C. HENRY.

DROP-LIGHT.

No. 192,994. Patented July 10, 1877.

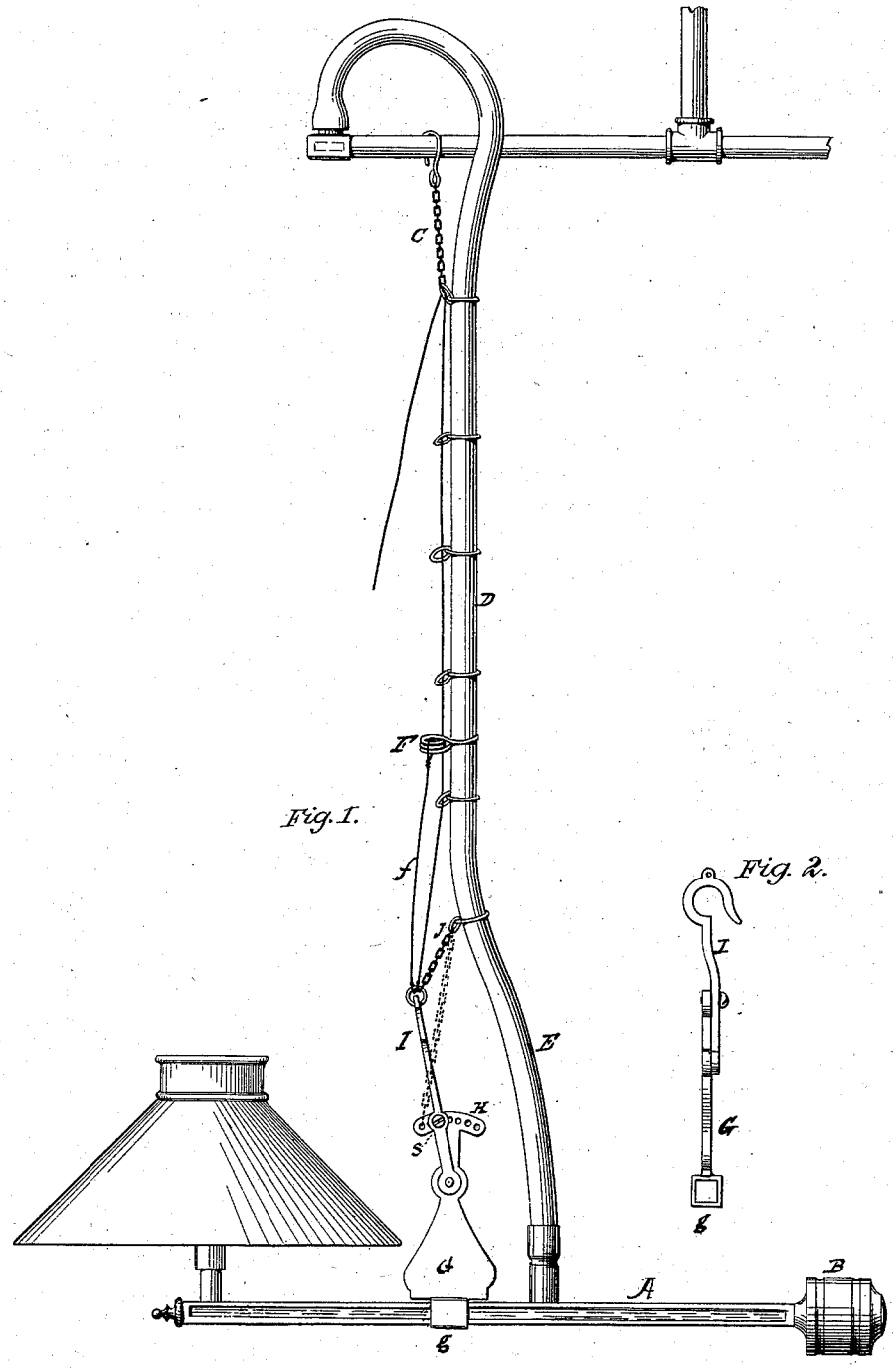


Fig. 1.

