

No. 768,803.

PATENTED AUG. 30, 1904.

A. W. HUTCHINS.
HANGER FOR STREET LAMPS.

APPLICATION FILED MAR. 4, 1904.

NO MODEL.

2 SHEETS—SHEET 1.

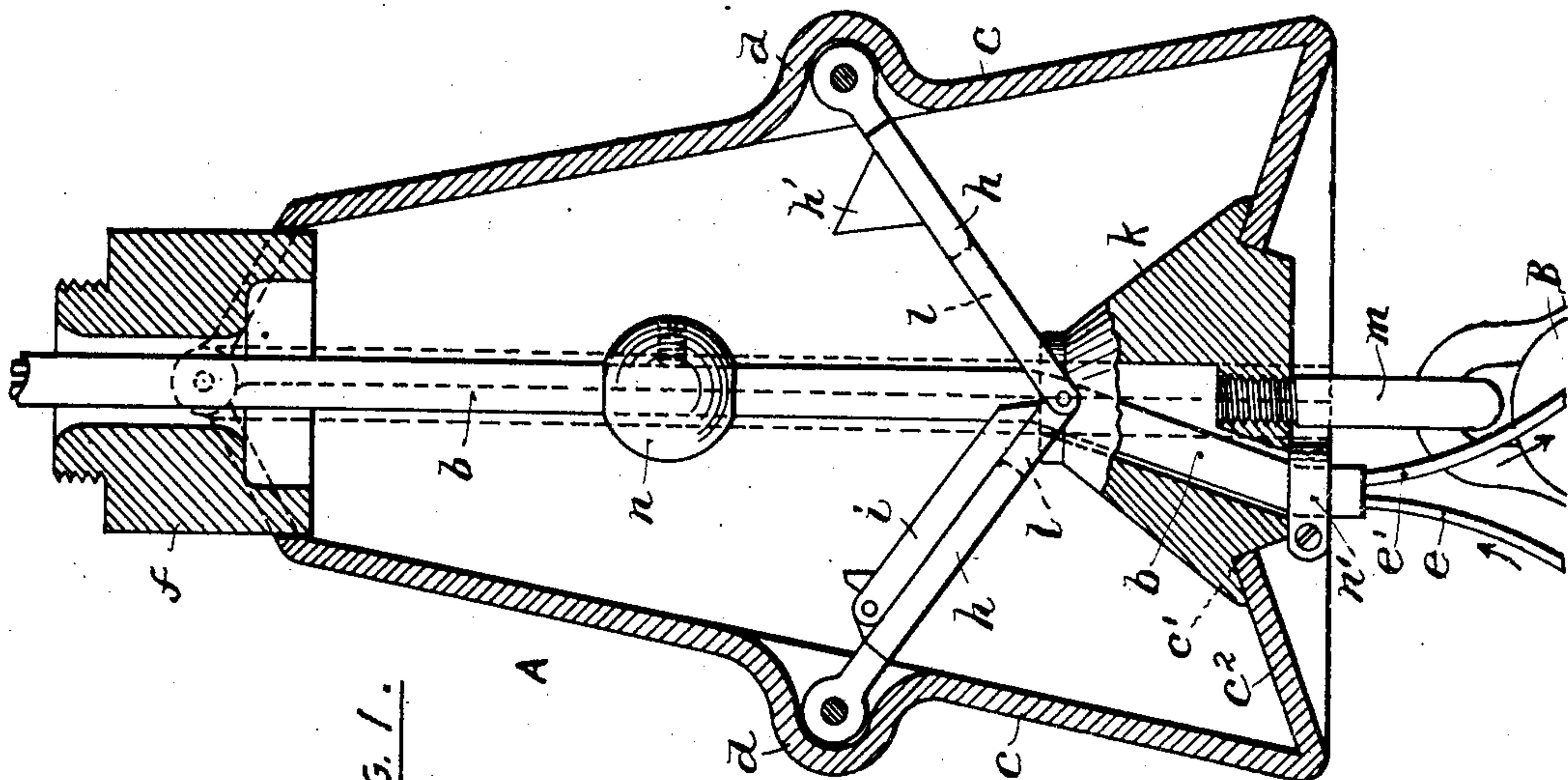


FIG. 1.

