

No. 677,034.

Patented June 25, 1901.

G. L. KNAPP.
LAMP BURNER.

(Application filed Oct. 24, 1900.)

(No Model.)

FIG. 1.

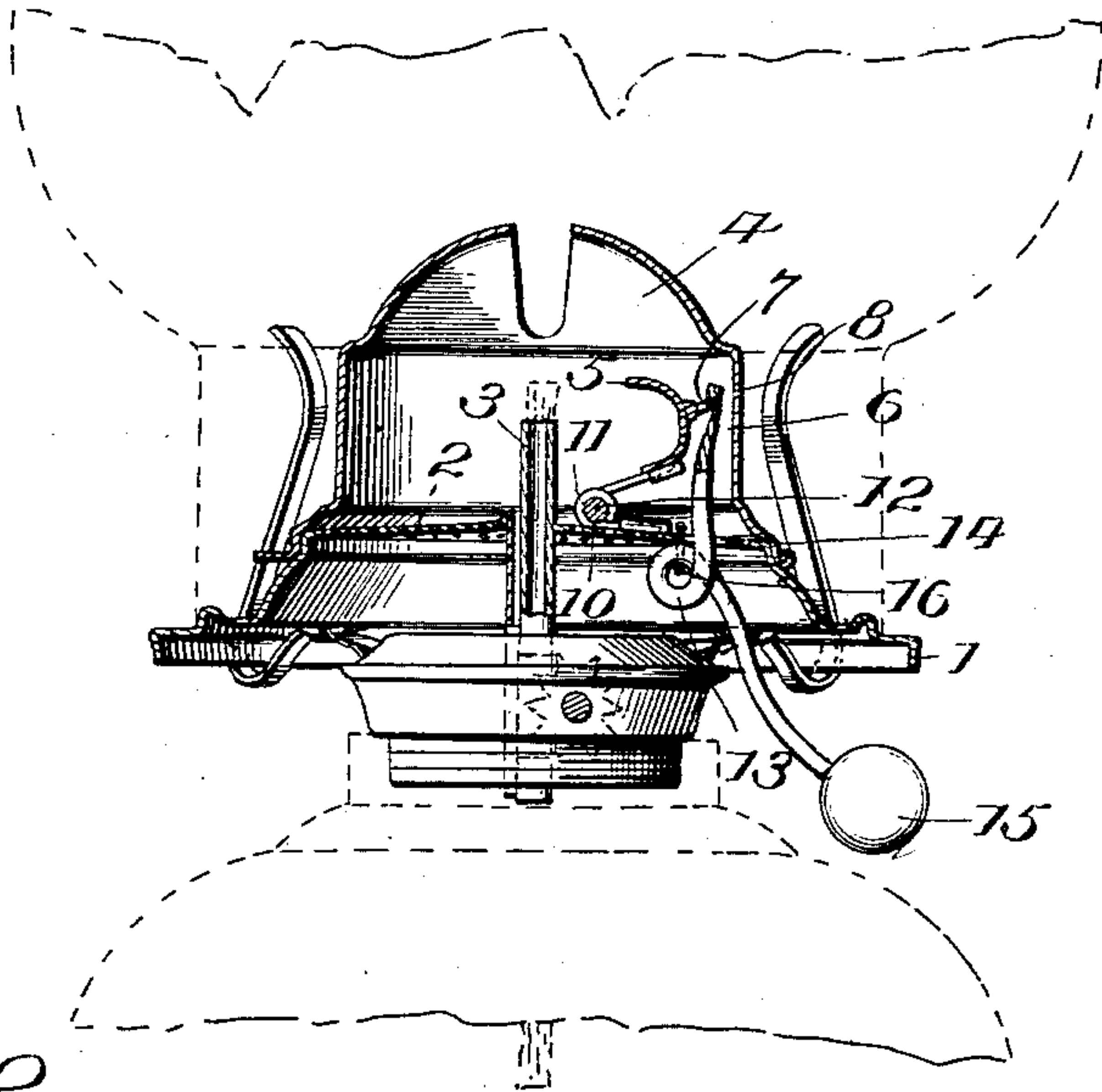


FIG. 2.