Fig. 2.

WITNESSES:

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UNITED STATES PATENT OFFICE.

CORNELIUS HENRY, OF EAST SOMERVILLE, MASSACHUSETTS.

IMPROVEMENT IN DROP-LIGHTS.

Specification forming part of Letters Patent No. **192,994**, dated July 10, 1877; application filed June 20, 1877.

To all whom it may concern:

Be it known that I, CORNELIUS HENRY, of East Somerville, Middlesex county, Massachusetts, have invented a new and useful Improvement in Drop Lights or Burners, of which the following is a clear, full, and exact description, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 represents a drop light or burner with my improvements attached. Fig. 2 is a vertical cross-section of the adjusting device.

My invention relates to the class of drop lights or burners suspended by flexible supports; and has for its object the ready adjustment so as to balance any weight of globe; and is an improvement on the patent granted to me February 13, 1877, No. 187,380; and it consists of the several combinations of devices hereinafter described and claimed.

To enable others skilled in the art to make and use my invention, I will proceed to describe the manner in which I have carried it out.

In the drawing, A represents the frame or bar, and B the weight for balancing the burners and shades. C represents the chain or its equivalent, by which the light or burner is suspended, and D the rings, or their equivalent, by which the flexible tubing is supported and held from above the light. E represents the flexible tubing, and F represents a clasp, by which the light is raised to any desirable height through the means of the cord or chain *f*, attached to the top of the pivoted arm I of the adjusting-frame G.

The adjusting-frame G is attached to the bar A by means of the sleeve or thimble *g*, which allows the adjusting-frame to slide along the bar with a view to a perfect adjustment. On the upper portion of the frame G is the cross-head H, provided with holes or a slot, as may be preferred, for the purpose of changing the position of the pivoted arm I, with a view to balancing the bar A. The screw S secures the arm I in any fixed position, as shown in Fig. 1, and the arm is attached at its upper end to the supply-tube by means of the chain or cord J. This chain or cord, however, instead of being attached to the arm I, may be attached directly to the cross-head H, as shown in dotted lines in Fig. 1, and produces a good result in adjusting and leveling the bar A.

The spring-clasp F is attached, by means of the cord *f*, to the top of the pivoted arm I, and is used for raising or lowering the light, as required. This is accomplished by simply changing the position of the clamp on the supply-tube E. The head of the pivoted arm I is provided with a hook, as shown in Fig. 2, by means of which the whole device can be readily raised and attached to the gas-pipe above.

It will be readily seen from the above description that any weight of burner or shade can be readily balanced and the bar A brought to a perfect level. If the shade of the burner be too heavy for the weight B to balance nicely, it will only be necessary to throw the arm I a little farther toward the shade, which reduces the leverage of the shade and increases that of the weight B. If the weight B be too heavy for the shade, a slight movement of the pivoted arm I toward the weight obviates the difficulty. When perfectly balanced, the screw S secures the arm I in position.

It is evident that the cross-head H may be slotted with the same result.

It is also evident that the pivoted arm I may be done away with, and the chain J be attached directly to the cross-head H to change the relative weights and adjust the bar A.

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

1. In a drop-light, the combination of the adjusting sliding frame G, with the bar A, by which the different weights of burners and shades may be balanced, substantially as herein described.

2. In a drop-light, the bar A and sliding frame G, provided with the cross-head H, in combination with the pivoted arm I, substantially as and for the purpose set forth.

3. In a drop-light, the bar A and sliding frame G, provided with the cross-head H, in combination with the cord or chain J and flexible support E, substantially as and for the purpose set forth.

4. The sliding frame G and pivoted arm I, in combination with cord or chain *f*, clasp F, and flexible support E, for raising or lowering the light, substantially as herein set forth.

CORNELIUS HENRY.

Witnesses:
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