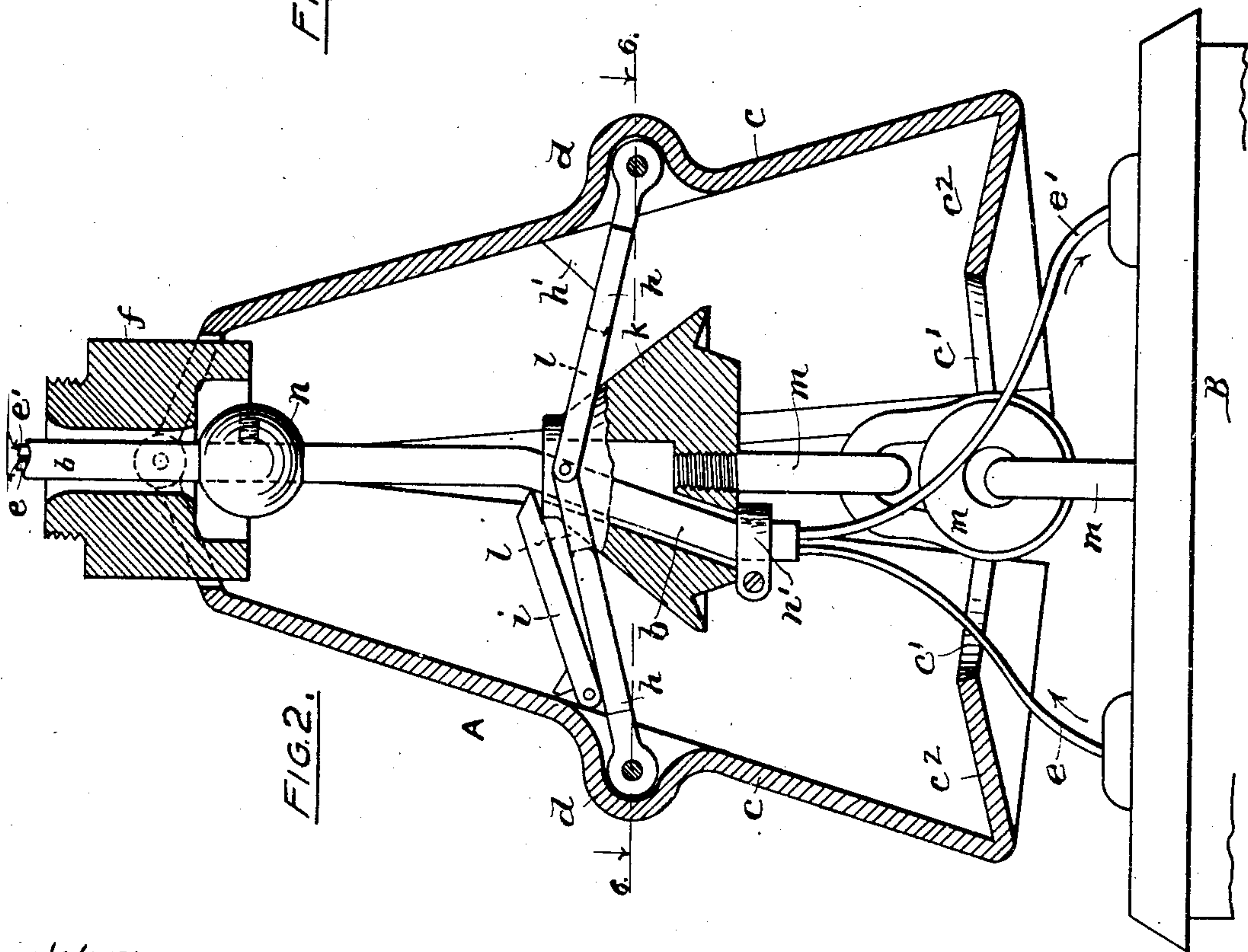


FIG. 2.

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BY *Geo. H. Remington*

ATTY.

