

(No Model.)

2 Sheets—Sheet 1.

B. F. FLINT.
ELECTRIC LIGHT FIXTURE.

No. 505,097.

Patented Sept. 19, 1893.

FIG. 1.

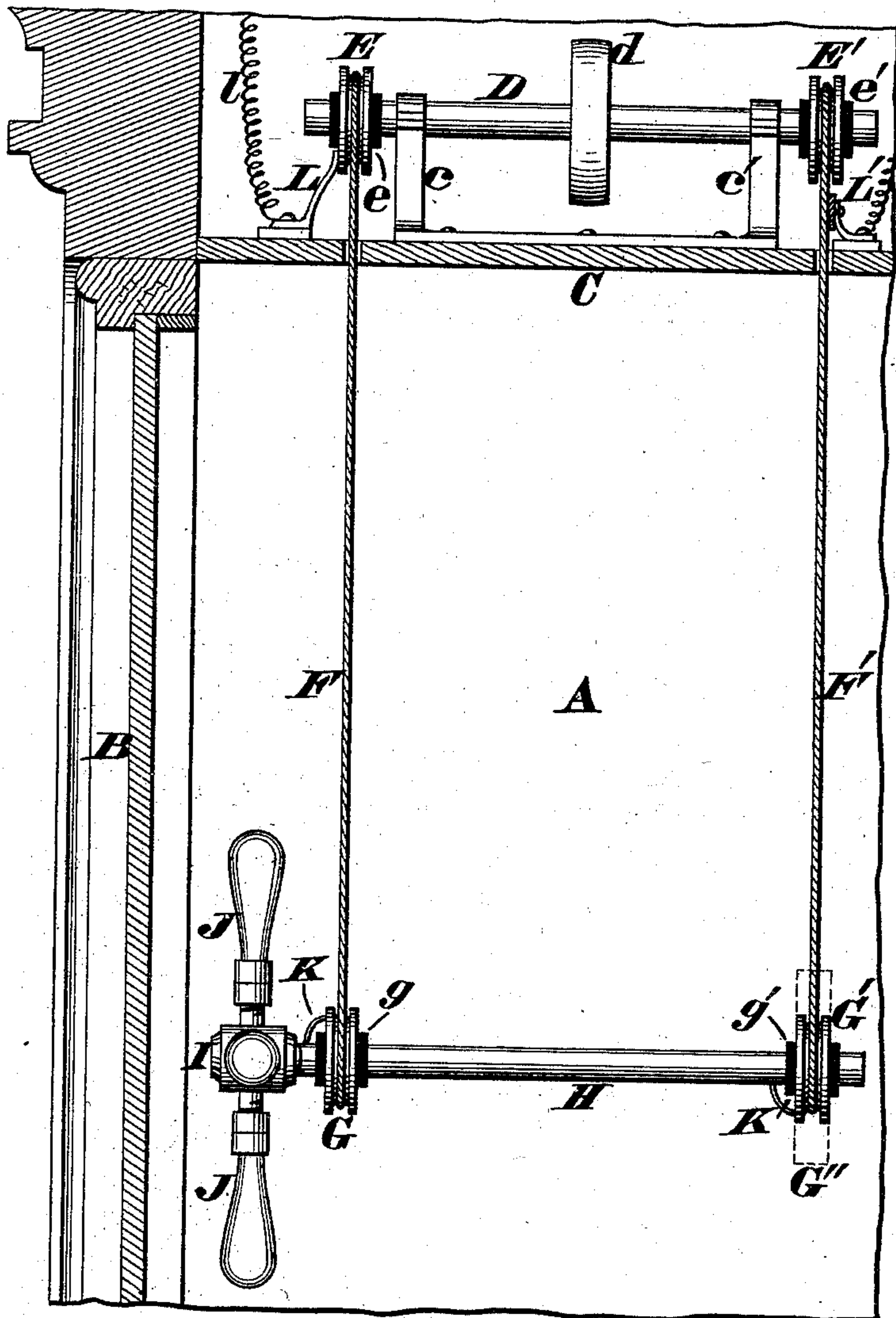


FIG. 2.

