

(No Model.)

W. H. KIMBALL.
AUTOMATIC LAMP EXTINGUISHER.

No. 262,678.

Patented Aug. 15, 1882.

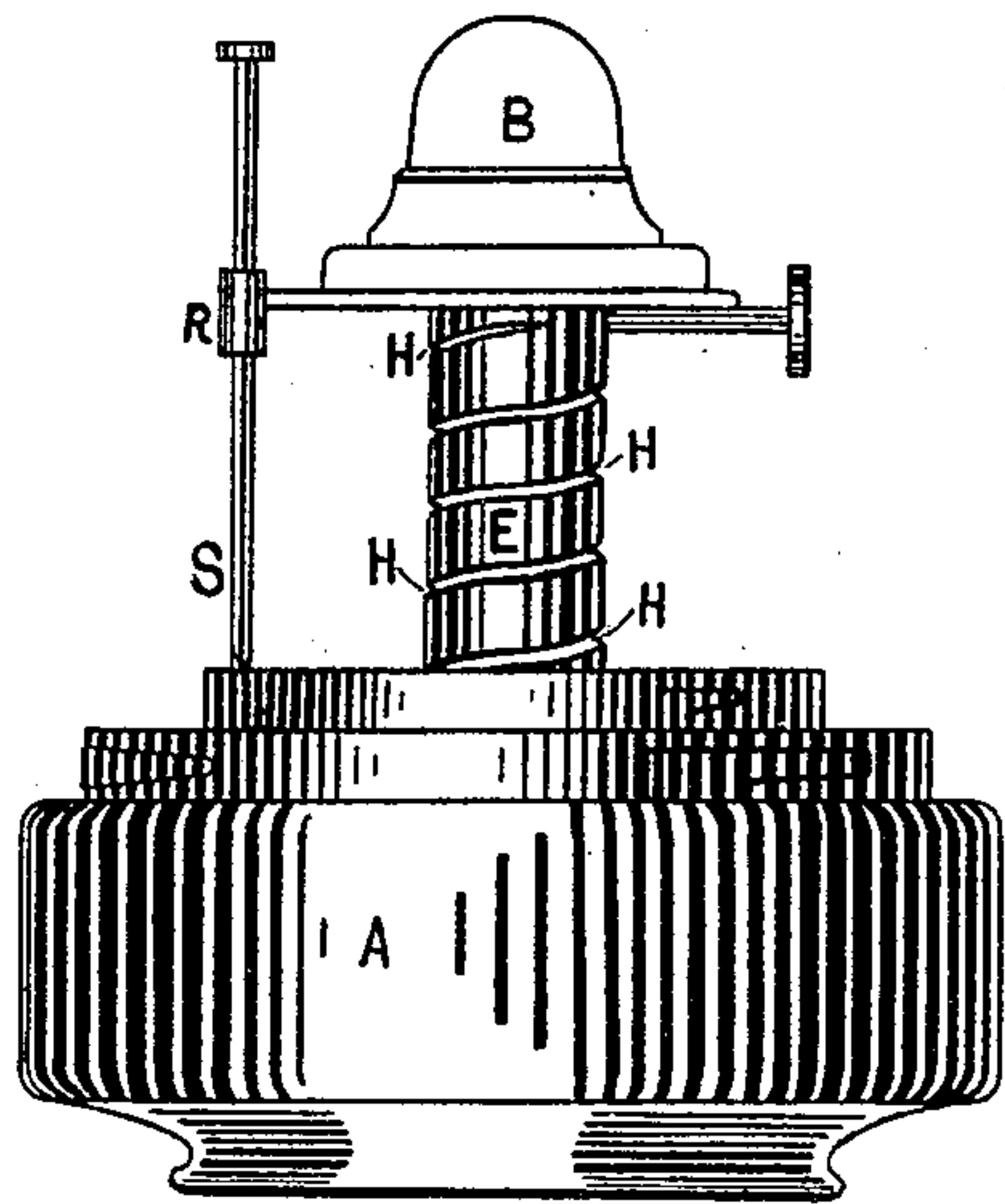


Fig. 1.