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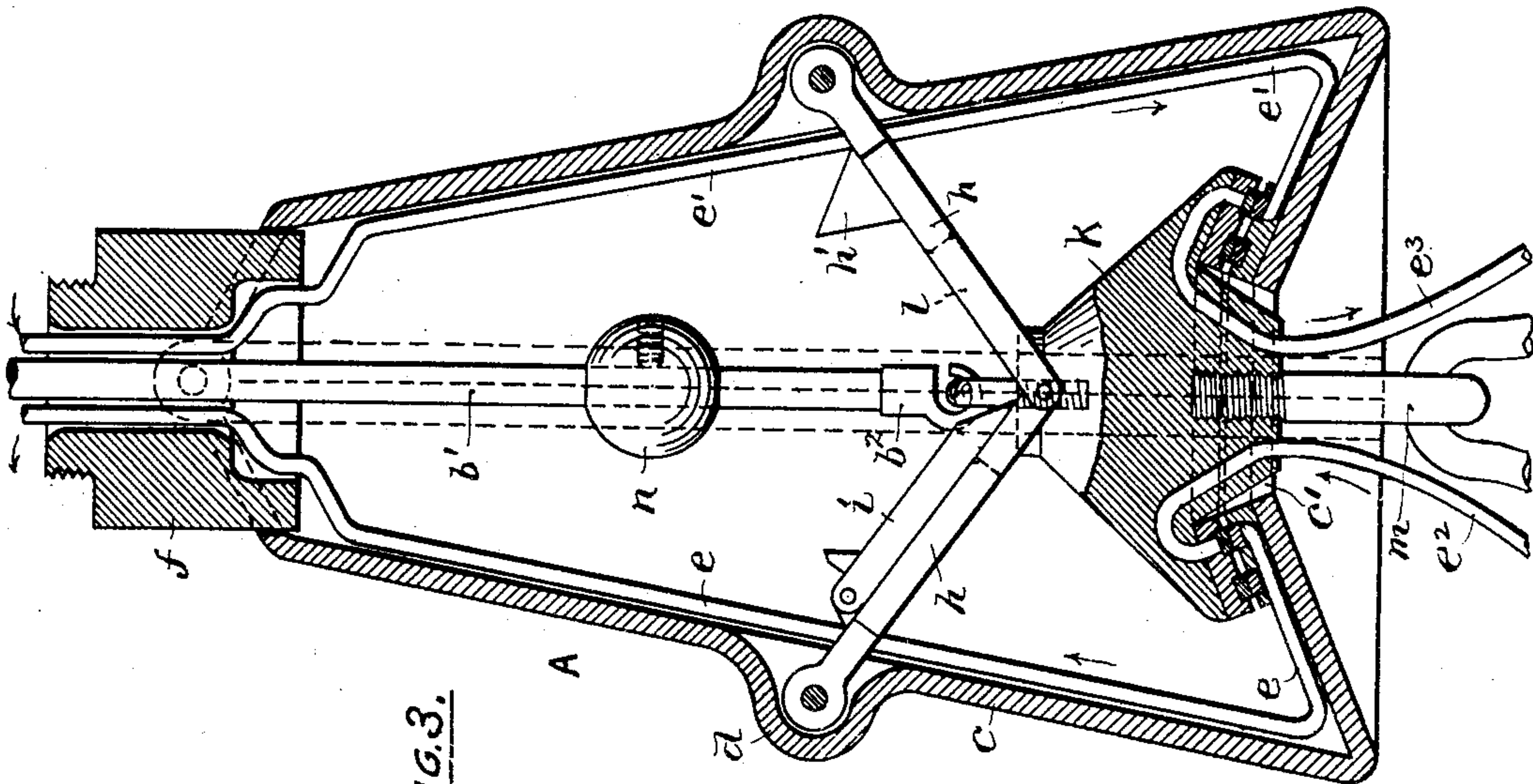


FIG. 3.

