acid-finish aluminum reflectors, and non-diffusing clear-crystal and red and blue roundels. Copper-shell chromium-plated reflectors with diffusing clear and color roundels can be supplied on special orders.

No. 831

Kliegl Disappearing Footlight No. 831—the most efficient model made in disappearing footlights, similar to No. 830, but has a double row of lamps, each fitted with an individual reflector and glass-roundels; providing proportionately higher-intensity lighting and a more evenly



No. 831



lighted front stage. Enclosed trough type; with two parallel rows of medium-screw-base receptacles, adjacent receptacles spaced $4\frac{3}{4}$ inches on centers. Accommodates twenty-four 100-watt clear lamps. Angle of reflection, controlled by the position of the receptacles and reflectors, differs in the two rows, and has been carefully predetermined as best for most effective light projection. Lower row illuminates principally the body and face of persons close to front of stage. Upper row illuminates their feet and projects the light well toward the rear of the stage. Rays from both rows intermingle and being well diffused provide an evenly and brightly illuminated front stage.

Wired on three 2-wire circuits for independent control of three colors, white, red, and blue—with the colors staggered in the two rows. Provided with splice box and automatic cut-off switches. Furnished complete, except for lamps, in straight five-foot sections, with oak flooring.

Unless otherwise specified, sections are furnished with acid-finish aluminum reflectors, and non-diffusing clear-crystal and red and blue roundels. Copper-shell chromium-plated reflectors, with clear and colored diffusing roundels, can be supplied on special order.

Permanent Semi-flush Type Footlights

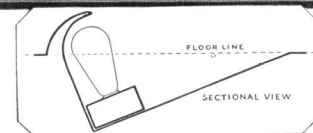
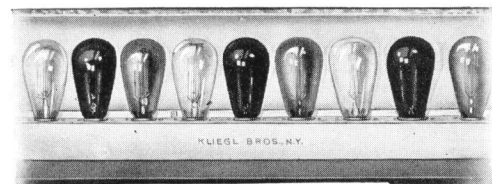
KLIEGL PERMANENT SEMI-FLUSH TYPE FOOTLIGHTS are for use in theaters, and wherever a permanently installed regular footlight is desired. They are in the form of a trough, fixed in position, with hood extending $2\frac{1}{2}$ to $3\frac{1}{2}$ inches above the stage floor, protecting the lamps, and reflecting the light to the stage; are made in several standard designs, varying in structural details, lighting characteristics, and methods of obtaining color lighting; and the designs may be modified to meet individual requirements.

These footlights are furnished in any desired length or curvature; with the wiring from the lamp receptacles terminating in a splice box, located as specified; and may be had wired for one, two, three or more colors, and any number of lights per color desired.

When required, plug outlets for auxiliary lighting devices, footlight spots, etc., are furnished as an integral part of the footlight—usually several No. 950 Kliegl pin-plug connectors, installed in the footlight trough, with a 2-wire circuit to each outlet, providing convenient means for connecting and controlling the auxiliary lighting units.

No. 622

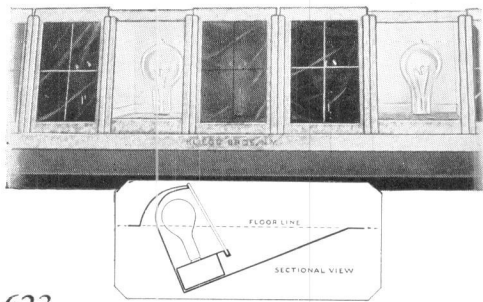
Kliegl Footlight No. 622—simplest form of footlight, having a single row of lamps, and good lighting characteristics, color effects obtained by means of colored lamps.



No. 622

Semi-flush open-trough type, for 60-, 75-, or 100-watt clear or natural-colored lamps. Trough and hood formed from one piece of heavy-gauge galvanized sheet iron, hood of two thicknesses rolled as one and spaced at point of support, making it exceptionally strong and rigid. Fitted with a single row of medium-screw-base receptacles, spaced 3 to 4 inches on centers, depending on size of lamps to be used. Completely wired, usually for independent control of three colors, white, red, and blue. Splice box provided. Reflecting surfaces painted a permanent white, trough incline dull black. Length and curvature as specified.

A footlight of similar construction but designed for a double row of lamps, can also be furnished, No. 624.



No. 623

Kliegl Footlight No. 623—allows the use of high-intensity clear lamps with gelatine color mediums; admitting correspondingly brighter stage illumination, with better color values, greater flexibility in color lighting, and the ability to make many color changes at a minimum of expense. Semi-flush compartment type with single row of receptacles, for 150-watt clear lamps; each lamp in a separate compartment, with slide grooves in front for metal frames for colored gelatine or colored glass; trough and hood formed from one piece of heavy-gauge galvanized sheet iron, hood or two thicknesses rolled as one piece and spaced at point of support; medium-screw-base receptacles spaced 6 inches on centers; completely wired, usually for independent control of three colors, white, red, and blue; splice box provided; reflecting surfaces painted a permanent white, trough incline dull black; furnished either with metal frames for gelatine color mediums, or metal frames with non-fading naturally-colored glass; length and curvature as specified.

of fabrication. Groove and spring-ring clamp provided at the front of each reflector hold roundels in place.

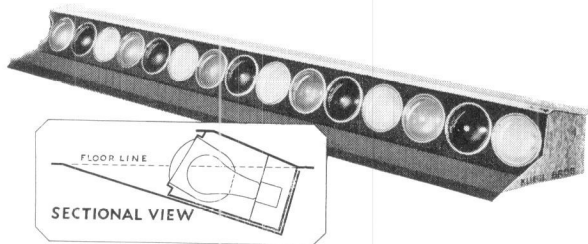
Color roundels are convex, natural-colored, heat-resisting, glass lenses—easily removed for changing colors or replacing lamps, and always of uniform and true color values; for white lighting clear-crystal lenses are furnished, for color lighting, red and blue are usually supplied, occasionally also amber or green, additional colors are available. Completely wired, usually for independent control of three colors. Back of lighting unit removable so that footlight can be wired on the job when necessary; splice box provided, located as specified.

For footlight spots and other auxiliary lighting devices—Kliegl connectors No. 950 are furnished, wired on separate circuits for individual control, usually three outlets are furnished, spaced equally the length of the footlight.

Trough is of galvanized sheet iron, accurately formed to support the lighting unit at the proper angle for the best light distribution. When a concrete trough of correct design is already provided in the stage, the sheet metal trough may be omitted.

Front of lighting unit and trough incline are finished dull black. Length and curvature as specified. Unless otherwise requested—footlights are furnished with clear-crystal, red, and blue, natural-colored non-diffusing glass roundels.

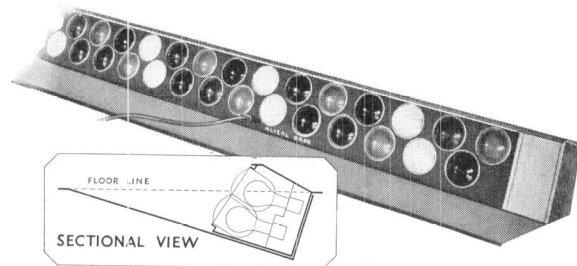
Copper-shell chromium-plated reflectors instead of aluminum reflectors and clear-crystal and naturally colored diffusing roundels can be furnished, if desired.



No. 620

Kliegl Footlight No. 620—a very efficient footlight with excellent color lighting features; employs high-intensity clear lamps, with reflectors which control the direction of the light, and naturally-colored glass-roundels to color the light. Semi-flush enclosed-trough type with single row of receptacles, for 100- or 150-watt clear lamps; furnished in two parts, the lighting unit, and the trough.

The lighting unit embodies the lamps, receptacles, reflectors, roundels, wiring, and hood, as a complete self contained unit, entirely encased in a housing of galvanized sheet iron with strong self-supporting hood, and a dirt and dust proof front, affording excellent protection for the lamps and reflectors. It is fitted with medium-screw-base receptacles spaced $4\frac{1}{2}$ inches on centers; each receptacle being provided with an acid-finish, aluminum reflector, permanently fixed in position, which projects all the light upon the stage. By chemical treatment, a pure-white, high-reflecting surface is obtained—a surface that does not peel or discolor, is unaffected by heat of the lamps, retains its high luster, and can be easily cleaned. The angle and position at which receptacles and reflectors are set have been carefully predetermined as best for the most effective light projection, and are consistently maintained in the process



No. 621

Kliegl Footlight No. 621—the best and most efficient footlight made; very similar to No. 620, except it has a double row of lamps, providing not only a higher intensity lighting, but also a more evenly lighted front stage, giving the greatest amount of light, under the most exact directional control, evenly diffused, and with pure-color values that may be intensified, changed, and blended at will. In other words, providing the best possible lighting for comparatively the least current consumption, with the greatest economy in upkeep, at a very reasonable first cost.

Semi-flush enclosed-trough type footlight, with double row of receptacles, for 100- or 150-watt clear lamps. Furnished in two parts—the lighting unit and the trough, as generally described for footlight No. 620, but in this model the angle of reflection, as controlled by the position of the receptacles and reflectors, differs in the two rows, and has been carefully predetermined as best for the most effective light projection. The lower row illuminates principally the body and face of persons close to the front of the stage, the upper row illuminates their feet and projects the light well toward the rear of the stage, the rays from both rows being well diffused and intermingling, provide an evenly and brightly illuminated front stage.

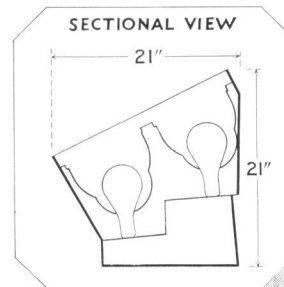
The footlight is furnished completely wired usually for independent control of three colors, white, red, and blue—with the colors staggered in the two rows; any length or curvature specified; and usually with clear-crystal, red, and blue, natural-colored non-diffusing glass-roundels.

Copper shell chromium plated reflectors instead of aluminum reflectors, and clear and naturally colored diffusing roundels, can be furnished, if desired.

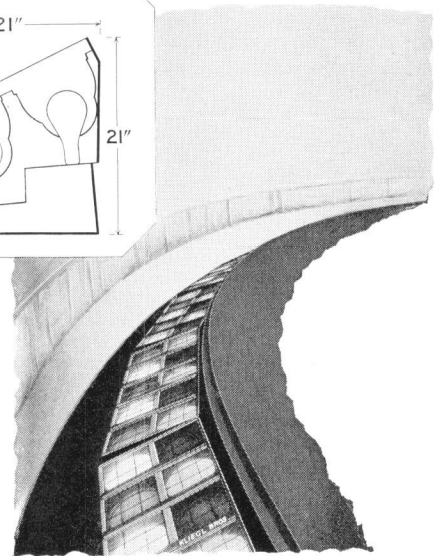
No. 634

KLIEGL CYCLORAMA FOOTLIGHT No. 634—provides the intense well directed illumination required for lighting cyclorama drops from the shortest possible distance, the light being carefully restricted to the drop. It may be set in flush with stage floor, or on floor, within three feet of the drop. This model is designed for a double row of 300-watt clear lamps, and four-color control, with gelatine or glass color screens or color roundels. Casing of galvanized sheet iron encloses receptacles, wiring, lamps, and reflectors; thoroughly ventilated, and substantially built. Provided with two parallel rows of mogul-screw-base receptacles; each receptacle fitted with an individual reflector, permanently fixed in position, with double focus contour which projects a bright flood of light toward the center of the drop. Reflecting surface is highly efficient, pure white, and everlasting, obtained by a chemical treatment, will not peel or discolor, is unaffected by the heat of the lamps, retains its high luster indefinitely, and can be easily cleaned. Light guards around each reflector prevent light leakage from one to the other, thus insuring purity of color values.

Slide grooves are provided in front of each reflector, for metal frames for gelatine or glass color mediums, and provisions are also made for nine-inch naturally-colored glass roundels. Completely wired, for independent control of four colors. Generally furnished complete in 4½ ft. sections, for ten lamps; otherwise as specified. Modifications in this design can be readily made to suit requirements.



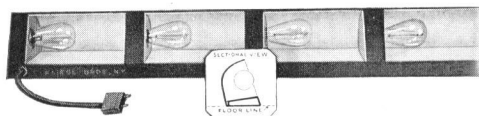
No. 634



Portable Type Footlights

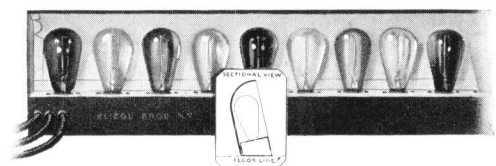
KLIEGL PORTABLE TYPE FOOTLIGHTS are for use where no permanent equipment of this character has been installed and footlights are temporarily required: as in hotels, clubs, schools, churches, show windows, open air theaters; and for amateur theatrical productions, traveling entertainers, lecturers, pageants, exhibitions, et cetera. No recess in the floor is necessary. They are intended to be set in position on the stage floor or platform, and are made in two styles: one with a single 2-wire circuit, the other with three 2-wire circuits for white and color lighting. They are substantially constructed but light in weight and compact for portability; of a minimum height so as to be unobtrusive, and rest tilted at an angle to properly reflect the light upward.

vided with cable extension and Kliegel pin-plug connector attached. Reflecting surfaces painted a permanent white; external surfaces finished in black enamel. Furnished in any length desired, or in several portable sections; which may be electrically coupled together with connectors, and fed from one end.



No. 627

Klieg Footlight No. 627—portable type, with single 2-wire circuit, for 60- or 75-watt lamps, in a horizontal position so that vertical overall height is minimized. Made of galvanized sheet iron with wiring channel in the base, and fitted with medium-screw-base receptacles, spaced 8 inches on centers. Wired on one 2-wire circuit. Pro-



No. 629

Klieg Footlight No. 629—portable type with three 2-wire circuits, for 60- or 75-watt clear, or natural-colored lamps, in a vertical position. Made of galvanized sheet iron with wiring channel in the base, and fitted with single row of medium-screw-base receptacles, spaced 3 inches on centers. Completely wired on three 2-wire circuits for independent control of three colors; white, red, and blue lights. Provided with cable extensions from the three circuits with Kliegel pin-plug connectors attached. Reflecting surfaces painted a permanent white; external surfaces finished in black enamel. Furnished in any length desired, or in several portable sections; which may be electrically coupled together with connectors, and fed from one end.

No.	KLIEGL FOOTLIGHTS	PRICE	WEIGHT	CODE WORD
DISAPPEARING TYPE FOOTLIGHTS				
829	Single-row open-trough type; for 60-, 75-, or 100-watt lamps	\$50.00	46½ lbs.	Vidalba
828	Double-row open-trough type; for 60-, 75-, or 100-watt lamps.	80.00	75 lbs.	Vibiones
827	Compartment type with color frames; for 60-, 75-, or 100-watt lamps.	85.00	67 lbs.	Viandas
830	Single-row enclosed-type with roundels; for 100-watt lamps.	85.00	56 lbs.	Vidroso
831	Double-row enclosed-type with roundels; for 100-watt lamps.	130.00	111 lbs.	Vigente
PERMANENT TYPE FOOTLIGHTS				
622	Single-row open-trough type; for 60-, 75-, or 100-watt lamps.	*	.....	Racines
624	Double-row open-trough type; for 60- or 75-watt lamps.	*	.....	Racoma
623	Compartment type with color frames; for 150-watt lamps.	*	.....	Racloir
620	Single-row enclosed type with roundels; for 100- or 150-watt lamps.	*	.....	Racimar
621	Double-row enclosed type with roundels; for 100- or 150-watt lamps	*	.....	Racimo
CYCLORAMA FOOTLIGHT				
634	Double-row, for four colors; for 300-watt lamps.	*	.....	Radiure
PORTABLE TYPE FOOTLIGHTS				
627	Open-front compartment type; for one color; for 60- or 75-watt lamps.	*	.....	Radeau
629	Single-row open-trough type; for three colors; for 60- or 75-watt lamps.	*	.....	Radgarn

Note: Footlights can be furnished with lamps spaced wider apart than specified in description or with a greater number of circuits for more colors, or other changes that may be necessitated by particular requirements. When ordering footlights give length of footlight (usually about two to four feet shorter than the proscenium opening); state whether it is curved or straight; number of colors desired, and number of lamps for each color; also state whether splice-box for making feeder connections is to be located in the center or at right end or left end of footlight, viewed from a position on the stage facing the audience.

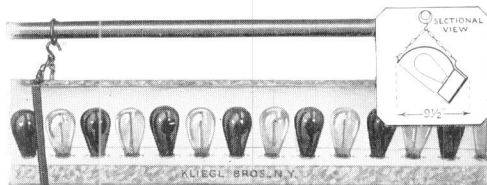
Blue prints; for use of architects and engineers, planning footlight installations, showing construction details and dimensions, are available on request.

* Price quotations; furnished on application.

BORDERLIGHTS

LISTED BY UNDERWRITERS' LABORATORIES

KLIEGL BORDERLIGHTS are made in a number of different standard types and sizes, and can be had in practically any form desired, to accommodate lamps ranging from 60- to 1000-watts. They are designed in keeping with the best engineering and theatrical practices—to provide the maximum amount of light, with the proper distribution, diffusion and control, at the least possible cost for current consumption, maintenance, and lamp renewals. They are compact, symmetrical in form, smooth surfaced, and provided with scenery guards—so as to occupy as little space as possible, and allow drop curtains and gauze hangings to pass without difficulty or injury. They are relatively light in weight but of rigid substantial construction, with a pipe batten to relieve the strain, and adjustable supports to permit variations in the direction of the light. They will not sag or buckle, and can be easily handled in service. Thoroughly ventilated without stray light leaks, they are completely wired, with circuits terminating in a splice box for feeder cable connections, at right or left end as specified, comply in all respects with Underwriters' requirements, and are furnished in one continuous length, or in sections, any length desired, ready for installation. One or more work lights can be furnished, wired on separate circuits, reflecting the light downward or upward as desired.

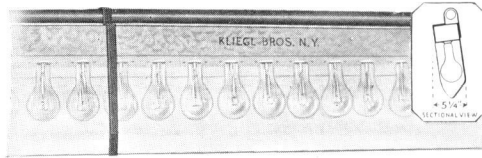


No. 600

Kliegl Borderlight No. 600—simplest form of borderlight, with good lighting characteristics; color effect obtained by means of colored lamps; an inexpensive model,

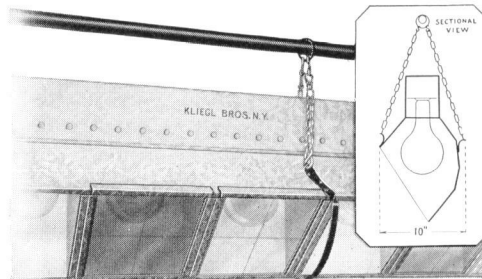
suitable for the small sized stage. Open trough type; with a single row of receptacles; for 60-, 75-, or 100-watt clear, naturally-colored lamps, in a vertical position. Housing is made of galvanized sheet iron, with a curved back serving as a reflector, and an enclosed trough at bottom for the wiring. Medium-screw-base receptacles, spaced 3 to 4 inches on centers, depending upon the size of the lamps to be used. Completely wired—usually for independent control of three colors; white, red, and blue lights. Splice box provided, located as specified. Furnished with chains and

1 1/4" pipe batten for hanging. Reflecting surfaces painted a permanent white, external surfaces black. Occupies space 9 1/2" wide when hung in position. Made any length desired. Can also be furnished with reflector lined with sheet aluminum having an acid-finished surface.



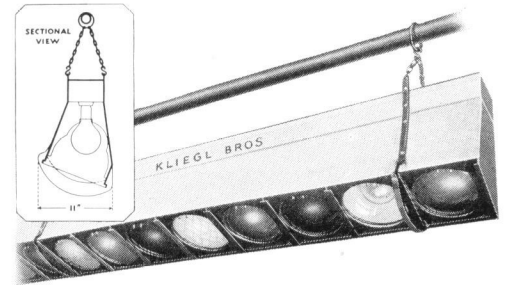
No. 605

Kliegl Borderlight No. 605—a concert model, made extremely narrow in width, for conditions where space is limited. Open trough type; with a single row of receptacles; for 60-, 75-, or 100-watt clear or naturally-colored lamps, in an inverted position. Housing made of galvanized sheet-iron, with back formed to serve as a reflector, and an enclosed trough at top for the wiring. Medium-screw-base receptacles, spaced 3 to 4 inches on centers, depending on size of lamps to be used. Completely wired—usually for independent control of three colors; white, red, and blue. Splice box provided, located as specified. Furnished with 1 1/4" pipe batten and rigid strap-iron hangers, for suspension. Reflecting surfaces painted a permanent white, external surfaces black. Occupies space 5 1/4" wide when hung in position. Made any length desired. Can also be furnished with reflector lined with sheet aluminum having an acid-finished surface.



No. 612

Kliegl Borderlight No. 612—admits the use of high intensity clear lamps in conjunction with gelatine or glass color screens. Compartment type, with a row of receptacles for 100-, 150-, or 200-watt clear lamps (also larger sizes of similar design, No. 613 for 300- or 500-watt, and No. 614, for 750- or 1000-watt lamps respectively). Each lamp in a separate compartment with slide grooves in front for metal frames with color screens of sheet gelatine or glass. Housing made of galvanized sheet iron, strong and rigid, but light in weight. No. 612 is fitted with a row of medium-screw-base receptacles spaced 6 inches on centers (Nos. 613 and 614 have mogul-screw-base receptacles, spaced 10" and 12 1/2" respectively on centers). Reflecting surfaces painted a permanent white, exterior surfaces black. Completely wired, usually for independent control of three colors; white, red, and blue. Splice box provided, located as specified. Furnished with chains and 1 1/4" pipe batten for hanging. When in position No. 612 and No. 613 occupy space 10 inches wide, and No. 614—12 inches. Made any length desired. Color screens are furnished as specified, either metal frames with colored gelatine sheets, or metal frames with glass inserts of any selected color.



No. 602

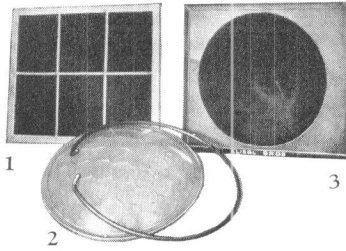
Kliegl Borderlight No. 602—the best and most efficient borderlight made, with excellent color lighting features; employs high-intensity clear lamps, with individual reflectors which control the spread and direction of the light, and naturally-colored heat-resisting glass-roundels; additionally provided with slide grooves for metal frames for gelatine or glass color mediums; gives the greatest possible amount of light, under the most exact directional control, with pure uniform color values, that may be easily and quickly changed at will. Any one of three different forms of color mediums may be used without structural changes or adjustments of any kind—colored glass roundels, gelatine color mediums in metal frames, or naturally-colored-glass slides in metal frames. A very compact highly efficient overhead lighting unit made in four different sizes for lamps from 100- to 1000-watts: No. 602 for 200-watt lamps; a smaller size, No. 609 for 100-watt lamps (for roundels only); and larger sizes, No. 603 for 300- or 500-watt, and No. 604 for 750- or 1000-watt lamps.

Receptacles, reflectors, and wiring are entirely encased in a housing of galvanized sheet iron—of compact design, strong light weight construction, and well ventilated without light leakage. Borderlights Nos. 609 and 602 have medium-screw-base receptacles spaced 4 1/2" and 7" respectively on centers; Nos. 603 and 604 have mogul-screw-base receptacles spaced 10" and 14" respectively on centers.

Each receptacle is fitted with an individual reflector, permanently fixed in position, which utilizes all the light of the high intensity lamps, and projects a bright evenly diffused flood of light. They are highly efficient, non-breakable, easily cleaned, do not tarnish, chip or discolor—and are furnished either with a mat surface (acid-finish, aluminum reflector) to project a wide-angle beam for average requirements, or a polished surface (chromium plated reflector) to project a highly concentrated beam for the most intensified lighting.

