

No. 668,446.

Patented Feb. 19, 1901.

S. HIRSH.  
ELECTRIC LIGHT FOR SHOW WINDOWS.

(Application filed Oct. 10, 1900.)

(No Model.)

Fig. 1.

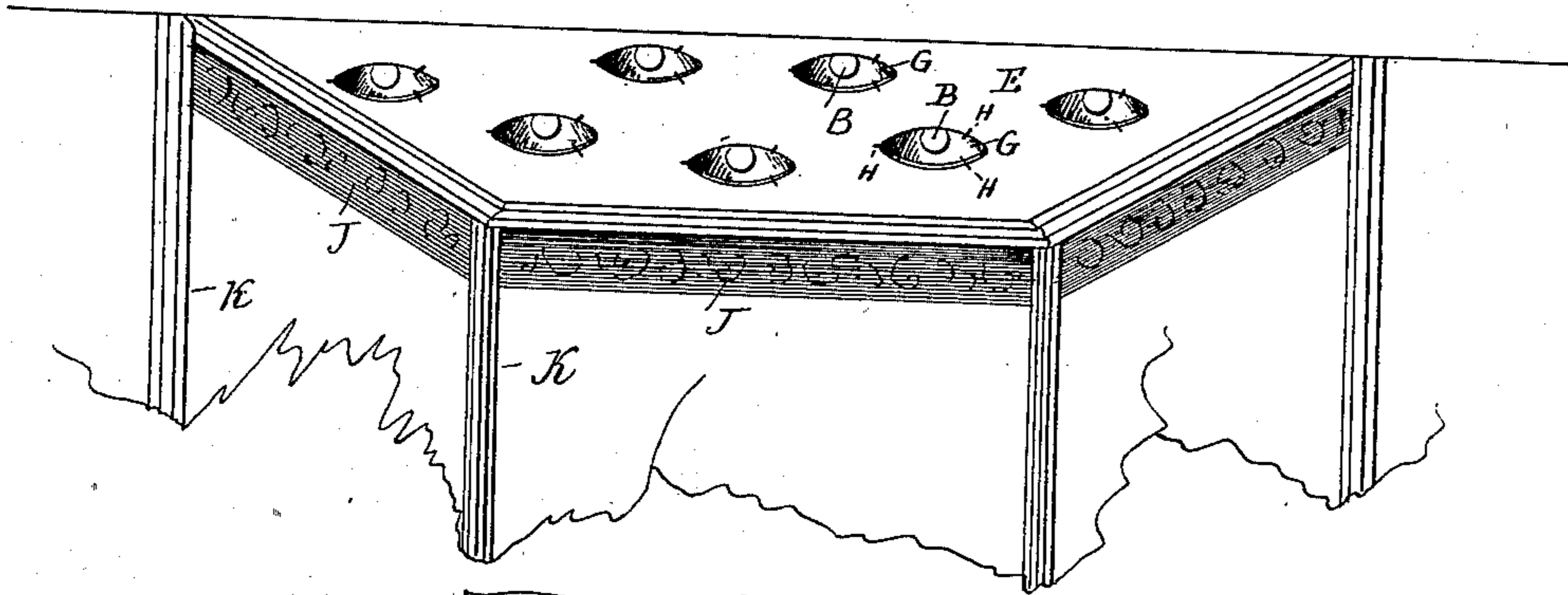


