

J. H. HILL.
 LANTERN GLOBE LIFTER.
 APPLICATION FILED DEC. 8, 1910.

990,048.

Patented Apr. 18, 1911.

Fig. 1.

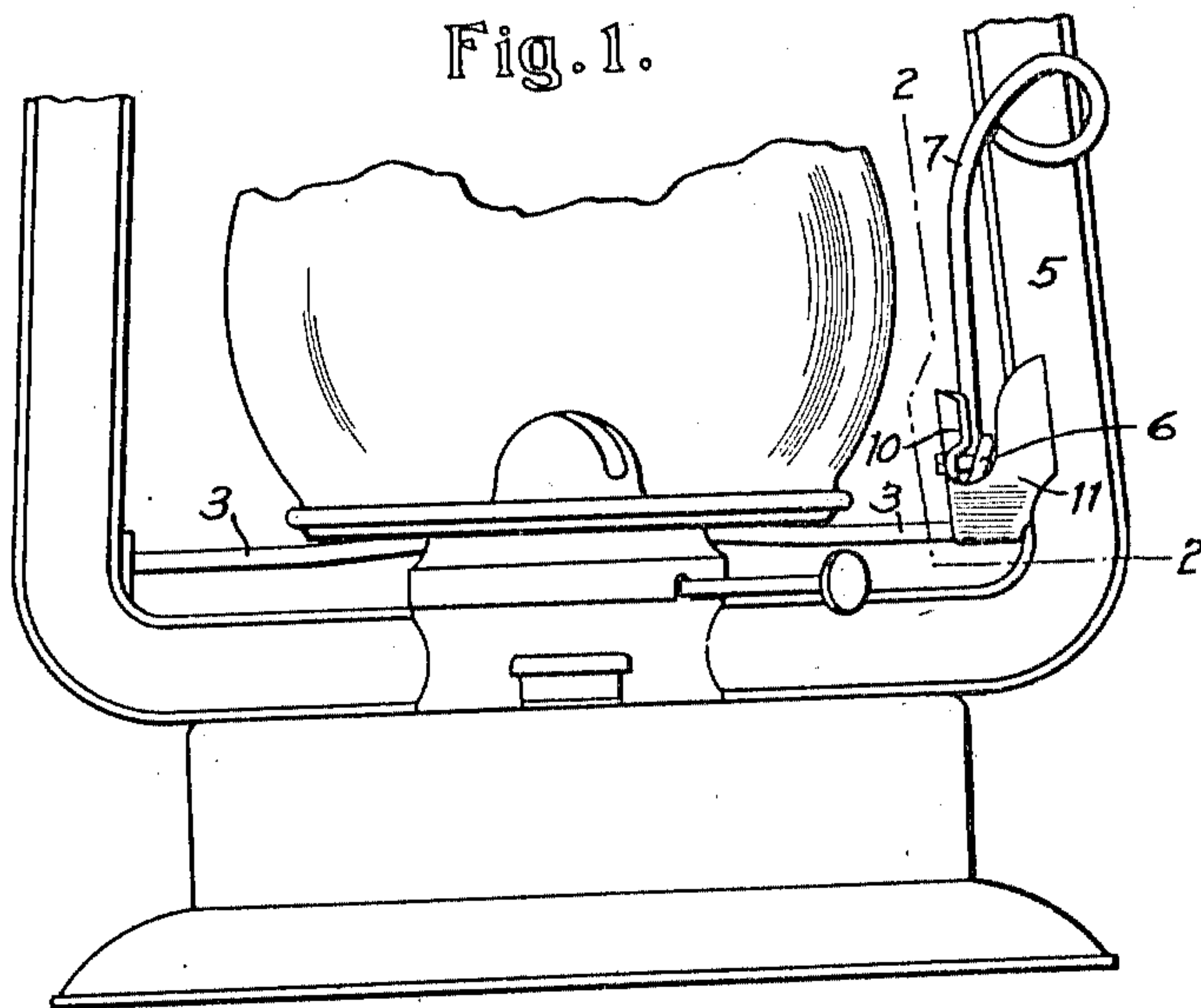


Fig. 2.