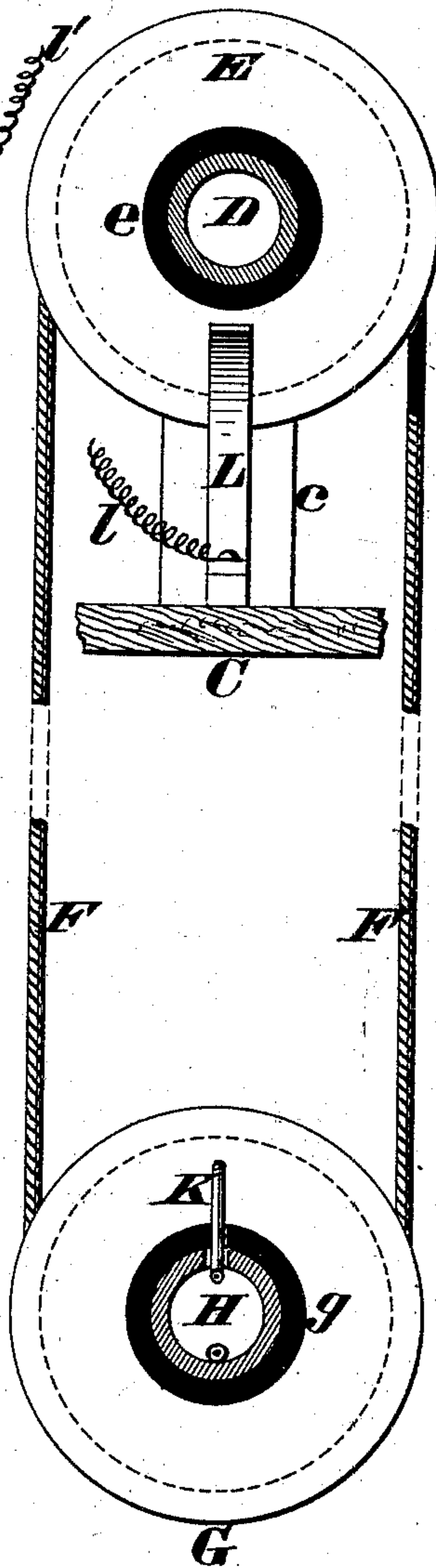
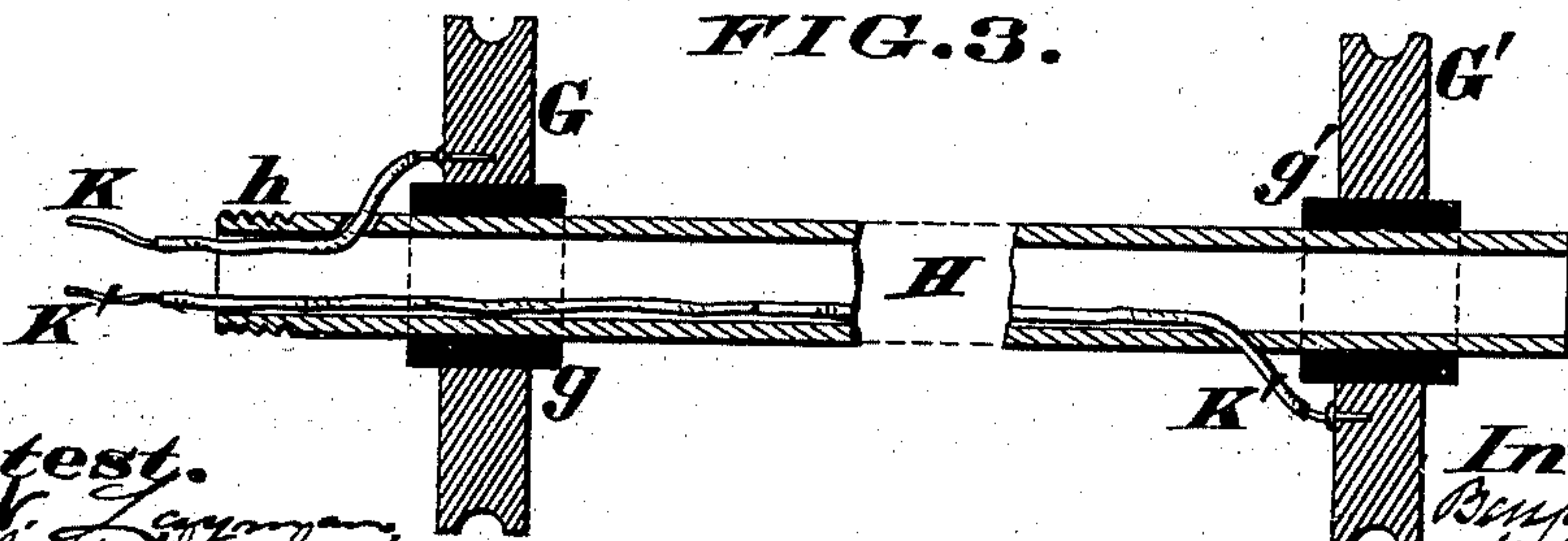


FIG. 3.



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(No Model.)

