(No Model.)

J. TRIGGE.

DROP LIGHT AND CHANDELIER.

No. 342,982. Patented June 1, 1886.

Fig. 1.

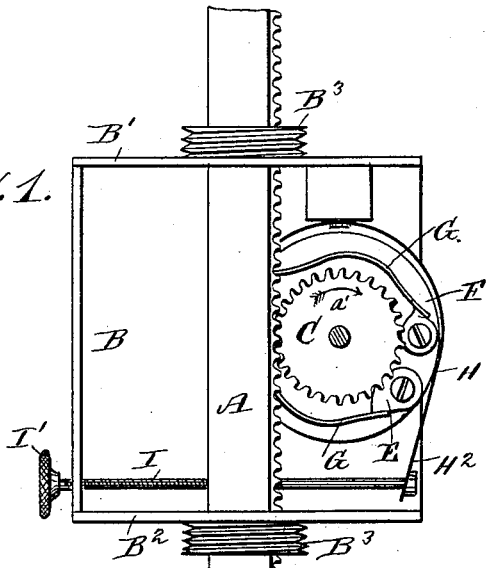


Fig. 4.

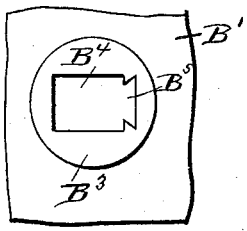
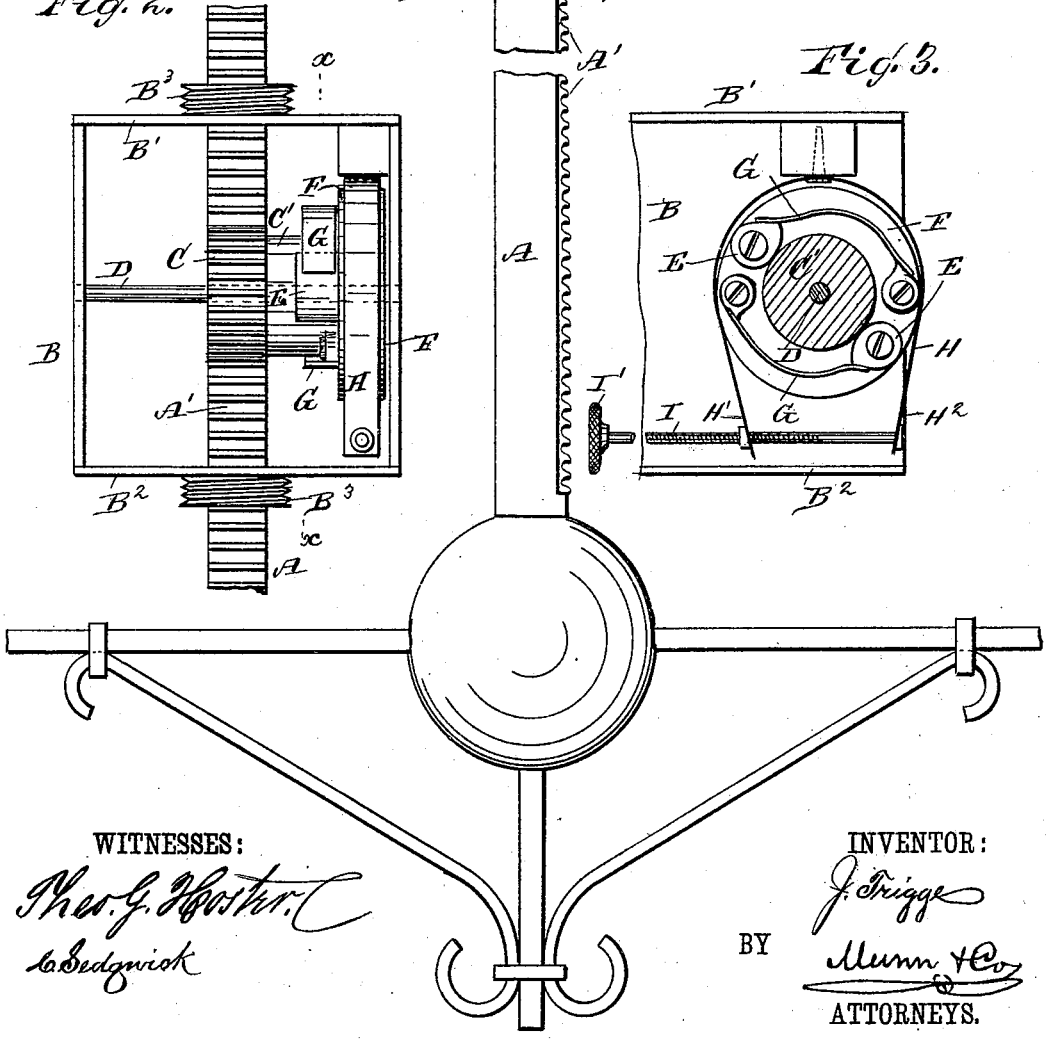


Fig. 2.

Fig. 3.



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DROP-LIGHT AND CHANDELIER.

SPECIFICATION forming part of Letters Patent No. 342,982, dated June 1, 1886.