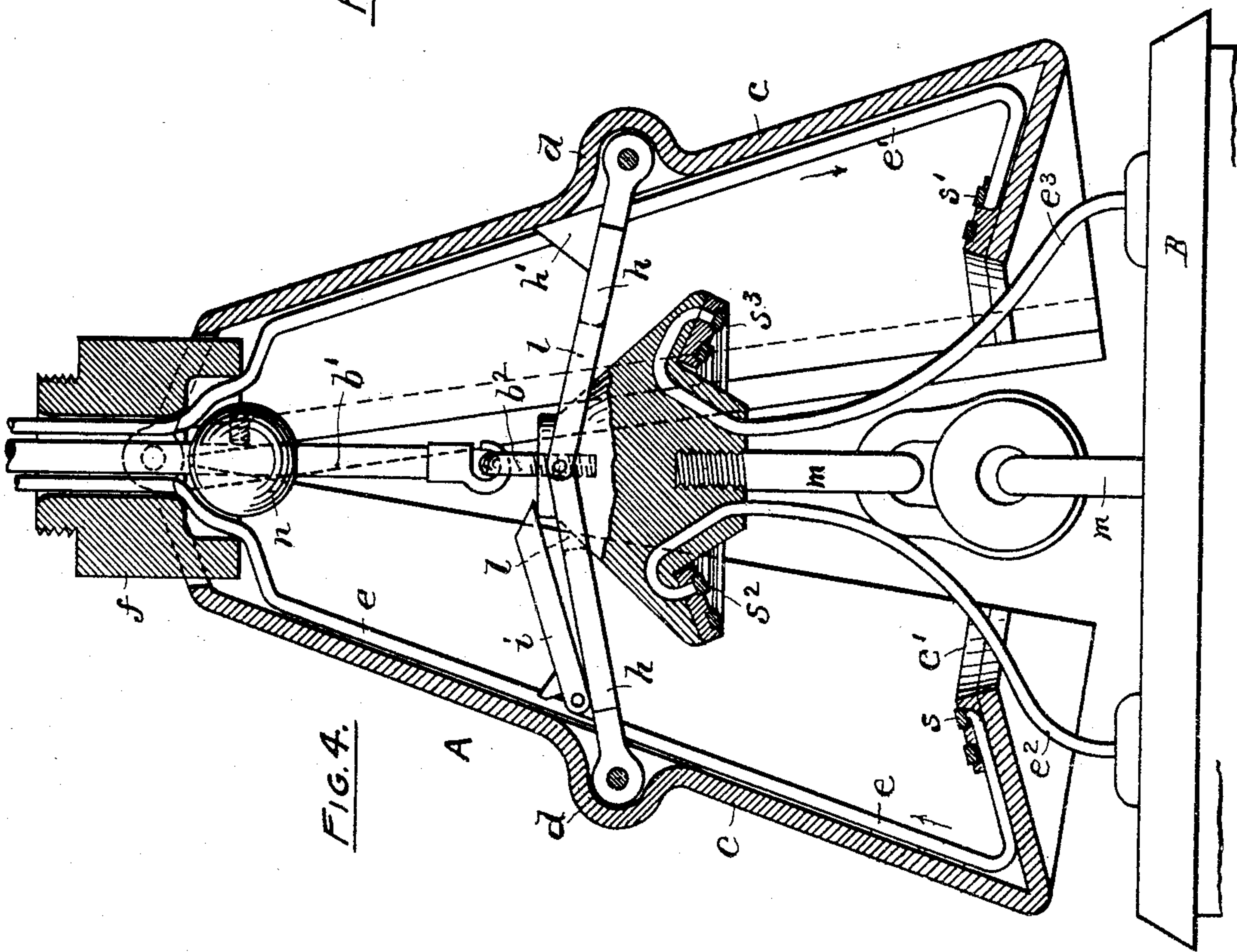


FIG. 4.

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UNITED STATES PATENT OFFICE.

ARTHUR W. HUTCHINS, OF PROVIDENCE, RHODE ISLAND.

HANGER FOR STREET-LAMPS.

SPECIFICATION forming part of Letters Patent No. 768,803, dated August 30, 1904.

Application filed March 4, 1904. Serial No. 196,499. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR W. HUTCHINS, a citizen of the United States of America, and a resident of Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Hangers for Street-Lamps, &c., of which the following is a specification.

This invention relates more particularly to novel improvements in self-acting hangers employed for supporting electric street-lamps or for other uses to which it is applicable.

The lamps referred to are of the overhead suspended type capable of being lowered to the ground at will through the medium of a cord or connection attached to the hangers. In some cases lamps of this class are suspended from the end of "mast-arms," so called. In other cases the lamps are suspended from suitably-supported cables extending across the street and provided with means for raising and lowering the lamps.

The object sought to be attained in the present invention is to provide a simple, inexpensive, safe, efficient, and easily-operative hanger, the same not liable to get out of order or become inoperative even when exposed to the severest weather.