The roundels are heat-resisting glass that will not fade when subjected to the heat of the lamps. Diffusing roundels are provided with chromium-plated reflectors, and non-diffusing with the aluminum reflectors. Diffusing color-roundels are convex, naturally-colored glass lenses—smooth outside so as not to collect dust, ribbed inside to properly diffuse the light rays; non-diffusing roundels are essentially the same except they have a smooth inside surface instead of a ribbed surface. They are always of uniform and true color values; held securely in place by split rings; and are easily removed for changing colors or replacing lamps. For white lighting clear-crystal lenses are furnished; for color lighting, red and blue are usually supplied, occasionally also amber or green; additional colors are available. Roundel sizes are as follows: for No. 609, 4" in diameter; for No. 602, 6 1/2"; for No. 603, 9"; for No. 604, 13 1/2".

Borderlights are completely wired, usually for independent

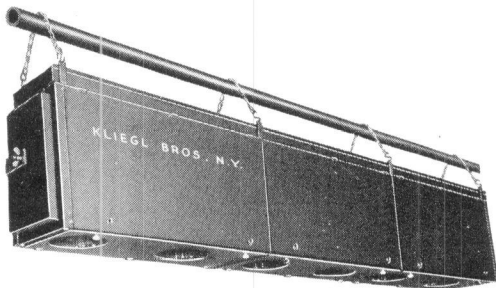


Any one of the three different types of color mediums here shown may be used with Borderlite No. 602 and those of like design: (1) metal frame with glass inserts; (2) colored glass diffusing or non-diffusing roundels; (3) metal frames with gelatine mediums.

dent control of three colors. Back of wiring trough is removable so that it can be wired on the job when necessary. Splice box is provided, located as specified. Borderlight is furnished with 1½" pipe batten and chains for hanging. When hung in position: No. 609 occupies space 4½" wide; No. 602 8"; No. 603 11"; and No. 604 14".

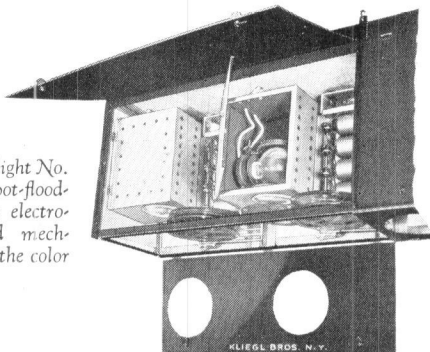
Unless otherwise specified—borderlight is furnished with clear-crystal, and red and blue naturally-colored, heat-resisting, non-diffusing glass roundels, with aluminum acid-finish reflectors. Metal frames for gelatine color mediums, or with colored-glass inserts supplied when requested.

For an exceptionally large stage, borderlights of this design, but with a double row of lamps, can be furnished.



No. 615

Klieg Borderlight No. 615—focusing type with automatically controlled color frames; consists essentially of a series of spotlights in a single housing each light source being equipped with four electro-mechanically operated color frames for gelatine mediums. In this borderlight each light source can be used for all colors, the possible color combinations being practically unlimited, and each light source can be focused for a spot or flood to give a highly concentrated or a wide spread beam of light, as desired. Operation of the color frames is controlled from the switchboard, individually or simultaneously in groups—permitting the entire service of the borderlight in respect to white lighting, color lighting, and dimming to be controlled from a distant point—and since each light source is fitted with all the colors, several times more light is obtained per unit length per color than has heretofore been possible.

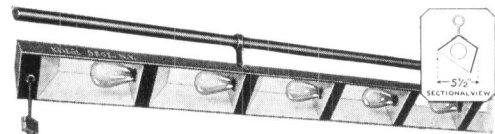


Interior view of Borderlight No. 615—showing the spot-flood lighting unit and the electro-magnetically operated mechanisms which control the color frames.

An enclosure of galvanized sheet iron, on a steel frame, completely encases and protects all the light units and mechanisms. Openings at the bottom permit the passage of the light rays. Hinged side and bottom permit access to the interior. Each lamp or light source is enclosed within its own individual casing to confine the light within directed paths. Ample provisions for ventilation, without light leakage, prolongs the life of the lamps. 500- or 1000-watt G 40 or 2000-watt G 48 concentrated filament lamps may be used. Each light source is fitted with a mogul-screw-base receptacle, on sliding base to permit focusing, and has a concave chromium-plated metal reflector mounted back of the lamp to procure the maximum illuminating efficiency. Front of each lamp housing is fitted with a 6" condensing lens, mounted in an aluminum frame, held in place by a split ring, allowing unrestricted expansion. Detachable, circular, light metal frames, in two parts held together with spring clasps, and provided with guard wires hold and protect the gelatine color mediums. Electro magnets are of the plunger type, wound for 115 volts—with allowances for normal variations in voltage.

Control magnets actuate concentric shafts. At the end of each shaft a color frame is attached. A separate magnet controls each color frame. Springs hold the color frames back out of position in front of the lens, but when current flows in one of the magnets, the plunger is drawn down and the color frame is thrown into position in front of the lens, where it remains as long as current flows in the magnet. Upon opening the circuit the retrieve spring throws the color frame out of position. Special shock absorbers take up the rebound. The operation is noiseless.

Borderlight is completely wired, usually for group color control, magnets controlling the same color being connected to the same circuit. Splice box is provided, located as specified. Furnished with chains and 2" pipe batten for hanging. When hung in position it occupies a space 14" wide. Generally made in 9-foot sections for six lamps, but can be furnished any length desired.



No. 608

Klieg Borderlight No. 608—portable type for temporary installations in hotels, clubs, schools, churches, show windows—and for amateur theatrical productions, traveling entertainers, lecturers, etc.—compact, light in weight, substantially constructed; with single row of receptacles, for 60- or 75-watt clear or naturally-colored lamps, in a horizontal position. Housing made of galvanized sheet iron, with enclosure for the wires, and an open front compartment for each lamp. Fitted with medium-screw-base receptacles spaced 9 inches on centers. Completely wired, for one or three circuits as specified. Provided with cable extension and Klieg pin-plug connector attached for making feeder connections. Furnished with 1" pipe batten and rigid strap-iron hangers, for suspension. Reflecting surfaces painted a permanent white; external surfaces finished in black enamel. Occupies space 5½" wide when hung in position. Furnished, any length desired, or in several portable sections, which may be electrically coupled with connectors, and fed from one end.

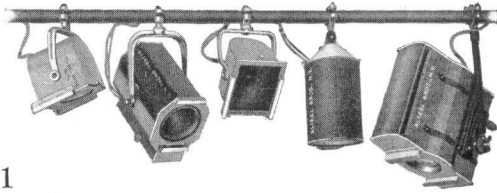


Fig. 1

Kliegl Spot Borderlight—obtained by mounting a number of Kliegl spotlights on an overhead pipe batten sus-

ended in position as a borderlight, arranged in a manner that best suits individual requirements. Each spotlight is independent and separately wired, permitting individual direction and control of the light beams, providing a flexible focusing borderlight arrangement for spot lighting and floodlighting chosen areas on the stage. Literature describing spotlights suitable for this purpose will be furnished on request.

KLIEGL BORDERLIGHTS

No.	DESCRIPTION	PRICE	WEIGHT	CODE WORD
PERMANENT BORDERLIGHTS				
600	Open-trough standard type; for 60-, 75-, or 100-watt lamps.	*	6½ lbs./ft.	Rabmag
605	Open-trough concert type; for 60-, 75-, or 100-watt lamps.	*	6 lbs./ft.	Rabote
612	Compartment type; with color frames; for 100-, 150-, or 200-watt lamps.	*	9 lbs./ft.	Raccendo
613	Compartment type; with color frames; for 300- or 500-watt lamps.	*	11 lbs./ft.	Raccolta
614	Compartment type; with color frames; for 750- or 1000-watt lamps.	*	13 lbs./ft.	Raccours
609	Enclosed type; for roundels only; for 100-watt lamps.	*	9 lbs./ft.	Racament
602	Enclosed type; for roundels or color frames; for 200-watt lamps.	*	10 lbs./ft.	Rabonnir
603	Enclosed type; for roundels or color frames; for 300- or 500-watt lamps.	*	11 lbs./ft.	Raboseado
604	Enclosed type; for roundels or color frames; for 750- or 1000-watt lamps.	*	14 lbs./ft.	Raboseos
615	Focusing type with automatic color frames; for 1000- or 2000-watt lamps.	*	47 lbs./ft.	Racemate
607	Cyclorama Borderlight (for description, see Cyclorama Footlight No. 634)	*	.....	Rabulice
PORTABLE BORDERLIGHTS				
608	Open-front compartment type; for 60- or 75-watt lamps.	*	4½ lbs./ft.	Racaille

Note: Borderlights can be furnished with lamps spaced wider apart than specified in description, or with a greater number of circuits for more colors, or other changes that may be necessitated by particular requirements. When ordering borderlights give length of borderlight (usually about two feet longer than proscenium opening); mention the number of colors desired, number of lamps for each color, and size of lamps that are to be used; also state whether splice-box for making feeder connections is to be on right or left end viewed from a position on the stage facing the audience. Blue prints; for architects and engineers, showing construction, details and dimensions of Kliegl Borderlights are available on request.

* Price quotations; furnished on application.

PROSCENIUM LIGHTS

KLIEGL PROSCENIUM STRIP LIGHTS provide the additional illumination at the first entrance generally required on a large stage and are made in several different designs to meet various requirements; are of substantial construction; well ventilated; compact; durable; and properly designed for effective light distribution and maximum lighting efficiency. They are furnished completely wired, ready for erection, in standard lengths or special lengths if desired; comply with Underwriters' requirements; have a splice box at one end for conveniently making connections; and are provided with strap hinges for mounting on proscenium wall, permitting angular variation in direction of light.

Kliegl standard spotlights, suitable for use as proscenium lights, grouped and mounted on a vertical pipe support, can be furnished for any arrangement desired—also, spotlights with automatically controlled color frames, are available for this purpose.

No. 601

Kliegl Proscenium Strip Light No. 601—popular model with good lighting characteristics; color effects obtained by means of colored lamps. Open trough type; 16 feet long; with single row of receptacles, for forty-eight 60-watt clear



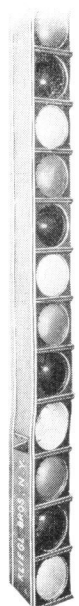
No. 601



No. 591



No. 594



No. 597

or natural-colored incandescent lamps, in a horizontal position. Housing made of galvanized sheet iron; with a curved back serving as a reflector; and an enclosed wiring trough. Fitted with a single row of medium-screw-base receptacles, spaced 4" on centers. Wired, on three 2-wire circuits for independent control of three colors; white, red, and blue lights. Splice box provided, located at end specified. Furnished with strap hinges for mounting. Reflecting surfaces painted a permanent white. Also furnished any special length desired.

No. 591

Kliegl Proscenium Strip Light No. 591—desirable and inexpensive model especially for use where only a single color, usually white lighting, is required. Open trough compartment type; 15-ft. long; with a single row of receptacles, for twenty-two 60- or 100-watt lamps, in a suspended position. Housing made of galvanized sheet iron, with an enclosure for the wires, and an open front compartment for each lamp. Fitted with a row of medium-screw-base receptacles, spaced 8" on centers. Completely wired—usually on only one 2-wire circuit for white lighting. Splice box provided, located at end specified. Furnished with strap hinges for mounting. Reflecting surfaces painted a permanent white. Also furnished any special length desired.

No. 594

Kliegl Proscenium Strip Light No. 594—very practical model which permits the use of gelatine color mediums; compartment type; 16-ft. long; with single row of receptacles, for eighteen 200-watt lamps, in a suspended position. Housing made of galvanized sheet iron, with an enclosure for the wires, and an open front compartment for each lamp, with slide grooves in front for reception of metal frames with gelatine color mediums. Medium-screw-base receptacles spaced 10½" on centers. Completely wired, on three 2-wire circuits for independent control of three colors; white, red, and blue lighting. Splice box provided, located at end specified. Furnished with strap hinges for mounting. Reflecting surfaces painted a permanent white. Furnished with 12 color frames for red and blue compartments. Also made any special length desired.

No. 597

Kliegl Proscenium Strip Light No. 597—enclosed type; 14½-ft. long; with single row of receptacles, for 200-watt clear lamps; having individual reflectors, and removable clear and colored-glass diffusing roundels, also slide grooves,

for metal frames with gelatine color mediums. A most efficient unit with excellent color-lighting features. Receptacles, reflectors, wiring, and lamps are entirely encased in a housing of galvanized sheet iron, compact design, strong light-weight construction, and well ventilated. Fitted with a single row medium-screw-base receptacles spaced 7" on centers; each receptacle is provided with an individual acid-finish aluminum reflector, permanently fixed in position, with an adaptor at front for holding roundels. Color-roundels are convex, naturally-colored heat-resisting glass-lenses, easily removed for changing colors or replacing lamps. For white lighting clear-crystal lenses are furnished; for color lighting, red and blue are usually supplied; occasionally also amber or green; additional colors are available. Roundels are 6½" in diameter. In front of each reflector, the customary slide grooves are provided for holding metal frames with gelatine color mediums, should they be desired. Completely wired, on three 2-wire circuits, for independent control of three colors; white, red, and blue lighting. Splice box provided, located at end specified. Furnished with strap hinges for mounting. Also made any special length desired.

This model is also made in two smaller sizes in 15½-ft. lengths: No. 598 for 100- or 150-watt lamps, spaced 6" on centers, for 5⅝" roundels only; and No. 599 for 40- or 60-watt lamps, spaced 5" on centers, for 4" roundels only.

Kliegl Proscenium Spotlights—are very flexible in light control, for spotting and flooding areas of the stage from the side entrances; are furnished in any particular or special arrangement that is desired; usually consist of a selected group of Kliegl standard spotlights designed for mounting on a vertical pipe support. Any of the incandescent type Kliegl spotlights, with bracket or pipe clamp are suitable for this purpose.



Spotlights with automatically controlled color frames, as here shown, may also be used for proscenium spotlights.

KLIEGL PROSCENIUM LIGHTS

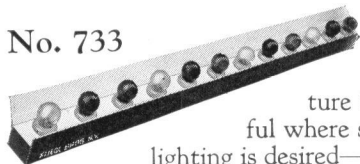
No.	DESCRIPTION	LENGTH	LAMPS	CIRCUITS	PRICE	CODE WORD
601	Open-trough type.	16-ft.	48 60-watt	3 2-wire	*	Rabdlao
591	Open-front compartment type.	15-ft.	22 60- or 100-watt	1 2-wire	*	Opalin
594	Compartment type; with color frames.	16-ft.	18 200-watt	3 2-wire	*	Opefice
597	Enclosed type; for roundels or color frames.	14½-ft.	24 200-watt	3 2-wire	*	Opgang
598	Enclosed type; for roundels only	15½-ft.	30 100- or 150-watt	3 2-wire	*	Opicos
599	Enclosed type; for roundels only.	15½-ft.	36 40- or 60-watt	3 2-wire	*	Opiniao

* Price on application.

COVE LIGHT STRIPS

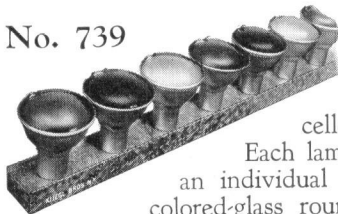
KLIEGL COVE LIGHT STRIPS are used for concealed indirect lighting in theater auditoriums, lobbies, hallways, ball rooms, foyers, churches, lodge rooms, and similar places where the light source is hidden from view. They are metal strips fitted with screw-base lamp receptacles, completely wired, furnished with or without reflectors, in any length or curvature specified; made for both natural and color lighting effects; designed to be installed in coves, back of panels, around rotundas, under marquees, on cornice tops, and elsewhere.

No. 733



Kliegl Cove Light-strip No. 733 is miniature in size and especially useful where space is limited, and color lighting is desired—as back of panels, in shallow coves with low ceilings, and similar locations. It is fitted with intermediate screw-base receptacles, usually spaced 4 inches on centers, accommodates 10-watt S-11 lamps. Ordinarily is wired for three colors—white, red, and blue. Wiring completely enclosed. Made of heavy-gauge galvanized sheet-iron. Reflecting surfaces painted permanent white. Cove light strip, No. 733A, of the same design, but made with aluminum acid-finished reflecting surfaces, can also be furnished.

No. 739

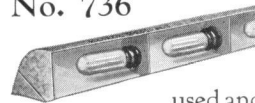


Kliegl Cove Light strip No. 739 is a highly efficient design with excellent color lighting features. Each lamp receptacle is fitted with an individual reflector and a removable colored-glass roundel. Ordinarily is wired for control of three colors—white, red and blue. Wiring and medium-screw-base receptacles are completely enclosed in a galvanized sheet-iron casing. No. 739 has receptacles spaced 6 inches on centers, with aluminum acid-finished reflectors for 5½-inch non-diffusing glass roundels; and accommodates 150-watt lamps.

Smaller sizes are also available: No. 738 for 75- and 100-watt lamps with receptacles spaced on 6-inch centers, for 5½-inch roundels; No. 737 for 25-, 40-, and 60-watt lamps, with receptacles spaced on 4-inch centers, for 4-inch roundels.

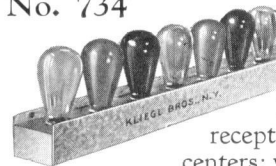
This same design, but with copper-shell chromium-plated reflectors and diffusing roundels, can also be supplied in sizes corresponding with the above described, but numbered 739C, 738C, and 737C respectively.

No. 736



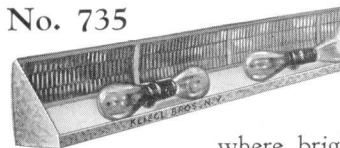
Kliegl Cove Light-strip No. 736 fits into a small space, for use where but little room is available; 40-watt tubular lamps are used and usually spaced 12 inches on centers; reflecting surface is half-round and painted a permanent white; wiring completely enclosed; frame is heavy-gauge galvanized sheet-iron. This same model can be supplied made with aluminum acid finished reflecting surfaces, No. 736A.

No. 734



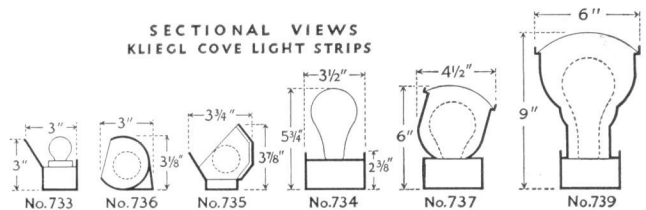
Kliegl Cove Light-strip No. 734 is ordinarily wired for three colors—white, red, and blue; accommodates 60-watt lamps, with medium-screw-base receptacle usually spaced 4 inches on centers; wiring completely enclosed; frame is made of heavy-gauge galvanized sheet-iron; sets in cove space 8" x 8" or 8" x 6", depending on the size of dome.

No. 735



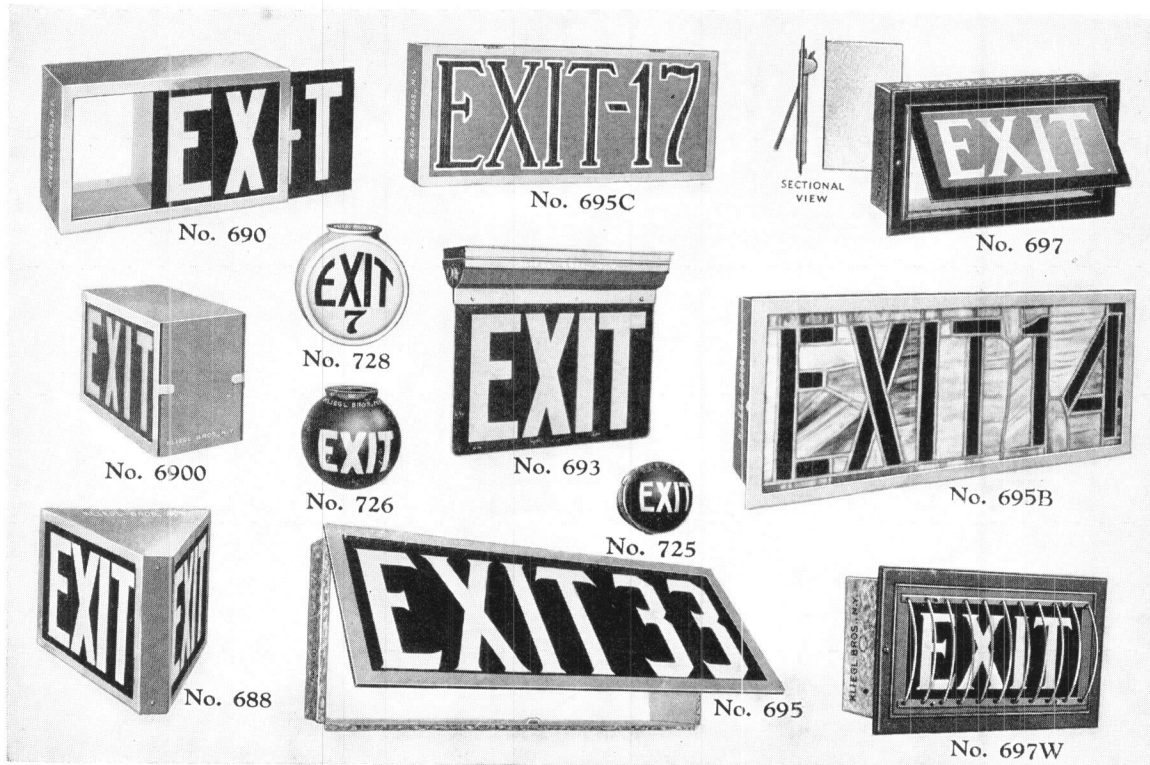
Kliegl Cove Light-strip No. 735 is lined with corrugated mirrored-glass reflectors; used where bright, indirect lighting is desired; accommodates 60-watt lamps, with medium-screw-base receptacles usually spaced 12 inches on centers; wiring completely enclosed; frame is heavy-gauge galvanized sheet-iron.

SECTIONAL VIEWS
KLIEGL COVE LIGHT STRIPS



No.	KLIEGL COVE-LIGHT STRIPS	PRICE	CODE WORD
733	Miniature strip, with painted reflector; for 10-watt lamps.	*	<i>Tepefy</i>
733A	Miniature strip, with aluminum reflector; for 10-watt lamps	*	
734	Strip only, without reflector; for 60-watt lamps	*	<i>Tepore</i>
735	Strip with mirrored-glass reflector; for 60-watt lamps.	*	<i>Tercol</i>
736	Strip reflector for 40-watt tubular lamps.	*	<i>Ternera</i>
737	Strip with individual aluminum reflectors and non-diffusing glass roundels: For 25-, 40- or 60-watt lamps.	*	<i>Terofori</i>
738	For 75- or 100-watt lamps.	*	<i>Terpine</i>
739	For 150-watt lamps.	*	<i>Terraca</i>
737C	Strip with individual chromium-plated reflectors, and diffusing glass roundels: For 25-, 40- or 60-watt lamps.	*	<i>Terouille</i>
738C	For 75- or 100-watt lamps.	*	<i>Terpnanto</i>
739C	For 150-watt lamps.	*	<i>Terregoso</i>

* Prices on application; specify length of Strip—straight or curved, and number of lights per foot required.



EXIT SIGNS

KLIEGL EXIT SIGNS are made in a variety of standard styles, and manufactured to specifications when required. They meet all safety requirements of Underwriters and local fire departments. Metal construction is used throughout. They are beautifully finished, and their design perfected in every detail.

Surface Wall Types

Surface Wall Types are ordinarily mounted on the surface of the wall above the exit; corners are squared; glass face slides in from the side. If box is set in the wall allowance of $\frac{1}{2}$ -inch extension should be made so that glass front can be removed and lamps replaced.

Flush Wall Types

Flush Wall Types are intended for mounting in the wall flush with the surface. They are provided with hinged doors which hold the glass face plate and permit access to the lamps. The wall box and front are furnished as separate units so that the box can be set during the period of construction and the front with glass face mounted after construction work is completed. This type of exit sign is made with plain and decoratively designed fronts as shown in listing.