Fig. 2-

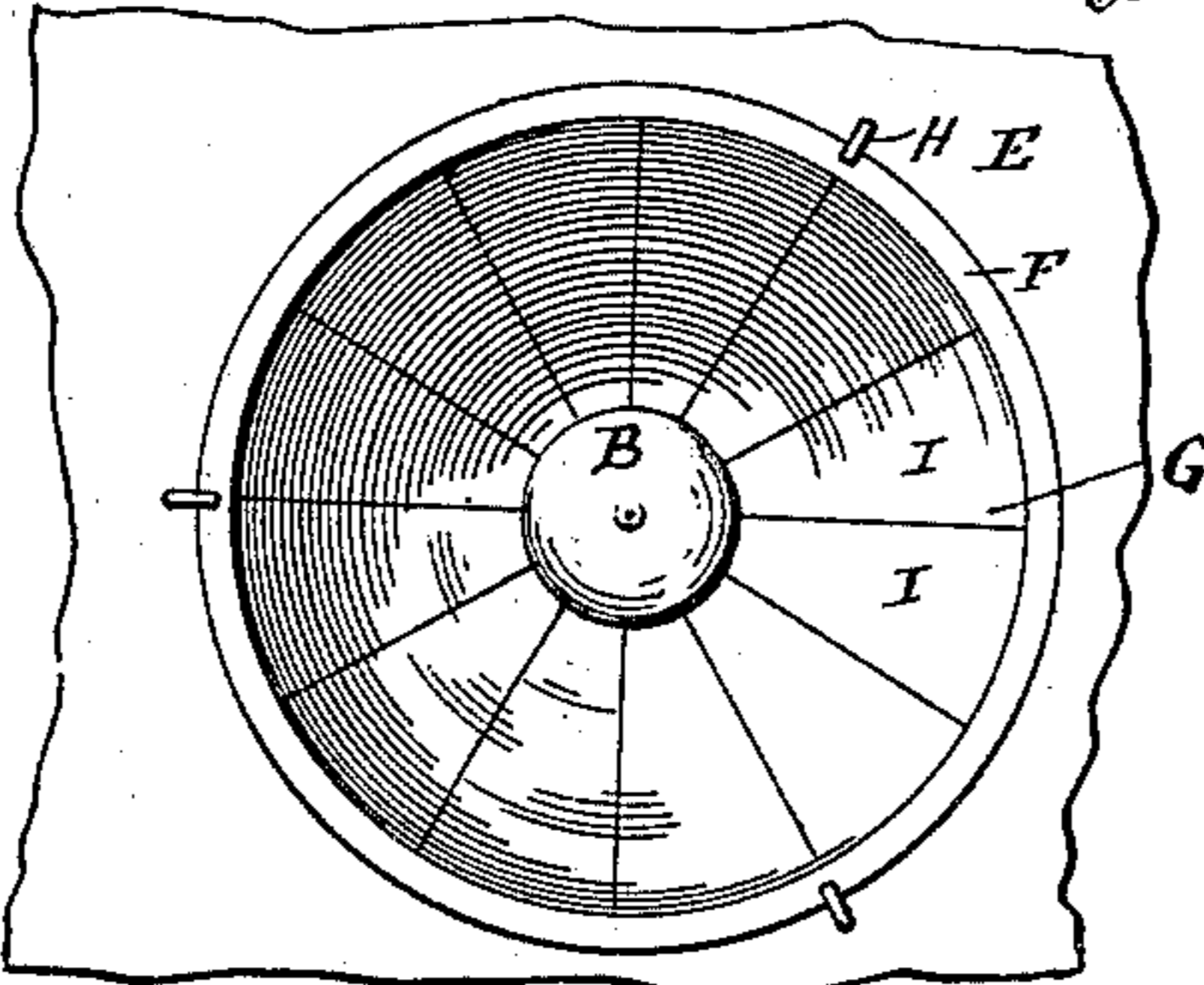
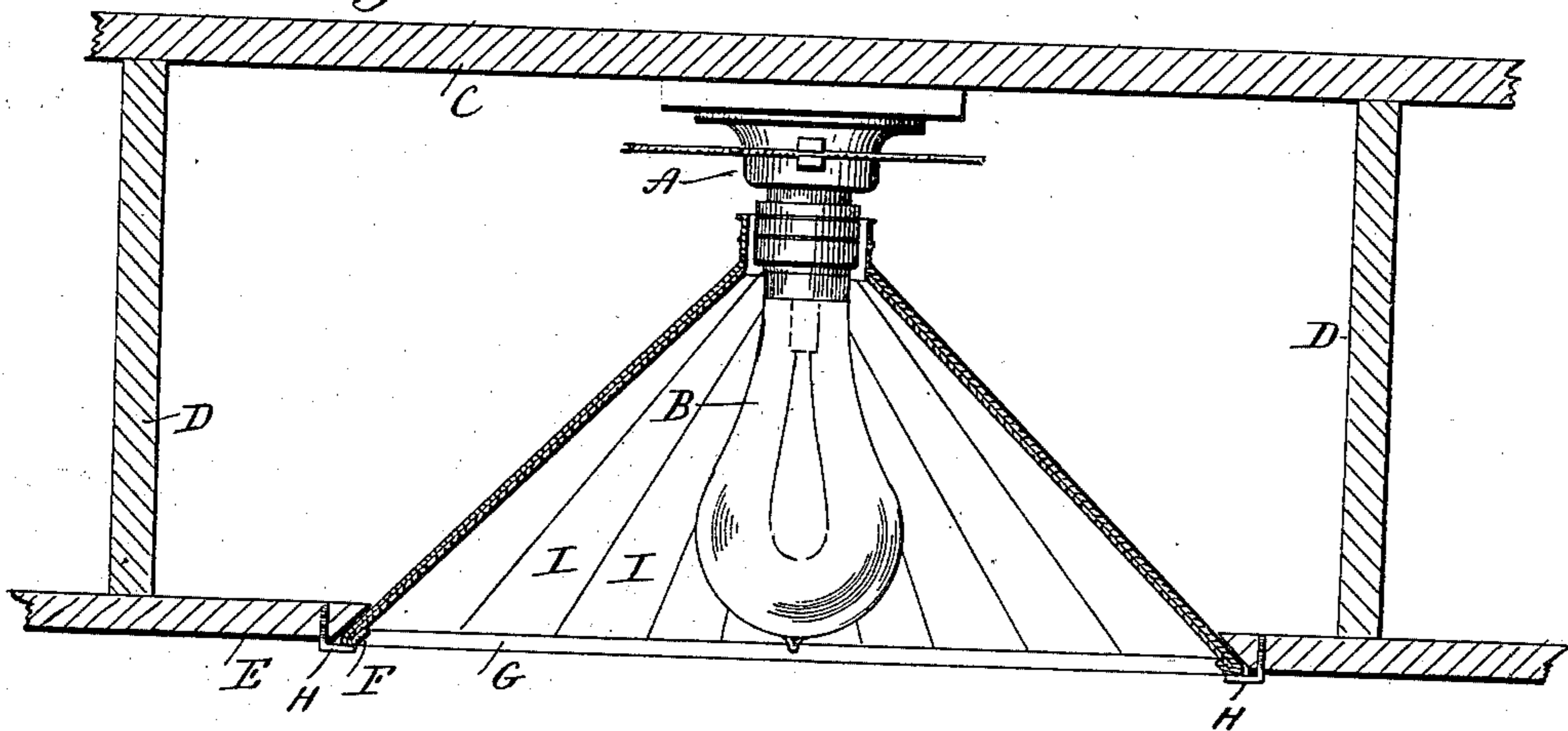