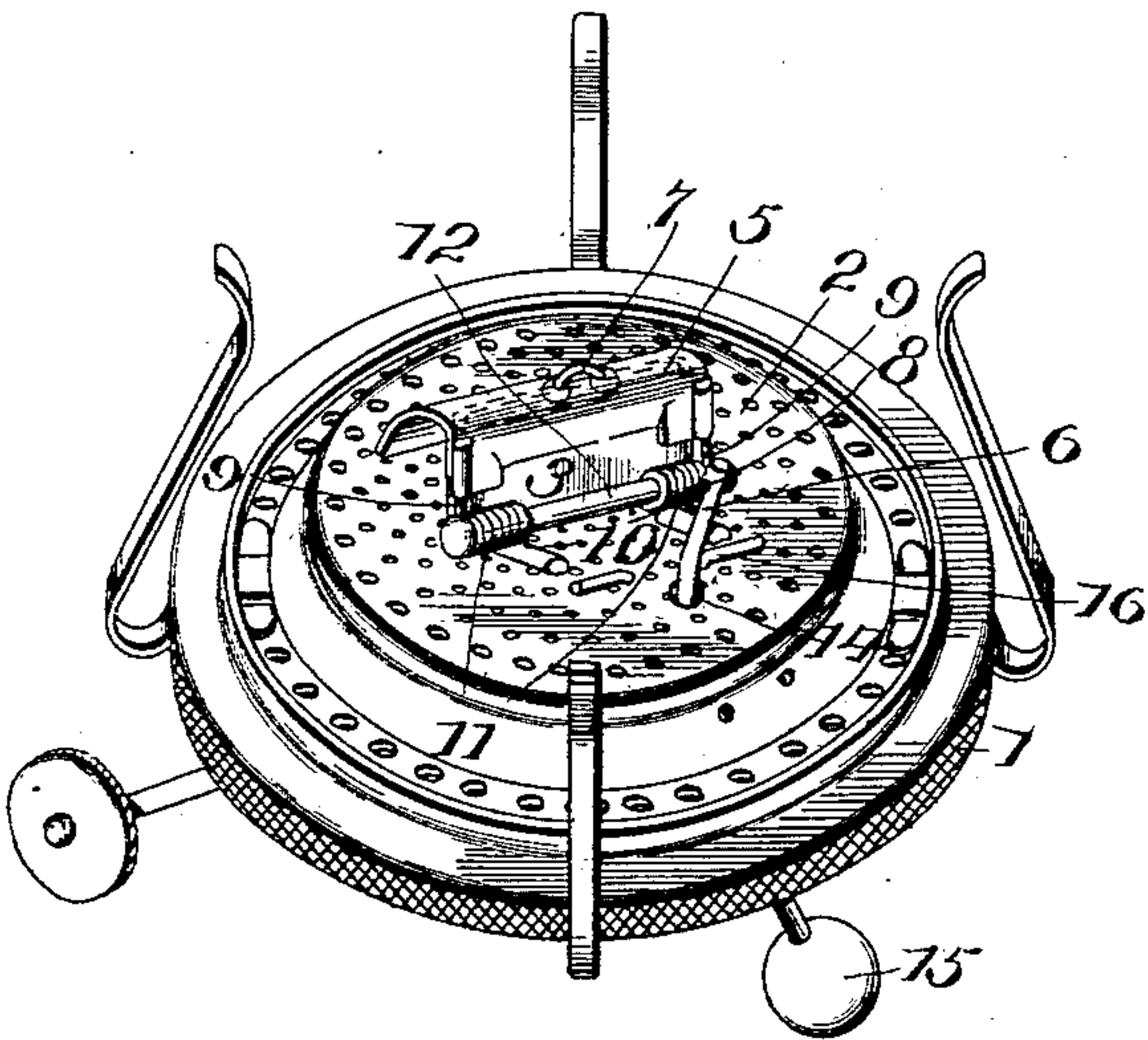


FIG. 3.