Suspension Types

Suspension Types are frequently used where space limitation or some other condition prohibits the use of the ordinary type of sign. They may be suspended from the ceiling, mounted at right angles to a wall or post, or set upright on a pedestal, railing or other form of support. They are ornamental, and harmonize with any surroundings.

Globe Types

Globe Types are designed to be attached to any ordinary lighting fixture equipped with a standard $\frac{3}{4}$ -inch lamp-shade holder, with the exception of No. 725 which is provided with a special spring-catch globe holder for mounting on wall over a single lamp receptacle.

Plate Types

Plate Types are not illuminated. They are made of sheet steel with a red enameled background and white letters; and provided with four holes for mounting.

No.	KLI EGL EXIT SIGNS DESCRIPTION	WORDING	HEIGHT OF LETTERS	DIMENSIONS—INCHES		PRICE	CODE WORD
				SURFACE PLATE	DEPTH OF BOX		
SURFACE WALL TYPES							
679	Single face, rectangular; sheet brass box and face plate; dull-brass finish; letters cut out, backed with red translucent insert.	Exit	3"	14½ x 4⅝	2¼	\$8.50	Tabarder
680	Single face, rectangular; sheet metal box finished in gold with grooved front, open on one side to receive ruby-glass face-plate; white letters.	Exit	3"	10 x 5	5	3.50	Tabby
685		Exit	5"	11⅜ x 6¾	5	4.00	Tablet
686		Exit	6"	14 x 8	5	4.50	Tablier
687		Exit	8"	12 x 10	5	4.50	Tabloza
690		Exit	8"	15¾ x 10	5	4.75	Tabor
691		Exit & No.	8"	15¾ x 10	5	7.00	Tacques
692	Exit & No.	8"	24 x 10	5	8.50	Tadega	
689	Single face, rectangular; sheet metal box finished in gold with grooved front, open on one side to receive opal-glass face-plate; red letters.	Fire Escape	3"	15¾ x 10¼	5	8.75	Taboleta
689A	Same as 689 but with ruby-glass face-plate, and white letters.	Fire Escape	3"	15¾ x 10¼	5	7.00	Tabolro
6800	Double faced, rectangular; sheet metal box finished in gold with ruby-glass face-plate on two sides; white letters; grooved sides open on ends for removal of glass and permit access to lamps.	Exit	3"	10 x 5	5	7.00	Taberd
6850		Exit	5"	11⅜ x 6¾	5	8.00	Tablich
6860		Exit	6"	14 x 8	5	9.00	Tabliha
6900		Exit	8"	15¾ x 10¼	5	9.50	Tabual
6910		Exit & No.	8"	15¾ x 10¼	5	14.00	Tacson
6920		Exit & No.	8"	24¼ x 10¼	5	17.00	Tadorne
688	Double faced, triangular; sheet metal box finished in gold with two ruby-glass face-plates; white letters; front end piece detachable, permits removal of glass plates and access to lamp. Small opening on the bottom, covered with frosted glass, directs a subdued light to the floor.	Exit	6"	10 x 8	9½	9.00	Taboin
FLUSH WALL TYPES							
694	Ruby-glass face-plate; white letters; galvanized sheet-metal box; removable hinged front; exposed metal parts finished in gold.	Exit	8"	16 x 11	5	7.00	Tame
695		Exit & No.	8"	24¼ x 11	5	11.00	Tang
694A	White opal-glass face-plate; red letters; galvanized sheet-metal box; removable hinged front; exposed metal parts finished in gold.	Exit	8"	16 x 11	5	9.00	Tamica
695A		Exit & No.	8"	24¼ x 11	5	12.00	Tangaru
694B	Cathedral leaded-amber-and-opal-glass face with ruby-glass letters; galvanized sheet-metal box; removable hinged front; exposed metal parts finished in gold.	Exit	8"	16 x 11	5	13.50	Tamisage
695B		Exit & No.	8"	24¼ x 11	5	14.50	Tangente
694C	All-metal face-plate; letters cut out, backed with perforated translucent metal shield; wording appears illuminated in red; galvanized sheet-metal box; removable hinged front; exposed metal parts finished in gold.	Exit	8"	16 x 11	5	13.00	Tamkins
695C		Exit & No.	8"	24¼ x 11	5	14.50	Tanipo
694D	Sheet-metal face-plate; letters cut out, backed with ruby-glass plate insert; galvanized sheet-metal box; removable hinged front; exposed metal parts finished in gold.	Exit	8"	16 x 11	5	13.00	Tamojal
695D		Exit & No.	8"	24¼ x 11	5	14.50	Tanqite
697	Ruby-glass face-plate; fancy white letters; galvanized sheet-metal box; removable cast-bronze frame, with swinging door; dull bronze finish.	Exit	4"	15¾ x 9	5	14.00	Tapigo
698	Exit	8"	18 x 12½	5	20.00	Tardoz	
697W	Same as 697, but with face-plate protected with wire guard (for gymnasiums, basket-ball and hand-ball courts, etc., where glass face, if unprotected, is likely to be broken).	Exit	4"	15¾ x 9	5	17.00	Tapulho
698W		Exit	8"	18 x 12½	5	23.00	Tarifar
699	Raised ruby-glass letters, inserted in sheet-brass face-plate; mounted in removable cast-bronze frame, with swinging door; dull-bronze finish; galvanized sheet-metal box.	Exit	3"	14¼ x 7	5	16.00	Tarmato
699A		Exit	5"	15¾ x 9	5	17.00	Tarpare
SUSPENSION TYPES							
693	Single face; clear glass; white letters; illuminated through edge of glass; lamp concealed in metal supporting member; all exposed metal parts finished in gold; with chain hangers.*	Exit	6"	16 x 8	..	20.00	Taefelig
693A		Exit	8"	16 x 10	..	30.00	
6930	Double faced, clear glass, white letters, illuminated through edge of glass; lamp concealed in metal supporting member; all exposed parts finished in gold; with chain hangers.*	Exit	6"	16 x 8	..	30.00	Taenite
6931		Exit	8"	16 x 10	..	40.00	Taeufer

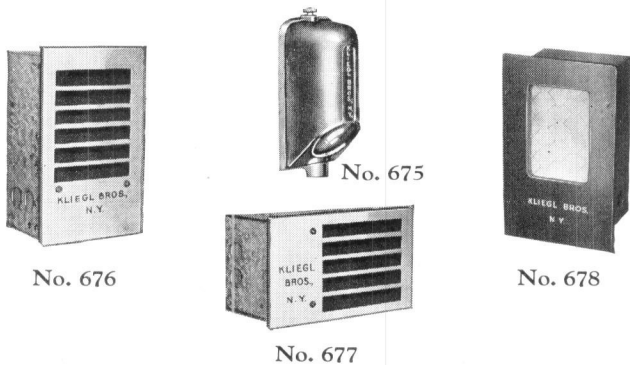
* For perpendicular to wall bracket mounting, add \$2.50 to list prices.

No.	KLIEGL EXIT SIGNS (Continued) DESCRIPTION	WORDING	HEIGHT OF LETTERS	DIMENSIONS—INCHES		PRICE	CODE WORD
				SURFACE PLATE	DEPTH OF BOX		
GLOBE TYPES							
725	Round globe, 4" in diameter, red-glass; with spring-clamp globe holder for mounting on wall over a receptacle containing a 40-watt Mazda lamp; white lettering.	Exit	2"	.....	..	\$4.00	Teinte
726	Round globe, 6" in diameter, red-colored glass with opening on top for attaching to 3/4" shade holder; white lettering.	Exit	2 1/2"	.....	..	4.50	Telpas
727	Same as 726, but with opening on bottom.	Exit	2 1/2"	.....	..	4.50	Teluro
728	Flat-round opal-glass globe 8" in diameter, with opening on top for attaching to 4" shade holder; red letters.	Exit	4"	.....	..	6.50	Teneis
729	Same as 728, but with opening on bottom.	Exit	4"	.....	..	6.50	Tenido
PLATE TYPES							
718	Flat steel plate; red enameled background; white letters.	Exit	8"	14 x 10	..	.75	Tecmon
719		Exit	4"	9 x 5	..	.50	Tectona

Where local requirements demand green-colored glass, or other colors, the listed exit signs can be furnished to meet the requirements—prices on application. Exit signs with specially designed lettering can be furnished, prices on application.

AISLE, STEP, and CORRIDOR LIGHTS

KLIEGL AISLE AND STEP LIGHTS enable patrons to find their way about in darkened auditoriums and seat themselves without the discomforts and dangers of groping in the dark. They cast a subdued light downward on steps and in aisle ways—a light that does not annoy the audience nor interfere in any way with the performance.



No. 675

Kliegl Aisle Spot-light No. 675 is designed for mounting on side of end-seats adjoining aisle ways or on side walls. Equipped with lens which controls and properly distributes all the light downward. Made of cast aluminum with removable casing; 1/2-inch conduit connection can be made at the bottom or rear. Accommodates 10-watt lamp. Is neat and compact. Furnished complete with receptacle and lens. Size 6" x 3" x 2 3/4" deep.

No. 676

Kliegl Aisle-light No. 676 is a vertical type for flush wall mounting; generally used for illuminating side aisles. Consists of a medium-screw-base receptacle mounted in a heavy-gauge galvanized sheet-iron box, size 7 3/4" x 4 3/8" x 3 1/2" deep, with 1/2-inch knockouts in sides, rear, and bottom; provided with a removable cast-aluminum front, 8 1/4" x 4 7/8", of Louver construction so designed that all the light is directed to the floor. Accommodates 40-watt lamp.

No. 677

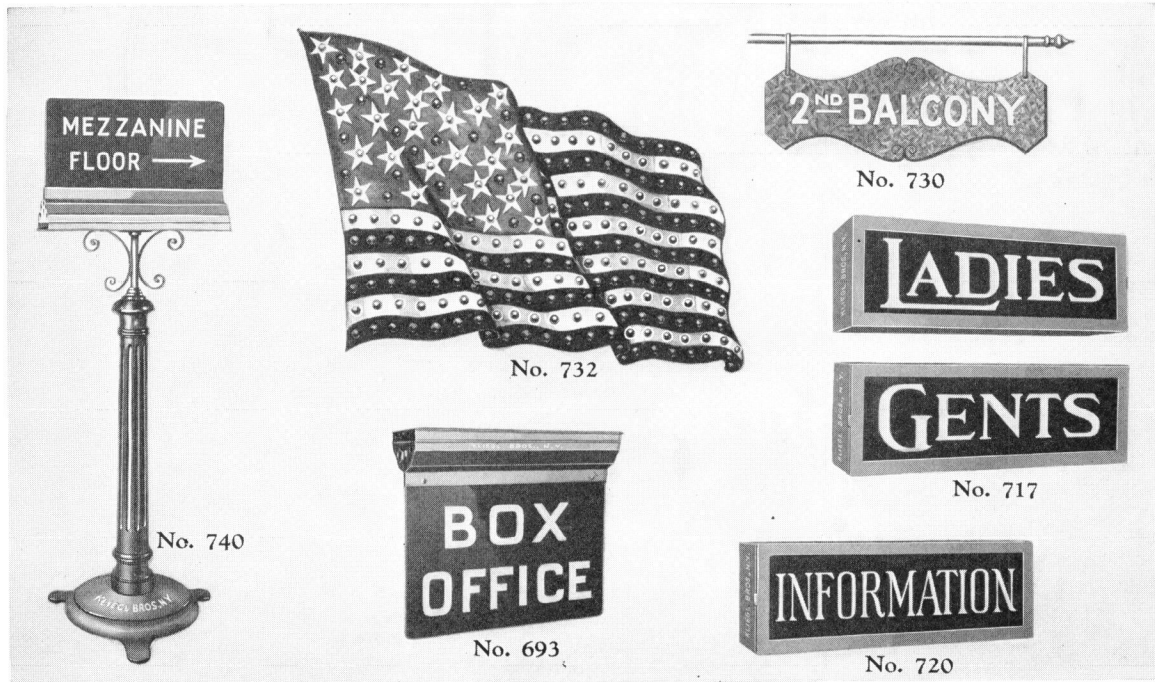
Kliegl Step-light No. 677 is a horizontal type designed especially for stairways; is ordinarily set in the step flush with the riser. Removable front is cast-aluminum, 8 1/4" x 4 7/8", substantially made to withstand the kicks and knocks of moving feet. Louver openings direct all light to the floor. Medium-screw-base receptacle, housed in heavy-gauge galvanized sheet-iron box, 7 3/4" x 4 3/8" x 3 1/2" deep; 1/2-inch knockouts in sides, rear and bottom. Accommodates 40-watt lamp.

No. 678

Kliegl Corridor or Hospital Light No. 678—gives the soft diffused light desired for illumination of corridors and sick rooms in hospitals, sanatoriums, and the like. It sets in flush with the side wall, and consists of a medium-screw-base receptacle, mounted in a heavy-gauge galvanized sheet-iron box 7 3/4" x 4 3/8" x 3 1/2" deep; with knockouts in sides, rear, and bottom; similar in design to No. 676 except it is without Louvers, and has dull-finish cast-bronze front with wire-glass face.

KLIEGL AISLE, STEP, AND CORRIDOR LIGHTS

No.	DESCRIPTION	WEIGHT	PRICE	CODE WORD
675	Aisle Spot-Light	13 ozs.	\$4.50	Raptus
676	Aisle-Light.	4 lbs.	5.00	Raquel
677	Step-Light.	4 lbs.	5.00	Raresco
678	Corridor-Light	5 3/4 lbs.	8.00	Raros



ILLUMINATED SIGNS

KLIEGL ILLUMINATED SIGNS are usually built to meet individual requirements, but several popular standard designs are illustrated above. Illuminated signs of practically every description, and outdoor advertising signs with spectacular and special lighting effects, can be made to specifications. Special signs for lodge rooms, and for degree work of fraternal societies—illuminated emblems, mottoes, et cetera—made to order. Price quotations submitted upon receipt of complete information describing the particular type and characteristics of the sign desired.

No. 740

Kliegl Pedestal-type Clear Glass Illuminated Sign; illuminated through the edge of the glass from a concealed source in the supporting member; mounted on a beautifully designed pedestal; finished in gold; lettering as specified; single and double faced; prices on application.

No. 732

Kliegl Waving American Flag; produced by suitably colored flashing lights; made of galvanized sheet-iron and steel; surface appropriately painted red, white, and blue; weatherproof; completely wired to cut-out box on sign; furnished with motor-driven commutating switch, together with 4-candle-power lamps; red and white lamps are used in the stripes, and a white lamp in each star; made single and double faced. Prices on application; specify size desired.

No. 730

Kliegl double-faced weatherproof sign made of galvanized sheet-iron and steel, enclosing lamp receptacles, completely wired; letters cut out of the sheet metal and backed with white or colored glass. Distinctly readable day or night. Prices on application.

No. 693

Kliegl Clear Glass Illuminated Sign for suspension mounting; illuminated through edge of glass with lamp concealed in supporting member; all exposed metal parts finished in gold; any lettering desired; can be furnished in all sizes, single and double face; prices on application.

No. 717

Kliegl Single-faced box sign; sheet metal; 14" x 5" x 5"; letters 3 inches high; square corners, with black-glass front-plate; white letters; reading "Gents." All exposed metal parts finished in gold. Similar signs furnished with double face, and others with reading "Ladies," "Information" or other wording that may be specified.

KLIEGL BOX SIGNS

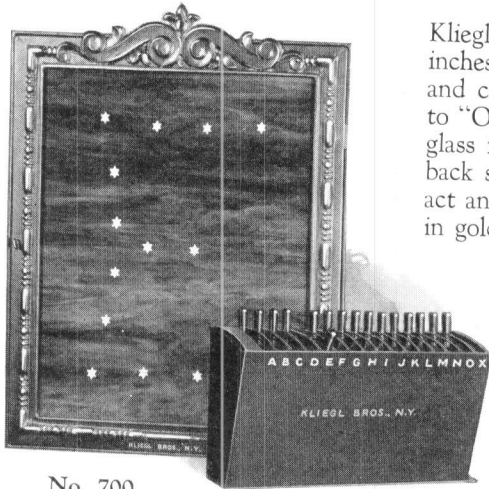
No.	DESCRIPTION	PRICE	CODE WORD
716	Single-face—"Ladies."	\$10.00	Tecaria
717	Single-face—"Gents."	10.00	Teccola
720	Single-face—"Information."	12.00	Tecuitle
714	Double-face—"Ladies."	20.00	Teapoy
715	Double-face—"Gents."	20.00	Teatro
721	Double-face—"Information."	24.00	Tedioso

ACT ANNOUNCERS

KLIEGL ACT ANNOUNCERS for vaudeville and motion picture theaters are usually set in proscenium arch, controlled by a keyboard back stage, and illuminated so that names of performers or act announced can be distinctly read from all parts of the house.

Monogram Type

Kliegl Monogram Type Act Announcer is a sheet-metal box, 22 inches high, 18½ inches wide and 5 inches deep, containing lamp receptacles so arranged, wired and controlled that when illuminated they form letters of the alphabet, "A" to "O" and "X," which appear like stars showing through a beautifully colored glass front. Receptacles are wired through a 21-conductor cable to keyboard back stage. Two announcers can be controlled from one keyboard. Front of act announcer, 25" x 21", is attractively decorated with metal trim and finished in gold; hinged front permits access to lamps and receptacles.



No. 700

KLIEGL "MONOGRAM TYPE" ACT ANNOUNCERS

No.	DESCRIPTION	PRICE	WEIGHT	CODE WORD
700	One Monogram Type Act Announcer with lamps and one keyboard.	\$118.00	56 lbs.	<i>Tatabula</i>
702	Two Monogram Type Act Announcers with lamps and one keyboard.	180.00	94 lbs.	<i>Taufonia</i>

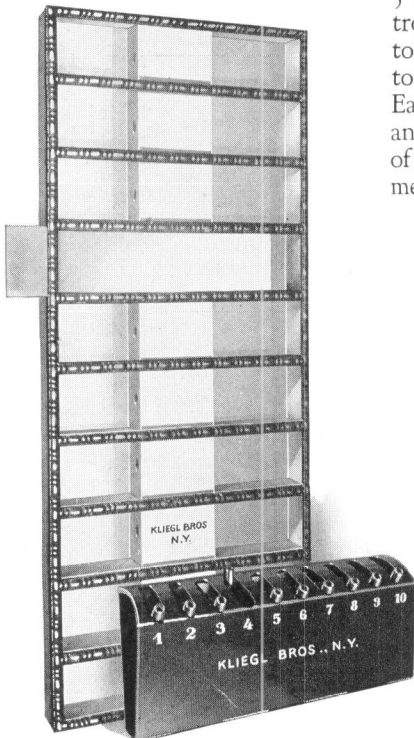
Cable not included in list price.

Compartment Type

Kliegl Compartment Type Act Announcer has ten compartments; is made of galvanized sheet-iron with ornamental metal trim and attractively finished in gold; size, 5 feet high, 24 inches wide, and 5 inches deep; each compartment, individually controlled from the keyboard, has two medium-screw-base receptacles completely wired to a splice box in the base where connections are made through an 11-conductor cable to keyboard back stage. Two act announcers may be operated from the one keyboard. Each compartment has grooves for an opal-glass slide and a clear-glass slide. Lettered announcement of the act is painted or pasted on the clear-glass slide and placed back of the opal-glass slide. Wording is invisible to the audience except when the compartment is lighted.

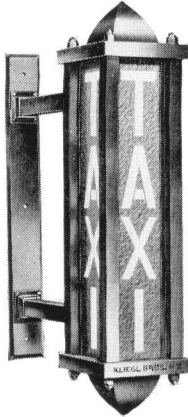
KLIEGL "COMPARTMENT TYPE" ACT ANNOUNCERS

No.	DESCRIPTION	PRICE	WEIGHT	CODE WORD
705	One Compartment Type Act Announcer (with 10 compartments); with one keyboard and 10 clear and 10 opal glass slides.	\$67.00	61 lbs.	<i>Taurulo</i>
706	Two Compartment Type Act Announcers (each with 10 compartments); with one keyboard and 20 clear and 20 opal glass slides.	122.00	112 lbs.	<i>Tauxiar</i>
707	Opal Glass Slides for Act Announcers, 23¾" x 5¾" x 1/8". each	.90	.....	<i>Tavao</i>
708	Clear Glass Slides for Act Announcers, 23¾" x 5¾" x 1/8". each	.40	.....	<i>Tavoua</i>
709	Amber-Opal Glass Slides for Act Announcers, 23¾" x 5¾" x 1/8". each	1.50	.....	<i>Taxador</i>
710	Black paper letters; 4" high; gummed; box of 500, assorted.	12.00	.....	<i>Taxillos</i>



No. 705

Cable not included in list price. Compartment Type Act Announcers with greater or lesser number of compartments, or wider than 24", can be furnished on special order. Prices on application.



No. 722



No. 723



No. 724

TAXI CALLS

KLIEGL TAXI CALLS attract the attention of taxi drivers by flashing the word "Taxi"—intermittently—thus quickly and quietly calling a cab for waiting patrons.

Mounted above the doorway of a street entrance—they render excellent service as cab calls for apartment houses, hotels, office buildings, department stores, theatres, railroad stations, and other locations where taxi service is needed.

They operate silently and intermittently—the word "Taxi" being invisible except when illuminated by flashes of light. They are visible day or night, from a long distance

away, and are effective above the noise and din of city streets.

Their many advantages are obvious—no need to wave, whistle, or shout for a taxi—simply close a switch or push button and a Kliegl Call automatically flashes TAXI—hailing a taxi driver, and quickly brings a cab to the door.

Artistically designed, they harmonize with architectural surroundings, and are of compact durable construction; simple, practical, weatherproof, and inexpensive.

Several different standard designs, herein described, are available—and special designs to suit particular requirements can readily be made.

No. 722

Kliegl Taxi Call No. 722—three-faced call, square design, with extension brackets; wording on three sides; made of sheet brass reinforced with steel members; twin lamp socket and flasher mounted within casing; hinged panel at rear for convenient access to interior. Gold-colored hammered glass face plates; backed with cut-out metal pattern of word "Taxi", letters 4" high. Overall dimensions 20" high, 6 $\frac{3}{4}$ " wide, 6 $\frac{3}{4}$ " deep—usually supplied for 18" overall extension from the wall, but can be varied to suit conditions. All metal parts dull bronze finish. Bracket permits passage of Bx cable through its center to interior, where terminals are provided for making electrical connections. Furnished complete, ready for mounting.

No. 723

Kliegl Taxi Call No. 723—double-faced triangular design for flat surface mounting; wording on two sides; made of brass; twin lamp socket and flasher mounted within; interior accessible by removing two screws and face plate. Gold-colored hammered glass face plates; backed with cut-out metal pattern of word "Taxi" letters 4" high. Overall dimensions 25 $\frac{1}{2}$ " high, 9" wide, 6" deep. All metal parts polished brass finish. Entrance bushing at rear permits admission of Bx cable to terminal block where connections are made. Furnished complete, ready for mounting on any flat surface.

No. 724

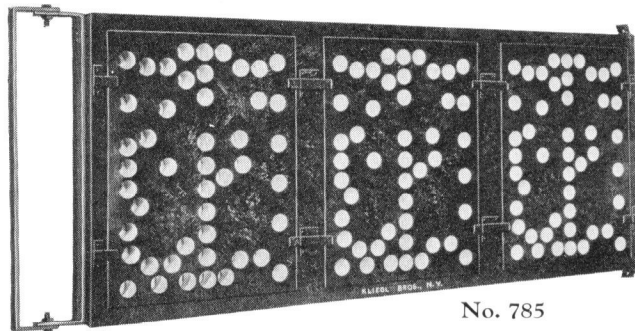
Kliegl Taxi Call No. 724—double-faced box design for mounting on a pipe pedestal; furnished with or without flasher; wording on two opposite sides; box made of sheet copper with cast-bronze frames on either side; two medium screw-base lamp receptacles (and flasher when ordered) enclosed. Gold-colored hammered glass face plates; backed with cutout metal pattern of word "Taxi," letters 4" high. Overall dimensions 16" wide, 9" high, 5" deep—1 $\frac{1}{2}$ " pipe fitting. Finish dull bronze. Pipe standard permits passage of Bx cable through its center to interior of box where terminals are provided for making electrical connections. Furnished complete, ready for erection.

