

(No Model.)

2 Sheets—Sheet 1.

D. MURGULETZ.
EXTINGUISHING DEVICE FOR LAMPS.

No. 446,361.

Patented Feb. 10, 1891.

Fig. 1

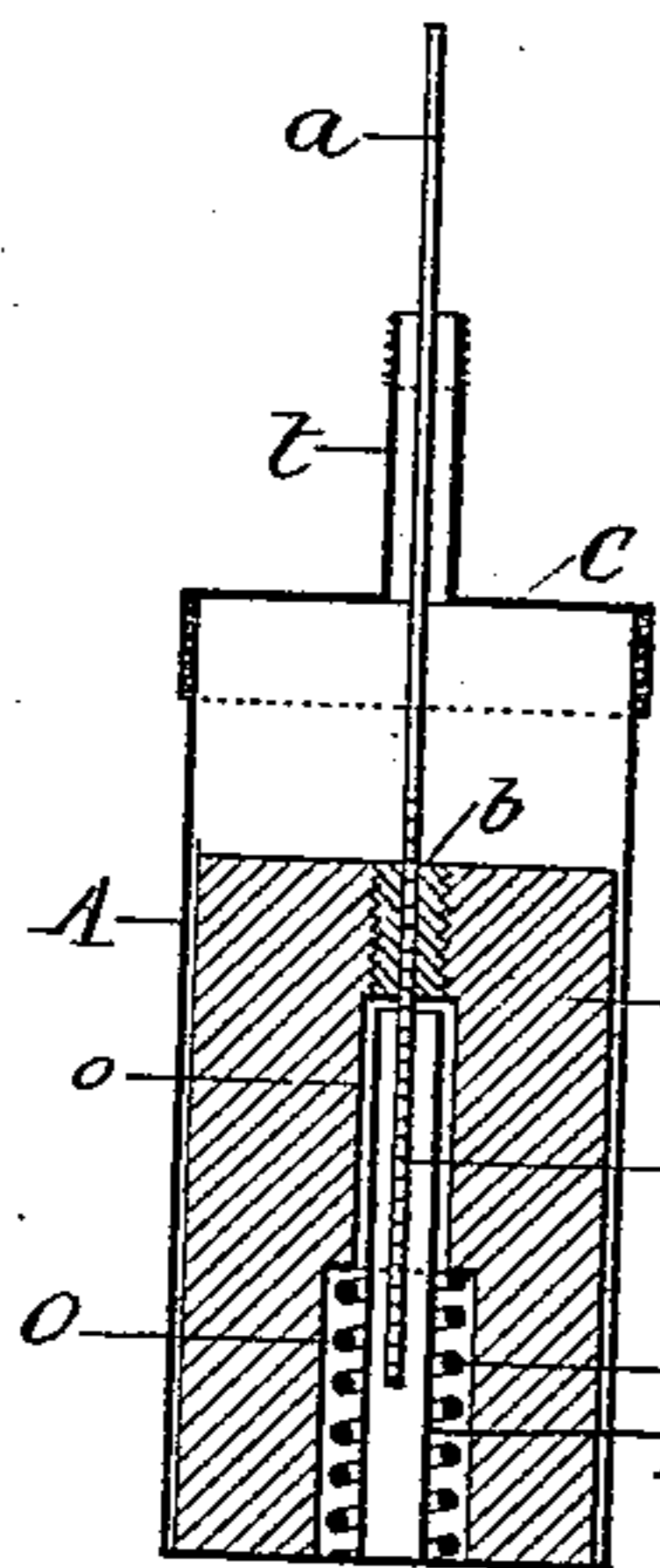


Fig. 3

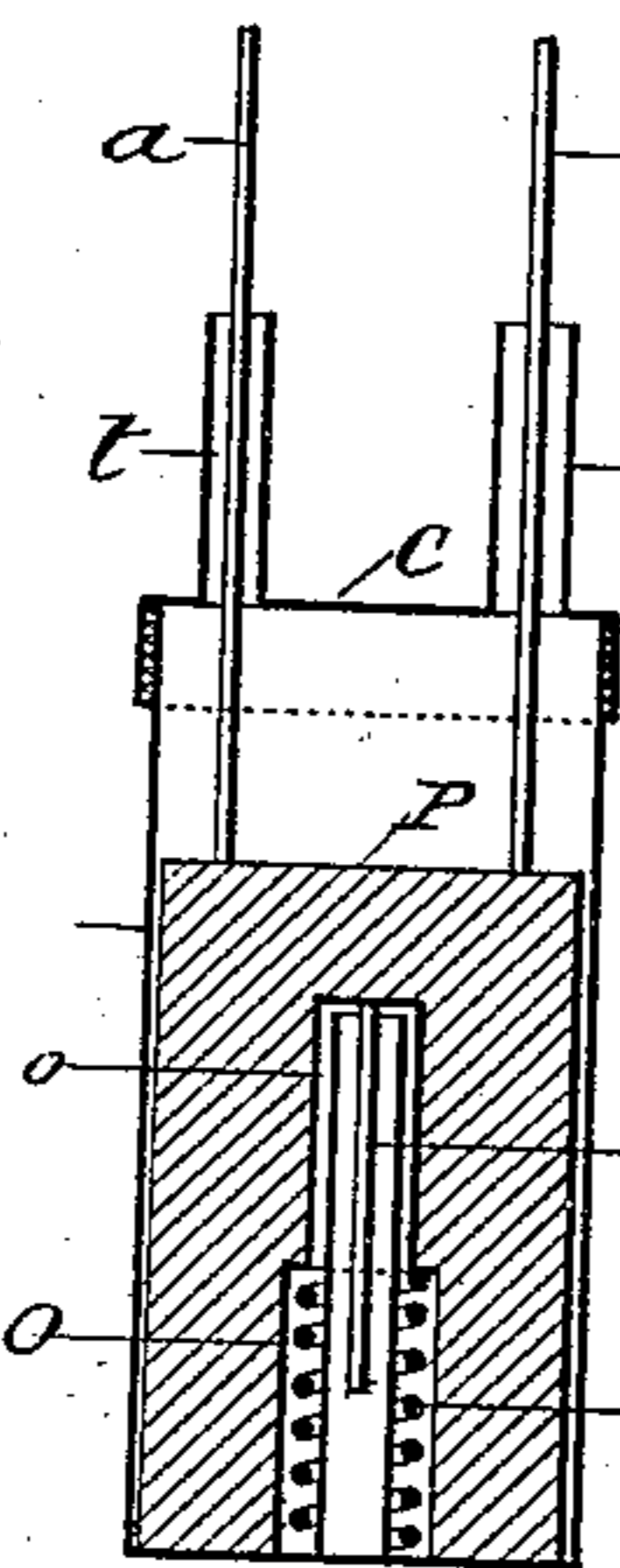


Fig. 5

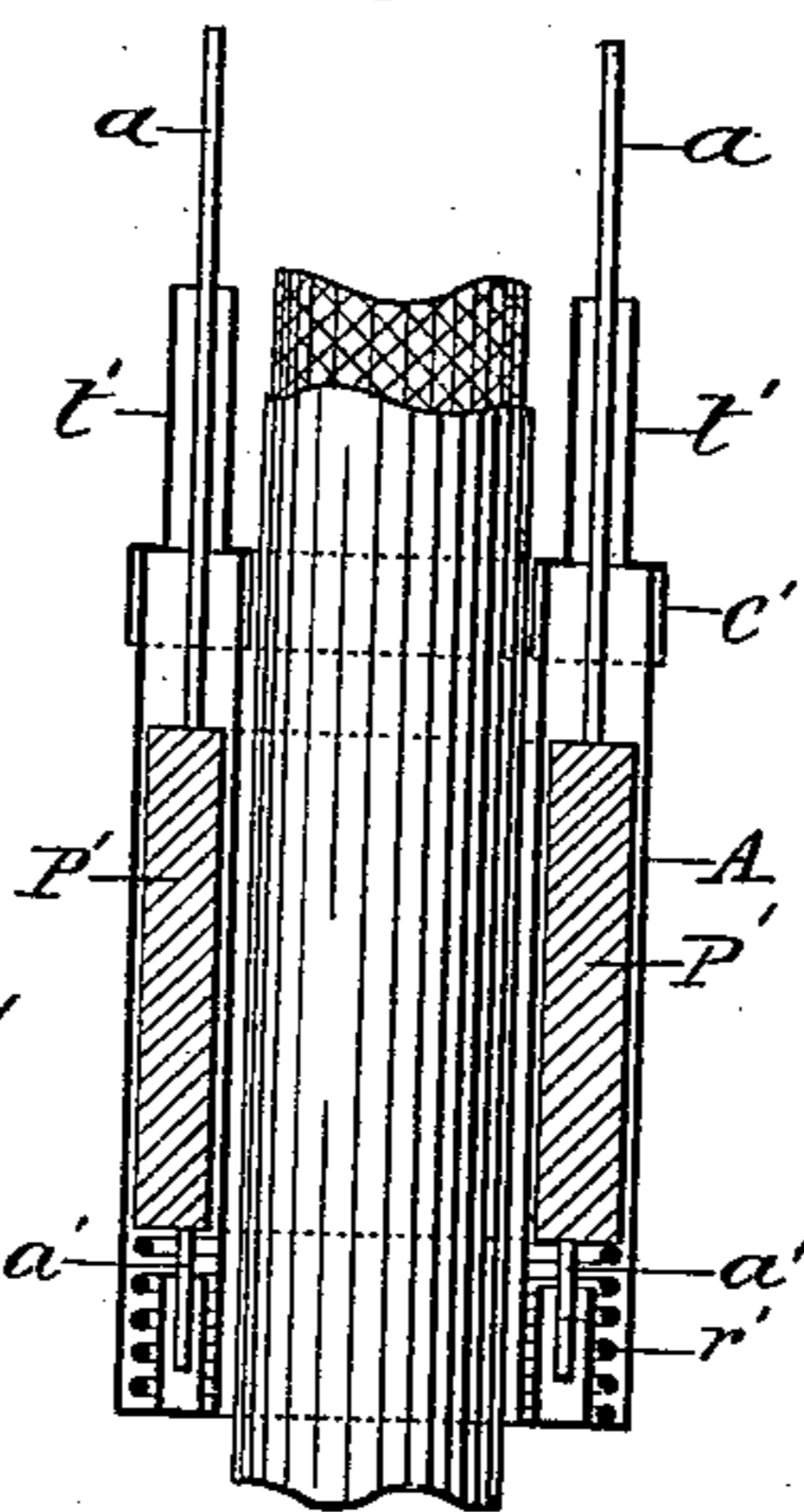


Fig. 2

