J. FOX.

DROP-LIGHT GASALIER.

No. 169,430. Patented Nov. 2, 1875.

Fig. 1

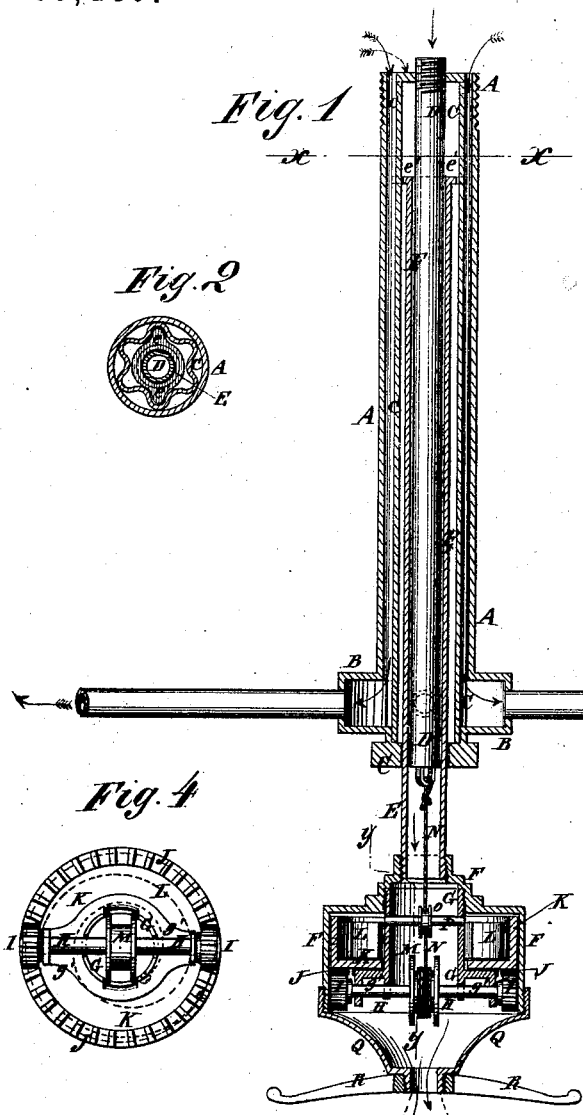
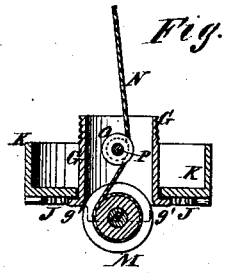


Fig. 2

Fig. 4

Fig. 3



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IMPROVEMENT IN DROP-LIGHT GASALIERS.

Specification forming part of Letters Patent No. **169,430**, dated November 2, 1875; application filed September 20, 1875.

To all whom it may concern:

Be it known that I, JOHN FOX, of the city, county, and State of New York, have invented a new and useful Improvement in Center-Slide Drop-Light Gasaliers, of which the following is a specification:

Figure 1 is a vertical longitudinal section of a gasalier illustrating my invention. Fig. 2 is a cross-section of the same, taken through the line *x x*, Fig. 1. Fig. 3 is a detail section of the same, taken through the line *y y*, Fig. 1. Fig. 4 is a bottom view of the same, the bottom cap being removed.

Similar letters of reference indicate corresponding parts.

The object of this invention is to simplify the construction of center-slide drop-light gasaliers, so as to make them less expensive in manufacture and more compact in construction, and thus neater in appearance than when made in the usual way.

The invention will first be described in connection with the drawing, and then pointed out in the claims.

A is the main tube, the upper end of which is designed to be screwed into the end of the gas-pipe, and to the lower end of which is attached the distributing-chamber B, with which the arms of the stationary lights are connected. Within the main tube A is placed a tube, C, which is corrugated longitudinally to form a series of channels leading to the distributing-chamber B. The upper end of the tube C is permanently connected with the upper end of the main tube A in such a way as to leave the upper end of the external cavities open, so that the gas can pass through them freely to the distributing-chamber B. The lower end of the tube C is permanently and closely connected with the bottom of the distributing-chamber B, so that no gas can escape. D is a small tube placed within the corrugated tube C, and the upper end of which is connected with the upper ends of the tubes A C, and is left open, so that the gas can pass through it freely. E is a tube slipped into the space between the tubes C and D, and the upper end of which is screwed into a collar, *e'*, also placed in the space between the tubes C and D. The collar *e'* has two or more lugs or projections formed upon its outer edges, which enter the inner cavities of the tube C, and thus prevent the tube E and collar *e'* from turning as they slide up and down. Upon the lower end of the tube E is screwed the drum-chamber F, into the neck of which is screwed a drum or short tube, G, to the lower end of which is attached, or upon it is formed, a collar or flange, *g'*. Upon the lower side of the collar or flange *g'* are formed lugs, in which revolves a short shaft, H. Upon the ends of the shaft H are placed two small gear-wheels, I, one of which is rigidly attached to said shaft, and the other runs loosely upon it. The teeth of the gear-wheels I mesh into the teeth of a gear-wheel formed upon or attached to the bottom of the spring-drum K, which is made open upon the top and inner side, and revolves upon the flange or collar *g'*. L is a coiled spring, which is placed within the drum K, to the side of which its outer end is attached. The inner end of the spring L is attached to the drum or tube G. To the center of the shaft H is rigidly attached a flanged drum or spool, M, around which is wound, and to which is attached, a cord, N, which passes up through the tubes G and E, and its other end is attached to an eye, loop, or bail formed upon or attached to the lower end of the small inner tube D. The cord N passes around a small pulley, O, which runs loosely upon a shaft, P, attached to the tube G, to keep the said cord from rubbing against the edge of the lower end of the tube E. The lower end of the chamber F is closed by a cap, Q, to which is attached the harp or device that supports the burner of the drop-light. To the cap Q is attached a handle, R, for convenience in adjusting the drop-light.

By this construction, as the drop-light is drawn down the unwinding of the cord N from the spool M will turn the shaft H and drum K, coiling up the spring L, the tension of which is so adjusted as to balance and support the drop-light in any position into which it may be adjusted.

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

1. In central drop-chandeliers, the combi-

nation of slide-tube G, spring-drum K L, spool M, and cord N, as and for the purpose specified.

2. The combination of the four concentric tubes A C E D, the drum-chamber F, the inner tube G, the shaft, spool, and gear-wheels H M I J, the drum and spring K L, the cord N, and the cap Q, with each other, substantially as herein shown and described.

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Witnesses:
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