

No. 808,053.

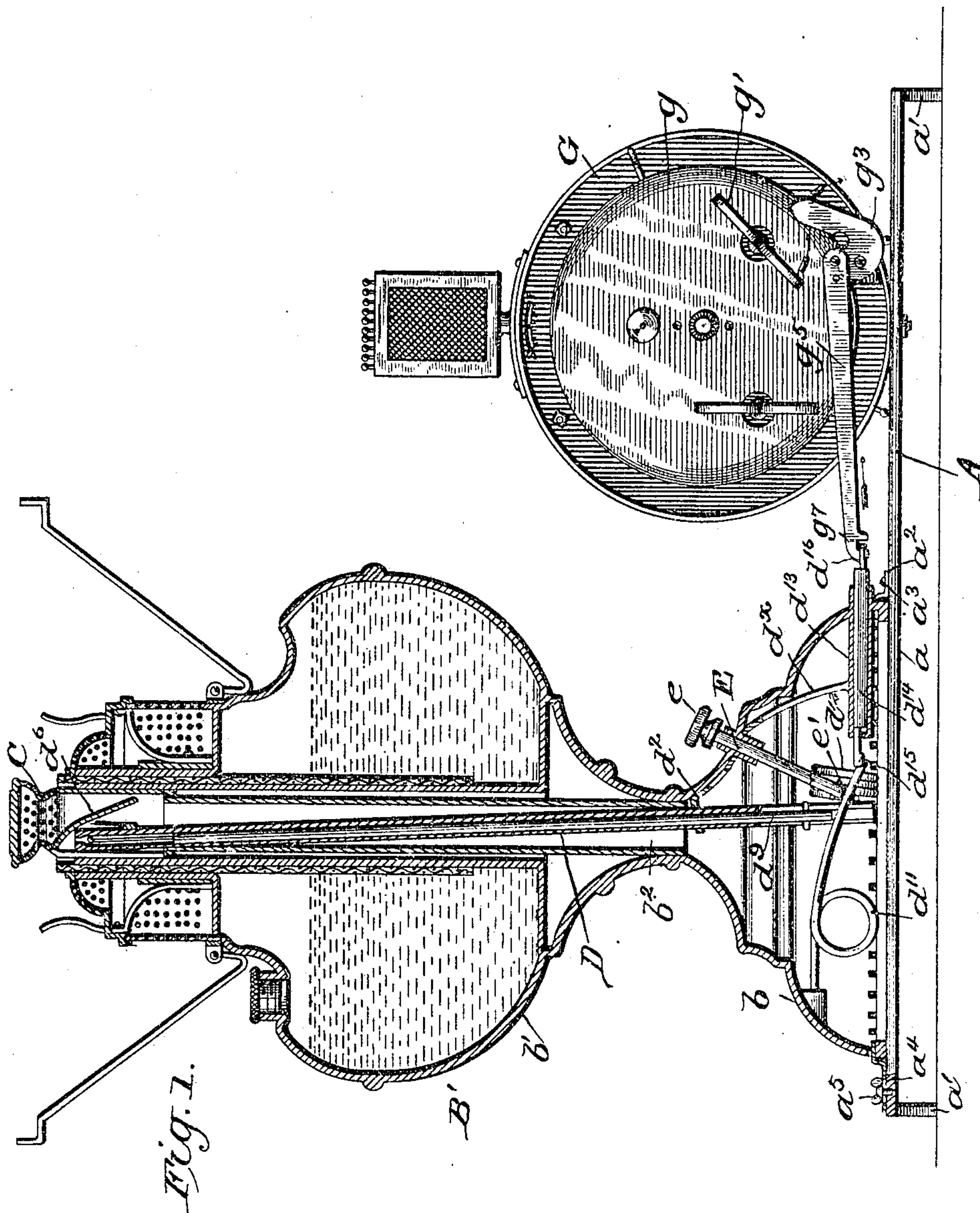
PATENTED DEC. 19, 1905.