No.	KLIEGL TAXI CALLS	WEIGHT	PRICE
722	Three-faced, square design—with flasher	28 lbs.	\$100.00
723	Double-faced, triangular design—with flasher	16 lbs.	65.00
724	Double-faced, box design—without flasher	15 $\frac{1}{2}$ lbs.	35.00
724A	Double-faced, box design—with flasher	17 lbs.	48.00

Note: State in your order whether call is to be used on alternating or direct current; also state voltage of the circuit.

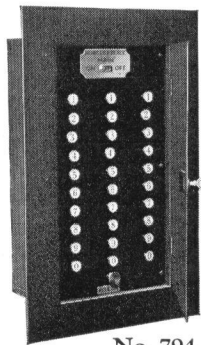
CAB CALLS and NUMERAL FLASHERS

KLIEGL CAB-AND-CARRIAGE CALLS are a rapid, quiet and effective means of calling vehicles to doorways of theaters, hotels, department stores, and other public buildings. They obviate confusion and shouting; require no perforated key-cards or other contrivances; are visible day and night;



No. 785

Call is constructed entirely of metal, consists of three numerals side by side in a frame, completely wired for lamps which outline the numbers. Each numeral has a call-range from 0 to 9; three in combination provide a Call with call-range from 0 to 999. Two standard numerals, with a special numeral 1, are used in Calls with call-range for 0 to 199. Calls are made single and double faced.

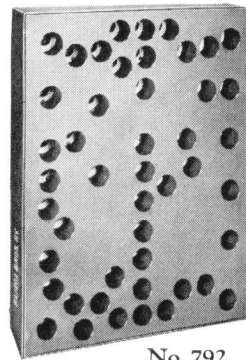


No. 794

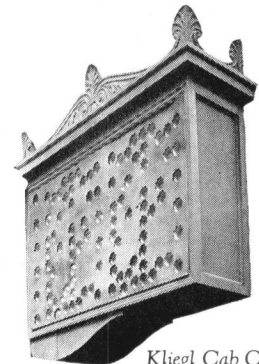
Call switch is a self-contained separate unit, and has a complete set of numbered pushbuttons, corresponding with the call-range of the Call. To operate—simply push in the buttons of the number to be called, and close a small toggle switch. Release button quickly clears the board for next call when switch is in off position. Interlocking device insures correct operation and safety. Call switch is furnished encased in a sheet-iron box, provided with door, lock and key.

Numeral units, like No. 792, made of copper, are furnished as separate single units for assembly in special frames made to harmonize with architectural designs.

can be distinctly read from a distance of several blocks; and are unaffected by weather conditions. NUMERAL FLASHERS are similar in construction to Kliegl Cab-and-Carriage Calls, but are used for announcing price quotations, score figures, and the like.



No. 792

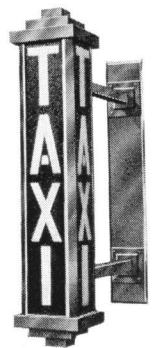


Kliegl Cab Call in special frame designed by architect

Taxi Calls

Taxi calls for apartment houses, hotels, etc., with means for intermittently illuminating the word "Taxi" by a flashing light designed to attract attention of taxi drivers can be furnished, the word taxi being invisible except when illuminated.

Taxi Call No. 722 has amber-colored ripple-glass face-plates, and metal parts finished in dull bronze. It is furnished complete ready for mounting on any flat surface, usually for 18" extension from the wall, but can be varied to suit conditions. May also be furnished as a separate unit attached to our standard Cab Calls above described.



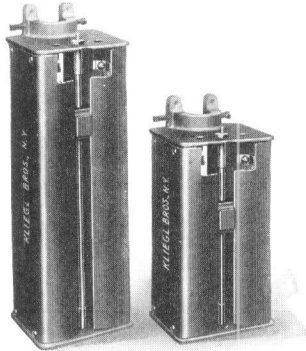
No. 722

No.	KLIEGL CAB CALLS AND NUMERAL FLASHERS	CALL RANGE	PRICE	WEIGHT	CODE WORD
783	Single face call; 70 x 29½ x 5¾"; with call switch No. 794; takes 141 S-14 lamps; requires 34 conductor cable 2" conduit.	0-999	\$550.00	180 lbs.	Regente
785	Double face call; 70 x 29½ x 11"; with call switch No. 794.	0-999	700.00	360 lbs.	Reglage
782	Single face call; 58 x 29½ x 5¾"; with call switch No. 795; takes 100 S-14 lamps; requires 24 conductor cable 2" conduit.	0-199	424.00	140 lbs.	Regadia
784	Double face call; 58 x 29½ x 11"; with call switch No. 795	0-199	575.00	280 lbs.	Regiao
792	Single unit; 20 x 26 x 5"; takes 47 S-14 lamps.	0-9	90.00	41 lbs.	Rehagan
792A	Single unit; 5½ x 26 x 5"; takes 6 S-14 lamps.	1	14.00	10 lbs.	Rehelm
792B	Single unit; 15 x 18 x 3½"; takes 47 S-11 lamps.	0-9	90.00	38 lbs.	Rehenchido
792C	Single unit; 3 x 18 x 3½"; takes 6 S-11 lamps.	1	14.00	9 lbs.	Rehendia
793	Single unit; 9 x 15 x 3½"; takes 29 S-11 lamps.(special wiring*)	0-9	80.00	33 lbs.	Rehenes
793A	Single unit; 3 x 15 x 3½"; takes 5 S-11 lamps.	1	12.00	7 lbs.	Rehob
794	Call switch, for flush mounting; box 20 x 12 x 7"; surface plate 24 x 16".	0-999	275.00	70 lbs.	Rehuias
795	Call switch, for flush mounting; box 20 x 7 x 7"; surface plate 22 x 11"	0-199	200.00	50 lbs.	Reiguli
722	Taxi Call with flasher; over-all dimensions 25½ x 5½ x 5½", extension 18"	.....	100.00	16 lbs.	Tefroite

* Requires 52-conductor cable for three unit 0-999 call.

DIMMERS

KLIEGL DIMMERS range from small portable units used with spotlights and stage lamps to large dimmer banks for installation in theaters, schools, and public buildings. Dimmers for every conceivable purpose, either as single units or in any special arrangement desired, can be furnished.



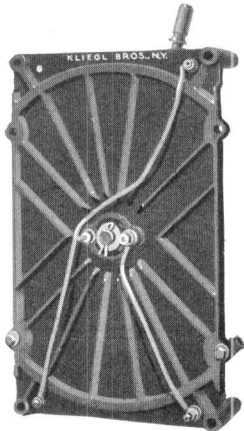
No. 1204 No. 1201

Portable Spotlight Dimmers

Kliegl Portable Spotlight Dimmers are made especially for light control of the high candle power 110-volt incandescent lamps used with spotlights and other stage lamps. Resistance element is embedded in vitreous enamel insulation which thoroughly protects resistance element from all moisture, prevents oxidation, assures long life, and is constructed to withstand rough handling. Slider, with multiple spring contact, provides a smooth range of control from full-bright to black-out without flickering. These dimmers are light in weight, compact, and easily attached to pedestal stand—or can be mounted on a wall or other flat surface; sheet metal case protects the dimmer; wires are brought out through suitable holes in the base.

KLIEGL PORTABLE SPOTLIGHT DIMMERS
FOR 115-VOLT CIRCUITS

No.	TOTAL WATTS	DIMENSIONS	WEIGHT	PRICE	CODE WORD
1201	300	13" x 5 1/4" x 5"	9 1/2 lbs.	\$15.50	Naafgat
1202	500	13" x 5 1/4" x 5"	9 1/2 lbs.	17.50	Nababie
1203	750	17 1/2" x 5 1/4" x 5"	12 1/2 lbs.	23.25	Nablia
1204	1000	17 1/2" x 5 1/4" x 5"	12 1/2 lbs.	23.25	Naboria
1206	1500	26" x 5 1/4" x 5 1/4"	18 lbs.	58.00	Nacelle
1205	2000	26" x 5 1/4" x 5 1/4"	18 lbs.	58.00	Nacarat



No. 291

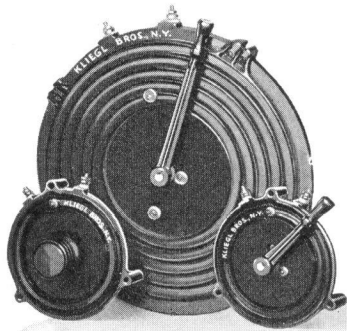
Rectangular Plate Dimmers

Kliegl Rectangular Plate Dimmers, most frequently used for theatrical lighting effects, may also be used for other purposes, such as to prolong the life of lamps where they have to be kept burning for long periods of time but not necessarily at their full candle power; to control speed of motors; or to regulate current in practically any kind of an electrical device.

KLIEGL RECTANGULAR PLATE DIMMERS
FOR 2-WIRE, 115-VOLT CIRCUITS

No.	TOTAL WATTS	SIZE OF PLATE	WEIGHT	NUMBER OF PLATES	PRICE	CODE WORD
1289	3000	15" x 24"	50 lbs.	1	\$60.00	Nicasio
1290	4000	15" x 24"	50 lbs.	1	60.00	Nichus
1291	5000	15" x 24"	50 lbs.	1	60.00	Nictage
1292	6000	15" x 24"	100 lbs.	2	124.00	Nideur
1293	8000	15" x 24"	100 lbs.	2	124.00	Nidulor
1294	10000	15" x 24"	100 lbs.	2	124.00	Nierait

Above dimmer plates can also be furnished interlocking with master control handle—add \$15.00 per plate to list price, which includes cost of master control handle, one for every six plates.



No. 1234 No. 1241 No. 1234

Round Plate Dimmers

Kliegl Round Plate Dimmers are used in theaters, churches, town halls, lodge rooms, motion picture houses, and wherever light control is required. They are rated for continuous duty, and are made in a wide range of sizes and capacities from 60-watts upwards. Strong compact construction, with resistance element embedded in a vitreous enamel and thoroughly protecting it against moisture and oxidation; and perfect contact procured by a sliding spring contact; assures long time service. Design is such that good heat distribution and ventilation is obtained, and provides dimmers which require less space, for the same capacity, than other forms of construction.

KLIEGL ROUND PLATE, NON-INTERLOCKING, DIMMERS

No.	TOTAL WATTS	SIZE AND NUMBER OF PLATES	WEIGHT	PRICE	CODE WORD
FOR 2-WIRE, 115-VOLT CIRCUITS†; WALL MOUNTING*					
1229	60	1-8"	12 lbs.	\$10.40	Neofiti
1230	110	1-8"	12 lbs.	10.40	Neogene
1231	220	1-8"	12 lbs.	10.40	Neologo
1232	330	1-8"	12 lbs.	10.40	Neomoris
1233	550	1-8"	12 lbs.	10.40	Neoni
1234	660	1-8"	12 lbs.	10.40	Neoplase
1235	825	1-12"	23 lbs.	14.00	Neormis
1236	1100	1-12"	23 lbs.	14.00	Neotome
1237	1375	1-15"	40 lbs.	16.00	Nepeta
1238	1650	1-15"	40 lbs.	16.00	Nepheg
1239	2200	1-17"	50 lbs.	27.50	Nephews
1240	2750	1-17"	50 lbs.	27.50	Nephroid
1240A	3000	2-15"	80 lbs.	48.00	Nephrops
1241	3300	2-17"	100 lbs.	57.00	Nephtoah
1242	4400	2-17"	100 lbs.	57.00	Nepomuk
1243	5500	2-17"	100 lbs.	57.00	Nepotor
1244	8250	3-17"	150 lbs.	87.00	Nepticula
FOR 3-WIRE, 115-230 VOLT CIRCUITS; WALL MOUNTING*					
1245	440	2-8"	24 lbs.	\$28.00	Neptuno
1246	660	2-8"	24 lbs.	28.00	Nepuce
1247	1100	2-8"	24 lbs.	28.00	Nequior
1248	1320	2-8"	24 lbs.	28.00	Neratius
1249	1650	2-12"	46 lbs.	35.00	Nerbata
1250	2200	2-12"	46 lbs.	35.00	Nerciat
1251	2750	2-15"	80 lbs.	48.00	Nerezza
1251A	3000	2-15"	80 lbs.	48.00	Nerferer
1252	3300	2-17"	100 lbs.	57.00	Nerinea
1253	4400	2-17"	100 lbs.	57.00	Nerisse
1254	5500	2-17"	100 lbs.	57.00	Nerocile

* For "PERPENDICULAR TO WALL MOUNTING," add \$2.00 to list price.

† 220-volt, 2-wire Dimmer prices and details on request.

DIMMER BANKS

WHERE a large number of circuits are to be controlled, as in theater lighting, Kliegl interlocking dimmers are assembled in banks with master control handle for groups of dimmers, and a grand master that controls the entire bank. They can also be provided with a master control wheel for slow-motion dimmer-control and slow-motion cross-interlocking control. In every case the control is smooth, even, and easy, and individual dimmer plate or dimmer banks, when used at their rated volts and wattage, will dim their load from full-bright to completely out without flickering. Smooth unflickering gradations of lamp brilliancy are procured through one-hundred-and-ten steps of control on each plate.

When ordering dimmer banks the following information is required:

1. Voltage of the circuit.
2. Whether dimmer is 2- or 3-wire type.
3. Capacity in watts of each dimmer plate.
4. Number and type of lamps to be controlled per dimmer plate.
5. Sketch showing desired arrangement of dimmer plates.
6. Complete information regarding space limitations.
7. Number of colors to be controlled on stage and number of colors to be controlled in auditorium.

If interlocking levers are specified, state whether more than one master lever is required, if so, how many, and a rough sketch showing groups of plates to be controlled by each master lever; also state whether slow motion control wheels, as shown in Fig. 4, or slow-motion cross-interlocking control wheel, as shown in Fig. 5 is desired.

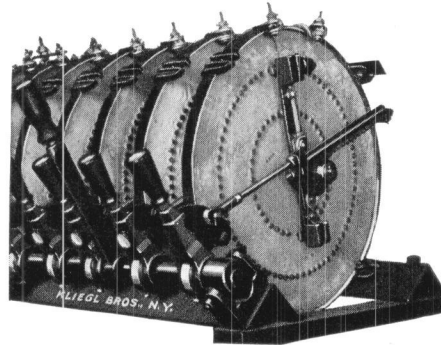


Fig. 1—Group of Interlocking Dimmers arranged for mounting on top of a switchboard or on a wall. (Diagram, Fig. A, page 120.)

KLIEGL ROUND PLATE, INTERLOCKING, DIMMERS†
FOR 2-WIRE, 115-VOLT CIRCUITS*

No.	TOTAL WATTS	SIZE AND NUMBER OF PLATES	WEIGHT	PRICE	CODE WORD
1256	750	1-15"	36 lbs.	\$45.00	Nersis
1257	1200	1-15"	36 lbs.	45.00	Nerthops
1258	1500	1-15"	36 lbs.	45.00	Nerval
1259	2000	1-15"	36 lbs.	45.00	Nervios
1261	3300	2-15"	72 lbs.	90.00	Nesga
1262	3600	2-15"	72 lbs.	90.00	Nespera
1263	4000	2-15"	72 lbs.	90.00	Nessel
1265	750	1-17"	40 lbs.	55.00	Nestalik
1266	1200	1-17"	40 lbs.	55.00	Nestchen
1267	1500	1-17"	40 lbs.	55.00	Netbord
1268	2400	1-17"	40 lbs.	55.00	Netelig
1269	2700	1-17"	40 lbs.	55.00	Netinho
1269A	3000	1-17"	40 lbs.	55.00	Netkoraal
1270	3300	2-17"	80 lbs.	99.00	Netleyvers
1271	3600	2-17"	80 lbs.	99.00	Netoide
1272	4200	2-17"	80 lbs.	99.00	Netstok
1273	4800	2-17"	80 lbs.	99.00	Neturi
1274	5400	2-17"	80 lbs.	99.00	Netolies
1275	6000	2-17"	80 lbs.	99.00	Neurada
1276	6600	3-17"	120 lbs.	143.00	Neuroide
1277	7200	3-17"	120 lbs.	143.00	Neuruz
1278	8100	3-17"	120 lbs.	143.00	Neusaap
1279	9000	3-17"	120 lbs.	143.00	Neutos
1280	9600	4-17"	160 lbs.	187.00	Neveda
1281	10200	4-17"	160 lbs.	187.00	Neveros
1282	10800	4-17"	160 lbs.	187.00	Nevisti
1283	12000	4-17"	160 lbs.	187.00	Neviso

† Mounting as shown in Fig. A, page 120.

* Price and details for 3-wire dimmers upon request.

Average Space Requirements for Dimmers

Reference to the following diagrams will give approximate overall dimensions, height, width, and depth, of any group combination of Kliegl round type dimmer plates, but manufacturer's certified dimensional drawings should be used for final layouts. The side views illustrated are as follows:

- Fig. A—Top of Switchboard mounting, single row
- Fig. B—Wall Mounting, single row
- Fig. C—Rear of Board Mounting, single row
- Fig. D—Floor Mounting, single row
- Fig. E—Floor Mounting with Extension Arm, single row
- Fig. F—Top of Board Mounting, double row
- Fig. G—Top of Board Mounting, triple row
- Fig. H—Floor Mounting, multiple row

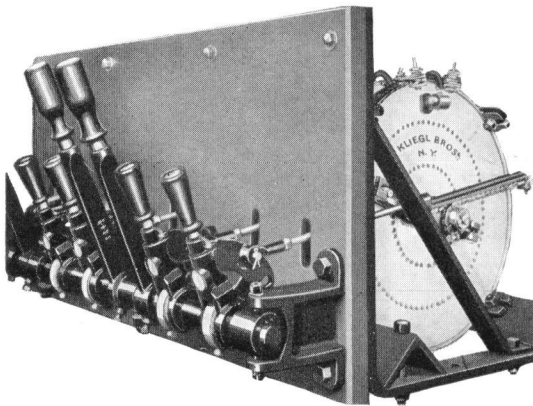
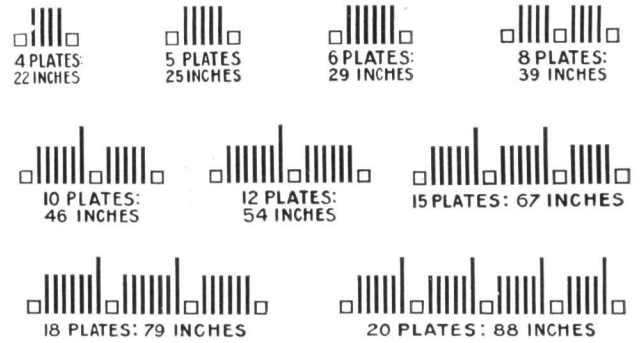


Fig. 2—Group of Interlocking Dimmers mounted on the rear of a panel or switchboard. (Diagram, Fig. C, Page 120.)

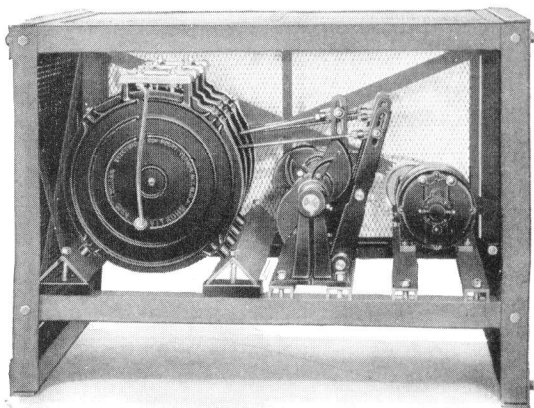
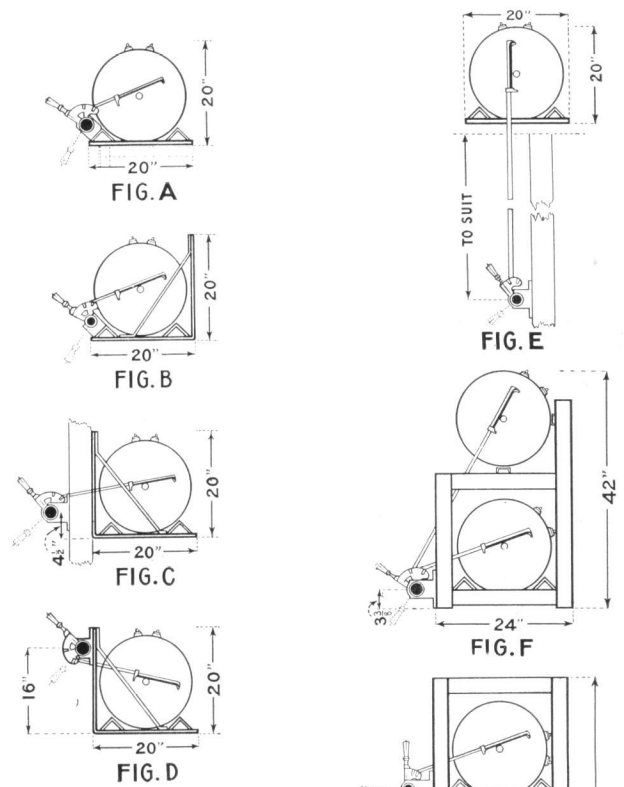
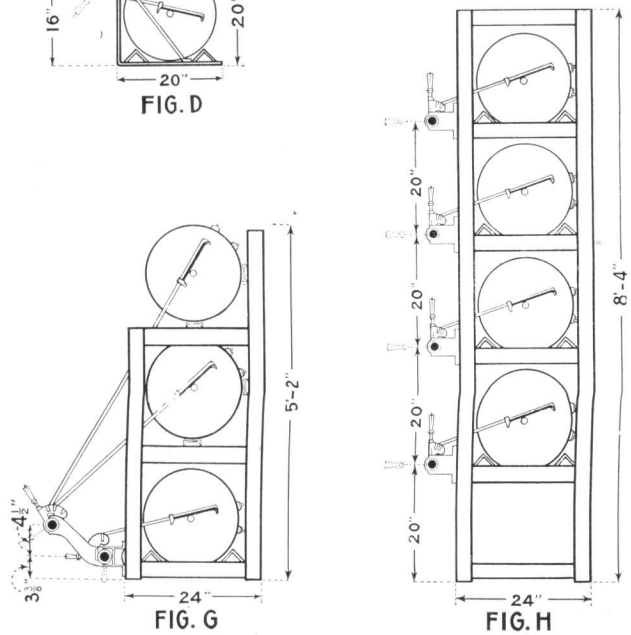


Fig. 3—Illustration above shows a motor driven cycle dimmer for mobile color lighting control.



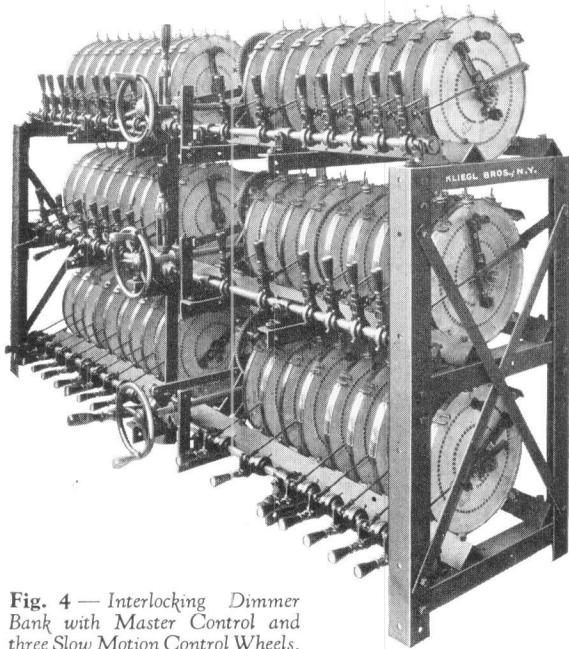


Fig. 4—Interlocking Dimmer Bank with Master Control and three Slow Motion Control Wheels.