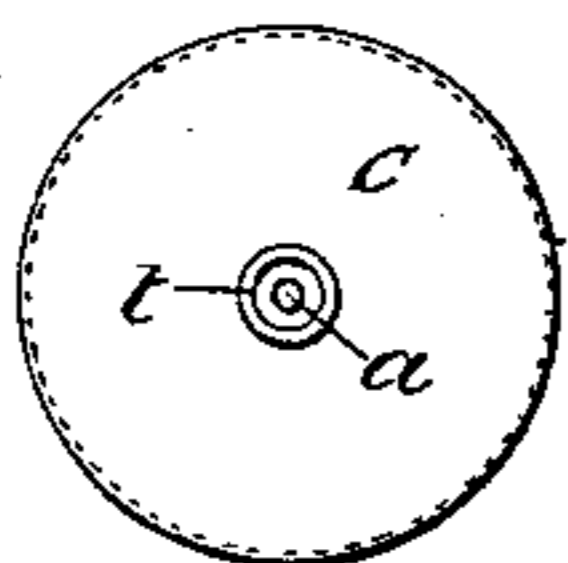


Fig. 4

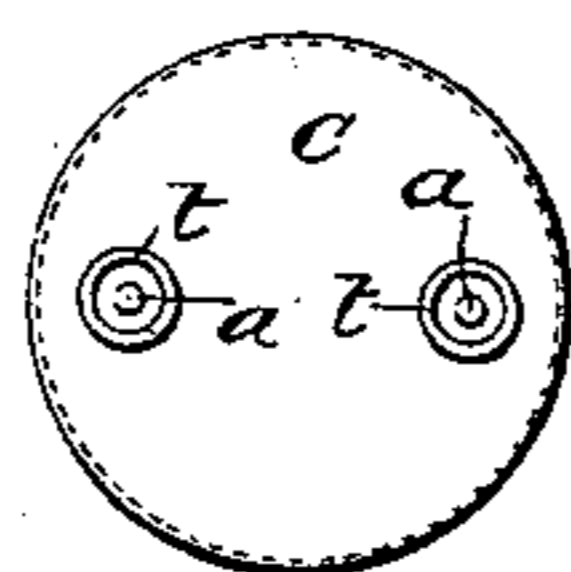


Fig. 6

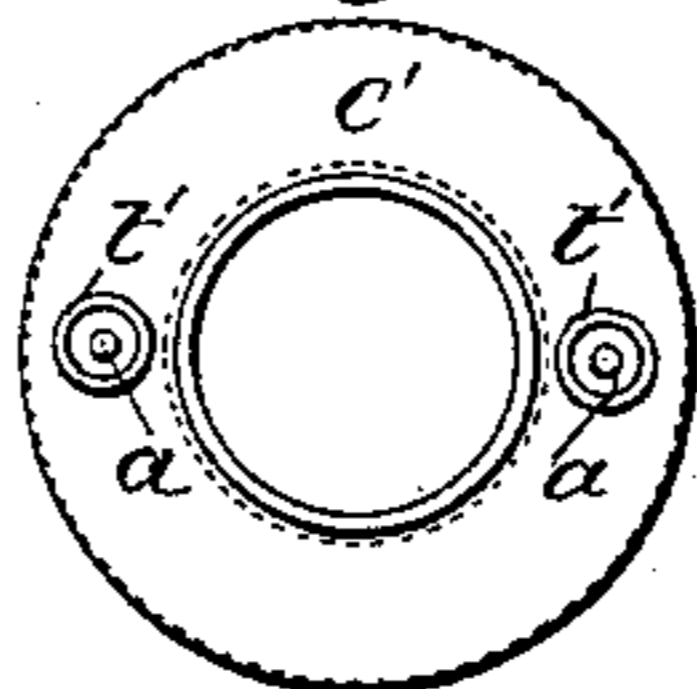