T. W. HUNT.

TIME CONTROLLED LAMP.

APPLICATION FILED JULY 11, 1905.

2 SHEETS—SHEET 1.



WITNESSES:

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2 SHEETS--SHEET 2.

Fig. 2.

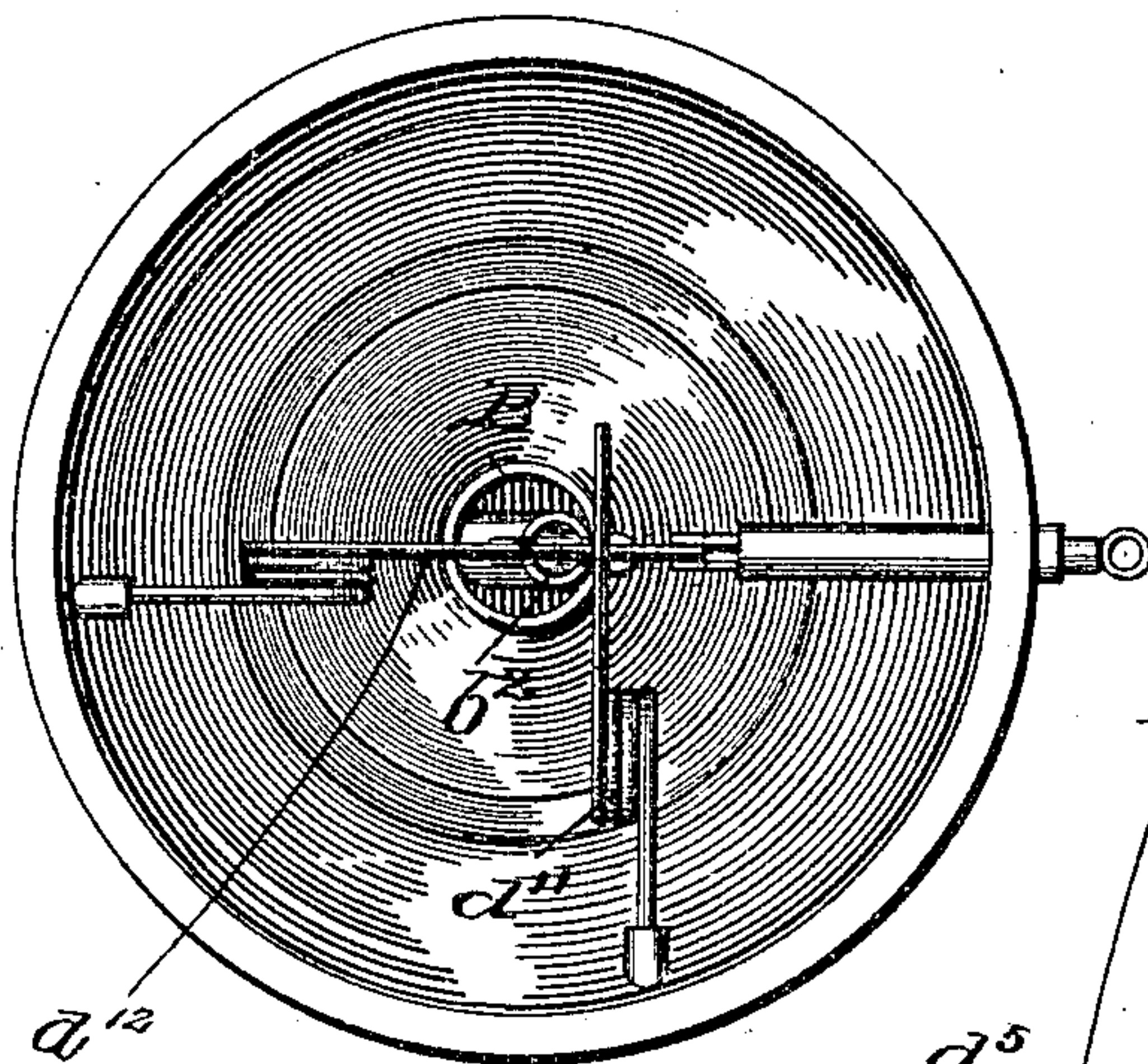


Fig. 3.

