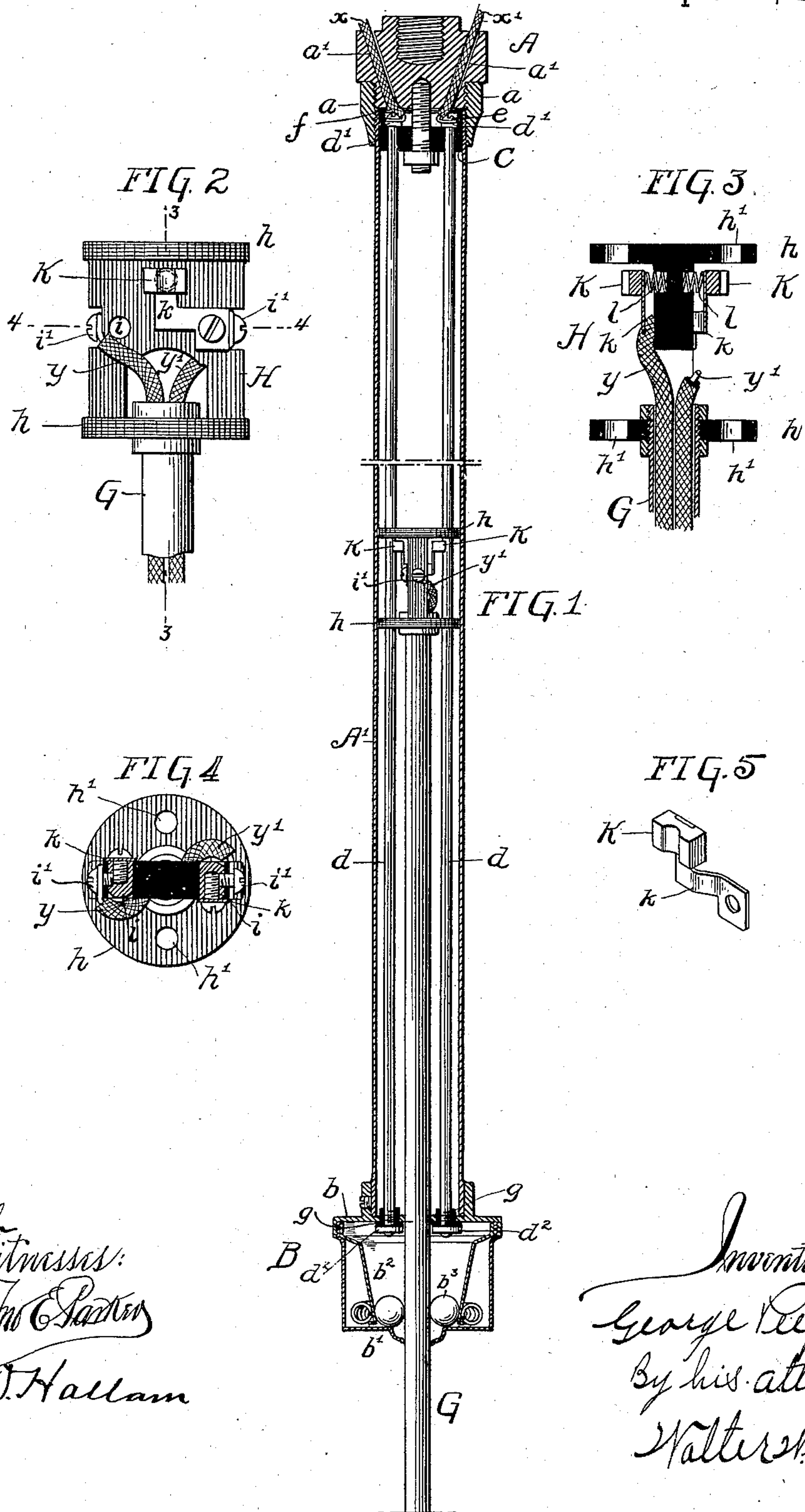


(No Model.)

G. PEEPLES.  
DROP LIGHT ELECTROLIER.

No. 558,609.

Patented Apr. 21, 1896.



Witnesses:  
J. C. Parker  
D. Hallam

Inventor:  
George Peebles  
By his attorney  
Walter H. Bohman



# UNITED STATES PATENT OFFICE.

GEORGE PEEPLES, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO THE THACKARA MANUFACTURING COMPANY, OF SAME PLACE.

## DROP-LIGHT ELECTROLIER.

SPECIFICATION forming part of Letters Patent No. 558,609, dated April 21, 1896.

Application filed December 24, 1894. Serial No. 532,803. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE PEEPLES, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Drop-Light Electroliers, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to certain improvements in drop-light electroliers, and has for its object to provide a device of this character of simple and economical construction, and in which the circuit will at all times remain unbroken, as more fully set forth hereinafter.

In the accompanying drawings, Figure 1 is a sectional elevation of a drop or extension electrolier made in accordance with my invention. Fig. 2 is an elevation of the contact-carrier on an enlarged scale. Fig. 3 is a transverse sectional elevation of the same on the line 3 3, Fig. 2. Fig. 4 is a sectional plan view on the line 4 4, Fig. 2; and Fig. 5 is a detached perspective view of one of the traveling contact-blocks.