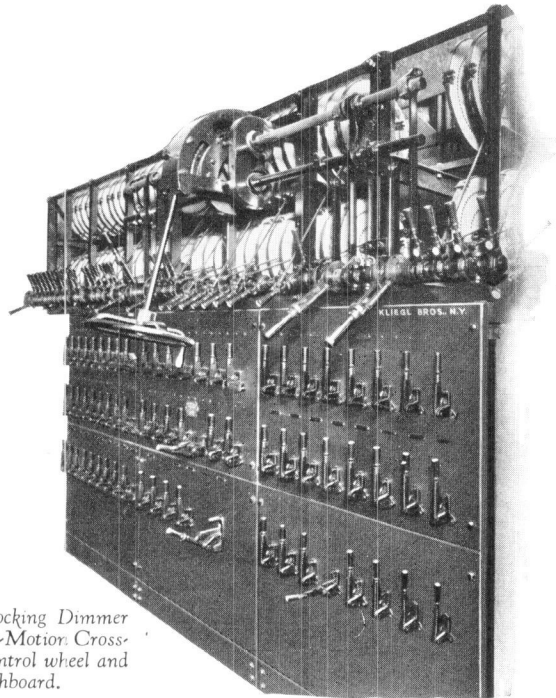


Fig. 5—Interlocking Dimmer Bank with Slow-Motion Cross-interlocking Control wheel and dead-face Switchboard.

PORTABLE DIMMER BOXES

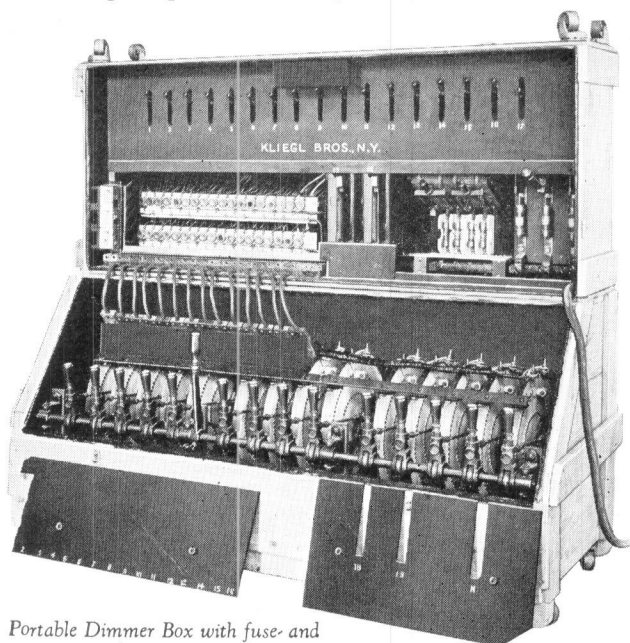
KLIEGL PORTABLE DIMMER BOXES are designed for traveling theatrical companies, outdoor stages and other occasions where a temporary switchboard is required. They are built in a trunk-like box, with removable front, in which are assembled all the switches, dimmers, plugging receptacles, et cetera, necessary for the operation of stage lamps, border lights, footlights, and other lighting equipment. Traveling companies find Kliegl Portable Dimmer Boxes of

inestimable value for special lighting and color-lighting effects, and also useful as an auxiliary to inadequate installations likely to be found in small theaters. They enable road-companies to be independent of permanent theater lighting equipment.

Kliegl Portable Dimmer Boxes are built of wood, lined with sheet metal; mounted on casters to facilitate transportation; switches, cutouts and all live parts completely covered; only control handles exposed. They are built in one or more sections, depending on the amount of equipment to be controlled. Each circuit is controlled by a switch with cutout fused to required capacity, and with plugging-pocket or pin-connector outlets—depending upon the current carrying capacity of the circuits; connections can be made and broken quickly and easily; main fuse switch of proper capacity with flexible stage cable for service supply-line is furnished in any desired length, either 2- or 3-conductor.

Dimmers are banked and installed in bottom of box, in any and as many combinations as required, either interlocking or non-interlocking. In case of interlocking, a master lever permitting dimmer control individually and collectively is provided. One or several circuits may be connected to a single dimmer plate, depending on requirements.

Kliegl Portable Dimmer Boxes operate on either direct or alternating current. Price quotations are furnished on receipt of full information as to the number of circuits to be controlled by dimmers, number of outlets for each circuit, whether dimmers are to be interlocking or non-interlocking, and whether Dimmer Box is to be wired for 2-wire or 3-wire circuits.



Portable Dimmer Box with fuse- and switch cover removed.

SWITCHBOARDS and PANEL BOARDS

KLIEGL SWITCHBOARDS AND PANEL BOARDS are designed and built to specifications—to meet the ever varying requirements of theatrical service. They are also built for motion-picture and photographic studios, schools, colleges, laboratories, office buildings, amusement parks, et cetera. Usually they are of the dead front type, as recommended by the Underwriters, in which all switches, fuses, and other live parts are mounted on separate panels back of the board, and switches operated by specially constructed insulated handles which extend through the panel to the front of the board. Precautions are taken to insure durability, safety, and efficiency. All electrical parts comply in every detail with the requirements of the National Board of Fire Underwriters and City inspection; workmanship is guaranteed.

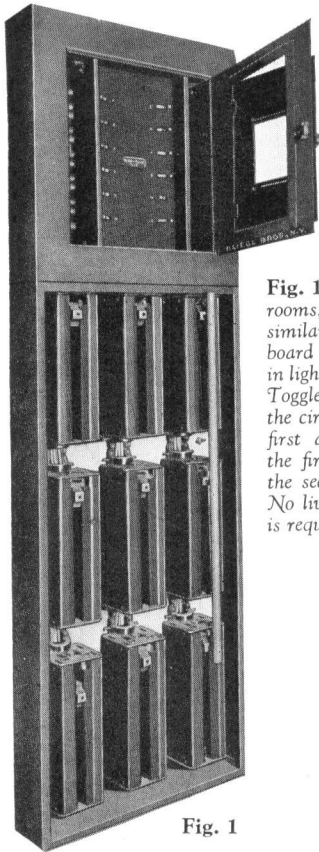


Fig. 1

Plans and specifications are prepared and estimates furnished for complete theater-lighting installations—or any part of the installation; prices are also quoted on individual switchboard requirements.

Fig. 1 —Kliegl switchboard designed for lodge rooms, schools, dancing academies, and other similar locations where a small dead-front panel board with dimmer equipment providing flexibility in light control, at a reasonably low cost, is desired. Toggle switches and slider type dimmers control the circuits. Usually white lights in footlight and first and second borderlights are controlled by the first vertical row of dimmers, blue lights by the second row, and red lights by the third row. No live parts are exposed. No special attendant is required.

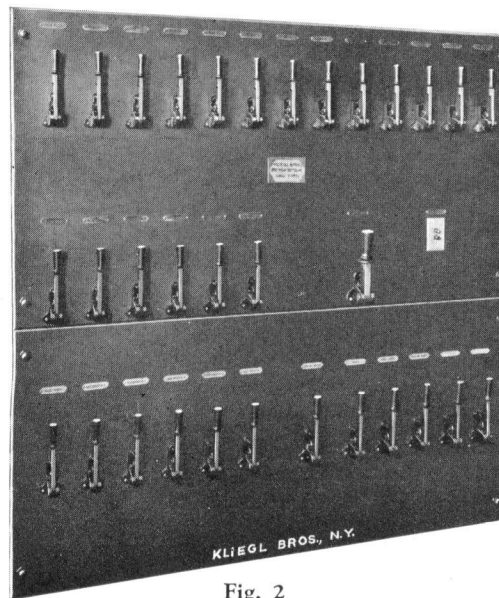


Fig. 2

Fig. 2 —Kliegl switchboard designed for motion picture theaters, and other locations where more elaborate control for a large number of circuits is required. The handles control 100-ampere 2- or 3-wire type knife switches, mounted on rear of board.

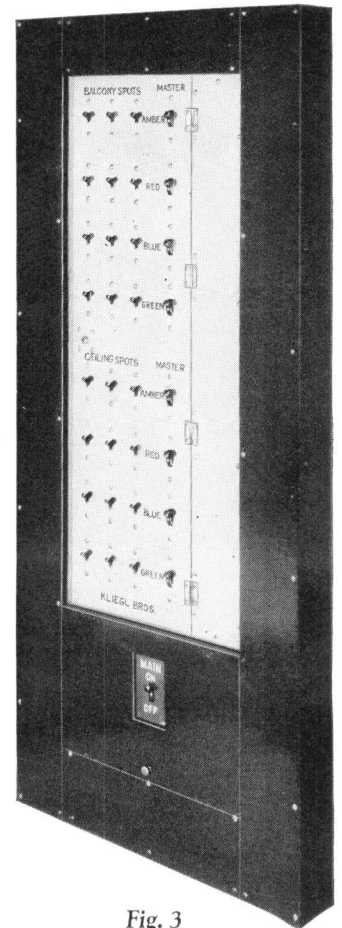


Fig. 3

Fig. 3 —Typical Kliegl Spotlight-control panel, with selective and master switches, for operating a group of Kliegl Spotlights, equipped with electro-magnetic color-frame control—for obtaining a variety of beautiful color-lighting effects.

SPOTLIGHTS

KLIEGL SPOTLIGHTS have all the practical qualities and many exclusive features thirty-five years experience in the design and manufacture of spotlights have proven essential and desirable—strength to endure long use and rough handling; portable, compact, light weight construction; rigid vibrationless supports; flexible mountings; convenient controls; ample capacity; adequate ventilation; efficient, correct lighting characteristics; auxiliary adaptors; and numerous other important details.

They are made in a complete range of types and sizes, for both arc and incandescent lamps—every conceivable form in general use, and for special needs they are designed and built to suit individual requirements.

They provide a high intensity of illumination; are devised to permit the direction and spread of the light beam, and the size or shape of the spot of light projected, to be varied at will; and comply with Underwriters requirements in all respects.

ARC SPOTLIGHTS

KLIEGL ARC SPOTLIGHTS consist essentially of a hand-feed arc lamp, in a suitably enclosed housing fitted with a condensing lens, mounted on a telescopic pedestal stand. They are particularly desirable where light of the very highest intensity or exceptionally long distance projection is required, and are especially valuable for producing projective effects.

Kliegl arc spotlights are made in various types for all projection ranges up to 200 ft.; in a complete selection of sizes from 25 to 140-amperes, for 125 or 250-volt, direct or alternating current circuits.

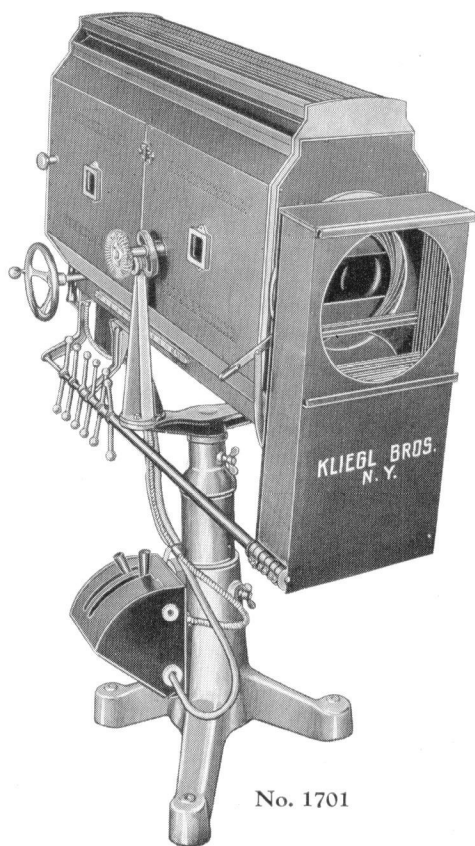
They are generally furnished complete with fixed resistance, enclosed switch, and stage cable. Several of the larger sizes are furnished with combination automatic and hand-feed arc lamps, and supplied with or without separate resistance units.

They all give a concentrated or wide spread light beam, as desired; and are used, on the stage, for projection from the theatre balcony or motion-picture booth, in motion-picture and photographic studios, ball-rooms, and elsewhere—as described in the following pages.

140 ampere, 10 inch lens

LONG RANGE Arc Spotlight

with color-changing and beam controls



This is an exceptionally-powerful, long-range, Kliegl arc spotlight, especially designed for light projection from motion-picture booths in large theatres. Average working distances from 100 to 200 feet. Gives from a 4 ft. spot to 100 ft. spread at 150 ft.—a sufficiently wide spread to cover the widest stage. Has an exceptionally large lens, and projects an intensely brilliant, evenly illuminated spot or flood of light. Provides in a single compact unit everything required for white and color lighting, framing, fading, and fittings for standard spotlight effect attachments. Operates at high efficiency, and is designed to meet every possible service requirement.

In theatres, it is used for spotlighting and floodlighting: performers, stage setting, organist, and musicians in the orchestra pit, and on the stage, with clear white or colored light; also for the projection of special stage-lighting effects—usually from the motion picture booth, or from back stage in exceptionally large theatres.

It is fitted with a 140-ampere hand-and-automatic-feed arc lamp, liberally designed to allow continuous operation at full capacity without overheating, and provided with controls that permit smooth and speedy adjustments of the arc and carbons in every way possibly required. Motor-driven mechanism provides for the automatic regulation of the arc when lamp is in operation, with means for hand regulation when desired.

The arc lamp is mounted on a movable carriage, and travels along the optical axis, thus provides for focusing the light from a spot to a flood. A hand wheel controls the movement of the carriage. A pointer moves over a numbered dial—indicating the position of the lamp.

Both upper and lower carbon holders are fitted with clamps which hold any size carbon from $\frac{7}{16}$ " to $1\frac{1}{8}$ " in diameter—with a firm, positive grip, and good electrical contact. A metal shield, positioned in advance of the arc, eliminates the projection of ghosts or light rings caused by rays from the arc flame entering the optical system, off center.

Lamp housing is $39\frac{1}{2}$ " in length. Supporting members are of cast aluminum. Casing is of polished iron. It is perfectly balanced and so supported as to allow the greatest freedom and flexibility in handling. A double-wall type of construction is used, with ducts and numerous vents to promote a rapid circulation of air, dissipate the heat of the arc, insure comparatively cool operation without light leakage.

Large self-closing spring doors on both sides of the lamp housing permit access to the interior for changing the carbons. A spring trap door at the bottom of the housing provides means for removal of dirt and carbon particles. Peep-holes in the side, fitted with special dark-greenish glass, permit inspection of the arc in operation, with complete protection of the eyes from the ultra violet and infra red rays.

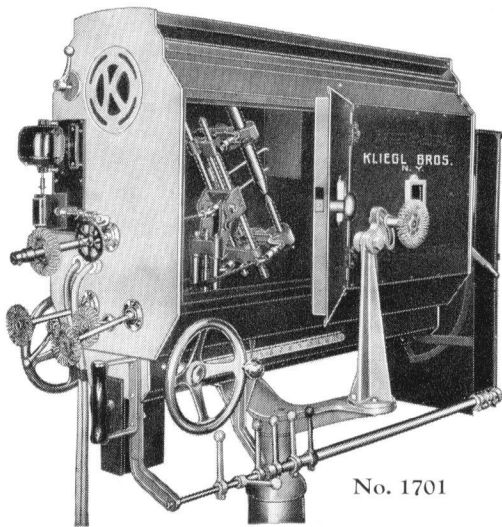
A 10" diameter lens of special heat-resisting glass is removably mounted in a support designed to allow unrestricted expansion, with provisions for adequate movement of air to keep the temperature about the lens at a minimum.

A boomerang for six different changes in color is permanently attached to front of spotlight; six removable color frames are encased in a color box—standard rectangular, metal frames (No. 572), for gelatine mediums. They slide in vertical guideways, and are operated by levers which extend along the side of the spotlight.

A separate lever is provided for each color frame, and each lever is keyed to correspond with the color it controls. The position of the handle indicates the position of the color screen, and a quarter turn throws the screen in or out of position.

The color screen is free of all mechanical connections of any kind and may be readily removed by simply raising the hinged cover of the color box and lifting the screen out of its slide grooves; or, if it is to be inserted, simply drop it into its proper place.

Slide grooves provided on the front of the color box, accommodate an extra color frame, color wheels, special effects, and other standard spotlight attachments.



No. 1701

An iris shutter is also part of its permanent equipment—positioned in front of the lens, operated by a handle at the back of the spotlight. An auxiliary handle near the front, also actuates the shutter. Markings on the back of the spotlight and the position of the handle indicate the relative opening of the shutter. The shutter opens and closes completely in a uniform circle.

A curtain shutter is also positioned in front of the lens; slides in vertical grooves and is operated by a handle at the rear of the spotlight. The position of the handle and markings on the back of the spotlight, indicate the relative opening of the shutter.

The spotlight is flexibly mounted on a heavy telescopic-pedestal stand, supported at a point corresponding with the center balance, with means for quickly and easily tilting the spotlight to any position within practical requirements, and holding it securely in place.

The yoke is pivoted and turns freely and easily about its axis. A thumb screw locks it in position.

The base is of cast iron, sufficiently massive to provide a solid substantial support, and to assure steadiness and freedom from vibration.

All controls are centralized at or near the rear of the spotlight. Marked scales and dial pointers are provided for the assistance of the operator—one set indicating the horizontal motion of the hood, another its vertical motion, and a third shows the position of the arc—thus allowing the operator to set his lamp for any degree spot, and at exactly the desired position, without first shining the light on the stage.

In place of the floor stand, a hanging yoke can be furnished so that spotlight can be suspended from the ceiling of the projection booth, or from under a light bridge—thus allowing free floor space.

When ordered, a resistance for connection in series with the arc, is supplied separately so that it may be mounted back of the switchboard or in some other out-of-the-way location.

The spotlight is furnished complete, as described and listed, with armored covered leads and 150-ampere booster switch (no cable or rheostat). It is furnished with controls on the right hand side, as pictured (unless otherwise requested) and with a motor-driven automatic arc feed attachment.

No.	RATING		LENS DIA.	HOOD LENGTH	WEIGHT LBS.	PRICE*
	AMP.	VOLTS				
1701	140	115	10"	$39\frac{1}{2}$ "	347	\$600.00

* Price does not include rheostat.

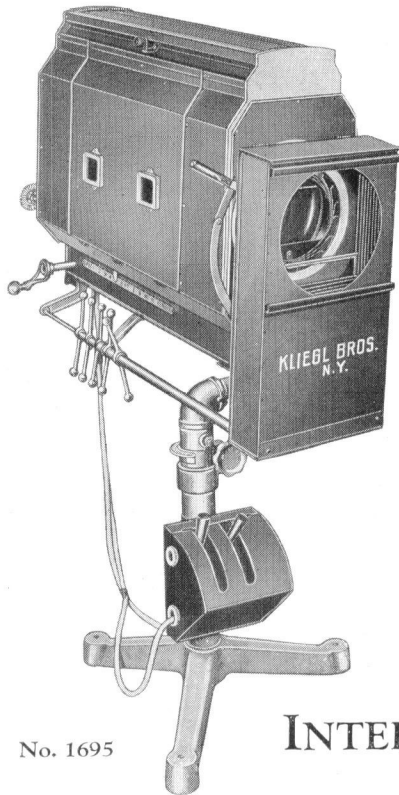
CARBONS: trim size recommended for D.C.; top— $1\frac{1}{8}$ "x12" cored projector; bottom $\frac{1}{2}$ "x6" cored Orotip.

RHEOSTATS*

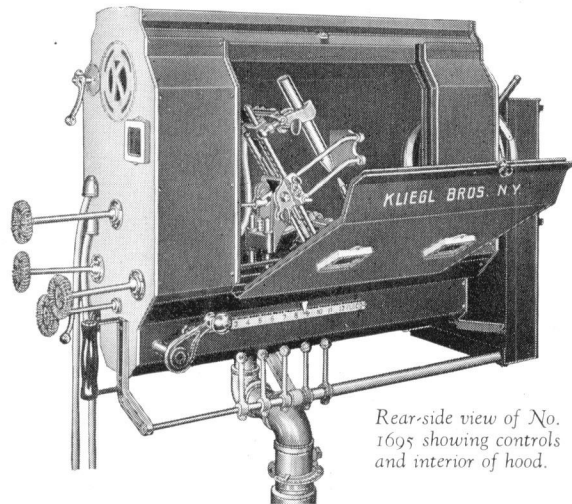
With Ribbon Resistance—for Kliegel Arc Spotlight No. 1701

RATING		DIMENSIONS			WEIGHT LBS.	PRICE
AMPERES	VOLTS	WIDTH	DEPTH	HEIGHT		
60-150	100	$26\frac{1}{2}$ "	$17\frac{1}{2}$ "	29"	75	\$107.00
60-150	115	$26\frac{1}{2}$ "	21"	29"	75	118.00

* Designed for use with 55-volts across the arc.



No. 1695



Rear-side view of No. 1695 showing controls and interior of hood.

100 ampere, 8 inch lens INTERMEDIATE RANGE Arc Spotlights

with color-changing and beam controls

POWERFUL long-throw Kliegl arc spotlights for long distance projection in theatres—from balcony, gallery, or motion-picture booth; and for lighting a large stage from the light bridge, fly gallery, or light tower. Provided with every facility for white lighting, color lighting, framing, fading, and standard spotlight attachments and effects; with all controls centralized to permit speedy, convenient, and easy operation. Working range, any distance up to 150 feet. Beam spread 4 ft. spot to 70 ft. spread at 150 ft. distance. Both spotlights are of same design except for variations in length of hood, and overall dimensions—as shown in listing.

Light source is a 100-ampere hand-feed arc lamp of improved design, with rear controls that permit smooth and speedy adjustments of the arc and carbons in every possible way required for perfect operation. A metal shield, positioned in advance of the arc, eliminates the projection of the arc flame. Arc lamp is mounted on slide rails, with arc controls extending through rear of hood, and lever arm on side for focusing.

The lamp housing is 24 or 30 inches in length (see listing) with a ventilating arrangement which prevents outer walls from becoming unbearably hot to the touch, as is usually the case with heavy-current arc spotlights. Double wall type of construction is used, and a stream of air passes constantly between the inner and outer walls. This air stream never enters the interior of the housing, but is confined to the space between the walls. The heat of the arc is rapidly dissipated by another air stream which enters the bottom of the lamp housing and passes directly through and out the top of the housing, without being deflected by baffles. The special patented louver air vent in the top of the housing permits this direct draft to be accomplished, without light leakage.

The side walls are of polished iron, and the front and rear end frames are of cast aluminum. Large self-closing spring door on side permits access to the lamp for changing carbons, and small spring trap door in bottom is provided for the removal of dirt and carbon particles. Several peep-holes, fitted with special dark-greenish glass, permit inspection of the arc in operation, without injury to the eyes.

An 8" condensing lens fitted in the front casing is mounted in a removable frame, designed to allow for unrestricted expansion.

Five color frames are provided for changing the color of the light beam, enclosed in a color box, permanently mounted on the front of the spotlight, and operated by an ingenious arrangement of levers which extend along the side of the spotlight with handles conveniently located near the rear of the hood in a most practical manner. Each color frame has its individual lever, marked to designate the color it controls. The position of the lever handle indicates the position of the color frame, and a quarter turn throws the screen in or out of position. Standard color frames (No. 570) are used. They are simply slipped into the guides, and may be quickly and easily changed if desirable.

An iris shutter for regulating the size of the light beam is part of the permanent equipment, fitted in front of the lens, and operated by a handle at the back of the spotlight, and by an auxiliary handle on the side near the front of the spotlight. Markings on the spotlight and the position of the handle indicate the relative opening of the shutter, from full opening to black out.

A curtain shutter for shaping the beam is also part of the permanent equipment, and is operated by a handle at the rear of the spotlight—a quarter turn of the handle closes the shutter from full opening to black-out, or vice versa.