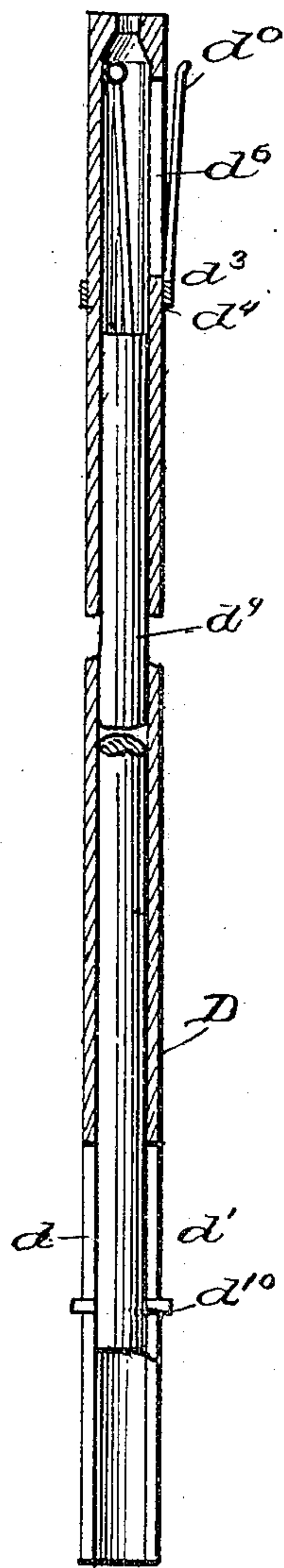


Fig. 5.