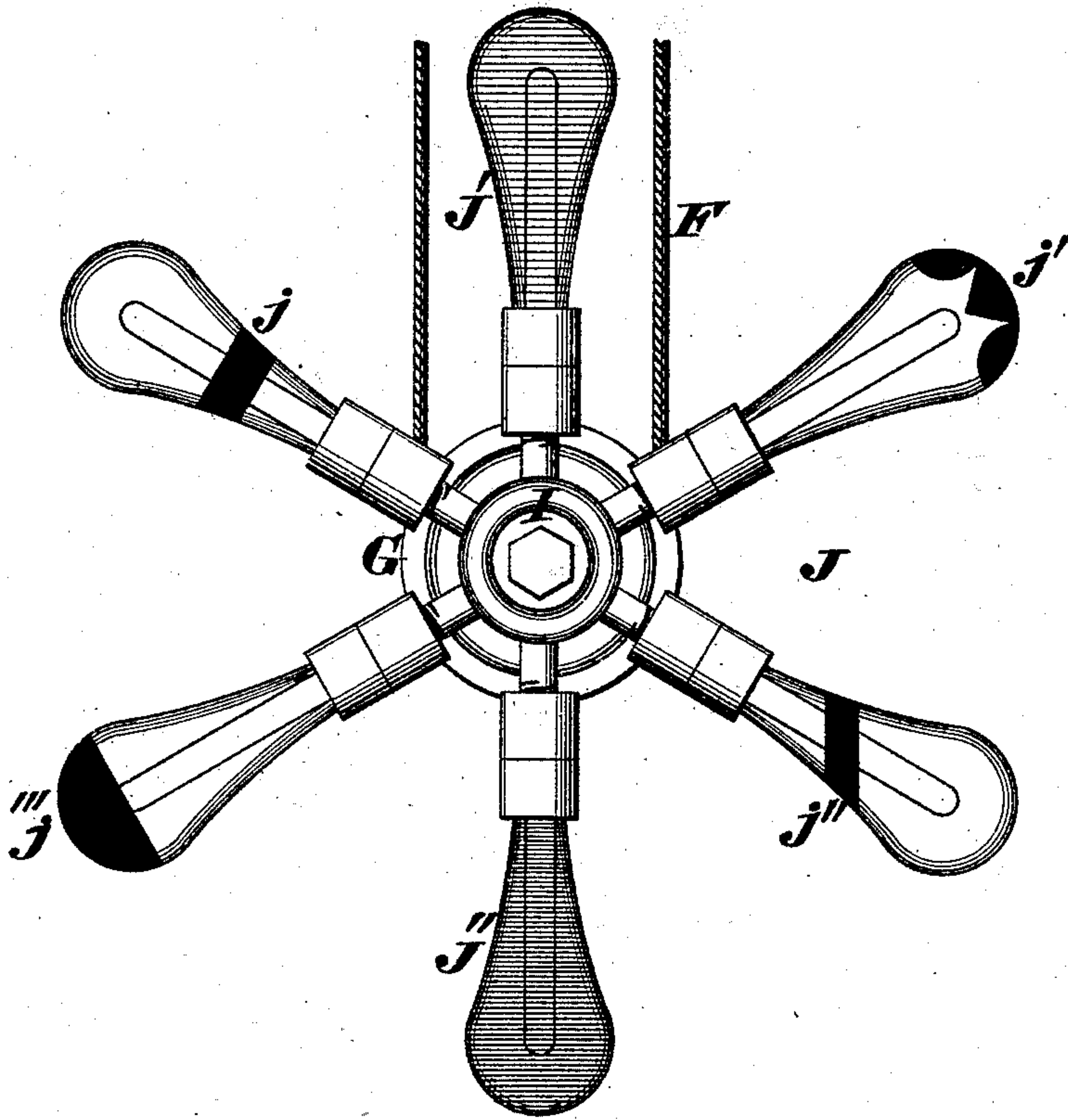
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FIG. 4.



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UNITED STATES PATENT OFFICE.

BENJAMIN F. FLINT, OF CINCINNATI, OHIO.

ELECTRIC-LIGHT FIXTURE.

SPECIFICATION forming part of Letters Patent No. 505,097, dated September 19, 1893.

Application filed June 17, 1893. Serial No. 477,898. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN F. FLINT, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Electric-Light Fixtures; and I do hereby declare the following to be a full, clear, and exact description of the invention, reference being had to the annexed drawings, which form part of this specification.