Fig. 7

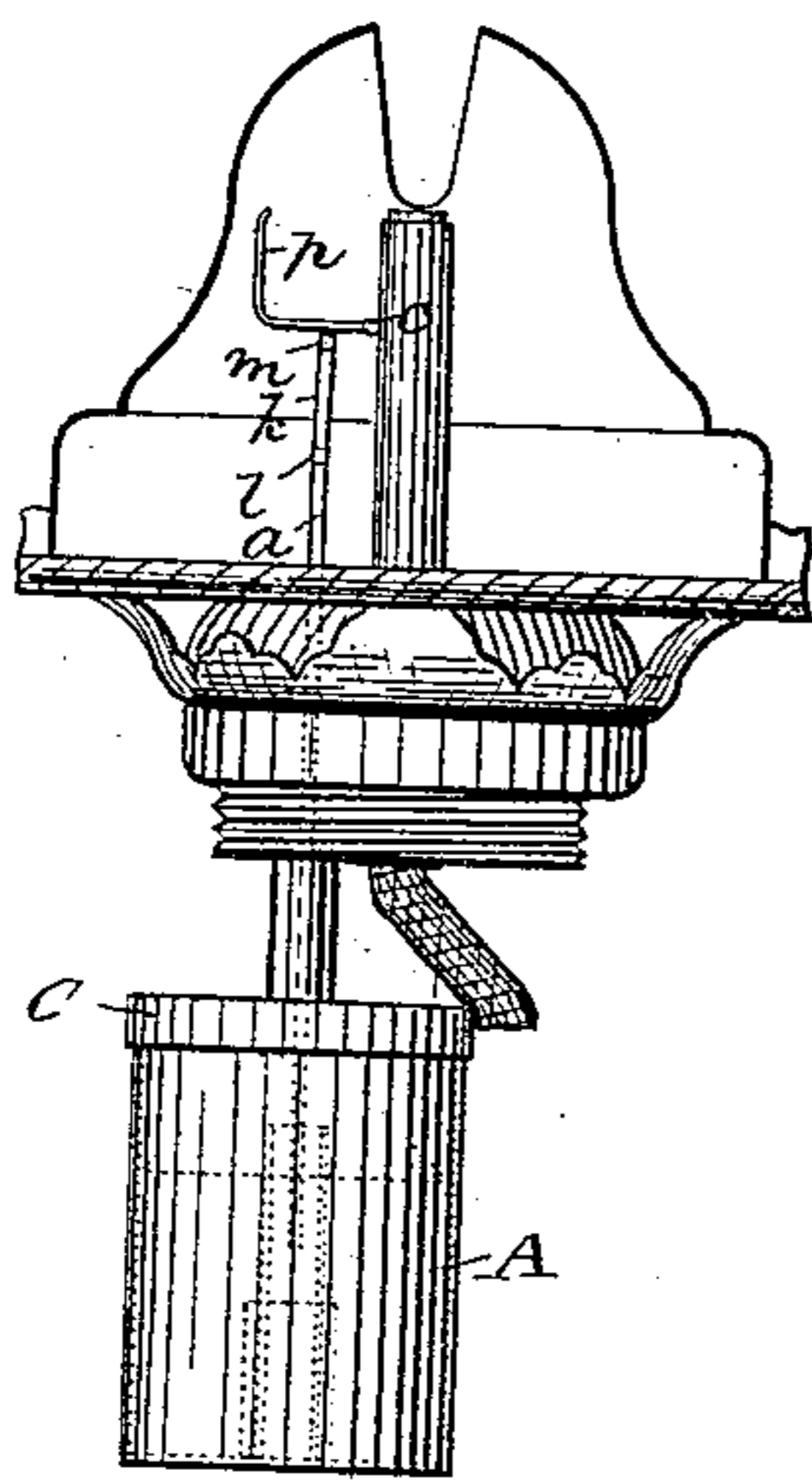


Fig. 8

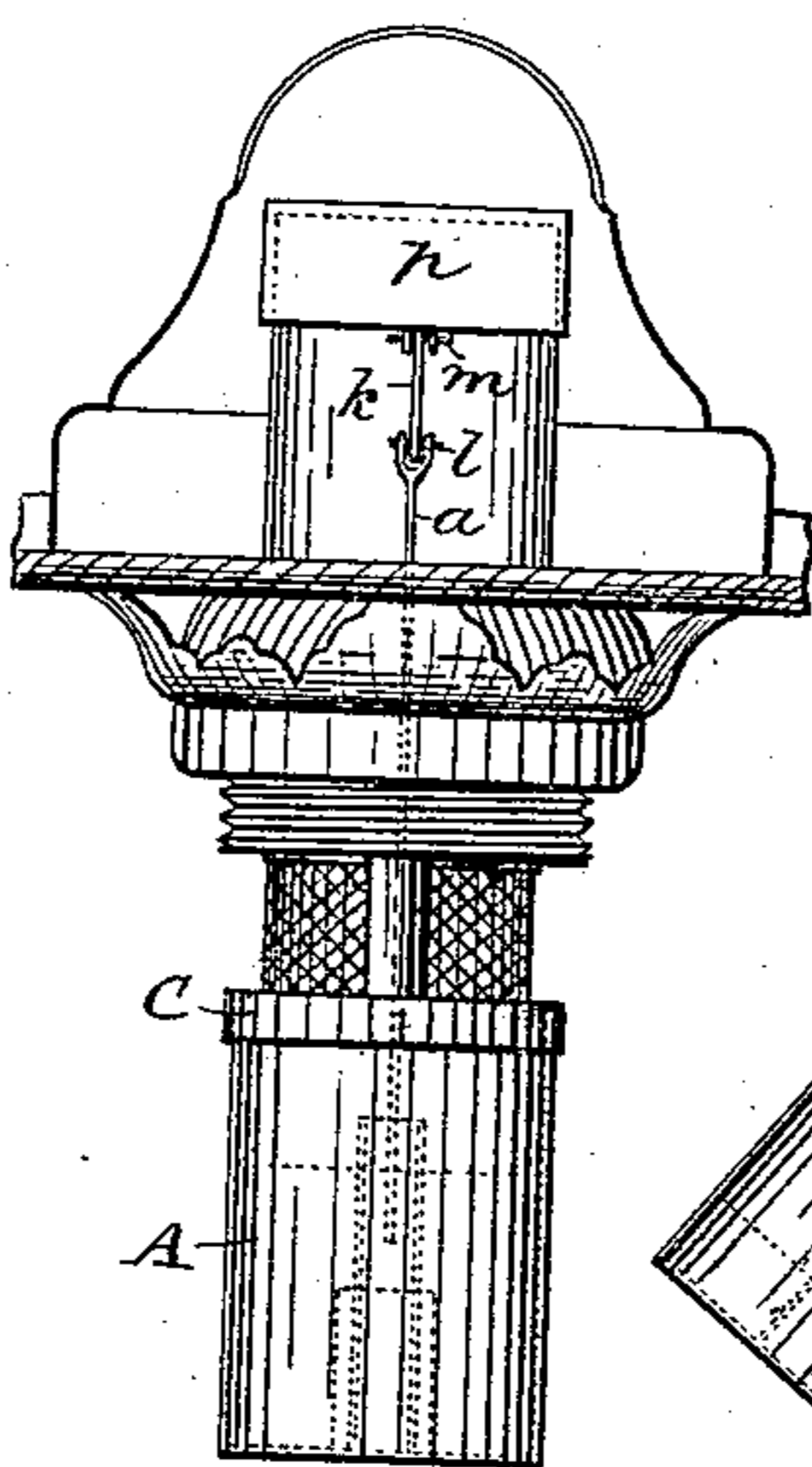
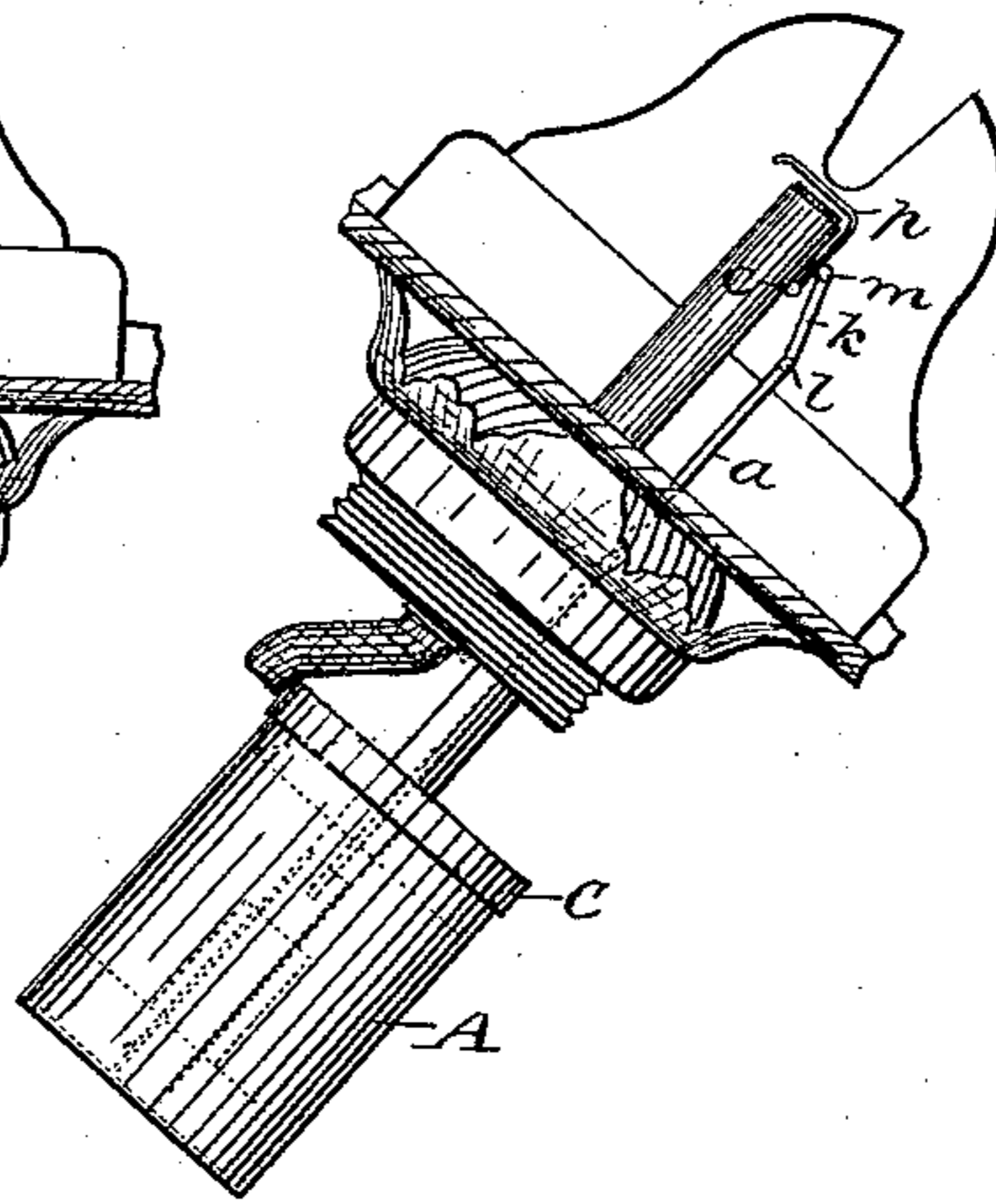