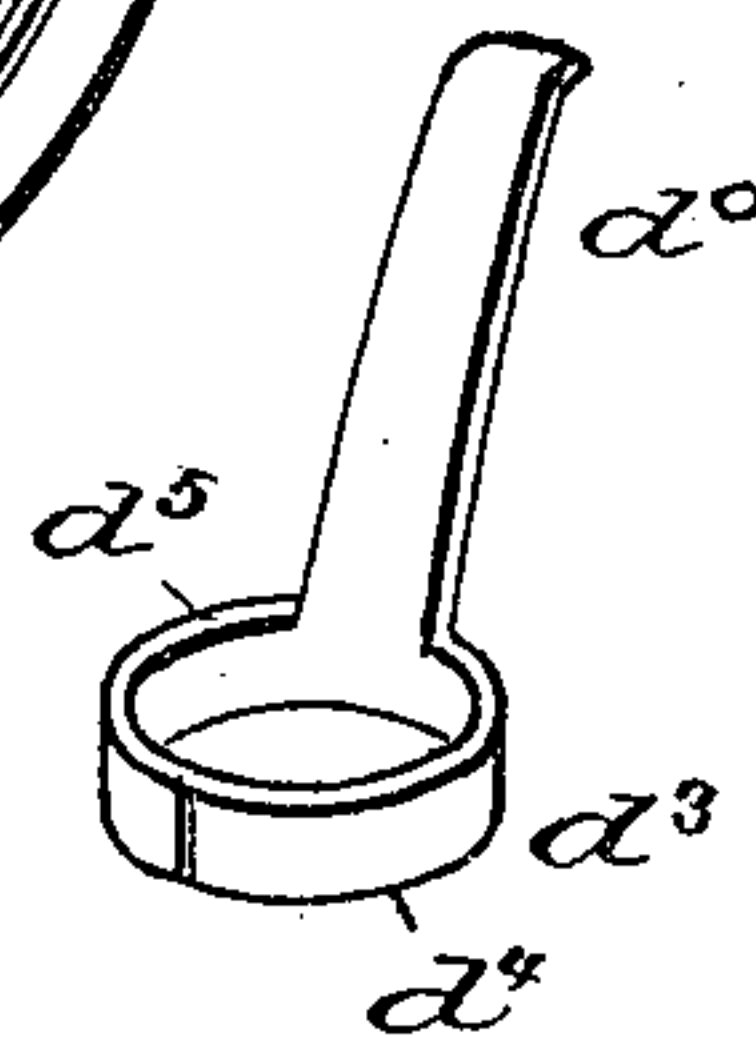


Fig. 4.