My invention comprises a novel arrangement of electric lights for producing a brilliant and attractive illumination of show windows, signs, &c., the method of carrying the invention into practice being, as follows: A horizontal shaft is freely suspended at such a height within a window as will produce the most effective results, and the front end of this shaft is provided with a cluster of lights, the globes of which may be of various colors, so as to afford concentric belts or zones of tints when the shaft is revolved at a very high speed. This suspension is accomplished by means of light, wire-cords that pass around grooved pulleys on the lamp shaft, and also around similar pulleys on a driving shaft, the latter being located in a compartment over the window, so as to be concealed. The driving shaft may be operated by any suitable motor, and when it is revolved, the wire-cords not only transmit motion to the lamp shaft, but also carry the electric currents that produce the light, as hereinafter more fully described.

In the annexed drawings,—Figure 1 is a vertical section of the upper part of a show window provided with the preferred arrangement of my electric lights. Fig. 2 is an enlarged vertical section of the apparatus taken in the plane of one of the suspension cords or bands. Fig. 3 is a longitudinal section through the lamp shaft and its pulleys, the central portion of the shaft being broken away. Fig. 4 is a front elevation of the cluster of lights.

Referring to Fig. 1, A represents the upper part of a show window, or other place to be illuminated, and B is a glass front of the same.

C is a horizontal partition at the top of the window to support a driving shaft D, journaled in standards *c, c'*, and having a pulley *d*, for the reception of a belt operated by any suitable instrumentality, although said shaft

may be driven directly by an electric or other motor.

E E' are grooved metallic pulleys, mounted on non-conducting hubs *e, e'*, which latter are secured to shaft D in any preferred manner. Passing around these pulleys are endless bands or belts F, F', of any material capable of carrying an electric current, the ordinary wire cord used in hanging pictures being preferred for this purpose. These conducting suspenders pass, also, around grooved metallic-pulleys G G', mounted upon non-conducting hubs *g, g'*, secured to the lamp-shaft H, which latter generally consists of a tube, threaded at one end, as at *h*, for the attachment of a head I, that carries a cluster of electric lights J, of any approved shape, construction and arrangement. Furthermore, a greater or less number of these lights may be employed, according to the size of the window, four globes being suggested in Fig. 1, while six are seen in Fig. 4. Again the globes J', J'', seen in this last illustration are intended to be of different colors from the other globes, and the latter may have special bands or touches of colors applied to them, as suggested at *j, j', j'', j'''*. The wires for these various globes are brought together within the head I, and then joined to wires K K', fitted within the lamp-shaft H, the wire K being in communication with the insulated pulley G, while the other wire K', leads to the other pulley G'.

L is a contact maker bearing against the side of pulley E, and *l* is a wire that conducts one of the electric currents to said pulley. L' is another contact maker bearing against the wire cord F', and *l'* is a wire that conducts the other electric current to said cord, thus indicating that these two currents may be applied in any preferred manner.

The operation of my electric light fixture is, as follows: Shaft D is driven at a high speed and motion is communicated from it to the other shaft H, by means of the metallic suspenders F, F', which also conduct the currents necessary to produce the electric lights in the globes. Consequently, a very brilliant illumination is afforded, and as the lamps revolve quite rapidly, the effect produced resembles a ball or circle of fire, with concentric zones of different colors in it, thereby affording a great attraction for show windows,

&c. The lamps illuminate every part of the window without throwing any material shadows, because the shaft H is suspended by the fine wire-cords F, F', and as said cords can be
5 tinned or nicked, it will be difficult to see them, but after they are discovered, it will be still more difficult for a person to understand how the device is set in motion. Again, by making either one of the pulleys G or G',
10 somewhat larger in diameter than the other pulley carried by the lamp-shaft H, as indicated by the dotted lines G'', said shaft will be caused to vibrate from side to side of the window and thereby increase the attraction.
15 In this specification, the phrase "freely suspended" is to be understood as defining a revolving lamp-shaft, which is not journaled in fixed bearings or other rigid supports, but is sustained by flexible bands or connections,
20 in order that said shaft may vibrate or swing from side to side, and also have a slight end motion, if desired.

I claim as my invention—

1. A revolving shaft, provided with a num-

ber of electric lights and freely suspended by 25 bands that conduct the current to said lights, substantially as described.

2. A revolving shaft H, provided with a number of electric lights, as J, and having wires K, K', and insulated pulleys G, G', which 30 pulleys are driven by bands F, F', that conduct the current to said wires, for the purpose described.

3. The combination, in an electric light fixture, of driving shaft D, provided with insulated pulleys E, E', and the shaft H, provided 35 with a number of lights, as J, and carrying insulated pulleys G, G', and the bands F F', that pass around the pulleys E, G, E', G', and conduct the current from wires l, l', to said 40 lamps, in the manner described.

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

BENJAMIN F. FLINT.

Witnesses:

JAMES H. LAYMAN,
SAMUEL M. QUINN.