To this end the invention is self-contained; and it consists, essentially, in the combination of a swinging laterally-separable hood or casing having an apertured base, a jointed connection hinged to and uniting the two parts of the casing, a central holder or connector member having the lamp suspended therefrom normally supported by the casing and arranged when elevated to operatively engage said connection to separate the casing, and an operating cord or cable connected with the said holder member for raising and lowering the lamp, said cord being provided with a dog adapted to engage with and depress or flex said jointed connection after the said holder has passed downwardly through the casing.

The invention also consists in providing the casing and connector with independently-insulated current-conductors, the former adapted to be connected with any suitable source or generator of electricity, the holder or

connector conductor being connected with the respective poles of the lamp, arranged whereby the electric circuit is automatically closed when the holder is normally seated in the casing, but is automatically broken whenever the holder is unseated, all as will be more fully hereinafter set forth and claimed.

In the accompanying two sheets of drawings, Figure 1 is a vertical central sectional view showing the improved hanger in the closed or normal working position. Fig. 2 is a similar sectional view, the hanger being in the open or separated position preparatory to lowering the lamp therefrom. Fig. 3 is a sectional view similar to Fig. 1, showing the hanger provided with means for automatically opening and closing the electric circuit. In this figure the circuit is represented as being closed. Fig. 4 is a similar sectional view, the hanger being open and the circuit broken.

The following is a detailed description and the manner of operation of this improved automatic hanger A. It may be stated that while the device is represented as being employed in connection with arc-lamps it is obvious that it is equally adapted for raising and lowering other objects or commodities.

The hanger A is provided at the top with a centrally-apertured coupling or fitting *f*, adapted to be secured to the mast-arm or other suitable supporting member. To said coupling is pivoted a depending cone-shaped hood or casing *c*, having a central opening at the top to receive the fitting and an opening *c'* formed in the base *c*². The casing is divided longitudinally, thus forming two semicones or members. Each is provided with a lateral hollow projecting ear *d*, located about midway of the casing, as clearly shown. A toggle-jointed or two-part connection *h* extends transversely across the interior of the casing and is pivoted thereto in the said ears *d*, the length of the connection being such that when in the horizontal position it will separate or force apart the two swinging members of the casing, thereby increasing the said base-opening *c'*. One of the members *h* has a lug or stop *h'* formed on its upper side, the other having a gravity-acting latch *i* pivoted there-

to, as shown in Figs. 1 and 2. The inner or jointed end portions of the connection h are cut away to form a central opening l .

As drawn, (see Figs. 1 and 2,) the cable b passes downwardly through the casing, the current-conducting wires $e e'$, inclosed in the flexible cable, at the same time leading from the cable to the lamp B, the latter being suspended by means of suitable links or members m , secured to the under side of the central holder or connector k . This latter is cone-shaped and is adapted to enter the said central opening c' of the casing and be supported by its base c^2 . Fig. 1 shows the several parts in the normal position and relation. The member k has a central longitudinal opening through which the cable passes. The cable is provided with adjustable upper and lower dogs or stops $n n'$, respectively, the latter capable of supporting the connector k and its weight or load. The member k is located below the connection h , its upper portion being adapted to enter the opening l .

In Figs. 3 and 4 the hanger is represented as having an automatic cut-out—that is, in lieu of the conductors $e e'$, passing through the connector, they terminate at the base of the casing and are in continuous engagement with fixed contacts $s s'$, respectively. In this case the under side of the connector k is provided with suitably-insulated or fellow contacts $s^2 s^3$, in turn positively connected with branch conductors $e^2 e^3$, respectively, passing downwardly therefrom through the base-opening c' and connected with the poles of the lamp. As thus constructed and arranged it will be seen that when the connector k is in the normal working position (see Fig. 3) the electric circuit is closed, thus energizing the two sets of contacts $s' s^3$ and $s s^2$, the current then flowing to the lamp B. Upon elevating the member k the circuit is instantly broken, thereby automatically cutting the lamp out of the circuit. (See Fig. 4.) In this arrangement the cord or flexible connection b' may be hooked into an eye b^2 , screwed into the upper end of the member k .