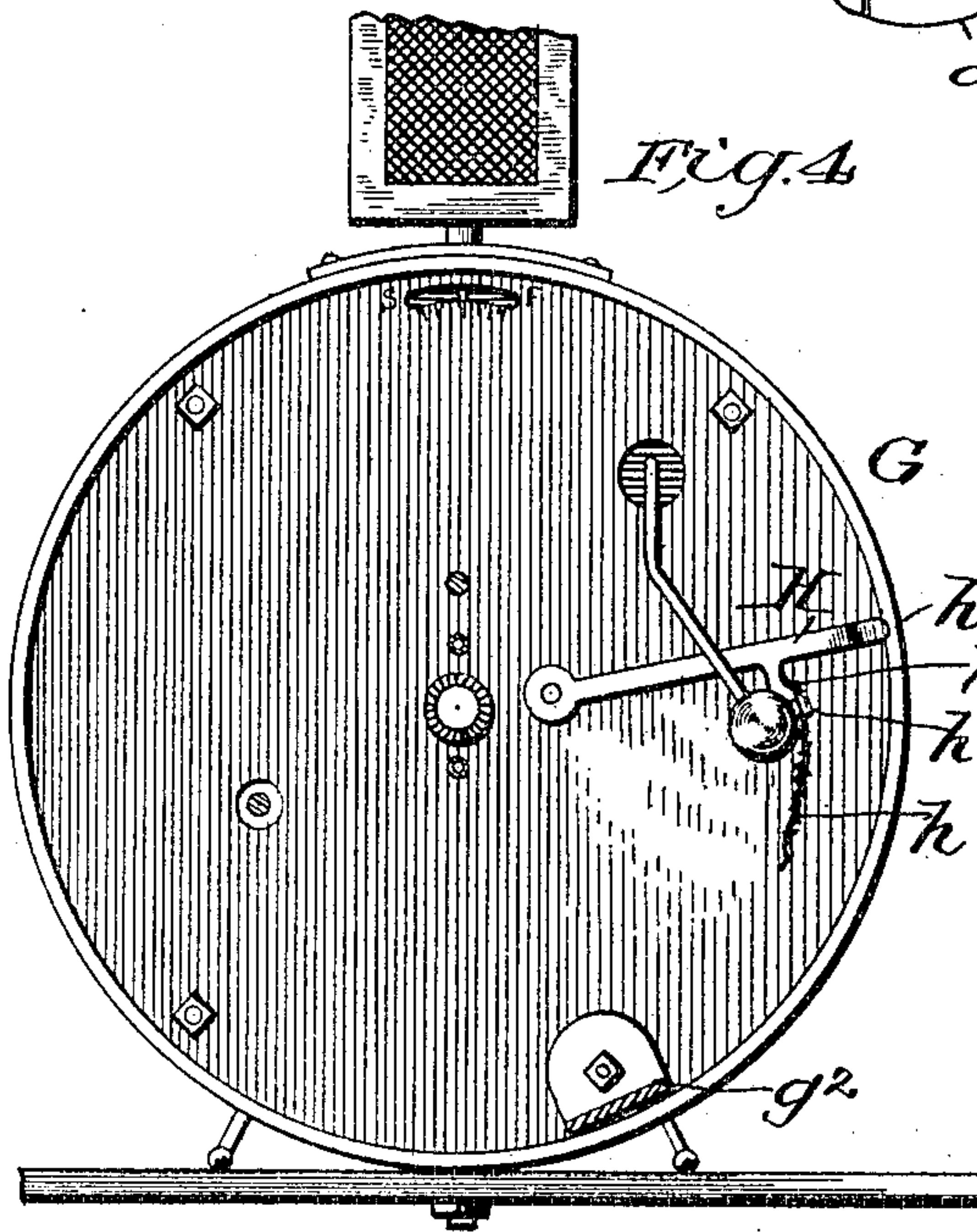
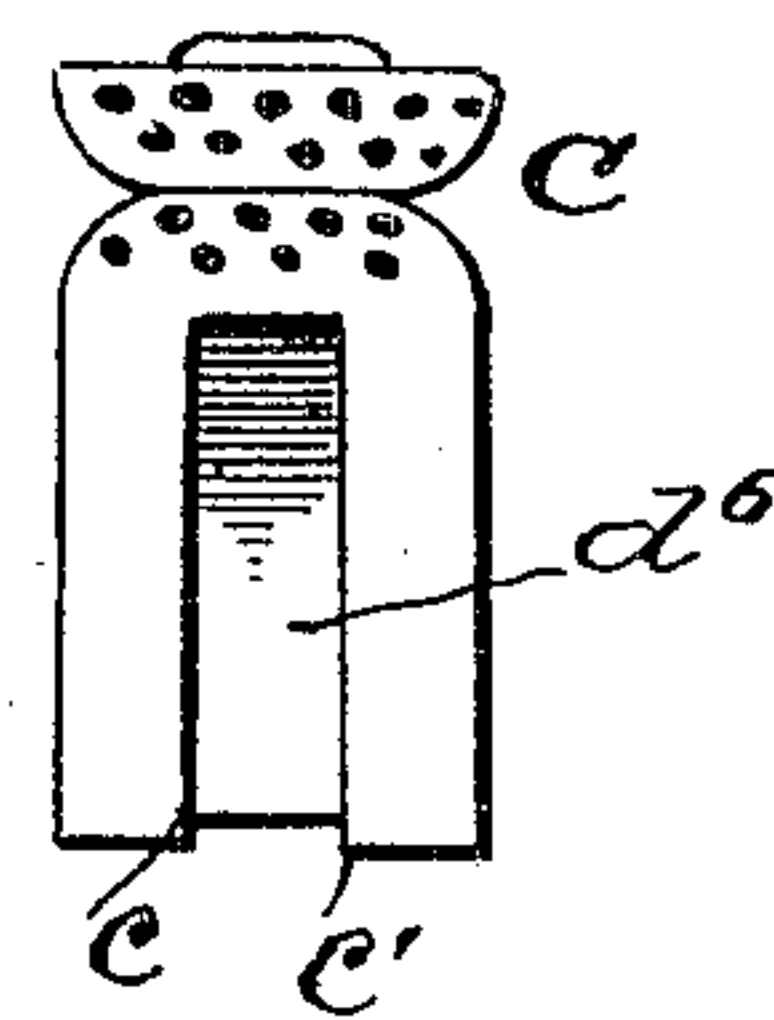