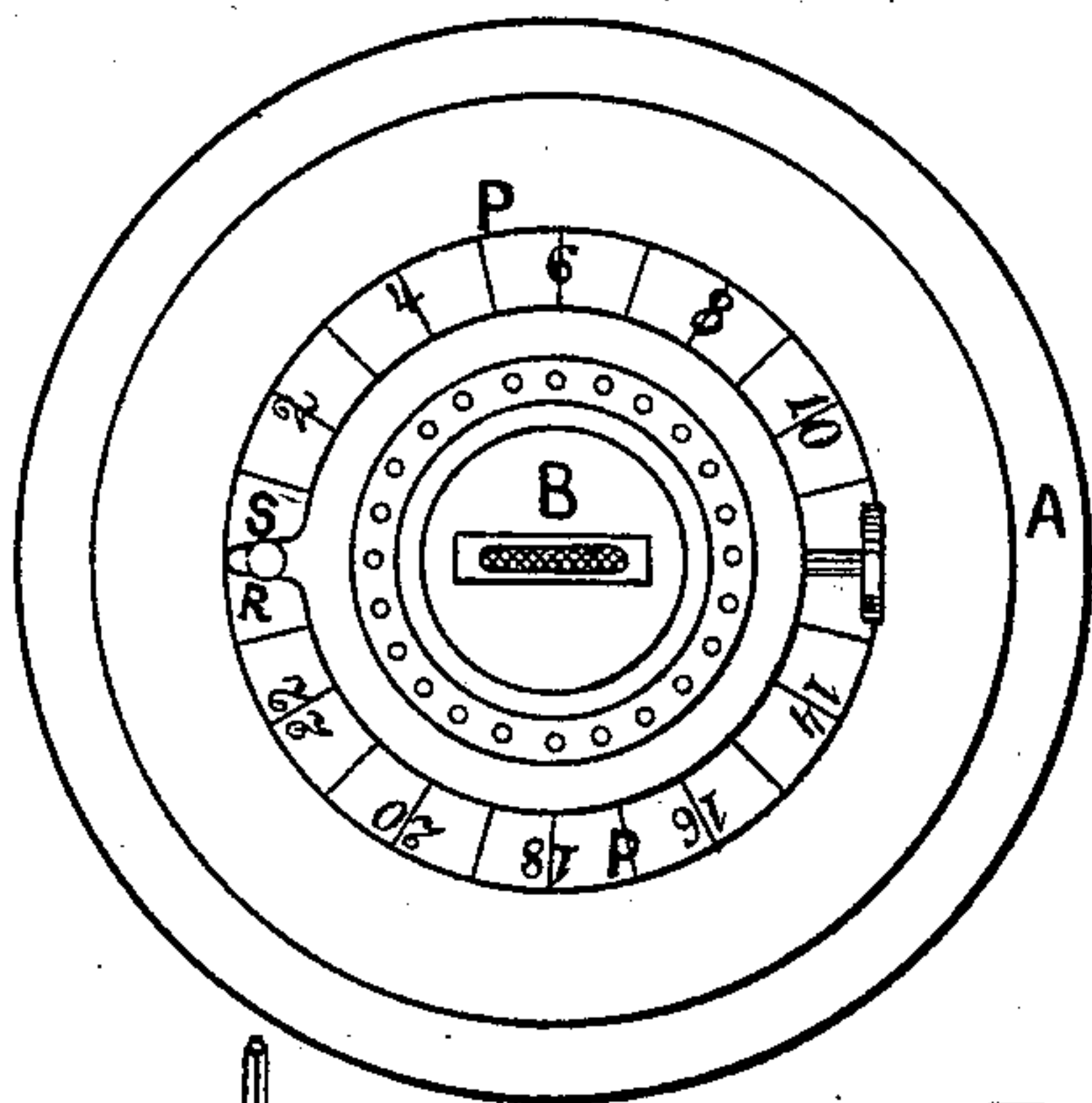


Fig. 2.

