

E. T. THOMAS.

GAS-LIGHTER.

No. 186,068.

Patented Jan. 9, 1877.

Fig: 1.

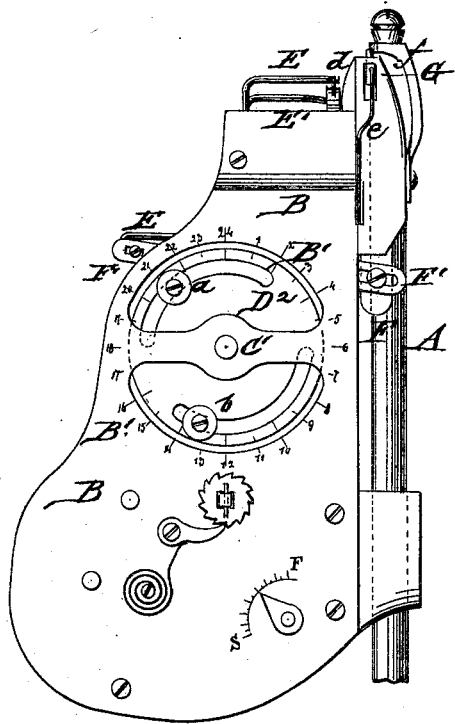


Fig: 2.

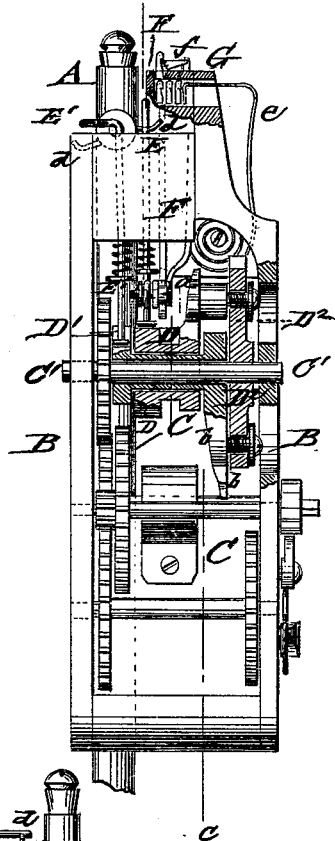
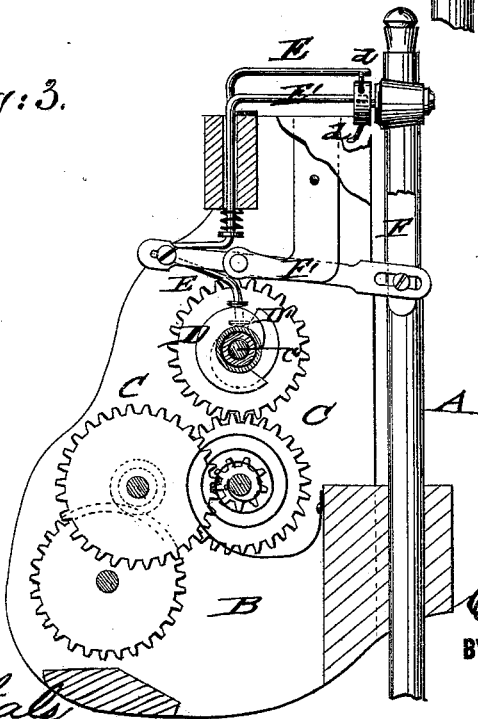


Fig: 3.



WITNESSES:

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EDDY T. THOMAS, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN GAS-LIGHTERS.

Specification forming part of Letters Patent No. **186,068**, dated January 9, 1877; application filed May 27, 1876.

To all whom it may concern:

Be it known that I, EDDY T. THOMAS, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and Improved Gas Lighter and Extinguisher, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a side elevation of my improved gas lighter and extinguisher. Fig. 2 is a sectional end view; and Fig. 3, a vertical longitudinal section of the same, on line *c c*, Fig. 2.

Similar letters of reference indicate corresponding parts.

My invention relates to an improved device for automatically lighting and extinguishing street, station, hall, and other gas-lamps at any desired time without the necessity of visiting the lamps oftener than required for cleaning the same, when the device is wound up, regulated, and set in the proper manner.

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

In the drawing, A represents the gas pipe and burner of the lamp, to which my improved gas lighting and extinguishing device is securely attached by suitable clamps or other fastenings. A clock-train, C, is supported between side plates B, that are fastened to, or cast in one piece with, the clamp. The clock-train serves to turn an arbor, C', on which the loose cams D and D¹ are placed, the cam D moving by a sleeve or tube on the arbor, while cam D moves by an encircling sleeve on that of cam D¹.

The cams D D¹ may be set on a recessed movable dial, D², keyed to arbor C' by means of arms and clamp-screws *a* and *b*, and to a stationary dial, B', of the side plate B, so that one cam indicates the time when the lamp is to be lighted, and the other when the same is to be extinguished.

The dials are graduated to twenty-four hours, as the device is intended to make one revolution per day. The slots of the movable dial D² admit the moving and setting of the cam-arms after the fastening-screws are loosened, the arms being secured again after they have been set to admit the running of the device for the required time.

Cams D and D¹ engage the spring-acted

presser-rods E and E', which slide in suitable guides of the supports B, and extend to diametrically-extending arms or spurs *d* of the stop-cock, one presser-rod serving to open the cock, the other to close the same. The presser-rod moves along the eccentric cams until they arrive at the notched part of the same, when they are suddenly thrown by their springs downward, and produce thereby the opening or closing of the stop-cock. The presser-rod E, that turns on the gas, is connected, by a fulcrumed lever, F', with a slide-piece, F, that is guided sidewise of the gas-pipe, and extended nearly up to the burner, where a match-receptacle, G, is arranged, in which a number of small matches are stored, and gradually fed forward to the action of the slide-piece by a spring, *e*. The recessed upper end of slide-piece F takes up one of the small matches from the match-receptacle, and carries it up by the sudden dropping of the presser-rod, so as to strike it against the friction-spring *f*, ignite the match, and light thereby the gas.

The matches may be provided with a small lateral groove, or the friction-spring *f* with a sharp top edge, to prevent the sliding back of the spent match, without interfering with the regular feeding of the matches.

The device may be wound and set once a week to the required time, which may be done when the lamps are cleaned, the match-receptacle being filled at the same time, so that the automatic lighting and extinguishing of the device is regularly and reliably kept up as long as the clock-train is running.

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

1. The combination of the cams D D¹, spring-acted presser-rods F F', and diametrical arms of stop-cock, substantially as specified.

2. The combination of presser-rod, fulcrumed rod F', and slide-piece F with the match-receptacle, feeding and friction devices, near burner, substantially as specified.

E. T. THOMAS.

Witnesses:

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