Fig. 9



Witnesses

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Fig. 10.

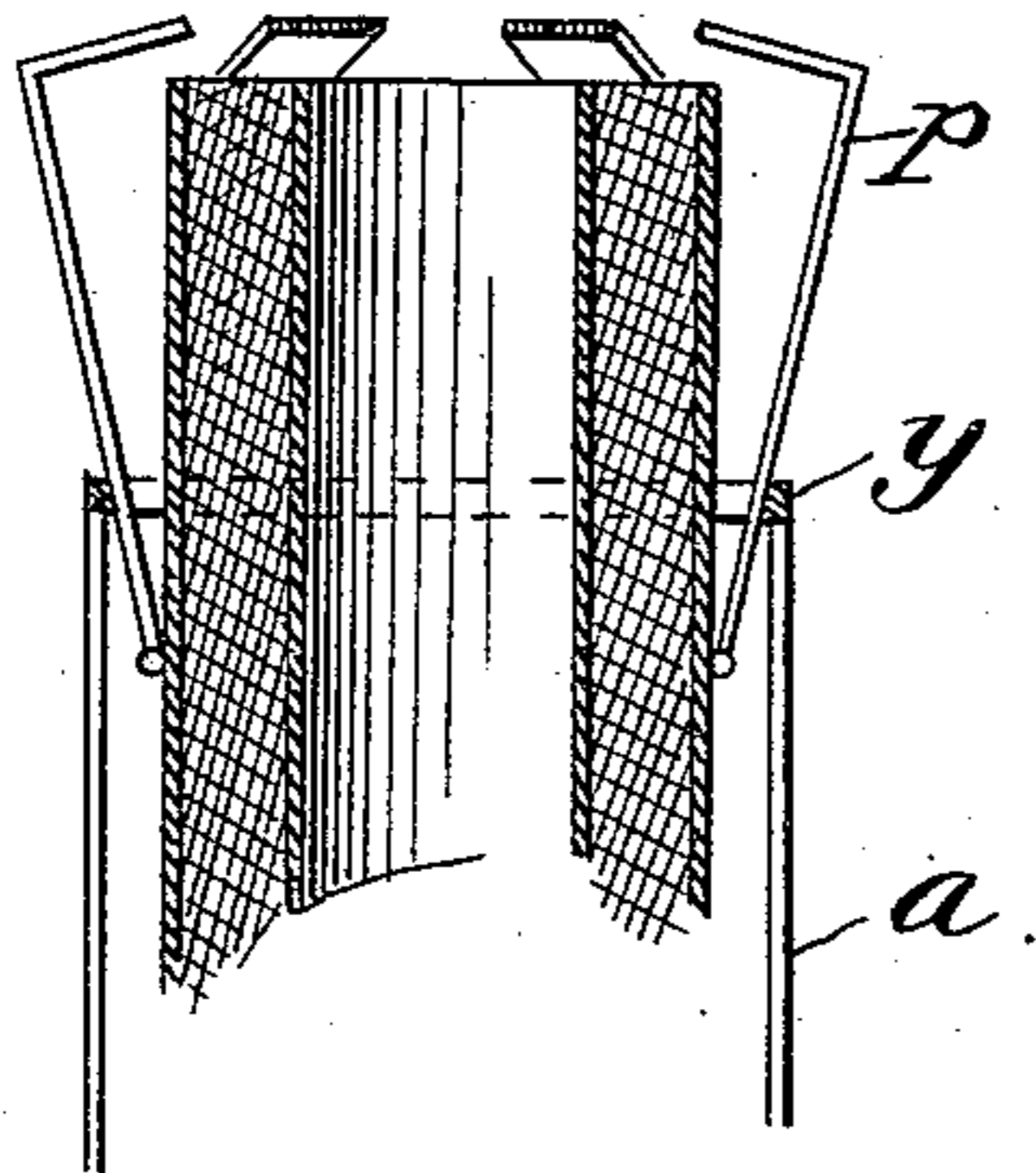


Fig. 11.