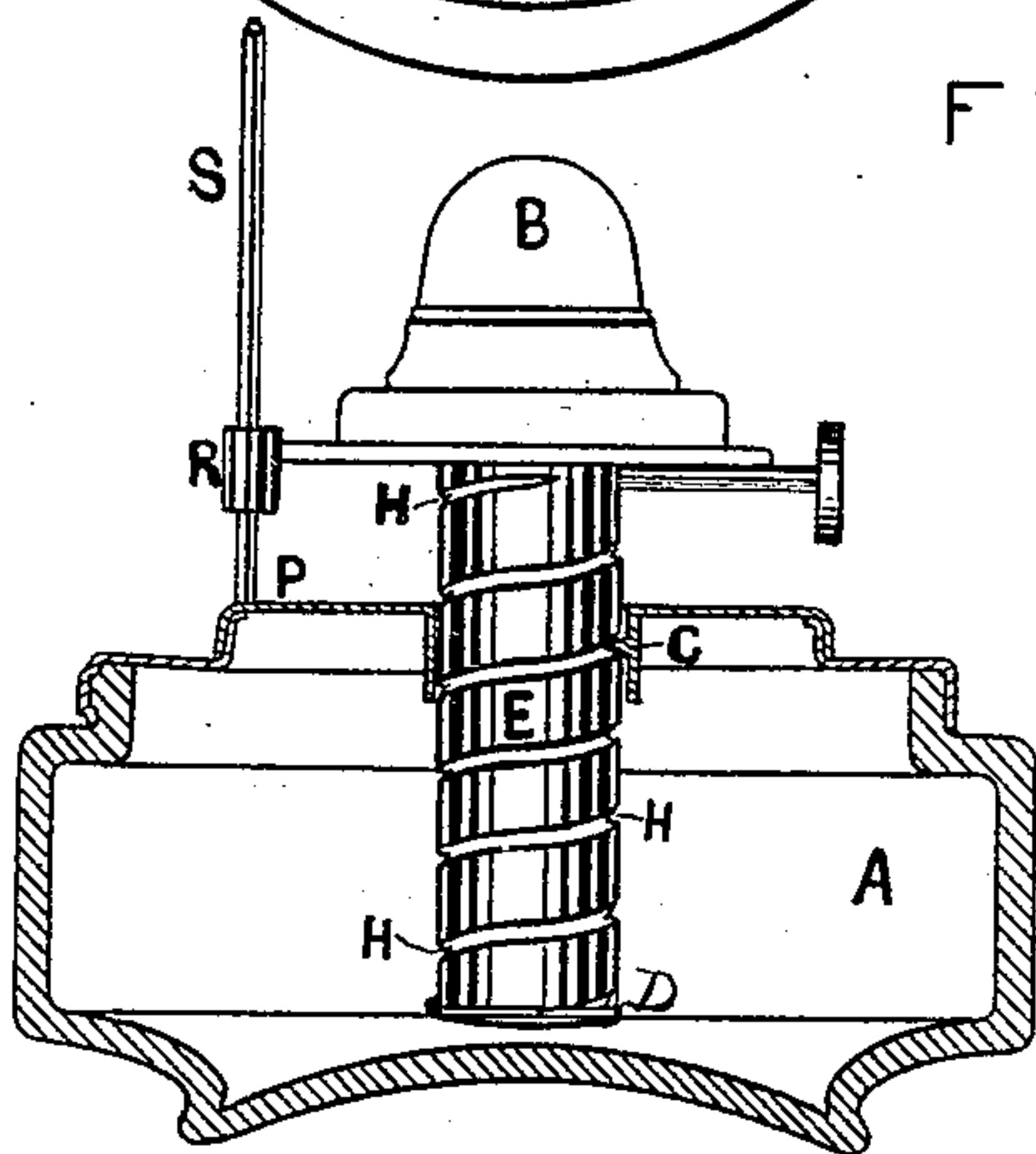


Fig. 3.

WITNESSES:

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UNITED STATES PATENT OFFICE.

WILLIAM H. KIMBALL, OF BOSTON, MASSACHUSETTS.

AUTOMATIC LAMP-EXTINGUISHER.

SPECIFICATION forming part of Letters Patent No. 262,678, dated August 15, 1882.

Application filed April 15, 1882. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. KIMBALL, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Automatic Lamp-Extinguishers, of which the following is a specification.