Slide grooves are provided on the front of the color box for an extra color frame, color wheel, special effects, and spotlight attachments.

All controls are conveniently centralized at the rear of the spotlight to facilitate operations—directional, arc feed, focusing, color frames, and iris and curtain shutters—all of which are an integral part of the spotlight. Enclosed knife switch on pedestal controls main circuit.

Marked scales and dials are provided for the assistance of the operator. One indicating the horizontal position of the hood, another the vertical position of the hood, and the third the position of the arc mechanism—thus allowing the operator to set his lamp for any degree spot and at exactly the desired position, without first shining the light on the stage.

The hood is perfectly counter-balanced so that it swings easily regardless of the position of the arc lamp mechanism, and is supported on a special tubular bracket mounted on a heavy cast iron base in such a manner as to allow freedom of movement without vibration.

In place of the floor stand, a hanging yoke can be furnished so that spotlight can be suspended from the ceiling of the projection booth, or from under a light bridge—thus allowing free floor space.

A resistance for connection in series with the arc, when

ordered, is supplied as a separate unit, so that it may be mounted back of the switchboard or in some other out-of-the-way location.

The spotlights are furnished complete, as described and listed; with asbestos covered leads connected to switch (no resistance or stage cable). Rheostat is supplied separately, as above mentioned.

No.	RATING		LENS DIA.	HOOD LENGTH	WEIGHT LBS.	PRICE*
	AMP.	VOLTS				
1694	100	115	8"	24"	201	\$320.00
1695	100	115	8"	30"	205	320.00

* Price does not include rheostat.

CARBONS: trim sizes recommended for D. C.; top—1" x 12" cored projector; bottom— $\frac{7}{16}$ " x 6" cored Orotip.

RHEOSTATS*

With Ribbon Resistance—for Kliegl Arc Spotlights Nos. 1694 and 1695

RATING		DIMENSIONS			WEIGHT LBS.	PRICE
AMPERES	VOLTS	WIDTH	DEPTH	HEIGHT		
60-120	100	22 1/2"	15"	29"	65	\$92.00
60-120	115	22 1/2"	17 1/2"	29"	65	98.00

* Designed for use with 55-volts across the arc.

70 ampere, 6 inch lens LONG-THROW Arc Spotlights with color-changing and beam controls

THIS Kliegl arc spotlight is equipped with four color frames, also iris and curtain shutters, as a permanent and integral part of the spotlight. It is used principally in theatres for projection from the balcony, motion-picture booth, light bridge, fly gallery, or light tower; also in schools, small auditoriums, and wherever a long throw brilliant spot with convenient color controls is desired. Average working range from 50 to 100 feet. Beam spread from 5 ft. spot to 50 ft. flood at 100 feet.

It is fitted with a 70-ampere hand-feed arc lamp, mounted on slide rails, with arm for focusing and arc controls extending through rear of hood.

Lamp housing is 21" in length; light-tight; thoroughly ventilated. Constructed with cast aluminum end frames front and rear, and double side walls of planished iron. Large self-closing spring door on side for access to lamp. Small spring trap door in bottom for removal of carbon particles.

A 6" condensing lens is fitted in the front casing, mounted in a removable frame which allows unrestricted expansion.

Four circular color frames for gelatine mediums, for changing color of light beam, are located in front of the lens, and operated from the rear of spotlight. Separate lever is provided for each color frame, each being keyed to correspond with the color it controls. A quarter turn of the lever throws the desired color in or out of position in front of the lens. Provisions are made for the convenient replacement of gelatine color mediums.



Rear-side view, No. 12

No. 12

An iris shutter for regulating size of light beam, is fitted in the front casing of the lamp housing. A partial turn of a handle at the rear opens or closes the iris shutter from black-out to full-sized beam, and vice versa.

The curtain shutter is also located in the front casing of the housing in front of the lens. A short turn of a handle at the rear opens and closes the shutter from black-out or a mere slit to full opening.

Slide grooves are provided on front of housing to receive special slides or other standard attachments.

All controls are conveniently centralized at the rear of the spotlight to facilitate operations. An enclosed knife switch on pedestal controls main circuit.

The spotlight is perfectly balanced, and adjustably mounted on a telescopic pedestal stand with heavy sub-

stantial forked cast-iron base. Arrangement permits it to be set at any angle, raised, lowered, or turned in any direction at will.

An enclosed fixed resistance connected in series with arc is mounted on pedestal stand. This resistor is optional equipment, it can be omitted, or supplied as a separate unit for distant mounting.

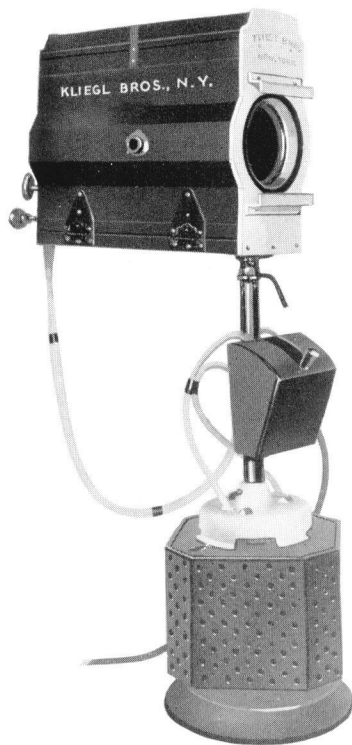
The spotlight is furnished complete, as described and listed; with asbestos covered leads, switch, and 25 ft. of stage cable.

No.	RATING		LENS DIA.	WEIGHT LBS.	PRICE
	AMP.	VOLTS			
12	70	125	6"	134	\$250.00
13	(No. 12 spotlight without resistance)			104	220.00

CARBONS: trim sizes recommended; for D. C. 3/4" x 8" cored projector on top; 3/8" x 6" cored Orotip on bottom—for A. C. 3/4" x 8" white flame projector on top and bottom.

35-, 50-, and 70-ampere LONG-THROW Arc Spotlights

with 6 and 8 inch lenses

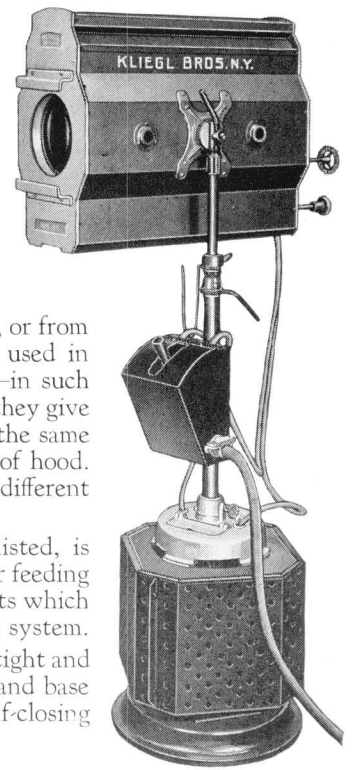


No. 10

THESE long-range large-beam Kliegli arc spotlights are particularly designed for spot-flood-lighting where a large amount of light is needed—at average working distances from 35 to 100 feet, giving beam adjustments from a 5 ft. spot to 50 ft. flood, at 100 feet. These spotlights are used principally in theatres for long throw work; especially from the front of the balcony or from the projection booth, for catching specialty numbers on the stage; and on the stage from the side wings, or from overhead in theatres with a very wide stage. Also used in motion-picture and commercial photographic studios—in such instances, the maximum throw is usually about 25 ft.—they give a 3 ft. spot or 25 ft. flood at this distance. All are of the same design, except for variations in arc rating and length of hood. Current range permits a selection of spotlights to give different light intensities.

A 35-, 50-, or 70-ampere hand-feed arc lamp, as listed, is mounted on slide rails with focusing arm and control for feeding the arc, extending through rear of hood; and adjustments which permit arc to be properly positioned in respect to lens system.

Lamp housing, 19, 21, or 24 inches in length, is light-tight and thoroughly ventilated. Constructed with front, rear, and base of cast aluminum; sides of polished iron. Large self-closing spring door on side provides access to lamp.



No. 11

Nos. 9 and 10 are of single wall construction. Nos. 11 and 18 have the improved double-wall type of construction which insures a more rapid dissipation of the heat required for the higher amperage arc lamps.

A 6" or 8" condensing lens, as listed, is mounted in front of housing, in a separate aluminum ring, supported at three points, with free air space all around, allowing for adequate ventilation and unrestricted expansion.

Slide grooves on front of housing receive standard sized color frames, color wheels, and effect attachments.

Lamp housing is adjustably mounted on a telescopic iron pedestal stand with round base; can be set in any desired position.

An enclosed fixed resistance, in series with arc, is mounted on pedestal. No. 11 spotlight resistance is provided with a selective switch so that arc can be operated at either 35- or 70-amperes.

These spotlights are furnished complete, as described and listed; with asbestos covered leads, switch, resistance, and 25 ft. of stage cable.

No.	RATING		LENS DIA.	WEIGHT LBS.	PRICE
	AMP.	VOLTS			
9	35	125	6"	70	\$ 69.00
10	50	125	6"	96	92.00
11	70	125	6"	101	120.00
18	70	125	8"	115	150.00

CARBONS: sizes recommended for use on D. C.

No.	TOP	BOTTOM
9	5/8" x 7" cored projector	5/16" x 5" solid Orotip
10	3/4" x 7" " "	11/32" x 5" " "
11	3/4" x 8" " "	3/8" x 6" " "
18	3/4" x 8" " "	3/8" x 6" " "

25-, and 35-ampere STANDARD-RANGE Arc Spotlights

with 5, 6, and 8 inch lenses

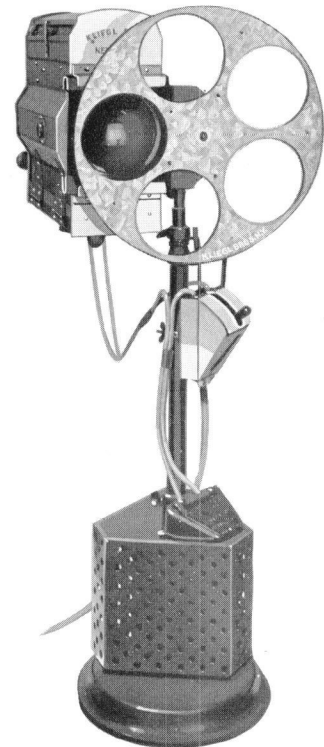


No. 5

THESE standard-range Kliegl arc spotlights are for stage use, effect projection, and general applications. Average working range any distance up to 50 feet. Beam adjustments at 50 ft. from a 5 ft. spot to a 50 ft. flood. All are of the same design, except for variations in size of lens, or arc rating, as shown in listing. These spotlights are very useful on the stage for lighting from side wings, light towers, overhead from the light bridge—and also in dance halls, amateur productions, schools, etc.

Light source is a 25 or 35 hand-feed arc lamp—as listed. Arc lamp is mounted on slide rails, with arm extending through rear of hood for focusing, and carbons are fed by a wooden knob under hood, with adjustments for centering the arc in respect to the lens system.

Lamp housing furnished in 14" and 20" lengths; light tight; thoroughly ventilated; made of planished sheet iron, with aluminum frame front and rear; and self-closing spring door on one side.



No. 7

Condensing lens in front of housing is held in place by split ring, and so mounted as to allow unrestricted expansion—sizes as indicated.

Slide grooves on front of housing receive standard sized color frames, color wheels, and effect attachments.

Hood is balanced and adjustably mounted on a telescopic iron pedestal stand with round base; with all adjustments to permit it to be set in any position.

An enclosed fixed resistance, in series with arc, is mounted on pedestal stand.

These spotlights are furnished complete, as described and listed, with asbestos covered leads, switch, resistance, and 25 ft. of stage cable.

No.	RATING		LENS DIA.	WEIGHT LBS.	PRICE
	AMP.	VOLTS			
5	25	125	5"	63	\$58.00
6	25	125	6"	63	59.00
7*	25	125	6"	65	64.50
15	35	125	5"	63	58.00
16	35	125	6"	63	59.00
8	35	125	8"	76	75.00

* No. 6 spotlight, supplied with color wheel No. 22.

CARBONS: sizes recommended for D. C.—for both 25- and 35-ampere arcs.

Nos.	TOP	BOTTOM
5-16	5/8" x 7" cored projector	5/16" x 5" solid Orotip
8	5/8" x 8" " "	5/16" x 5" " "

120 ampere, 8 inch lens STUDIO Arc Spotlight

LONG-RANGE high-power Kliegl arc spotlight primarily designed for motion-picture and photographic studios, gives an abundance of light of high intensity, particularly adapted for big sets—used for intense spotlighting, directive or follow-up floodlighting, back lighting (illuminating back of head and body of performers, usually from some elevated point behind the setting, for purpose of giving greater depth to the picture), and cross lighting (spotting or flooding from the side wings of the setting to eliminate facial

shadows). When used in motion picture studio work, where average working distances range from 10 to 125 feet, it focuses from a 3 ft. head spot to a 25 ft. spread at 125 feet, and follows with remarkable ease.

It is fitted with a 120-ampere hand-feed arc lamp, specially constructed to accommodate large-sized carbons, can be quickly focused and adjustments of the arc made smoothly and easily.

Lamp housing is 29" in length, light tight, thoroughly

ventilated, constructed with cast-aluminum front, rear, and bottom; with sides of planished iron, double lined with asbestos. Large self-closing spring door on side gives access to lamp for changing carbons, and small spring trap door in bottom provides for removal of dirt and carbon particles.

An 8" condensing lens is fitted in front of housing, in separate casing designed to allow free circulation of air, and unrestricted expansion.

Slide grooves provided on front of housing accommodate diffusing screens, iris shutters, color mediums, special effects, and other similar attachments.

All controls are conveniently centralized at the rear of the spotlight. Main switch is enclosed and mounted under the hood.

Spotlight is perfectly balanced and adjustably mounted on a telescopic pedestal stand, can be swung vertically through an angle of 180 degrees, turned easily in any direction, and is adjustable in height. Lamp housing and yoke are removable from pedestal, and plug connector permits hood to be detached from stand, for use aloft, with a cable extension from rheostat to spotlight.

Floor stand is provided with ball-bearing rubber-tired casters so that it can be moved about easily and noiselessly.

An enclosed fixed resistance, in series with the arc, is mounted on the base, and is provided with two single-pole knife switches permitting apparatus to be used at 60- and 90-amperes as well as at 120-amperes—arc can be started at low current and held at that setting until full strength is required.

Spotlight is furnished complete, as described and listed, with asbestos covered leads, and 25 ft. of stage cable.



No. 21

No.	RATING		LENS DIA.	WEIGHT LBS.	PRICE
	AMP.	VOLTS			
21	120	125	8"	200	\$250.00

CARBONS: trim size recommended for D. C.; top—1" x 12" cored projector; bottom— $\frac{1}{2}$ " x 6" cored Orotip.

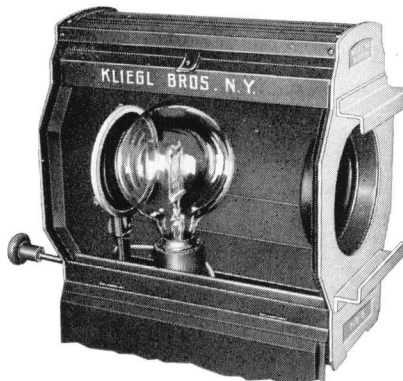
NOTE: For other spotlights suitable for studio work, see arc spotlight No. 11, page 204; arc lantern No. 1063, page 217; and incandescent spotlight No. 8N24, page 216.

INCANDESCENT SPOTLIGHTS

KLIEGL INCANDESCENT SPOTLIGHTS are made to accommodate concentrated filament incandescent lamps. They are universal in character, are adaptable for practically all purposes where spotlighting is required, and possess many important inherent advantages.

Compact in design and light in weight, they are easily handled or mounted, and need no attendant, as is the case with arc spotlights. They operate equally well on alternating or direct current, without flicker or noise, and give a light of constant value.

Kliegl incandescent spotlights may be controlled from a distant point, and can be used in conjunction with dimmers, if desired—permitting the intensity of the light to be accurately controlled, and admit a gradual blending or quick change of colors. Motor-driven color wheels and other electrical devices can be used as auxiliaries, and incandescent spotlights may be wired for individual, selective,



or group control from a central point.

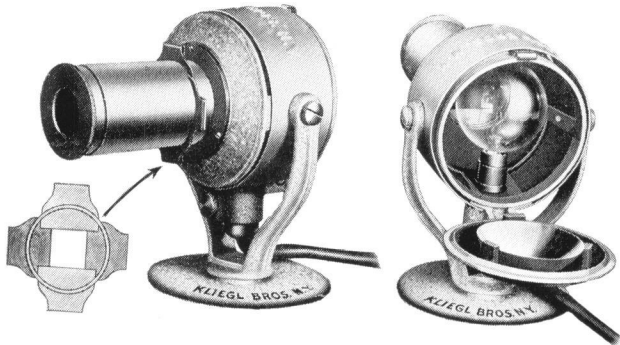
They can be most advantageously located to accomplish the best results—hung from a pipe batten overhead, recessed in the building structure, used on portable stands or mounted in inaccessible places—generally they may be installed in any manner desired, and still be under complete control from the main switchboard.

They are especially useful in theatres, and well adapted for schools, churches, club rooms, auditoriums, ball rooms, show windows, photographic studios—

in fact wherever spotlighting is required.

Kliegl incandescent spotlights are made in a very complete selection of types and sizes, ranging from 75- to 2000-watts, and may be had with various kinds of supports; pipe clamps, wall brackets, table bases, or floor stands—as conditions dictate, and as more fully described in the accompanying pages.

75- to 400-watt Picture Lighting Projectors



No. 276

KLIEGL picture-lighting projectors are incandescent spotlights especially designed to project a relatively narrow beam of clear-white high-intensity light—and besides having all the flexibility and control features of regular models, are additionally equipped with adjustable framing shutters which allow regulation of size and shape of the light beam.

These projectors are particularly useful for lighting pictures, statuary, and other articles of decoration in art galleries and fashionable homes—confining the light within a chosen area. They may also be used for effect lighting in show windows and mercantile displays; as a light source for work with photo-electric cells, photomicrography, and other scientific, commercial, and artistic purposes; and they can be especially arranged for projection of picture slides, announcements and the like.

To provide for various requirements, several sizes are made, for lamps ranging from 75- to 400-watts. The smallest size, No. 276, has a working range up to 20 feet, giving a maximum beam spread of 7 feet at this distance. The diameter of the beam can be varied from pin point to full lens opening, with a corresponding variation in the size of spot, from $\frac{1}{16}$ of an inch to full 7 ft. spread—depending on the light opening, lens adjustment, and distance of projection—and the illuminated area can be framed in square,

rectangular, triangular or fantastic designs as required. The larger sizes have a correspondingly greater working range and spread.

Lamp housing is substantially made, entirely of metal, compact, light in weight, well ventilated, with hinged section to permit access to interior.

Condensing and objective lenses are provided, mounted in suitable carrier, of brass, adjustable for focusing; and lamp receptacle has an arrangement for centering the filament.

Four adjustable brass slides, mounted in slots in lens carrier, permit light area to be framed any desired shape or size, as mentioned, from pin-head size to full lens opening.

A reflector is mounted back of the lamp to insure full utilization of light source and intensify the light beam. No. 276 is furnished with a chromium-plated polished-metal reflector. The larger sizes have mirrored-glass reflectors.

The projectors are flexibly mounted in a yoke, permitting beam to be projected in any direction, and have a round table base, that may be fastened in any position. Overall dimensions of the smallest projector, No. 276, measure $6\frac{1}{2}$ " high, $7\frac{1}{2}$ " long, $4\frac{1}{2}$ " wide; the larger sizes have correspondingly greater dimensions.

They are furnished complete, as described, with lenses, framing shutter, 9 ft. rubber-covered extension cord, and attachment plug. Modifications can be made in their design, on order, to meet special needs—as for the projection of picture slides, announcements, and other images.

No.	LAMP			MOUNTING	WEIGHT LBS.	PRICE
	WATTS	BULB	BASE			
276	75	G 16½	Prong	Table Base	2	\$22.00*
276A	100	P. S. 25	Md. Sc.	Table Base	3	26.00
276B	250-400	P. S. 30	Md. Sc.	Table Base	14	42.50

* Lamp included.



No. 66A

250- or 400-watt Incandescent Spotlights with $3\frac{1}{2}$ inch lens



No. 66B

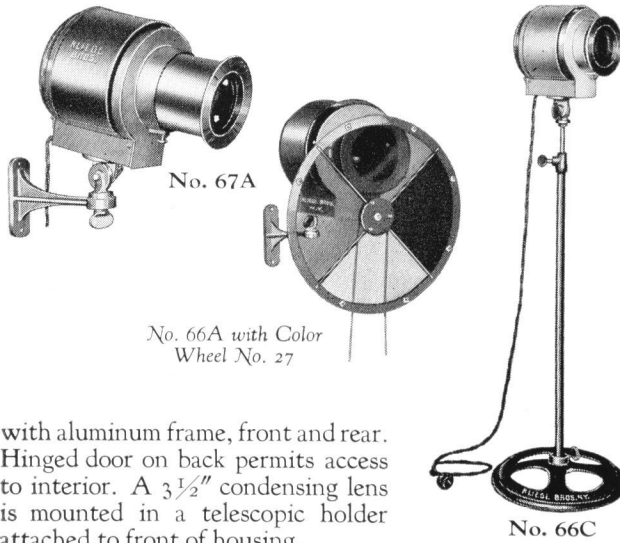
SMALL incandescent Klieg spotlights for general use where a relatively small area is to be illuminated from comparatively short distances of 10 to 20 feet—gives a 6 ft. spot or 25 ft. spread at 20 ft. distance.

Useful in theatres for headlighting performers or spotlighting announcements, statuary, novelties, and other articles of decoration. Also adaptable for lighting merchandise in window displays, dancers in ballrooms, and

many other applications where a small spotlight of this character is needed—and can be used as a floodlight by simply removing lens.

Takes a 250- or 400-watt G30 concentrated filament incandescent lamp. Is fitted with a medium screw base lamp receptacle fixed in position (lens holder adjustable for focusing) with vertical adjustment for centering light source.

Lamp housing is $6\frac{1}{2}$ " overall length, made of sheet metal,



with aluminum frame, front and rear. Hinged door on back permits access to interior. A 3½" condensing lens is mounted in a telescopic holder attached to front of housing.

A reflector is not part of the standard equipment—but these spotlights can be furnished with 3¾" dia. (No. 929)

mirrored-glass reflector mounted back of the lamp, to increase the light volume, if desired.

Special color frames (No. 27) for gelatine mediums can also be supplied, on order, if required.

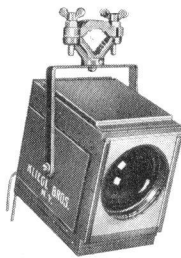
These spotlights are provided with lug and thumb screw for swivel mounting on either wall bracket, table base, or floor stand, as shown. Telescopic pedestal floor stand is adjustable in height from 3 to 5 feet.

The spotlights are furnished complete as described, with 5 ft. extension cord, attachment plug, and mounting specified.

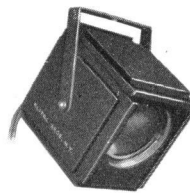
No.	LENS DIA.	LAMP			MOUNTING	WEIGHT LBS.	PRICE
		WATTS	BULB	BASE			
66A	3½"	250-400	G 30	Md. Sc.	Wall Bracket	4½	\$16.00
66B	3½"	250-400	G 30	Md. Sc.	Table Base	9½	16.00
66C	3½"	250-400	G 30	Md. Sc.	Floor Stand	15	20.00
67A*	3½"	250-400	G 30	Md. Sc.	Wall Bracket	6	20.00

* The same as No. 66A, except it is equipped with a longer lens holder to give a 4 ft. spot at 20 ft. distance.