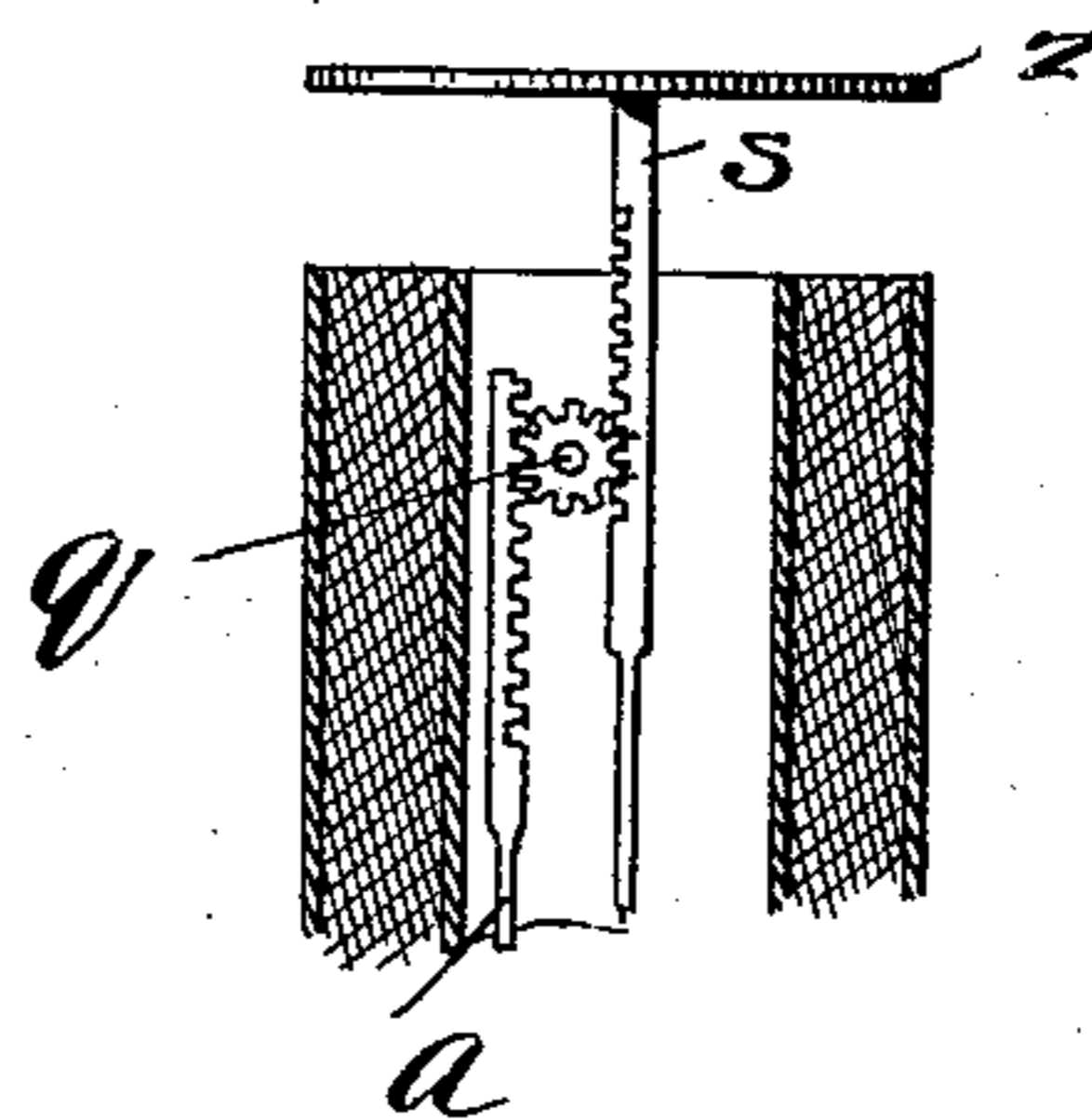


Fig. 12.