Fig. 3



Witnesses.  
J. H. Seymour  
Lillian D. Kelley

Sig. Hirsh  
Inventor.  
By atty Seymour & Carey

# UNITED STATES PATENT OFFICE.

SIG HIRSH, OF NEW HAVEN, CONNECTICUT.

## ELECTRIC LIGHT FOR SHOW-WINDOWS.

SPECIFICATION forming part of Letters Patent No. 668,446, dated February 19, 1901.

Application filed October 10, 1900. Serial No. 32,604. (No model.)

*To all whom it may concern:*

Be it known that I, SIG HIRSH, of New Haven, in the county of New Haven and State of Connecticut, have invented a new Improvement in Electric Lights for Show-Windows; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a perspective view of the upper part of a show-window, showing electric lights arranged therein in accordance with my invention; Fig. 2, a plan view of one of the lights and reflectors enlarged; Fig. 3, a sectional view illustrating the manner of securing the lights and reflectors in position.

This invention relates to an improvement in electric lights for show-windows.

In lighting show-windows by incandescent electric lights it is customary to suspend the bulbs from the ceiling or arrange them in vertical rows at the sides of the window or in horizontal rows at the top of the window. In lighting a window it is desirable that the light should be perfectly diffused and that the light should not be reflected into the faces of the observers. It is also desirable that the window should be clear of all obstructions.

The object of this invention is to so arrange the lights and their reflectors that the lighting shall be uniformly diffused through the window and not be directly reflected outside and the window left free of obstructions, lights, reflectors, wires, &c.; and it consists in arranging the incandescent bulbs and their reflectors above the plane of the ceiling and so that at a short distance away the bulbs cannot be seen, and while the window is more brilliantly lighted than heretofore the source from which the light proceeds is not apparent; and the invention consists in the arrangement of the lights and reflectors, as will be hereinafter described, and particularly recited in the claim.

In arranging lights in accordance with my invention it is desirable to install the system during the construction of the building, so that the lights may be arranged between the stringers for the floor above. Thus, as shown

in Fig. 3 of the drawings, the socket A for the electric-light bulb B is secured to the under side of the flooring C between stringers D, and the bulb depends to a point, so that its end is flush with the plane of the ceiling E. In this ceiling is an opening corresponding to the diameter of the edge F of a conical deflector G, the upper end of which bears against the lamp-socket, and this reflector may be held in position by right-angled screw-hooks H, the screws of which are turned into the ceiling and the hooked ends turned beneath the edge of the reflector, so that the reflector is supported flush with the face of the ceiling. This reflector is preferably formed from tapering strips I, of looking-glass, or it may be formed from metal, porcelain, or other material having a reflecting-surface. If the ceiling for the window has already been placed in position, it is necessary to arrange a false ceiling below the true one, so as to provide a space for the electric bulb and the reflector. It is desirable that with lights and reflectors thus arranged the window-frame should terminate at a point below the plane of the ceiling; but in case a false ceiling is necessary the plane of such ceiling would naturally come down nearly to the tops of the window-frames, in which case I prefer to provide opaque ornamental strips or signs J at the tops of the window-frames K, as shown in Fig. 1, which act to prevent the reflection of light from the ceiling into the faces of observers outside the window.

It is apparent that the edges of the reflectors might overlap the face of the ceiling and be of ornamental design, and such an edge or flange would provide space for the introduction of screws for securing the reflector to the ceiling. These reflectors are readily removed for cleaning or repair by first removing the incandescent bulb and then turning the screws or hooks by which they are secured. With bulbs and reflectors thus arranged above the plane of the ceiling the light is perfectly diffused throughout the window and is not thrown directly outside of the window, nor is the course of the light readily discernable, and the window is free of obstructions, lights, wires, and reflectors. With lights arranged in this manner the electric wires are inside the ceiling, yet in case of necessity the

openings for the reflectors provide sufficient access to them.

While the invention is particularly designed for the illumination of show-windows, it is  
5 evident that it may be employed in any part of a building where such a division of light is desired.

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

The combination with a ceiling having openings therein of electric-light bulbs arranged above the face of said ceiling and so as to stand in the openings therein, conical reflec-

tors around said bulbs, but independent of 15 the sockets thereof, the lower edges of the said reflectors corresponding to the shape of the openings in the ceiling, and means for securing the reflectors in position with their lower edges substantially flush with the face 20 of the ceiling.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

SIG HIRSH.

Witnesses:

LILLIAN D. KELSEY,  
FREDERIC C. EARLE.