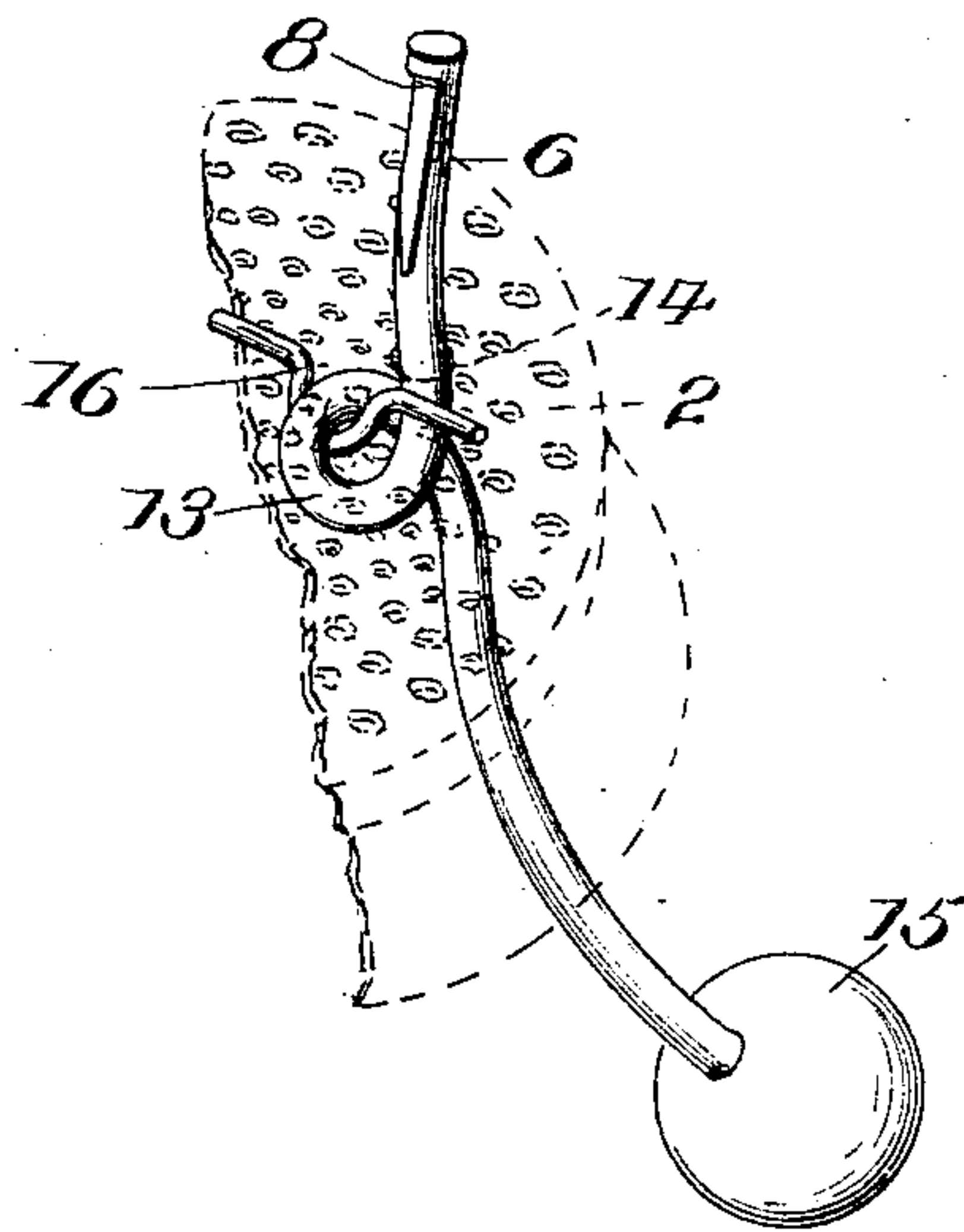