When it is desired to lower the lamp from the hanger A for any purpose, as for trimming, cleaning, &c., the cord b or b' and attached parts are first elevated slightly—say from the position shown in Fig. 1 to that represented in Fig. 2—thereby causing the connector k to engage the jointed links or connection h and swing it upwardly past the center line or until the stop h' engages the side of the casing, the result being to separate the latter and hold it apart, thus enlarging the base-opening. This is followed by lowering the lamp, &c., from the hanger. During the early part of this latter movement the upper dog n in its descent will engage the latch i and force the connection h downwardly from the locked or elevated position, thereby per-

mitting the two parts of the casing to swing back again to their normally closed position by gravity. Before this occurs, however, the connector k will have passed freely through the opening c' at or about the same instant the moving dog n reengages the latch i , thereby insuring that the connection h is dropped to its limit or until the casing is fully closed, the dog meanwhile sliding laterally past the latch and through the opening l as the lamp is lowered. The lamp is returned to the normal or working position through the medium of the elevating-cord. Immediately after the dog n passes upwardly through the base-opening c' it passes through the link-opening l and at the same time engages the latch i and swings it upwardly until the dog moves above it, when it (the latch) falls by gravity to its normal position. While this is taking place the cone-shaped connector k follows up through the base-opening, its beveled sides temporarily forcing the casing apart until the connector has passed therethrough, at which instant the casing again closes by gravity, the member k then resting upon the beveled base c^2 and being practically locked in position, thus completing the operation.

I claim as new and desire to secure by United States Letters Patent—

1. As an improved article of manufacture, the self-locking hanger, substantially as described, the same consisting of a suitably-supported laterally-separable pivoted outer casing having an opening through its base, an inner transversely-arranged connection jointed to and uniting the pivoted members of said casing, a vertically-movable weight-carrying connector member located below said connection normally seated in and supported by the base of said casing, and a cable or operating-cord attached to said connector having a dog secured thereto, arranged whereby the casing is automatically closed upon flexing the said casing connection downwardly by the action of said dog after the connector member has passed through the base-opening.

2. The two-part casing c provided with a centrally-apertured base c^2 and pivoted at the upper end so as to swing apart, a jointed connection h uniting the opposite members of said casing, and a self-dropping latch, in combination with the movable lamp-holding connector k normally seated in and supported by said base when the casing is closed, a cord or connection attached to said connector for operating the latter, and a tripping device secured to said cord above the connector, arranged whereby the member k when raised from its seat engages the connection h and swings the casing apart so that upon lowering the lamp the tripping device will engage said latch and depress the member k to close the casing after the connector has passed through the base, substantially as described.

3. The combination with an apertured fitting *f*, the two-part cone-shaped hood or casing *c* pivoted to and suspended therefrom, and the toggle connection *h* jointed to and extending transversely across the casing, of the lamp or weight carrying connector *k* normally seated in the base of the casing, and means connected with said member *k* for elevating and lowering the same, substantially as described.

4. In a separable self-closing hanger of the kind described, a flexible operating-cord, independent current-conductors or leading-in wires extending therethrough adapted to connect with the poles of an electric lamp, and a connector member *k* supported by said operating-cord and also arranged to support the lamp.

5. In a separable self-closing hanger having a cone-shaped casing and an upwardly-inclined apertured base *c*², the combination therewith of the lamp-holding connector member *k* having its lower portion undercut and adapted to be seated on said base, and an operating-cord passing through and supporting said connector, substantially as described.

6. In a suitably-mounted laterally-separable self-closing hanger for electric lamps having an opening through its base, and independent contact members, *s*, *s'*, arranged to be connected with the conductors of an electric-lighting circuit, the combination therewith of the lamp-carrying cord-connected vertically-movable connector *k* having contact members, *s*, *s'*, adapted when in use to engage with and be energized by said fellow contacts, *s*, *s'*, branch conductors in continuous engagement with the poles of the lamp and with the said connector contact members, and means connected with the casing capable of being actuated by the connector, &c., whereby upon elevating the connector the electric circuit is automatically broken and the hanger separated to permit the lamp to be lowered, substantially as hereinbefore described.

Signed at Providence, Rhode Island, this 29th day of February, 1904.

ARTHUR W. HUTCHINS.

Witnesses:

GEO. H. REMINGTON,
C. E. PRICE.