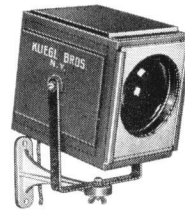
250- or 400-watt Incandescent Spotlights with 4½ inch lens



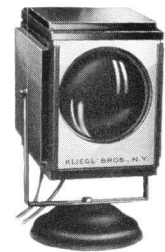
No. 53E



No. 53



No. 53A



No. 53B

SMALL inexpensive short-range general utility Kliegl incandescent spotlights for use where mild intensity is desired—for projection distances up to 25 ft.; focuses from a concentrated spot 4 ft. in diameter to a flood 10 ft. wide, at a distance of 25 feet.

Their small size adapts them especially for service where they must be concealed in a limited space, or hung in a group, as for effect lighting. On the stage they are used in numerous ways. From overhead as individual units or in a group mounted in a spot border frame; for spot-flood-lighting from the side wings; also for footlight spots—being placed in the footlight trough to project a concentrated beam of light upon some person or object on the stage; when the performer remains in the same position, like a singer or violinist. Also for special uses, as in open-fire places and other scenic settings. They are applicable as well for non-theatrical purposes, as for: show-window lighting, spot illumination of fountains, statuary, and many other applications—in fact, wherever a small spotlight for short-range work is required.

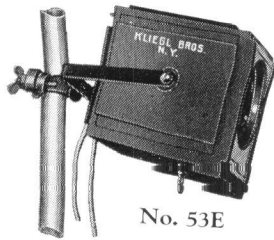
They accommodate a 250- or 400-watt G₃₀ concentrated filament incandescent lamp, and are equipped with a medium screw base lamp receptacle—adjustable for focusing with vertical adjustments for centering light source.

Lamp housing is 7¾" overall length, square, made of planished sheet iron, well ventilated; fitted with a condensing lens, 4½" dia.

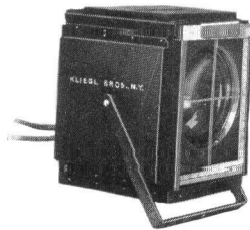
A reflector is not generally furnished, but they can be supplied with 3¾" dia. (No. 929) mirrored-glass reflector back of the lamp, to increase the light volume, if required.

Slide grooves for color frames are provided on front; and a removable metal color frame (No. 574), for gelatine mediums, is furnished with each spotlight.

They have a movable yoke attached to lamp housing, which serves as an angular adjustment and support when spotlight rests on a flat surface, and as a cradle-arm when spotlight is suspended. They are also supplied with various mountings—wall bracket, table base, floor stand, or pipe clamp—as shown.



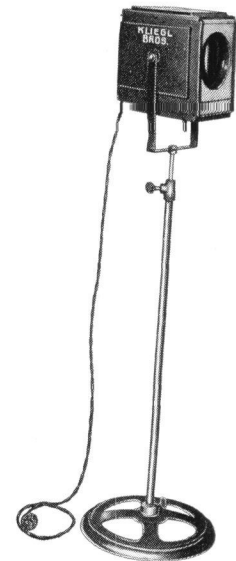
No. 53E



No. 53

The spotlights are furnished complete as described, with 5-ft. extension cord, and attachment plug (except No. 53E which is furnished with two asbestos leads); and removable frame for gelatine color mediums.

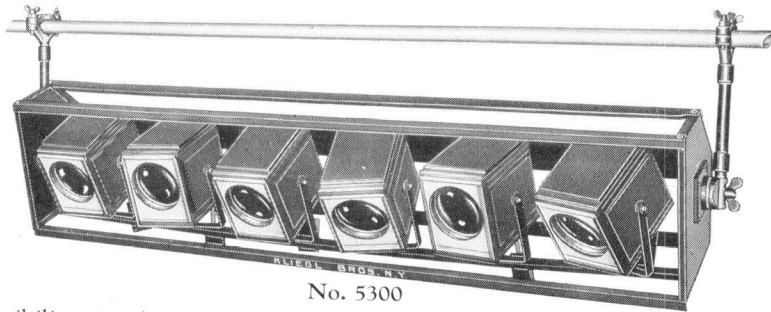
No.	LENS DIA.	LAMP			MOUNTING	WEIGHT LBS.	PRICE
		WATTS	BULB	BASE			
53	4 1/2"	250-400	G 30	Md. Sc.	Yoke only	5	\$10.00
53A	4 1/2"	250-400	G 30	Md. Sc.	Wall Bracket	6	12.00
53B	4 1/2"	250-400	G 30	Md. Sc.	Table Base	12 1/4	12.00
53C	4 1/2"	250-400	G 30	Md. Sc.	Floor Stand	17 3/4	15.00
53E	4 1/2"	250-400	G 30	Md. Sc.	Pipe Clamp	6 1/4	12.00



No. 53C

SPOT BORDERLIGHT

KLIEGL spot borderlights or bridge spots are a group assembly of six or more No. 53 Kliegl spotlights in a suitable frame hung above the stage for producing special lighting effects. It is usually hung on a pipe batten, in place of the first borderlight, and spotlights are individually mounted so that each one can be independently directed and focused on any desired point. Spotlights are separately wired for individual light control.



No. 5300

They are used in instances where more flexibility is needed than can be obtained with standard borderlights—for spot and floodlighting chosen areas; for trick lighting; for blocking out shadows; for special sets; and where several overhead spotlights of different intensities, color, size, and direction are required.

They may remain fixed in position or their direction changed between acts through the use of a border pole. The adjustments of each spotlight being entirely independent of the other.

Kliegl Spot Borderlight No. 5300 is furnished completely assembled, with six No. 53 spotlights, two adjustable

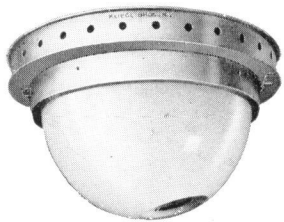
hanging brackets, two pipe clamps, and a 6 ft. 1 1/4" pipe batten. Each spotlight is wired with two asbestos leads and a No. 950 pin-plug connector attached. A metal color frame (No. 574) for gelatine mediums is supplied with each spotlight.

No.	OVERALL DIMENSIONS OF FRAME			WEIGHT LBS.	PRICE
	LENGTH	WIDTH	HEIGHT		
5300	66"	11"	12 1/2"	84	\$85.00

500-watt

CEILING Spotlight

THIS Kliegl ceiling spotlight resembles in general appearance a standard light fixture, but when illuminated throws a concentrated beam of light upon a person or some special object to be emphasized. Has a 15 ft. range and gives an 8 ft. spot at 12 ft. distance. Fixed focus as desired. Especially designed for degree work in fraternal ceremonies, to light an altar, officer's chair, symbolic emblems, etc., in lodge rooms.



No. 57

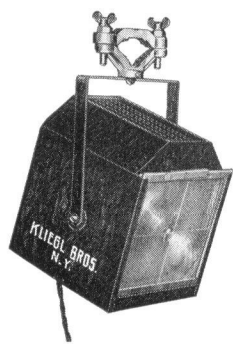
with a condensing lens, 5" dia.; and a chromium-plated metal reflector, 5 1/4" dia. (No. 931C).

The circular frame, 10" overall diameter, is made of sheet metal and steel, with means provided for adequate ventilation, and exposed surfaces finished in gold. It is supplied with a white glass globe, 16" in diameter, held in place by hinged frame; and is arranged for surface mounting on a ceiling. Furnished complete, as described.

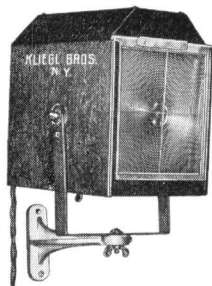
No.	LENS DIA.	LAMP			MOUNTING	WEIGHT LBS.	PRICE
		WATTS	BULB	BASE			
57	5"	500	G 40	Mg. Sc.	Ceiling	25	\$100.00

Takes a 500-watt G40 concentrated filament lamp. Has a mogul screw base lamp receptacle—fixed in position, with vertical adjustment for centering light source. Is fitted

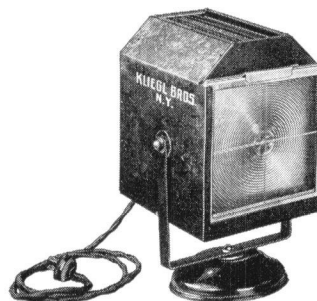
500-watt special Incandescent SPOT-FLOODLIGHTS with prismatic lens



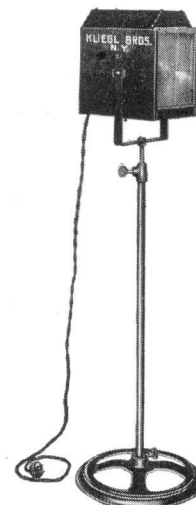
No. 43



No. 43A



No. 43B



No. 43C

WIDE-SPREAD short-range spot-flood-lights. Give a 20 ft. spread of light, at 15 ft. distance, spread is variable from 5 to 10 ft. Projects a diffused light with an intense center. Splendid unit for museum display lighting, lighting of operating rooms in hospitals, and well adapted for use in dance halls or any place a directional diffused light of high intensity is required.

Takes a 500-watt T20 concentrated filament incandescent lamp. It is fitted with a medium-screw-base lamp receptacle—adjustable for focusing, vertical adjustment for centering light source.

Lamp housing is 7½" overall length, made entirely of sheet metal, crystallized-black finish, with movable yoke attached; light tight; well ventilated; and fitted with slide grooves for color frames.

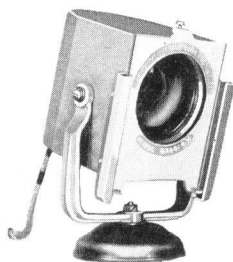
It is provided with a 6½" square, concentric prismatic glass lens—which is removable, being held in place by slide

groove on front of housing. A mirrored-glass reflector, 3¾" dia. (No. 929), is mounted back of the lamp.

Universal interchangeable support permits spotlight to be swung in any direction, and any type of mounting specified is supplied—pipe clamp, wall bracket, table base or floor stand—having a vertical adjustment of 3 to 5 feet.

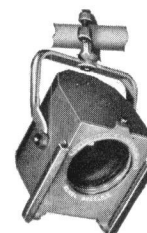
These spotlights are furnished complete, as described and listed; with 5-ft. extension cord and attachment plug, and a removable metal frame for gelatine color mediums.

No.	PRIS- MATIC LENS	LAMP			MOUNTING	WEIGHT LBS.	PRICE
		WATTS	BULB	BASE			
43	6½" sq.	500	T 20	Md. Sc.	Pipe Clamp	6	\$17.00
43A	6½" sq.	500	T 20	Md. Sc.	Wall Bracket	5	16.50
43B	6½" sq.	500	T 20	Md. Sc.	Table Base	11	17.00
43C	6½" sq.	500	T 20	Md. Sc.	Floor Stand	13½	20.00



No. 62B

400-watt Incandescent Spotlights with 4½ inch lens



No. 62

WIDE-SPREAD close-range Kliegl incandescent spotlights for general use. Takes a 400-watt G30 concentrated filament lamp. Is fitted with a medium screw base lamp receptacle—adjustable for focusing and centering light source.

Lamp housing is 7½" overall length, made entirely of cast aluminum, supported in trunnion and swivel bearing—with swinging yoke attached; light tight; well ventilated; and fitted with slide grooves for color frames—with removable front, permitting it to be used as a floodlight.

A 4½" dia. condensing lens is supported in the removable front; and a mirrored-glass reflector, 3¾" dia. (No. 929), is mounted back of the lamp.

Provided with a universal interchangeable support, and supplied with any type of mounting specified—pipe clamp,

wall bracket, table base, or floor stand.

Furnished complete, as described and listed; with asbestos covered leads (or 5-ft. extension cord and attachment plugs, if desired) and removable metal frame (No. 575) for gelatine color mediums.

No.	LENS DIA.	LAMP			MOUNTING	WEIGHT LBS.	PRICE
		WATTS	BULB	BASE			
62	4½"	400	G 30	Md. Sc.	Pipe Clamp	8	\$22.00
62A	4½"	400	G 30	Md. Sc.	Wall Bracket	8	22.00
62B	4½"	400	G 30	Md. Sc.	Table Base	13½	22.00
62C	4½"	400	G 30	Md. Sc.	Floor Stand	18	25.00



No. 61A

SMALL, compact, light-weight Kliegl incandescent spotlights for short-range spot and flood lighting. Provide a mild ray of light with strong bright center fading out at edges. Working range, any distance up to 30 ft.; gives a 5 ft. spot or 30 ft. spread at this distance. A general all around spotlight, comparatively inexpensive; used for individual spotting and close up work on the stage, and also in photographic studios, amateur productions, display rooms, small auditoriums, and numerous other applications. No. 61A is recommended for use with revolving crystal showers.

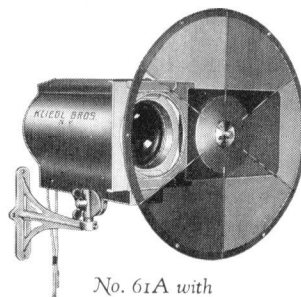
Accommodates a 400-watt G₃₀, concentrated filament incandescent lamp. Are equipped with a medium screw base receptacle—mounted on adjustable slide for focusing, and having vertical adjustment for centering light source.

Lamp housing is a cylindrical hood, 12" overall length, made of planished iron, with aluminum end frames; thoroughly ventilated; with side door providing access to lamp; and fitted with slide grooves on front for color frames or color wheels.

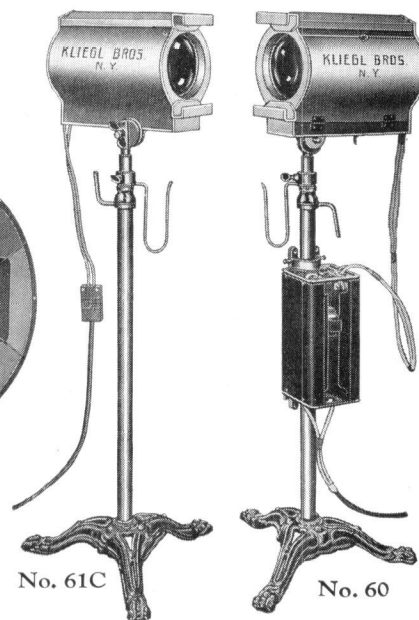
A condensing lens, 5" dia., is fitted in the front casing, and a mirrored-glass reflector, 3 3/4" dia. (No. 929), is mounted on receptacle base, back of the lamp.

The spotlights are adjustably mounted, and are supplied with either a wall bracket or telescopic iron-pedestal floor stand, as shown, and can be supplied with 500-watt dimmer mounted on pedestal stand—for controlling the light intensity.

400-watt Incandescent Spotlights with 5 inch lens



No. 61A with
 Color Wheel
 No. 32



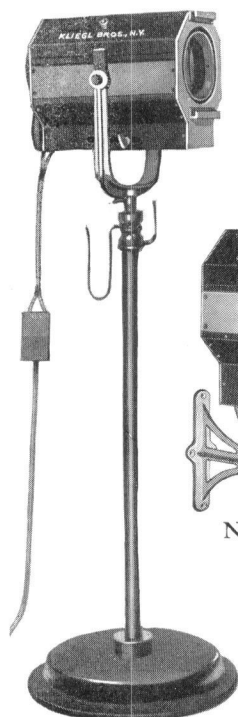
No. 61C

No. 60

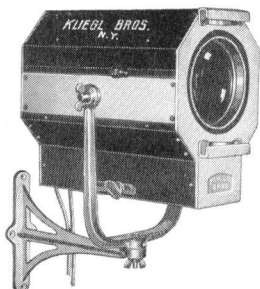
They are furnished complete, as described and listed; with asbestos covered leads, pin-plug connector (No. 950) and 25 ft. of No. 14 stage cable. (Except No. 61A—which is furnished with 5 ft. extension cord and attachment plug.)

No.	LENS DIA.	LAMP			MOUNTING	WEIGHT LBS.	PRICE
		WATTS	BULB	BASE			
61A	5"	400	G 30	Md. Sc.	Wall Bracket	10	\$22.00
61C	5"	400	G 30	Md. Sc.	Floor Stand	24	28.00
60*	5"	400	G 30	Md. Sc.	Floor Stand	30	43.00

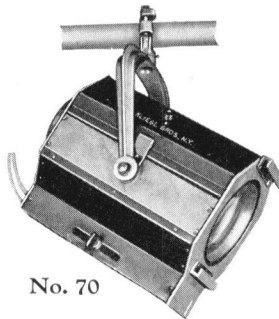
* No. 61C spotlight with dimmer attached to pedestal stand.



No. 70C



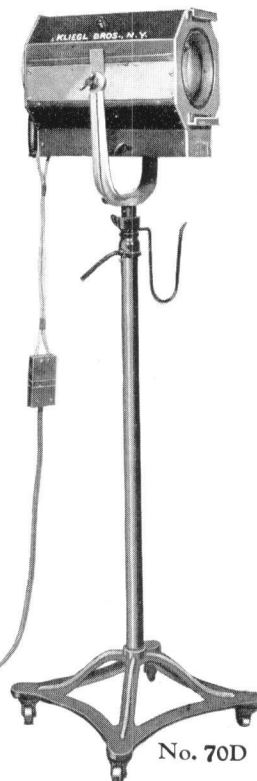
No. 70A



No. 70



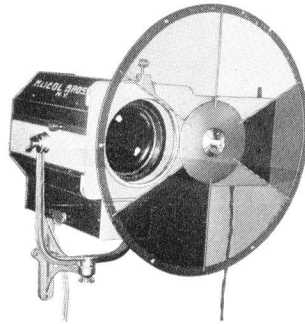
No. 70B



No. 70D

1000-watt Incandescent Spotlights with 6 inch lens

STANDARD-RANGE Kliegl incandescent spotlights for working distances up to 40 feet; give a 5 ft. spot and 35 ft. spread at this distance. Comparatively inexpensive, general utility spotlights, of reasonably high power. Widely used in theatres for lighting the stage from border, wings, light towers, balcony rails, and other locations. Also generally used for spotlighting in schools, large halls, auditoriums,



No. 70A with motor-driven Color Wheel No. 31

show-rooms, ball-rooms, window displays, restaurants, amusement parks, photographic studios, and elsewhere.

Light source is 1000-watt G40 concentrated filament mogul prefocus base incandescent lamp. Spotlights are equipped with a mogul prefocus base lamp receptacle, on a sliding carriage, with extension and wing nut on side for focusing.

Lamp housing, 12 1/2" overall length, is made of planished sheet iron, with aluminum frame front and rear; light tight, and thoroughly ventilated. Self-closing door on top permits access to lamp.

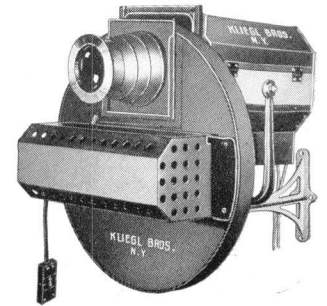
Fitted with a condensing lens, 6" dia.—and when so ordered, can be furnished with lens adaptor, for a 5" dia. lens, to produce a smaller-sized spot.

Have a polished chromium plated metal reflector, 5 1/4" dia. (No. 931C), mounted back of the lamp, to increase the light intensity; and are provided with slide grooves on front of housing, to receive color frames and color wheels.

Hood is set in a yoke, supported in trunnion and swivel bearings, permitting spotlight to swing in any direction. Several different types of mountings—pipe clamp, wall bracket, table base, telescopic-pedestal floor stand, or floor stand with casters fitted to base—are available as shown.

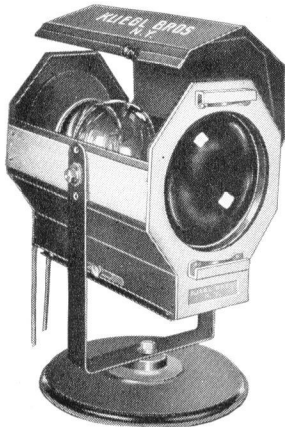
Spotlights are furnished complete as described and listed, with two asbestos leads. When furnished with floor stand,

pin-plug connector (No. 955AC) and 25 ft. of stage cable are also supplied.



No. 70A with motor-driven Scenic Effect

No.	LENS DIA.	LAMP			MOUNTING	WEIGHT LBS.	PRICE
		WATTS	BULB	BASE*			
70	6"	1000	G 40	Mg. pf.	Pipe Clamp	14	\$33.00
70A	6"	1000	G 40	Mg. pf.	Wall Bracket	14	33.00
70B	6"	1000	G 40	Mg. pf.	Table Base	18 1/2	33.00
70C	6"	1000	G 40	Mg. pf.	Floor Stand	36	39.50
70D	6"	1000	G 40	Mg. pf.	{Floor Stand with casters}	27	48.00



No. 74B

ly used as balcony spotlights, being permanently installed in an enclosure that forms part of the balcony rail (or hung in front of the balcony), making a splendid arrangement for spot- and flood-lighting the stage.

Accommodate a 2000-watt G48 concentrated filament mogul prefocus base incandescent lamp; are equipped with a mogul prefocus base lamp receptacle, on a sliding carriage, adjustable for focusing.

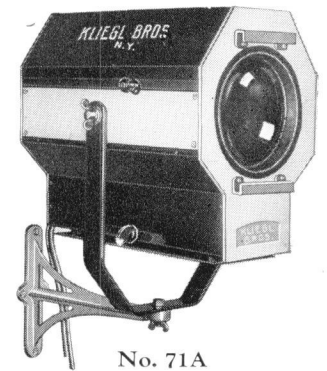
Lamp housing, 14" or 16" overall length, is made of aluminum and planished iron, substantially constructed, light in weight, and light tight. Ample provisions for free circulation of air through lamp chamber to insure cool operation—louver type vents on top, perforated openings bottom and back, and special air vents around lens. Top of housing is side hinged, permitting access to interior for changing lamps.



No. 71

2000-watt Incandescent Spotlights with 6 and 8 inch lenses

INTERMEDIATE long-range high power incandescent Kliegl spotlights. Project a brilliant spot of light any distance up to 100 feet, and when used for floodlighting, give a wide spread of evenly diffused light. Average working distances from 35 to 60 feet. Give a 6 ft. spot and 35 ft. spread at 60 feet. Especially useful in theatres where a wide spread of light is desired. Frequently



No. 71A

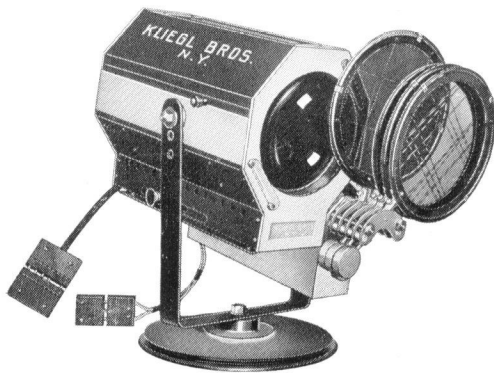
Fitted with a condensing lens, 6" or 8" dia., as listed; mounted in an aluminum ring, in front of housing. Lens is held in place by a split ring and special mounting, allowing for unrestricted expansion. A polished chromium-plated metal reflector, 5 1/4" dia. (No. 931C), is mounted back of the lamp; and slide grooves are provided on front of the housing for color frames and color wheels.

Housing is supported by trunnion and swivel bearings, in a yoke permitting universal direction; and supplied with pipe clamp, wall bracket, or table base—as shown.

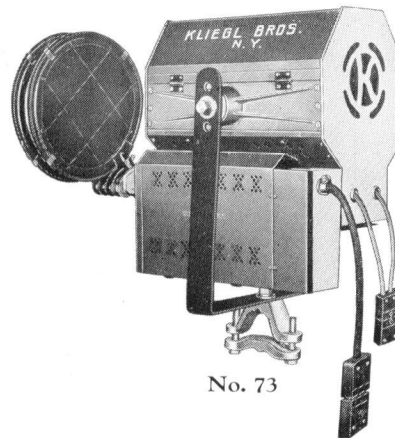
These spotlights are furnished complete, as described and listed; with two No. 14 asbestos leads, 2 ft. in length.