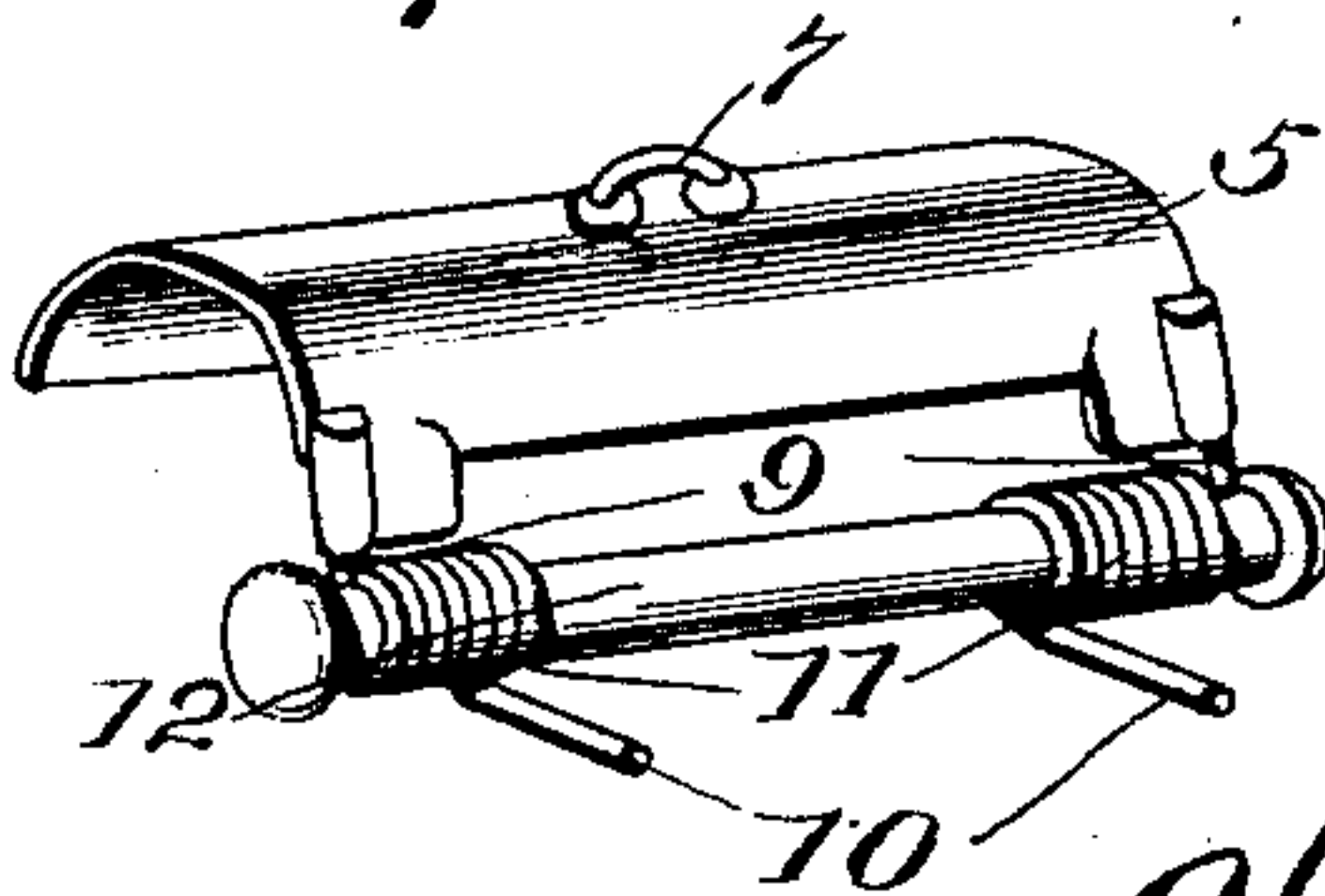