Fig. 6.



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UNITED STATES PATENT OFFICE.

THOMAS W. HUNT, OF ATLANTA, GEORGIA, ASSIGNOR TO THE HUNT
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TIME-CONTROLLED LAMP.

No. 808,053.

Specification of Letters Patent.

Patented Dec. 19, 1905.

Application filed July 11, 1905. Serial No. 269,202.

To all whom it may concern:

Be it known that I, THOMAS W. HUNT, a citizen of the United States, and a resident of Atlanta, in the county of Fulton and State of Georgia, have made certain new and useful Improvements in Time-Controlled Lamps, of which the following is a specification.

My invention is an improvement in automatic time-lamps; and it consists in certain novel constructions and combinations of parts hereinafter described and claimed.

Referring to the drawings forming a part hereof, Figure 1 is a vertical longitudinal section through my improved automatic time-lamp. Fig. 2 is a bottom plan view of the lamp. Fig. 3 is a longitudinal section of the tube. Fig. 4 is a rear view of the clock with the bell removed. Fig. 5 is a perspective view of the clamp, and Fig. 6 is a similar view of the spreader.

In the present embodiment of my invention I provide a base A of metal or other suitable material, comprising the flat portion *a*, provided with the legs *a'*. At one end of the base are secured a plurality of brackets *a*² by set-screws *a*³, one of the brackets having its base slotted, as at *a*⁴, and being secured by a thumb-nut *a*⁵ for convenience in loosening the bracket from the base.

A lamp B' of the round-wick type and comprising a base *b* and a fountain *b'* is secured to the base by means of the brackets, the base of the lamp being hollow, as shown in Fig. 1, the base and the fountain being traversed by an air-draft tube *b*². At the top of the lamp is arranged the burner of ordinary construction, the wick surrounding the air-tube and a perforated cap or spreader C, of the form shown in Fig. 6, being inserted in the upper end of the air-tube. The spreader C is of ordinary form, but is provided in its edge with two vertical slits *c c'*, the portion between the slits being bent inwardly to a point adjacent the opposite side of the spreader for a purpose to be hereinafter described. A brass tube D, provided in its bottom with oppositely-disposed slots *d d'*, is arranged in the air-tube and secured thereto by means of the bracket *d*² at the lower end thereof. A plunger *d*⁰ is arranged within the tube D, the plunger being provided with a cross-pin *d*¹⁰ at its lower end for engaging the slots in the tube and the upper end of the plunger extending to a point somewhat below the upper

end of the tube. That part of the tube D above the plunger is provided with a slot *d*⁰ and a clamp *d*³, comprising the arms *d*⁴ *d*⁵, encircling the tube, and a tongue *d*⁰, extending upwardly in front of the slot, is arranged upon the tube adjacent to the lower end of the slot. The upper part of the internal opening of the tube is of the shape shown in Fig. 3, the opening being contracted in the form of a cone until approximately the last one-eighth inch, where the opening is again of regular outline, but of reduced size, the diameter being equal to that of the ordinary match-body.

A coil-spring *d*¹¹, having one end secured to the base and the other end projecting through the aligned slots *d d'* in the lower end of the tube D, is provided for actuating the plunger. A second plunger E, arranged within an opening in the base, the inner end of the plunger engaging the end of the spring, is provided for depressing the same, the outer end of the plunger being provided with a button *e* and the inner end being provided with a cross-pin *e'* to prevent withdrawal of the plunger from the opening. For retaining the spring in its depressed position a slide *d*¹⁴ is provided. The slide is arranged within a horizontal tube *d*¹³, traversing an opening in the base and secured to the base by a bracket *d*^x, the inner end of the slide being provided with a curved lug *d*¹⁵ for engaging the end of the spring and the outer end being provided with an eye or ring *d*¹⁶.

A clock G of the ordinary type, provided with an alarm *g*, having connected therewith the key *g'*, is secured to the opposite end of the base. Attached to the rear face of the clock, near the lower part thereof, is a bracket *g*², having pivoted thereto a catch *g*³, the catch being adapted to be engaged by the alarm-key when the alarm goes off, and a lever *g*⁵, pivoted to the catch and provided with a hook *g*⁷ for engaging the ring *d*¹⁶, is provided for releasing the slide *d*¹⁴ from its engagement with the end of the spring *d*¹¹.