Application filed February 18, 1886. Serial No. 192,351. (No model.)

To all whom it may concern:

Be it known that I, JOHN TRIGGE, of Mount Vernon, in the county of Westchester and State of New York, have invented a new and Improved Drop-Light Chandelier, of which the following is a full, clear, and exact description.

The object of my invention is to facilitate the adjustment of drop-lights of drop-light chandeliers, and also to prevent the drop-light from sliding down when once adjusted.

The invention consists of a chandelier having an extension or drop-light provided with rack-teeth engaging a cog-wheel placed in a box on the chandelier, the said cog-wheel being connected with an automatic brake device consisting of a disk having spring-pivoted cams and an adjustable brake-band.

The invention also consists in various parts and details and combinations of the same, as hereinafter more fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a longitudinal elevation, partly in section, of a drop-light mechanism for my improved drop-light chandelier. Fig. 2 is a side view of the same. Fig. 3 is a sectional elevation on the line *x x* of Fig. 2, and Fig. 4 is a plan view of part of the top plate.

The drop-light burners are supported on arms at the lower end of the drop-light tube A, arranged to slide vertically through the box B, held on the fixed tube or pipe of the chandelier. The box B is provided with the top plate, B′, and the bottom plate, B^2, each having a screw-threaded projection, B^3, having an aperture, B^4, one end of which is formed into a dovetail, B^5. The cross-section of the tube A corresponds in shape to the aperture B^4, and has a rack, A′, on one edge, which corresponds in shape with the dovetail B^5 on the projections B^3 on the top and bottom plates, B′ and B^2, respectively. The teeth of the rack A′ engage with a cog-wheel, C, mounted on the shaft D, having its bearing in the box B. The cog-wheel C is provided with a hub, C′, the periphery of which is in contact with one, two, or more pivoted cams, E, pivotally attached to a disk, F, mounted to turn loosely on the shaft D. Each of the eccentric cams E is held in contact with the periphery of the hub C′ of the cog-wheel C by a spring, G, secured at one end to the disk F.

Around one-half of the periphery of the disk F is placed a brake-band, H, secured at its upper end to a lug on the box B, the lower ends, H′ and H^2, being held apart by a screw, I, which extends to the outside of the box B, and is provided on its outer end with a head, I′. The end H′ of the brake-band H is screw-threaded, so that by turning the screw I the brake-band H can be tightened or loosened on the periphery of the disk F.

On the projections B^3 on the top and bottom plates of the box B may be screwed ornaments, to beautify the chandelier.

The operation is as follows: By pushing the extension or drop-light tube A upward the cog-wheel C is rotated in the direction of the arrow *a′*, and the pivoted cams E slip on the periphery of the hub C′ of the cog-wheel C without rotating the disk F. The tube A is guided in the projections B^3 on the top and bottom plates of the box B. As soon as the upward pressure ceases, the weight of the tube, the burners, globes, and ornaments, &c., attached to the same tend to move the tube downward, but are prevented by the pivoted cams E gripping the periphery of the hub C′ of the cog-wheel C, and thus arresting the motion of the tube. The pressure of the brake-band H on the periphery of the disk F is regulated by the screw I, according to the weight to be sustained to prevent the disk F from revolving. In pulling the tube A down the pressure of the brake-band on the disk has to be overcome, as the disk F is rotated by the pivoted cams E gripping the hub C′ of the cog-wheel C.

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

1. In a chandelier, the combination, with a box, of an extension-tube passing through the said box and having a rack, cog-wheel provided with a hub mounted in the said box and engaging with the rack on the extension-tube, a disk mounted loosely upon the shaft of the cog-wheel, and a brake engaging with the hub of the cog-wheel and mounted on the disk, substantially as shown and described.

2. In a chandelier, the combination, with a

box, of an extension tube passing the said box end, having a rack, cog-wheel provided with a hub mounted in the said box and engaging with the rack on the extension tube, a disk mounted loosely upon the shaft of the cog-wheel, a brake engaging with the hub of the cog-wheel and mounted on the disk, and an adjustable brake-band engaging the disk, substantially as shown and described.

3. In a chandelier, the combination, with a box, of an extension-tube passing through the said box, and having a rack, a cog-wheel provided with a hub mounted in the said box and engaging with the rack on the extension-tube, a disk mounted loosely upon the shaft of the cog-wheel and provided with pivoted cams in contact with the hub of the cog-wheel, and springs bearing on the said pivoted cams, substantially as shown and described.

4. In a chandelier, the combination, with a box, of an extension-tube passing through the said box, and having a rack, a cog-wheel provided with a hub mounted in the said box and engaging with the rack on the extension-tube, a disk mounted loosely on the shaft of the cog-wheel, pivoted cams, springs for holding said pivoted cams in contact with hub of the cog-wheel, a brake-band in contact with the said disk, and a screw for adjusting the same, substantially as shown and described.

5. In a chandelier, the box B, provided on its top and bottom plate with a projection, B^3, having an aperture, B^4, and a dovetail, B^5, in combination with the extension-tube A, having the rack A′, the cog-wheel C, provided with the hub C′, the disk F, the pivoted cams E, the springs G, the brake-band H, and the screw I, substantially as herein shown and described.

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