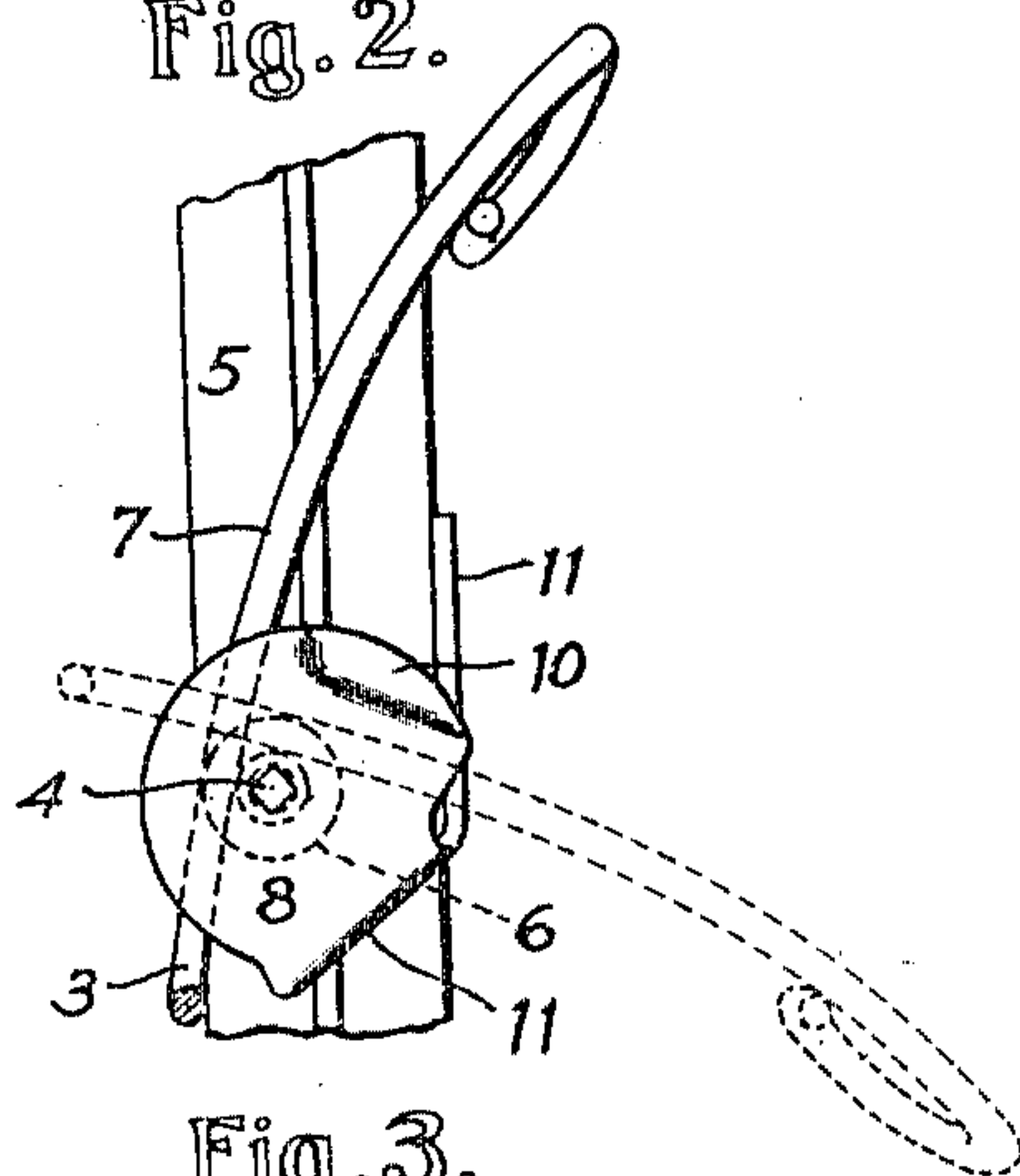


Fig. 3.