The device forming the subject of my invention is one of that class in which a lamp or series of lamps are carried on the lower end of an extensible bar or tube, adapted to slide within the central main tube of the electrolier, so that when desired the bar or tube may be pulled down to lower the lamp or lamps to a convenient position, as for dining or reading room purposes.

Referring to the drawings, A represents the central supporting-block or main body of the electrolier, from which may extend a series of ornamented branches for the support of the various fixed lamps, the branches being usually curved in graceful lines and extending down to about the lower end of the central tube A' of the electrolier, the upper end of the tube being indirectly connected to and supported at its upper end by the main body A, while to its lower end is secured any suitable form of extension box ordinarily employed for extension lamps.

The main body A is connected to the tube A' by an internally-threaded collar *a*, which

is screwed into the tube and on a threaded portion of the body A. Within the upper end of the tube A' and secured to the lower face of the body A is a circular block C, of hard rubber or equivalent insulating material, the upper face of the block being recessed for the reception of the ends of two guide-rods *d* of conducting material, which pass through openings in the block and are held in place by small nuts *d'*.

The main body A is provided with two openings *a'*, through which pass current-conducting wires *x* and *x'*, the ends of which are attached to the ends of the rods *d* by screws *e* so as to bring the rods in circuit, while to lessen the danger of short-circuiting a few sheets *f* of mica or similar material are placed between the upper portion of the block C and the body A, openings being made in the mica for the passage of the conducting-wires *x* and *x'*.

At the lower end of the tube A' is secured a box B, comprising an upper flanged disk *b*, a cup-shaped body *b'*, within which is a tapered spring-held ring *b''*, carrying a number of balls *b'''*, adapted to bind upon the extension tube C, which carries the lamp or lamps to be lowered, the form of box shown being one ordinarily used for such purpose and forming no part of my present invention.

The upper disk *b* of the box is provided with two orifices for the reception of the lower ends of the rods *d*, the latter being secured in place by nuts *d''* and insulated from the disk *b* by perforated blocks *g*, of rubber or similar non-conducting material. The bars *d* are thus held perfectly rigid at top and bottom, being connected, as before described, to the wires *x* and *x'* at their upper ends, while within the tube G are two wires *y y'*, which extend to the lamp or lamps carried at the lower end of the tube.

To complete the circuit from the wires *x x'* to the wires *y y'*, I proceed as follows: To the upper end of the tube G is secured a block H, formed of hard rubber, porcelain, or similar material, having at its upper and lower ends disks *h h'*, which fit snugly within the tube A but are free to move with the block within said tube. The disks *h* are provided with openings *h'*, through which pass the rods *d*, so



that in the vertical travel of the block it is guided by the two rods and by the inner surface of the tube A'.

Fitted within suitable recesses in the block H are two posts or blocks *i* to which the ends of the wires *y y'* are electrically connected by screws *i'*. To the ends of these posts *i* are secured springs *k*, carrying at their free ends contact-blocks K, the faces of which are partly recessed and fitted snugly against the rods *d*, good contact being insured by the action of the springs *k* and auxiliary coiled springs *l* adapted to recesses in the block H and pressing against the rear faces of the contact-blocks K.

In operation the connections are all secure; the connections between the wires *x x'* and the posts and between the contact-blocks K and the wires *y y'* being rigid, while the springs *k* and *l* insure good contact between the blocks K and the rods *d*. There can be no turning or twisting of the parts and the connections are in no danger of being broken from this the most common cause of accident in extension-lamps as usually made.

The lamp carried by the tube G may be of any suitable character and connected in the usual manner to the wires *y y'*. This and the lamp-brackets of the electrolier have been omitted from the drawings for the sake of clearness, as they form no part of my invention.

It will be understood that various modifications of my invention may be made without departing from my invention—as, for instance, the wires *y y'* may be connected directly to the blocks K, and one of the springs *k* or *l* may be omitted, if desired.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination of the main body, the main tube, an extension-box at the lower end of the tube, rigid guide-rods provided in said tube and insulated therefrom, said rods being in the main circuit, an extensible lamp-carrying tube, a block of insulating material provided at the upper end of said lamp-carrying tube, upper and lower disks in said block, guiding-openings in the disks for the passage of the guide-rods, blocks of conducting material carried by said insulated block and in circuit with the lamp-wires, and springs acting to force said blocks into contact with the rigid guide-rods.

2. The combination with the rigid guide-bars of the extensible lamp-carrying tube, wires therein extending from the lamp, a block H carried by the upper end of said tube, disks *h* on said block having openings for the rigid guide-rods and spring-pressed blocks K in contact with the guide-rods and electrically connected to the lamp-wires, substantially as specified.

3. The combination with the rigid guide-bars of the extensible lamp-carrying tube, wires therein extending from the lamp, a block H carried by the upper end of said tube, disks *h* on said block having openings for the rigid guide-rods, springs *k* carried by said insulated block and electrically connected to the lamp-wires, blocks K carried by said springs in contact with the rigid guide-bars, and auxiliary compression-springs *l* between the blocks K and the opposite faces of the block H, substantially as specified.

In testimony whereof I affix my signature in the presence of two witnesses.

GEORGE PEEPLES.

Witnesses:

JOHN MCKEEVER,  
FREDK. S. FOX.