The object of my invention is to provide a cheap, simple, and convenient means for extinguishing street-lamps at a certain time, which may be prearranged when the lamp is lighted, so that the light will go out after burning the desired number of hours without exhausting the oil from the lamp or reservoir thereof, as heretofore or now in use; and it consists in the construction, combination, and arrangement of certain devices with the lamp and burner, whereby the burner and wick-tube may be adjusted vertically within and above the reservoir of the lamp, in connection with an indicator, whereby the number of hours and minutes it is desired the lamp may burn may be determined when the lamp is lighted, so as to obviate the necessity of going to each lamp to extinguish it at a certain hour in the early morning, as hereinafter more fully described, and set forth in the claims.

Figure 1 represents a side elevation of a lamp constructed according to my invention. Fig. 2 represents a top plan of the same. Fig. 3 is a sectional view of reservoir, with tube turned down to the bottom thereof.

A represents the reservoir of the lamp, formed of glass or any suitable material, as heretofore, and provided with a burner, B, having the usual wick-tube and ratchet and means for raising the wick to light the lamp, as heretofore.

In order that the light may go out or become extinguished after burning a certain number of hours or space of time desired, when the lamp is lighted I connect to the base of the burner, outside of the wick-tube, a cylindric tube, E, spirally grooved, or provided with a screw-thread fitting within a corresponding thread formed in the collar of the lamp. I have shown a spiral groove, H, extending from the bottom or base of the burner within the said tube E, making four or five complete turns before reaching the lower end thereof, as shown.

Within the collar of the lamp, or projecting

inwardly therefrom, is a point, C, adapted to fit within the said spiral groove H, so that if the burner be turned or revolved therein said grooved or spiral-threaded tube E will serve to elevate or depress the said burner, thereby carrying the lower end, D, thereof a greater or less distance from the bottom of the oil-reservoir A of the lamp, and as the wick is turned up within the lower end of the said tube and secured so that a small portion of the body of the wick is retained at the same horizontal plane, or even with the lower end, D, of said tube E, at all times. It will be seen and understood that when the lamp-reservoir A is filled with oil its diameter is such that it will require several hours to burn out—say one-half inch in depth—so that in order that the light may die out at that time the lower end, D, of the spiral-grooved tube H may only be extended into the oil that distance as may be found necessary to keep the light burning the length of time desired; and when it is relighted the next night the said tube H is again turned down or inwardly, so as to project the lower end thereof into the oil the required distance for the next night's burning, which operation is repeated at each lighting, until the bottom is reached and all of the oil consumed, which may last a week from once filling of the lamp-reservoir, or as may be found convenient. Now, in order to be able to accurately ascertain the precise point in depth it may be necessary to turn the burner or partially rotate it to carry the lower end of the said tube within the oil at each lighting and setting or adjusting thereof, I arrange upon the top of the lamp-reservoir, beneath and outside of the vertical peripheral plane of the burner or outside edge of the flange L of the chimney-support, a series of radial lines, forming a dial, P, or divisions numbered or marked with numerals, forming an indicator, and connect with said flange L a short vertical tube, R, within which is loosely fitted a wire or vertical rod, S, adapted to traverse over the said lines of the dial P when the burner is turned down or partially rotated, so as to indicate to the operator when lighting the lamp the point at which it is necessary to turn the burner forward so it shall burn the desired length of time before dying out.

By this construction all delicate springs and

complicated parts are dispensed with, thereby rendering the same durable and greatly reducing the cost thereof, and avoiding the liability of the adjusting mechanism being misplaced by the jarring action of heavy teams passing through the streets or roads wherein self-extinguishing lamps are in use, as heretofore constructed, to adjust the lower end of the wick within the lamp-reservoir.

10 Having thus described my invention, what I claim is—

15 1. A self-extinguishing lamp consisting of a reservoir having a vertically-adjustable burner and wick-tube, and provided with a horizontal indicator or dial and a vertically-sliding rod or pointer, as and for the purposes set forth.

2. The combination, with the reservoir A and

burner B, of the vertically-adjustable screw-tube E, surrounding the lower portion of the wick-tube, and provided with a stop or retaining device adapted to hold a portion of the wick in the same horizontal plane as the lower end thereof, substantially as described, as and for the purposes set forth. 20

25 3. The combination, with the reservoir A and burner B, of the horizontal dial or indicator P and vertically-sliding pointer or rod S, connected with the burner and adapted to traverse the dial by adjustment of the burner, substantially as described, as and for the purposes set forth. 30

WILLIAM H. KIMBALL.

Witnesses:

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