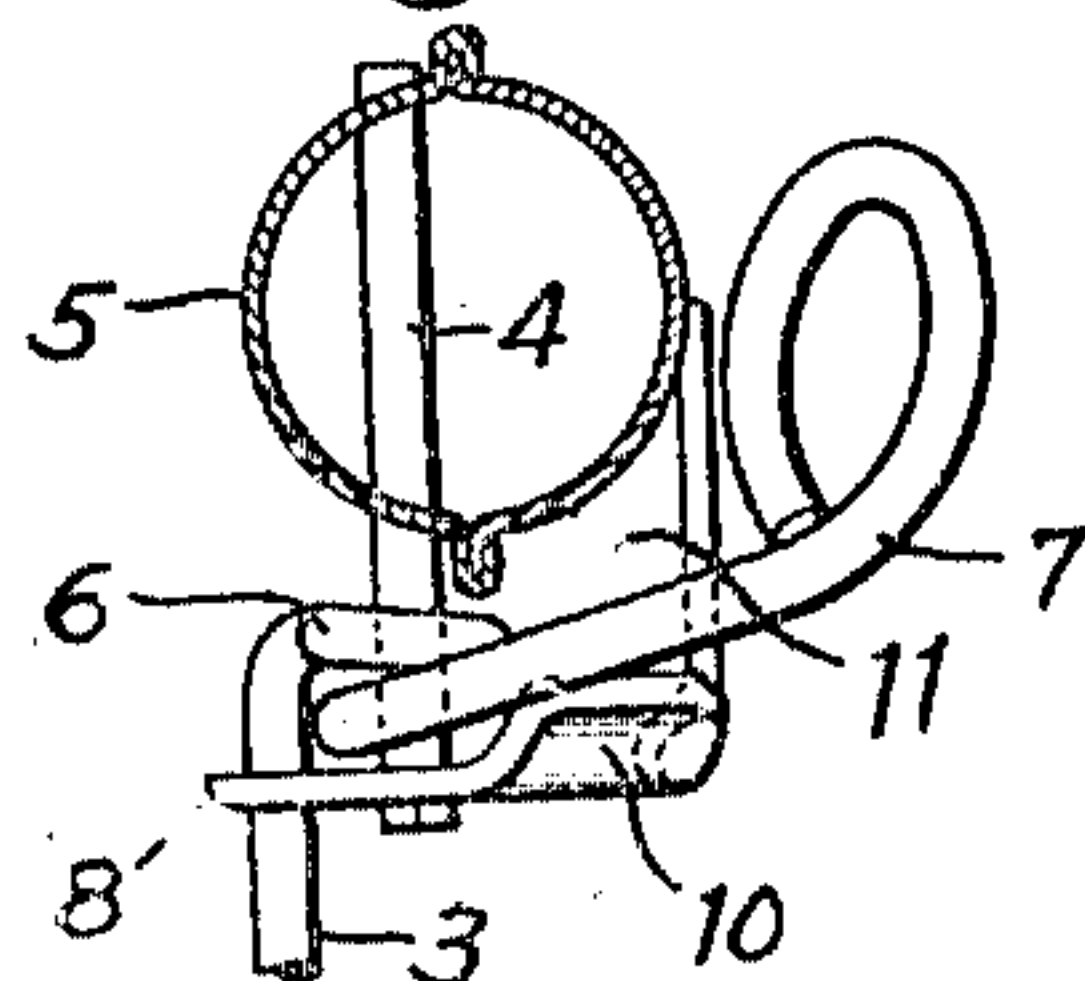


Fig. 4.

