No. 644,008. Patented Feb. 20, 1900.

E. FISHER.

SUSPENSION DEVICE FOR LAMPS, &c.

(Application filed June 12, 1899.)

(No Model.)

Fig. 1.

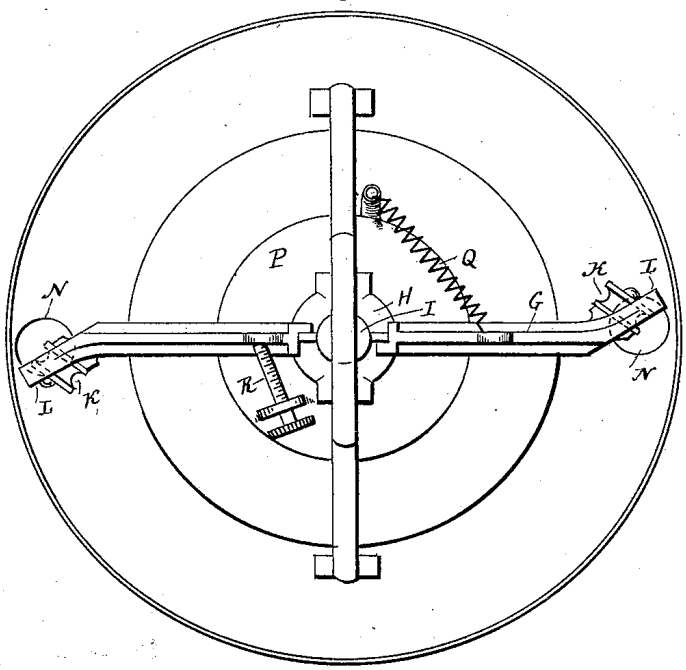


Fig. 2.

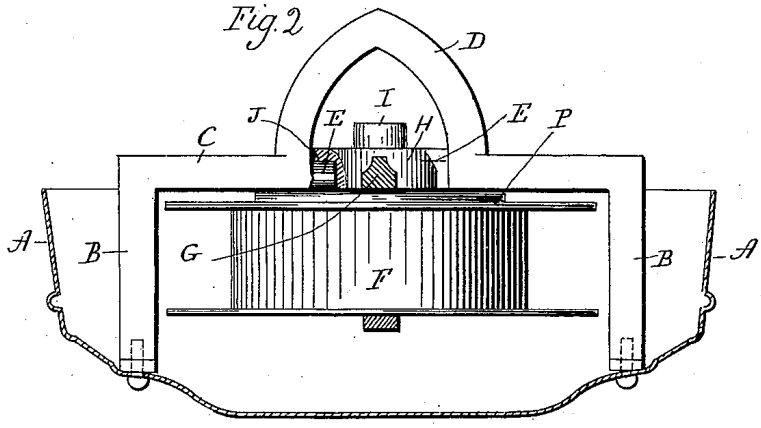
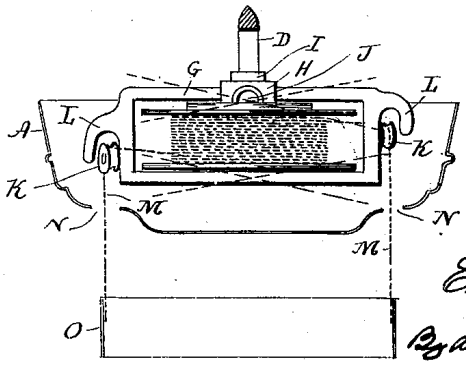


Fig. 3.



Witnesses.
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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

EMIL FISHER, OF MERIDEN, CONNECTICUT, ASSIGNOR TO THE BRADLEY & HUBBARD MFG. CO., OF SAME PLACE.

SUSPENSION DEVICE FOR LAMPS, &c.

SPECIFICATION forming part of Letters Patent No. 644,008, dated February 20, 1900.

Application filed June 12, 1899. Serial No. 720,136. (No model.)

To all whom it may concern:

Be it known that I, EMIL FISHER, of Meriden, in the county of New Haven and State of Connecticut, have invented a new Improvement in Suspension Devices for Lamps, &c.; 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 top view of a suspension device within the crown; Fig. 2, a side view, partially in section; Fig. 3, a side view at right angles to that shown in Fig. 2, on a smaller scale, and illustrating the swinging movement of the drum.

This invention relates to an improvement in suspension devices for lamps, and particularly to those which comprise a horizontally-arranged drum fixed within a shell or crown, from which drum chains extend downward on opposite sides to the lamp or other device to be suspended, such a suspension device being shown in the patent granted to my assignees September 6, 1887, No. 369,509. In suspension devices of this character the chains will not always wind true, so that one is slightly shorter than the other, and the weight of the lamp drawing from the center will tip or rock the canopy, so that it stands in an inclined position, and when a ring is interposed between the lamp and the canopy this inclination of the canopy is very perceptible and unsightly.

The object of this invention is to suspend the friction device or drum within the canopy, so that it may rock therein independent of the canopy to compensate for irregularity in taking up the chain; and it consists in the construction as hereinafter described, and particularly recited in the claims.

The canopy A is of any approved design, usually struck up from sheet metal, and to this canopy is fixed a yoke comprising legs B, which are secured to the canopy through the bottom thereof, and inwardly-extending arms C, which are connected at the center by a substantially-U-shaped loop D. The inner ends of the arms project inward beyond the loop, forming trunnions E. Below the yoke and within the canopy is a frictional spring-drum F, which is mounted in a frame G, which is arranged within the yoke and at right angles thereto. The central portion of the frame is enlarged, forming a head H, through which the central post I of the drum extends, and which head is formed on opposite sides with notches J, which receive the trunnions E, so that the frame can rock in the yoke. The opposite sides of the frame are provided with rollers K and guide-fingers L in the usual manner of fixtures of this character, over which rollers, chains, or cords M extend, through holes N in the canopy, to a ring O or other part of the device to be suspended. On the top of the drum is a friction-plate P, which is connected with the frame by a spring Q, provided with an adjusting-screw R, by which the amount of friction may be adjusted. This friction device, however, forms no part of my invention and may be of any approved form. The suspension device is hung by the loop D to a hook or other device in the ceiling or other point where desired, and the device to be suspended is attached to the chains M and operates like other suspension devices in permitting the thing suspended to be drawn down or raised and held at any desired point, the device being adjusted so that the friction between the plate and the drum is slightly greater than the weight of the thing suspended. In winding or unwinding the length of chains depending from the device will vary, and as the drum is freely suspended in the yoke and the frame is at right angles to the yoke it follows that the drum is free to be tilted in opposite directions, as indicated in Fig. 3, so that the canopy may stand in a horizontal position and the thing suspended in a plane parallel therewith, the variations in the length of the chains being taken up by the tilting of the drum. With a device of this character, therefore, it is unnecessary to employ equalizing devices between the thing suspended and the canopy, as is done with many of the suspension devices now in use, and as the canopy does not tilt the appearance of the lamp as a whole is not impaired.

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

1. In a suspension device, the combination with the canopy, of a yoke rigidly secured therein, a frame pivotally mounted in said yoke and carrying a spring-drum and chains secured to said drum and depending therefrom, substantially as described.

2. In a suspension device, the combination with a canopy, of a yoke rigidly secured thereto and formed with inwardly-projecting trunnions, a frame comprising a head formed with bearings to receive said trunnions, said frame arranged within said yoke and at right angles thereto, and a spring-drum arranged within the frame, substantially as and for the purpose described.

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

EMIL FISHER.

Witnesses:
W. A. HALL,
W. R. BOOTH.