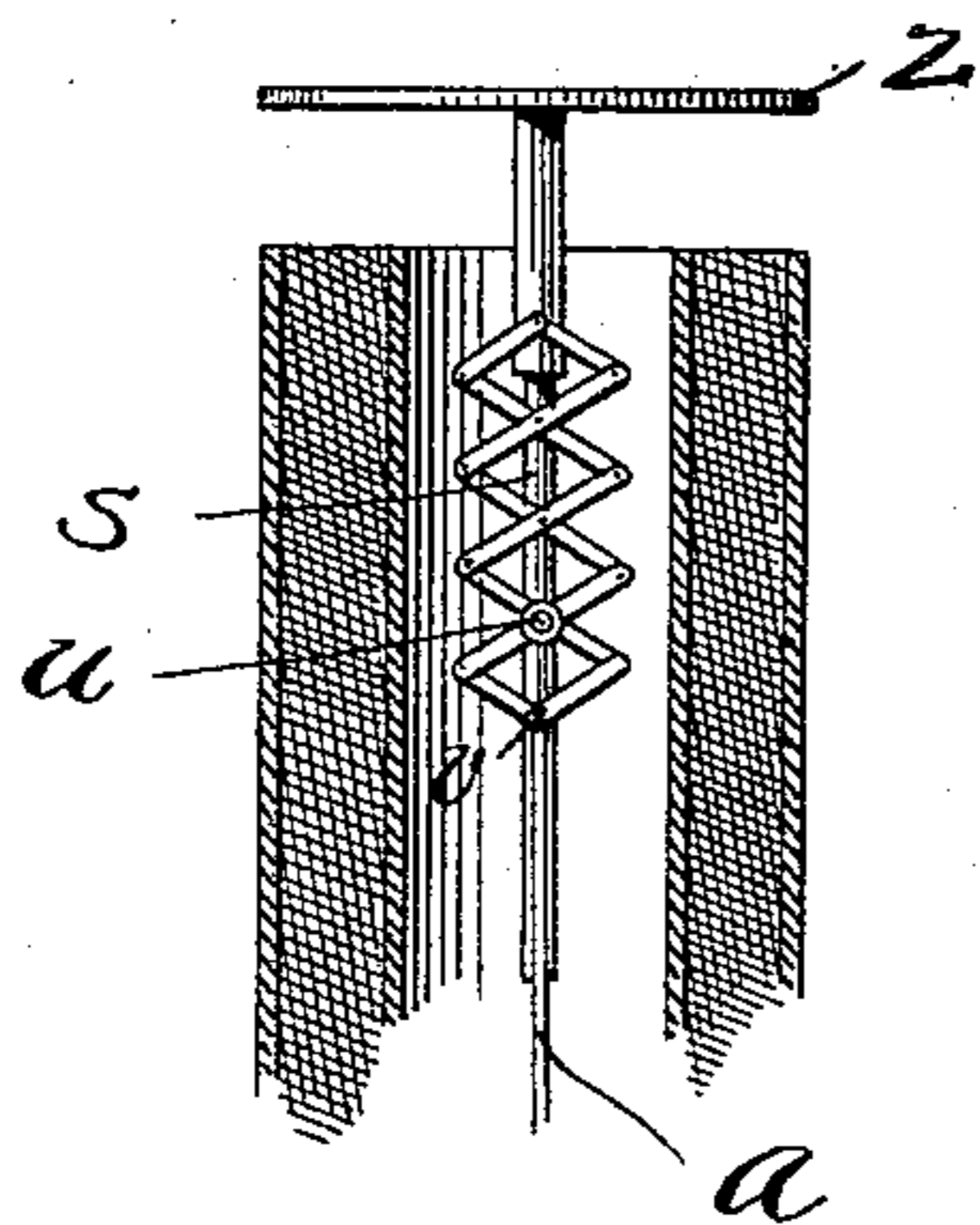
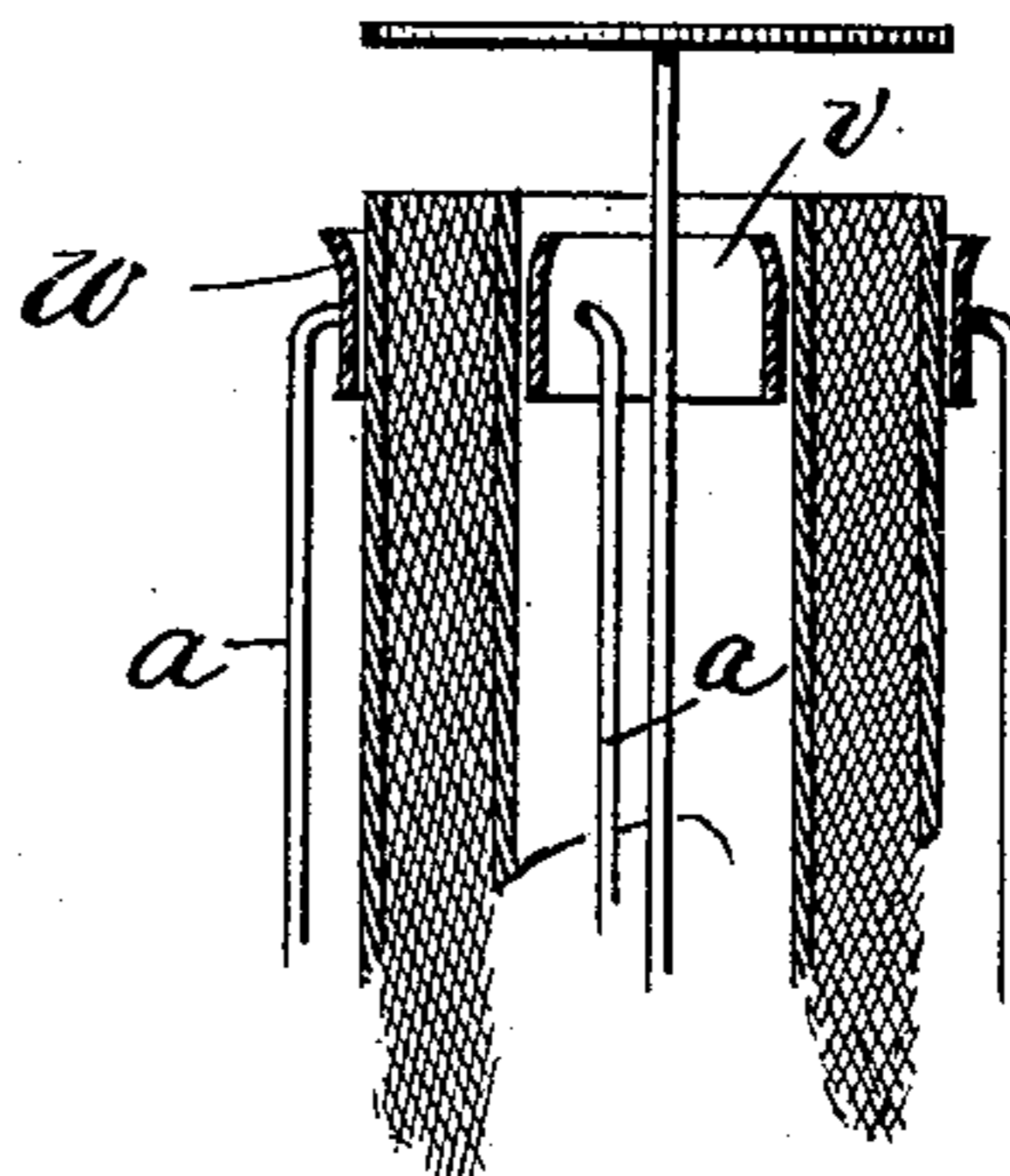


Fig. 13.



Witnesses
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UNITED STATES PATENT OFFICE.

DÉMÈTRE MURGULETZ, OF BRUSSELS, BELGIUM.

EXTINGUISHING DEVICE FOR LAMPS.

SPECIFICATION forming part of Letters Patent No. 446,361, dated February 10, 1891.

Application filed May 22, 1890. Serial No. 352,702. (No model.)

To all whom it may concern:

Be it known that I, DÉMÈTRE MURGULETZ, a subject of the King of Roumania, residing at Brussels, in the Kingdom of Belgium, have invented a new and useful Improvement in Extinguishing Devices for Lamps, of which the following is a specification.

The invention is applicable to either a lamp having an ordinary burner or an Argand lamp, its object being to extinguish the flame when the lamp is upset or falls.