FIG. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

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LAMP-BURNER.

SPECIFICATION forming part of Letters Patent No. 677,034, dated June 25, 1901.

Application filed October 24, 1900. Serial No. 34,199. (No model.)

To all whom it may concern:

Be it known that I, GEORGE L. KNAPP, a citizen of the United States, residing at Northfield, in the county of Rice and State of Minnesota, have invented certain new and useful Improvements in Lamp-Burners; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to burners for lamps using oil as a flame-supplying medium, and is designed to minimize the casualties generally resulting from fire and explosion when the lamp overturns, tilts, or falls to the floor.

For a full description of the invention and the merits thereof, and also to acquire a knowledge of the details of construction of the means for effecting the result, reference is to be had to the following description and drawings hereto attached.

While the essential and characteristic features of the invention are necessarily susceptible of modification, still the preferred embodiment of the invention is illustrated in the accompanying drawings, in which—

Figure 1 is a vertical central section of a lamp-burner embodying the invention, the extinguisher being held out of the way of the flame. Fig. 2 is a perspective view of the burner, the cone being omitted and the extinguisher closed over the wick-tube. Fig. 3 is a perspective view of the weighted catch, its pivotal mounting, and a portion of the gallery. Fig. 4 is a detail view in perspective of the extinguisher and its spring-support.

The burner illustrated is of common construction and is shown to demonstrate the application of the invention, and consists, essentially, of the base 1, gallery 2, wick-tube 3, and cone 4.

The safety appliances consist of the extinguisher 5 and weighted catch or detent 6. The extinguisher 5 is an oblong plate transversely curved and positioned to fit snugly over the end of the wick-tube 3 when the flame is extinguished. A stop 7 is provided centrally of the extinguisher and adapted to be engaged by the hooked end 8 of the catch 6 when the extinguisher is held out of the way of the flame, as shown most clearly in Fig. 1. The extinguisher is connected with the gallery by

means of a spring-support composed of a pair of similarly-formed elements, each comprising a vertical arm 9, a horizontal arm 10, and a series of coils 11, intermediate of the two arms. The parts 9, 10, and 11 are integral portions of a single length of spring-wire bent into the form substantially as shown. The vertical arms 9 are soldered or otherwise secured to one side of the extinguisher 5, and the horizontal arms 10 are similarly attached to the gallery 2. The coils 11 extend inward from the vertical arms 9, and the horizontal arms 10 are at the inner ends of the said coils. The coils are held in alinement by means of a pin 12, passed therethrough and having its ends upset to prevent casual displacement. The coils 11, with the pin 12, fit as close in the angle between the wick-tube and the gallery as possible, so as to be out of the way and enable the parts to be compactly disposed. The weighted catch or detent 6 is formed of a single length of stout wire bent to provide an eye 13, by means of which it is pivotally connected with the gallery. The upright portion of the detent or catch extends through an opening 14, formed in the gallery 2, and its lower portion curves outwardly and receives the weight 15. The coil of the wire forming the eye 13 lies adjacent to the under side of the gallery 2 and is held in place by a hanger 16, consisting of a length of wire bent into U form and having its legs passed through openings in the gallery and bent in opposite directions to hold the parts against accidental displacement. When the lamp is burning, the extinguisher is held out of the flame, as shown in Fig. 1, by means of the stop 7 thereof, engaged by the hook 8. In the event of the lamp overturning or receiving a severe jar the weight 15 will react and release the hooked end 8 of the detent from the stop 7, when the extinguisher will move under the influence of its spring-support and close upon the upper end of the wick-tube and extinguish the flame and prevent contact thereof with the oil or other inflammable article coming within its range. The safety appliances are of such construction as to be applied to any make of burner without requiring any special change in construction and can be applied by the average person, thereby placing upon the market means for

the purpose aforesaid exceedingly cheap, easy of application, and effective in operation.

Having thus described the invention, what is claimed as new is—

5 1. In combination with a lamp-burner, an extinguisher having a stop, a spring-support connecting the extinguisher with the gallery, a weighted catch or detent formed of a length of wire bent between its ends to provide an
10 eye, the upper portion of the detent passing through an opening in the gallery and formed with a hook to engage with the stop of the extinguisher and the lower portion of the detent curving outwardly and weighted, and a
15 U-shaped wire looped into the eye of the detent and having its side members passing through the openings of the gallery and bent, substantially as specified.

20 2. In combination with a lamp-burner, an extinguisher provided with a stop, a spring-support consisting of similarly-formed parts, each constructed of a single wire bent to pro-

vide vertical and horizontal arms and a series of intermediate coils, the arms being attached, respectively, to the extinguisher and gallery, 25 a pin passed through the coils of the said parts, a catch or detent provided between its ends with an eye and having its upper portion passed through an opening in the gallery and terminating in a hook to coöperate with 30 the stop of the extinguisher and having its lower portion curved outwardly and weighted, and a U-shaped wire looped into the eye of the catch and having its members passed through openings in the gallery and bent to 35 retain the parts in position, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE L. KNAPP. [L. S.]

Witnesses:

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