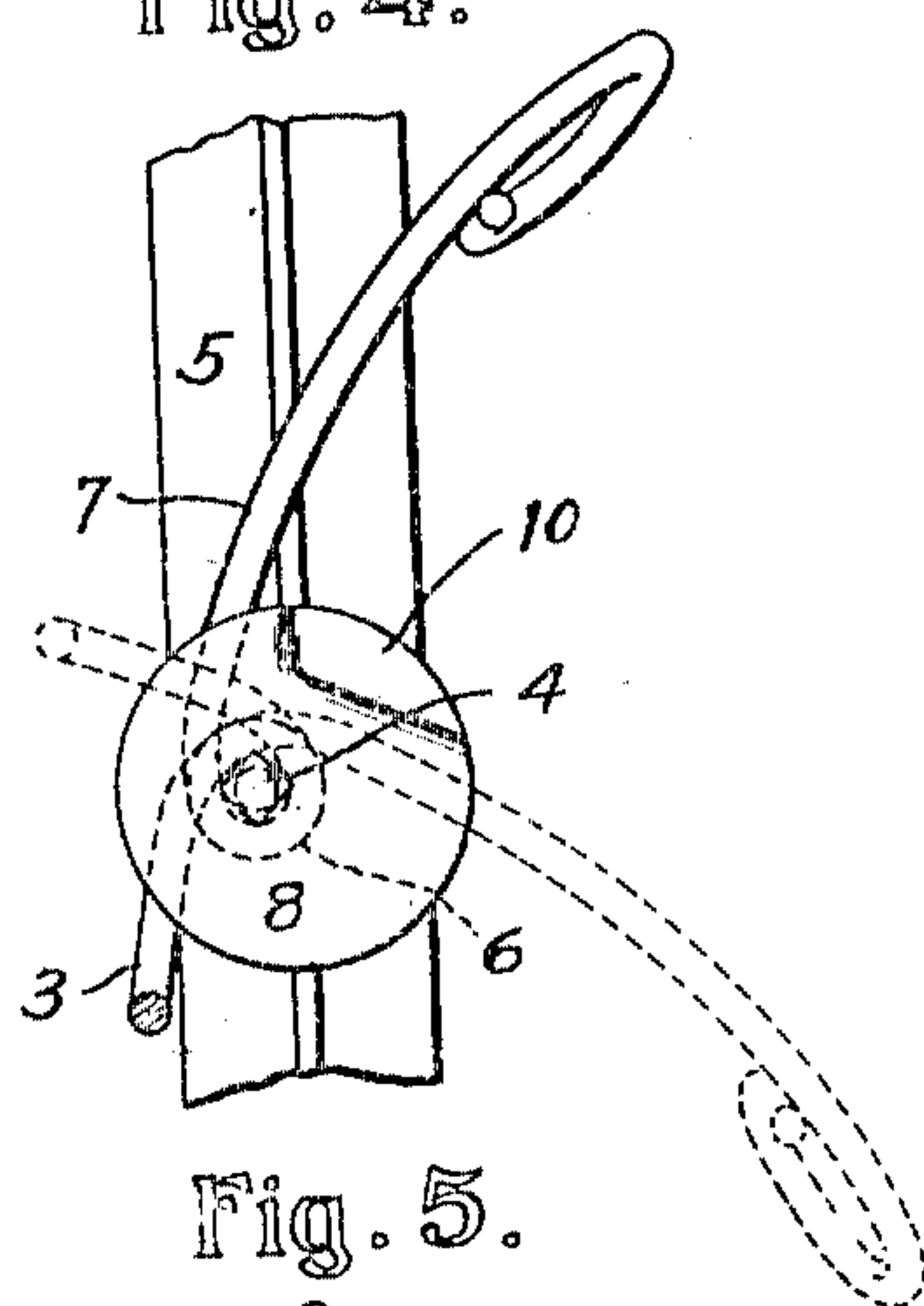
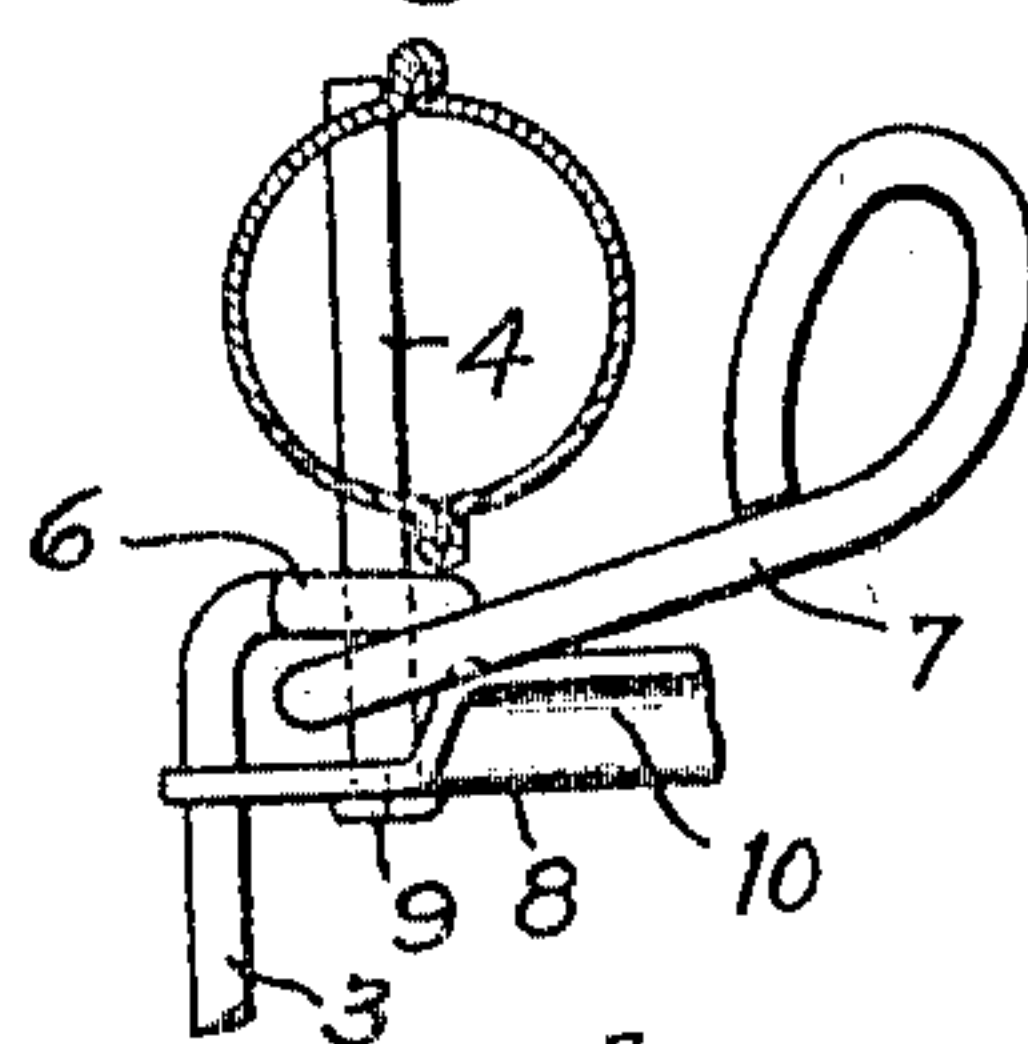