In the drawings, Figure 1 is a sectional view of the weight arrangement by which the extinguisher is operated. Fig. 2 is a plan view of the same. Fig. 3 is a sectional view of a modification, and Fig. 4 a plan of the same. Fig. 5 shows the weight arrangement as adapted to a round burner. Fig. 6 is a plan of the same. Figs. 7, 8, and 9 show the application of the device to a burner, the latter figure illustrating the device in action. Fig. 10 represents a sectional view of a round burner with an extinguisher combined therewith. Fig. 11 is a sectional view of a round burner, showing a movable deflector with operating means to cause it to extinguish the flame. Fig. 12 is a modification of the same. Fig. 13 is another modification.

The device consists of a cylindrical casing A, as shown in Fig. 1, on which is screwed a cover C, projecting from which is a small tube *t*, which may be threaded at its upper end for attachment to the burner portion of the lamp, as in Figs. 7, 8, and 9, or may be secured thereto in some other way. It will be noticed that the casing is joined to the lamp-burner by a connection of reduced diameter, as the tube shown, and this leaves sufficient space for the wick to depend from the burner without being cramped or squeezed as it moves upward.

The casing A has a tube B secured to the bottom of same, as shown, which tube serves as a guide to a weight P, loosely fitting in the casing. This weight carries a spindle *a*, preferably screwed into a bushing *b* in the head of same, said spindle passing through into the tube B of the casing, which serves to guide it. The weight has a central hole bored or formed of two different diameters O o, as shown, so that a shoulder is formed which serves to keep in place a coiled spring *r*, which has been dropped over the tube B and is re-

tained in the aperture O. Under normal conditions the spring *r* is compressed by the weight P, as shown; but as soon as the lamp is much inclined, as in the act of falling over, the inertia of the weight will be overcome by the spring, and, the former being raised, the spindle *a*, connected thereto, will be given a movement, which is utilized, as hereinafter explained, to operate one of the forms of extinguishing devices shown. In the case of a vertical fall of a suspended lamp the spring will similarly overcome the inertia of the weight. As soon as the lamp is replaced in its vertical position the weight falls and the extinguisher is removed. In some cases, as shown in Figs. 3 and 4, the weight P may be provided with two spindles *a a*, which may operate one or more extinguishing devices, a central rod *a'*, passing into the tube B, being employed for steadying the weight. When the lamp has a central tube running through same, the arrangement shown in Figs. 5 and 6 may be employed where the casing A is annular and surrounds said central tube. It is provided with a cap C' and tubes *t' t'*, which are attached to the burner portion of the lamp in a manner similar to that illustrated in Figs. 7, 8, and 9. The weight P' is annular in shape and fits loosely in the casing. It carries the spindles *a a*. At its bottom it has guiding pins or rods *a' a'*, which pass into tubes B' B' and rest upon and compress a coiled spring *r'*. The spindles *a*, attached to the extinguishing device, may be bent or forked or of any form in case the arrangement of the lamp will not permit them to be straight. In place of using a weight in the interior of which is placed the spring, a plain weight may be employed, which will simply rest on a coiled spring placed in the bottom of the case, somewhat as shown in Fig. 5, or a plate-spring may be employed, the weight, of course, being suitably guided.

The extinguisher may be of various forms, and the form of Figs. 7, 8, and 9 is used as a representative one, others being adapted to operate similarly. It consists of a bent plate *p*, hinged to the wick-tube and connected by a link K to the spindle *a*, the pivots being marked *m* and *l*. When the weight rises, it pushes the extinguisher *p* from the position of Fig. 7 to that of Fig. 9.

The extinguishers adapted to round burners are shown in Figs. 10, 11, 12, and 13, and in Fig. 10 the extinguisher is formed of bent plates *p*, hinged to the outside of the wick-tube. Each of these plates is a segment of a circle. In their normal position they are open, as shown; but when brought together by the upward movement of the collar *y*, to which the spindles *aa* are attached, they close in and completely cover the wick. In Fig. 11 the extinguisher consists of a disk *z*, carried by a rod *s*, having a rack on same, which engages with a pinion *q*, the latter also engaging with a rack cut on the spindle *a*. This disk *z* acts as a deflector and spreads the flame when the lamp is alight, and when brought down on the wick by the action of the spindle *a* extinguishes it. In Fig. 12 the rod of disk *z* is carried by an arrangement of pivoted levers on the "lazy-tong" principle, the fixed point being at *u* on stationary rod *s*. The other end of the lazy-tong is pivotally connected at *v* with the spindle *a*, so that the motion of the said spindle *a* may open and close same, and so move up and down the disk *z*. In Fig. 13 the extinguisher consists of a casing *u* inside of the wick-tube, in addition to the outer casing *w*, each of these being connected by a spindle *a*, as shown, so that they may be raised up into contact with the disk *z*, which in this case is fixed, and so extinguish the flame.

By providing the casing with the weight, the spring, and the connection to the extinguisher and adapting it to be attached to the screw-threaded shank of the burner, it will be obvious that the device may be attached to burners of various forms without specially forming them in any way, and thus also en-

abling them to be attached to burners already in use.

What I claim, and desire to secure by Letters Patent, is—

1. In combination, the burner with its extinguisher and screw-threaded shank for attachment to the lamp-body, the weight and spring for operating the extinguisher, a casing for said weight and spring connected to the under side of the screw-threaded shank of the burner and depending therefrom, and the connecting-spindle from the weight to the extinguisher, substantially as described.

2. In combination, the burner, the extinguisher, the casing having the spring, and the weight having a spindle connection to the extinguisher, the said casing being joined to the shank of the burner by a connection of reduced diameter, substantially as described.

3. In combination, the round burner with its extinguisher, the annular casing surrounding the wick-tube, the annular weight within the casing, the spring acting upon the weight, and the connection between the weight and the extinguisher, substantially as described.

4. In combination, the burner, the extinguisher *z*, having a stem with rack-teeth, the operating means having the connections *a* with rack-teeth, and the pinion *q*, operating between the connections *a* and the toothed stem, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

DÉMÈTRE MURGULETZ.

Witnesses:

F. DEPAUW,
D. NEUCK.