No.	LENS DIA.	LAMP			MOUNTING	WEIGHT LBS.	PRICE
		WATTS	BULB	BASE*			
71	6"	2000	G 48	Mg. pf.	Pipe Clamp	20	\$37.00
71A	6"	2000	G 48	Mg. pf.	Wall Bracket	23	37.00
71B	6"	2000	G 48	Mg. pf.	Table Base	24	37.00
74	8"	2000	G 48	Mg. pf.	Pipe Clamp	28	44.50
74A	8"	2000	G 48	Mg. pf.	Wall Bracket	32	44.50
74B	8"	2000	G 48	Mg. pf.	Table Base	43	44.50

* Mogul screw base receptacles can be furnished on request.



No. 72B



No. 73

2000-watt Remote-Control COLOR-CHANGING Spotlights with 6 and 8 inch lenses

REMOTE-CONTROL color-changing long-range Kliegel incandescent spotlights, with four electro-magnetically operated color frames—permit the entire service of spotlight, including white lighting, color changing, and dimming, all to be controlled from a distant point, usually from the central switchboard. They may be used for working distances up to 100 feet. When operating from an average distance of 75 feet, they give a 6 ft. spot and a 35 ft. spread.

Heretofore there has been no way of changing at will, the color of the light beam, except by the manual removal and insertion of different color frames. Now all operations can be accomplished from any distant point—making available the many desirable advantages of remote control—exclusive features, only to be found in Kliegel spotlights.

Four color frames on each spotlight admit of varying color schemes—since each color frame is independently operated, two or more color frames may be used at one time, obtaining a blending of colors; as amber and red for producing orange, thus further extending the wide range of colors available.

Fewer spotlights are needed—in many instances where color lighting was desired it has been the practice to install several groups of spotlights—one group for each of the colors desired, for example: a group of spotlights fitted with red color filters, another with blue, another with amber or green, and still another with clear white or unmodified lighting—usually operating one group at a time.

It is now customary to install a single group of Kliegel remote-control color-changing spotlights that will give all the color variations obtained with several groups aforementioned—and with the same number of spotlights, obtain 4 or 5 times as much light for each color.

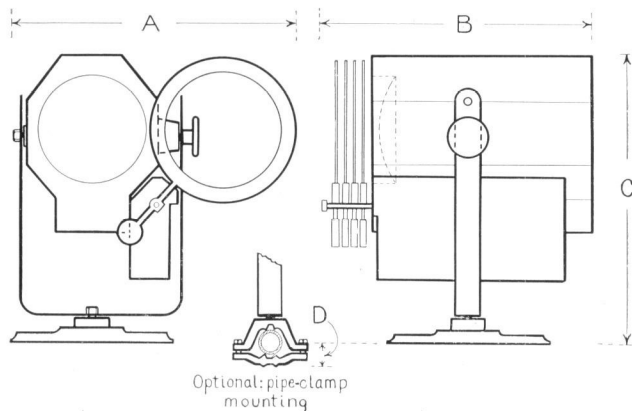
Where a number of these spotlights are installed they may be so wired that each spotlight and each color frame is individually controlled, or wired in multiple so that all spotlights or any selected group may be operated simultaneously and changed instantly from one color to another, or all color frames removed, giving the maximum intensity of white lighting. The operations being performed through the medium of a selective control board with master switches—as shown in Fig. 1. In fact, the possibilities of arrangements in controls, for obtaining color effects are practically unlimited.

The spotlight may be located wherever requirements dictate—frequently in concealed and inaccessible places—and the electric controls positioned wherever most convenient for the operator.

As balcony spotlights, they provide illumination from a direction and for a portion of the stage that cannot be satisfactorily lighted by footlights, proscenium strips, or concert or valance border lights. The light beams are thrown directly upon the performers thus eliminating all facial shadows and distortions caused by footlights or overhead lighting.

These spotlights are therefore particularly desirable for use where the direction of illumination is fixed—especially in theatres, as mentioned, for lighting the stage and orchestra pit with varying colors, from the balcony rail—the spotlights being concealed in the structural member of the balcony front—or spotlighting from an overhead recess in the ceiling and other locations.

They are also adaptable for use in ball rooms, dancing academies, cabarets, restaurants, lodge rooms, churches, sales displays, show windows, exhibitions, advertising, decorative lighting, and many other applications.



OPTIONAL: pipe-clamp mounting

OVERALL DIMENSIONS

Cat. No.	A	B	C	D
72-B	19"	19 $\frac{3}{4}$ "	18 $\frac{5}{8}$ "	1 $\frac{3}{4}$ "
73-B	22"	20 $\frac{3}{8}$ "	21"	1 $\frac{3}{4}$ "

The spotlights are equipped with a mogul prefocus base receptacle on sliding carriage, with extension wing nut on side for focusing adjustments; and accommodate a 2000-watt G48 prefocus incandescent lamp.

The lamp housing is 14", 16", or 19" overall length, as listed; made of aluminum and planished iron, substantially constructed, and light tight, with ample provisions for free circulation of air through lamp chamber to insure cool operation. Top of housing is side hinged, permitting access to interior for changing lamps. A condensing lens, 6" or 8" dia., as listed, is mounted in an aluminum ring, fitted to front of housing, in a manner as to allow unrestricted expansion.

A polished chromium-plated metal reflector, 5 1/4" dia. (No. 931C), is mounted back of the lamp, utilizing all the available candlepower, and giving the greatest possible illuminating efficiency.

Four light circular metal color frames are mounted on movable arms in front of the spotlight, and operated by magnetically controlled levers. The frames are made in two halves, held together by spring clasps, permitting gelatine color filters to be easily inserted.

The color-frame control magnets are mounted in a casing on the side of the spotlight. They are of the plunger type, and actuate concentric shafts which extend along the side of the spotlight. At one end of each shaft a color frame is attached, to the other end a plunger is fastened—a separate magnet controls each color frame.

A special contrivance holds the color frames back out of position in front of the lens, but when the coil is energized and the plunger is drawn down, the color frame is thrown into position in front of the lens where it remains as long as the current flows in the magnet. Shock absorbers take up the rebound—the operation is noiseless.

Control magnets are wound for 115-volts direct current, are liberally designed, and not affected by normal variations in voltage. They consume but little current, do not overheat, and last indefinitely.

The terminals of the electro-magnets are brought out to a small junction block, and cable outlets are provided for wiring. Cover of magnet-control casing can readily be removed for making electrical connections or purposes of inspection.

The spotlights are balanced and adjustably mounted on a substantial pivot bearing which permits it to be set to any angle desired, and are furnished with either a pipe-clamp for fastening to a pipe support, or with a table base, as shown, or other special types of mountings, if required.

They are furnished complete, as described and listed: with two asbestos leads 2 ft. in length, and a 2-point pin-plug connector (No. 955 AC) attached, also with 3 ft. of 5-conductor cable and a 5-point No. 5950 connector.

To insure satisfactory arrangements, architects and theatre owners are invited to submit their construction plans or specifications relative to these spotlights, to our engineers for study and recommendations.

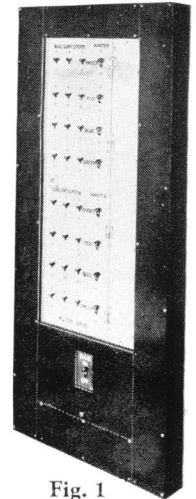
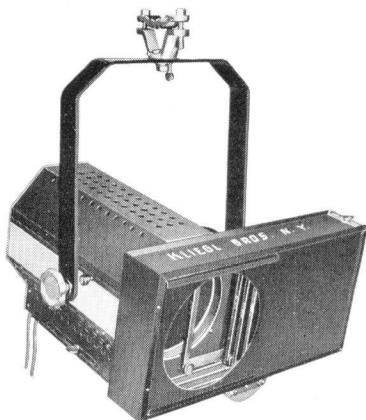


Fig. 1

No.	LENS DIA.	LAMP			HOOD LGTH.	MOUNTING	WGT. LBS.	PRICE
		WATTS	BULB	BASE*				
Magnet Controls and Circular Color Frames, for D. C.								
72	6"	2000	G 48	Mg. pf.	14"	Pipe Clamp	57	\$150.00
72B	6"	2000	G 48	Mg. pf.	14"	Table Base	74	150.00
73	8"	2000	G 48	Mg. pf.	16"	Pipe Clamp	62	160.00
73B	8"	2000	G 48	Mg. pf.	16"	Table Base	77	160.00
Magnet Controls and Circular Color Frames, for A. C.								
1172	6"	2000	G 48	Mg. pf.	14"	Pipe Clamp	61	165.00
1172B	6"	2000	G 48	Mg. pf.	14"	Table Base	78	165.00
1173	8"	2000	G 48	Mg. pf.	16"	Pipe Clamp	69	175.00
1173B	8"	2000	G 48	Mg. pf.	16"	Table Base	84	175.00
Synchronous Motor Controls and Square Color Frames, for A. C.								
1176	8"	2000	G 48	Mg. pf.	16"	Pipe Clamp	86	350.00
1176B	8"	2000	G 48	Mg. pf.	16"	Table Base	100	350.00

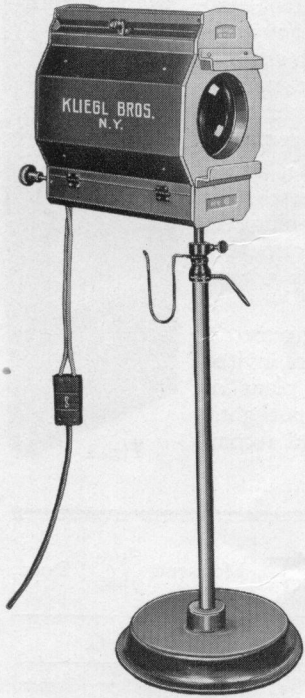
NOTE: When ordering these spotlights for proscenium or portal use—specify their intended location, whether they are to be placed on the right or left hand side (viewed from the stage facing the audience).

* Mogul screw base receptacles can be furnished on request.



No. 1176

Where the utmost accuracy in varying the speed of the color-frame is desired, these spotlights are furnished equipped with AC synchronous motors which take the place of the magnets. This type is provided with four square shaped color frames, in a color box on front of the spotlight, as shown. A Selsyn master motor is located on the control board, and each spotlight is fitted with a Selsyn motor for each color frame, which operates in synchronism with the master—even a fractional movement in the master produces a corresponding movement in the service motors.



No. 6N14

2000-watt Incandescent Spotlights with 6 and 8 inch lenses

LONG-RANGE incandescent Klieg spotlights; operating range, any distance from 50 to 100 feet, focuses from a 6 ft. spot to a 50 ft. spread at 100 feet. Especially useful in stage work, particularly in the production of theatrical presentations in places where arc lamps cannot be used. Their long range enables them to be used either on the stage or for projection from the balcony, gallery, motion picture booth, or some other location, as needed.

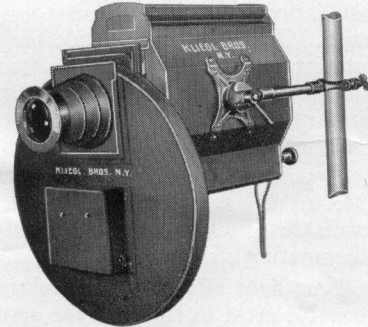
They take a 2000-watt G48 concentrated filament mogul prefocus base lamp; and are equipped with a mogul prefocus base receptacle, on a sliding carriage, with means for focusing.

Lamp housings, of different overall lengths, are made of polished sheet iron and aluminum; of double-wall open-louver-top construction, with a special double ventilating system of air cooling. Large self-closing spring door on side, permits ready access to lamp.

A polished chromium-plated metal reflector is mounted on the focusing arm back of the lamp, to increase the light volume (for first three listed 5 1/4" dia. No. 931C—for last two listed 7" dia. No. 934C).

Slide grooves are provided on front of the housing for color frames, color wheels, and effect attachments. The spotlights are adjustably mounted on a telescopic-pedestal stand, with a heavy, round, cast-iron base, to insure stability.

They are furnished complete, as described and listed, with asbestos covered leads, No. 955 pin-plug connector, and 25 ft. of No. 12 stage cable. Dimmers, for controlling the light intensity, can be furnished attached to the pedestal stand. A truck with casters, for fastening to base of spotlight, to facilitate mobility, can also be furnished (No. 879).



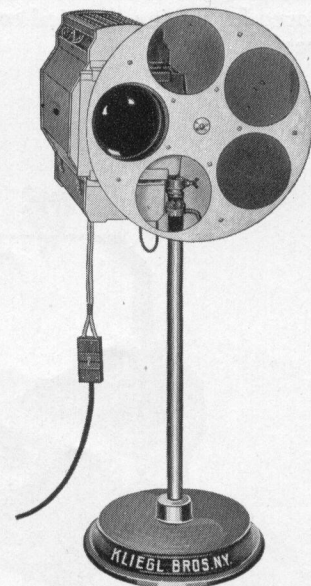
No. 6N14 with Side Bracket and clock-driven Scenic Effect



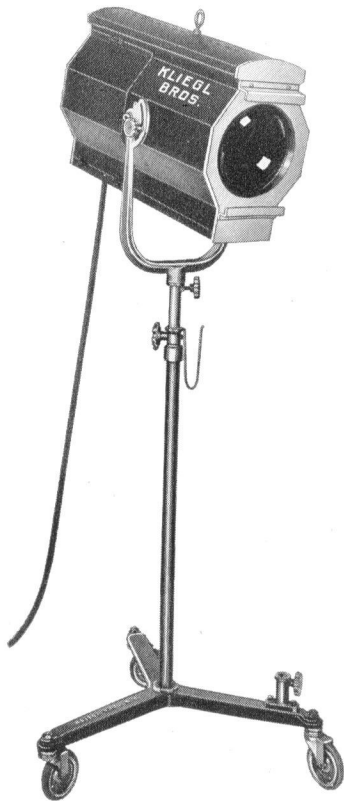
No. 6N14 with Scenic Effect

No.	LENS DIA.	LAMP			MOUNTING	WEIGHT LBS.	PRICE
		WATTS	BULB	BASE*			
6N14	6"	2000	G 48	Mg. pf.	Floor Stand	44	\$43.00
6N19	6"	2000	G 48	Mg. pf.	Floor Stand	58	50.00
8N16	8"	2000	G 48	Mg. pf.	Floor Stand	58	62.00
8N20	8"	2000	G 48	Mg. pf.	Floor Stand	59	66.00

* Mogul screw base receptacles can be furnished on request.



No. 6N14 with Color Wheel No. 22



No. 8N24

Slide grooves are provided on front of hood, for holding an iris shutter, or other devices used in obtaining special lighting effects.

The hood is set in a yoke, supported in trunnion and swivel bearings, and is flexibly mounted on a telescopic-pedestal stand, can be set at any angle, raised, lowered, or turned in any direction, or the hood can be set in a socket on base close to the floor. The base is fitted with ball-bearing rubber-tired casters, permitting it to roll easily over the floor.

2000-watt Incandescent STUDIO Spotlight with 8 inch lens

A HIGH-INTENSITY long-range incandescent Kliegl spotlight, which projects a concentrated beam of light any distance up to 100 feet; gives a 5 ft. spot or 60 ft. spread at this distance—or from a 4 ft. spot to 30 ft. spread at half the distance. It is particularly designed for studio work and used by commercial and motion picture photographers, for back lighting to give depth to the picture, cross lighting to eliminate facial shadows, intense spotlighting, follow-up flood-lighting, modeling, and for special lighting effects. It is easily portable, has a wide spread of beam, and high concentration of light; and may also be used in theatres and for other applications, if desired.

It takes a 2000-watt G48 concentrated filament mogul prefocus base incandescent lamp, and is provided with a mogul prefocus base receptacle—mounted on a sliding carriage, with rod extending through rear of housing for focusing.

Lamp housing is 24" overall length, made of aluminum and planished sheet-iron, light tight, thoroughly ventilated, with large self-closing spring door on one side, permitting access to interior for changing lamps.

A condensing lens, 8" dia., is supported in a specially designed aluminum frame, to allow unrestricted expansion of the glass to avoid breakage; and a mirrored-glass reflector, 7" dia. (No. 934), is mounted back of the lamp to insure full utilization of the light source and intensify the light beam.

It is furnished complete, as described and listed, with asbestos leads, enclosed switch (on back of hood), and 25 ft. of stage cable.

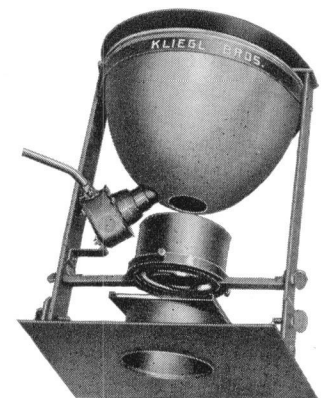
No.	LENS DIA.	LAMP			MOUNTING	WEIGHT LBS.	PRICE
		WATTS	BULB	BASE			
8N24	8"	2000	G 48	Mg. pf.	{Floor Stand with casters}	63	\$70.00

NOTE: See other studio spotlights; No. 11, page 204 and No. 21, page 206.

400-watt Down (SPOT) Light for general illumination

THESE Kliegl Down Lights are an entirely new development, for general illumination of theatre auditoriums, convention halls, ballrooms, dining rooms, and similar places. The light is projected from a 4" hole in the ceiling, thus giving direct illumination from an invisible source. The unit consists of a combination of Kliegl "GRC"* reflectors which collect and direct all the light rays emitted by the lamp, through a lens system, which crosses the light beams at the point of opening in the ceiling, and then spreads them over the area to be illuminated. They accommodate a 250- or 400-watt G 30 incandescent lamp, and are usually fitted with a slide for color mediums to change the color of light as desired. Overall height 19½", weight 24 lbs. Price \$58.00.

*The Kliegl "GRC" reflector is a new discovery in metallurgy. It is formed by an electro-chemical process, using certain proportions of gold, rhodium and copper, to produce a permanent reflector with an exceptionally high reflection factor. These reflectors are thus built up by deposits to a thickness required to assure strength and durability. This unique process permits absolute accuracy of light control combined with high efficiency.



No. 1170

PHOTO-CELL Spotlight

THIS Kliegl spotlight is especially designed for use with photo-electric cells—and provides a concentrated beam of light of sufficient intensity to actuate a photo-cell from a considerable distance. It is effective for the many commercial and experimental purposes in which photo-electric cells are employed, such as counting systems, protective devices, smoke flue detectors, electric controls, and a numerous variety of other applications.

It accommodates a 100-watt T 8½ incandescent lamp, with a pre-focus base; and projects a narrow beam of light giving a spot two inches in diameter, and 900 foot-candles intensity, at a distance of 10 feet. A rheostat can be provided to reduce the intensity to 250 foot-candles—the value at which the photo-cell operates. The life of the lamp is thereby increased to approximately 1200 hours. Special

units can be furnished with a greater projection range, if required.

The lamp housing is made of planished sheet metal, well ventilated, and provided with an adjustable lens system on front. A special patented arrangement of a reflector and shutter device, gives the required beam concentration.

It is furnished complete, as described and listed, with a table base, 8 ft. extension cord and attachment plug.

No.	LAMP			MOUNTING	WEIGHT LBS.	PRICE*
	WATTS	BULB	BASE			
277	100	T 8 ½	Md. pf.	Table Base	7	\$26.00

* Rheostat extra \$4.00

SIDEWALK PROJECTOR



No. 253

THIS device is used to project announcements, lettering, and other messages upon the sidewalk, from a show window or other location within the building line. It consists of a small, inexpensive stereopticon, furnished complete with lens, medium-screw-base lamp socket, and 8 feet of lamp cord with attachment plug. Accommodates a 100-watt G-25 lamp bulb; and uses slides 2½" in diameter, with stenciled lettering or stenciled designs.

No. 253 Kliegl Sidewalk Projector 4 lbs. WEIGHT PRICE \$14.00

ARC LANTERN

A SMALL 15-ampere 125 volt hand-feed arc lamp, mounted in a hood which resembles a dark lantern. It is used in motion-picture photography, to secure dark-lantern, flashlight, and other special lighting effects. The arc lamp is entirely enclosed; and the housing is thoroughly ventilated, light tight, fitted with a condensing lens; and provided with a wooden handle. It is furnished complete without cable or resistance.

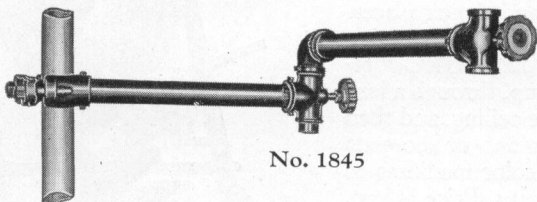
Other small arc lamps, such as a hand lamp for illuminating face of performer producing effect of striking a match; and fixture arc lamps designed to be placed in table lamps, floor lamps and similar scenic properties, can also be furnished.



No. 1063

No. 1063 Kliegl 15-ampere 125-volt Arc Lantern . . . 1½ lbs. WEIGHT PRICE \$20.00

ADJUSTABLE BRACKET for Proscenium Spotlights



No. 1845

SUBSTANTIAL and adjustable swivel bracket for mounting heavy spotlights (like Nos. 70 and 72) on an upright pipe support, back of the proscenium opening—for spot and

flood lighting the stage from the side wings. Consists of two 12" lengths of iron pipe, joined together with a swivel coupling and having an extra-heavy brass pipe clamp, for fastening to the upright pipe support, located on one end of the bracket, and a swivel socket with hand clamp, to receive the spotlight yoke, attached to the other end.

No.	DESCRIPTION	WEIGHT LBS.	PRICE
1840	With 1½" pipe clamp, and ½" pipe arms . . .	5	\$ 6.00
1841	With 2" pipe clamp, and 1" pipe arms	10	11.00

GENERAL INFORMATION

Price Quotations

Prices quoted in this catalog are subject to discount, are subject to change without notice, and supersede all previous quotations. Net price quotations furnished upon request. **List prices do not include crating, expressage, or postage—which will be charged at cost.** All shipments are made from New York City.

Placing the Order

To avoid possible errors, give complete details when placing your order; mention catalog number and name of article (or code word if ordered by telegraph) together with any other information such as size, color, finish, etc., that may be essential.

Shipping Instructions

Customers are requested to give shipping instructions with their orders. If not given, our best judgment is used in the selection of routes. When ordering goods for shipment to traveling companies make a sufficient allowance of time for shipment to reach destination. Experienced packers are employed, therefore our responsibility ceases when material is received for in good condition by transportation company. Consignees must hold carrier responsible for breakage, damage, loss or delay in transit.

Terms of Payment

Terms of payment are net cash, except to parties of established credit, to whom they are net 30 days. All remittances must be made in New York funds, in the form of Post Office Money Order, Express Money Order, or New York Draft. We cannot hold ourselves responsible for remittances lost in transit.

Goods will be sent C.O.D. if a deposit of not less than 25% of the purchase price is remitted with the order. Shipment will be forwarded by freight. Draft for balance due, with bill of lading attached, will be sent to bank designated by purchaser, so that, on payment of draft, goods will be delivered at destination.

Guarantee

All Kliegl equipment, apparatus and effects are sold with full guarantee. Any defects in material or workmanship will be promptly rectified—provided claims are made within 10 days of receipt of goods, and defective parts returned to us for examination, charges prepaid. No other claims for damages, labor or material will be allowed.

Return of Goods

Do not return goods before receiving our approval. When writing mention the date and number of original invoice. Goods returned must be properly marked, sent prepaid, and are subject to a charge for handling.

Rental of Apparatus

A selected stock of lighting apparatus and effects for stage, motion picture studio and display lighting are kept on hand for rental at contract rates. Expert operators can also be furnished when required. Rental charges for apparatus must be paid in advance. Unless New York City security is furnished, a cash payment must be made for full value of the goods, and when apparatus is returned, rental and express charges will be deducted from payment made and check for the balance returned. All transportation charges are to be paid by the rental party.



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BORDERLIGHTS
EXIT SIGNS
AISLE & STEP LIGHTS
FLOOR POCKETS
WALL POCKETS
PANEL BOARDS
MUSIC STANDS

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