In operation, the alarm being set to ring at the proper time, the plunger E is depressed and the slide *d*¹⁴ is moved in until the lug *d*¹⁵ engages the end of the spring *d*¹¹. A match is then inserted within the slot in the upper end of the tube D. When the alarm mechanism is released, the key rotates, striking the catch, which through its connection with the slide releases the plunger, and the match

is driven upwardly through the reduced opening in the tube B, which is of smaller diameter than the head of the match, thus igniting the match. The spreader C is arranged within the air-tube in such a manner that the tube D is between the slits in the edge of the spreader. When the match is ignited, the bent portion of the spreader deflects the flame outwardly into contact with the wick, thus insuring the proper ignition thereof.

It is often desirable in a sick-room that the attendant be awakened to administer medicine or for other purposes without disturbing the patient. For this purpose I provide a muffler for the alarm-bell comprising a strip of felt h , attached to a lever H, the lever being pivoted to the rear face of the clock and extending without the bell, as at h' , to provide a handle for manipulating the same. The strip of felt is secured to a depending arm h^2 , provided with an outward extension h^3 for maintaining the strip perpendicular to the clock-face. When the lever is moved upwardly, the strip of felt is drawn between the hammer and the bell.

For the purpose of increasing the impetus of the match-driving plunger a second spring d^{12} , similar to the spring d^{11} , is provided, one end of the spring being secured to the base of the lamp and the other end projecting inwardly and crossing the first spring at right angles thereto.

It will be evident, from the description that my invention, while simple in construction, is yet efficient in operation, there being no complicated mechanism to get out of order and no parts liable to breakage.

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

1. In an automatic time-lamp, the combination of a base, a lamp provided with a circular draft-opening and a burner surrounding the draft-opening, removably secured to the base, a tube arranged in the draft-opening and extending to a point adjacent to the burner, the central opening of the tube comprising a portion of relatively large diameter adapted to receive a match, a portion of relatively small diameter adapted to engage the head of the match, and a tapering portion connecting the two first-named portions, the lower end of the tube being provided with oppositely-disposed slots, and the upper end being provided with a single slot adjacent to the portion of relatively small diameter, an open ring encircling the tube below the slot, and provided with a tongue extending upwardly in front thereof, a plunger within the tube, a cross-pin on the lower end of the plunger and engaging the oppositely-disposed slots, a spring for actuating the plunger, a second plunger for depressing the spring, a slide

for engaging the spring to retain it in its lowered position, a clock provided with an alarm secured to the base, connections between the alarm and the slide whereby the operation of the alarm may release the plunger to ignite the match, and a spreader above the draft-opening having a portion of its edge deflected inwardly above the upper end of the tube.

2. In a device of the character described, a burner, a match-holder, a spreader for the burner and time-controlled means for igniting a match, said spreader having therein a deflector for the purpose described.

3. In a device of the character described, the combination of a tube, a burner encircling the same, a match-holder, a spreader at the mouth of the tube, and a time-controlled means for igniting the match, said spreader having therein a deflector for the purpose described.

4. A lamp having a base portion, a liquid-holding portion, and a burner, a tube extending from the base portion to the burner, a match-holding device in the tube, time-controlled mechanism in the base portion for igniting a match, and a deflector for the purpose described.

5. In a device of the character described, the combination of a tube, a burner surrounding the same, a match-holder, a spreader at the mouth of the tube and provided with a deflector for the purpose described, means for igniting the match, a clock having an alarm, and means whereby the alarm may control the match-igniting means.

6. A lamp having a base portion, a liquid-holding portion and a burner, a tube extending from the base portion to the burner, a match-holding device in the tube, time-controlled mechanism in the base portion for igniting the match, means without the base portion whereby to set the igniting means, and a deflector for the purpose described.

7. In a device of the character described, a lamp comprising a base and a liquid-holding portion, a burner on the liquid-holding portion, the lamp having a draft-opening extending from the base to the burner, a tube arranged in the draft-opening and comprising a portion of relatively large diameter for receiving a match, and a portion of relatively small diameter for engaging the head of the match to ignite the same, a plunger in the tube, a spring within the base for actuating the plunger, means for normally retaining the spring in its inoperative position, and time-controlled means for releasing the retaining means.

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Witnesses:

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