Fig. 5.



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UNITED STATES PATENT OFFICE.

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LANTERN-GLOBE LIFTER.

990,048.

Specification of Letters Patent.

Patented Apr. 18, 1911.

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To all whom it may concern:

Be it known that I, JAMES H. HILL, a citizen of the United States, and resident of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Lantern-Globe Lifters, of which the following is a specification.

This invention relates to the device used in connection with a tubular lantern, for raising, and holding in raised position, the lantern-globe when access to the burner is required for the purpose of lighting the lantern or cleaning the burner.

The object of the invention is to produce a device of the kind in question in which a bearing and a catch or detent of simple, inexpensive and rigid form are provided for the lifter-lever, and to this end the invention consists in the device illustrated in the accompanying drawing and hereinafter specifically described, as the same is defined in the succeeding claims.

In the accompanying drawings: Figure 1 is a front-elevation of the lower portion of a tubular lantern provided with a globe-lifter embodying the present invention; Fig. 2 is a vertical section on the line 2—2 in Fig. 1, looking from left to right in the latter figure; Fig. 3 is a plan-view of the parts shown in Fig. 2; and Figs. 4 and 5 are views similar to Figs. 2 and 3, respectively, showing a modified form of the invention.

In the illustrated embodiment of the invention the general form and operation of the globe-lifter are substantially the same as in the case of the type of the globe-lifter disclosed, for example, in the patent to J. H. Schlafly, No. 612,508, dated October 18, 1898, and familiar to those skilled in the art. This lifter comprises, as is usual in such constructions, a cranked lifter-lever 3 journaled on the lantern-frame and having pivotal connections (not shown) with the globe-plate. The present invention resides in the construction by which are provided a journal for the portion of the lifter-lever adjacent to the operating-arm, and a catch or detent for retaining the operating-arm in depressed position and the globe in raised position. A round stud or pin 4 is fixed horizontally in one of the side-tubes 5 of the lantern-frame, this pin being secured therein in any convenient manner, but preferably by soldering. The bearing-pin ex-

tends inwardly from the tube 5, and the lifter-lever 3, which is formed, in the usual manner, of stiff but somewhat flexible wire, has a coiled portion 6 loosely surrounding the bearing-pin so as to mount the lifter-lever pivotally thereon. Apart from this coiled portion the lifter-lever is of the usual form, having an operating-arm 7 extending upwardly from the bearing-pin and terminating in a loop which may be conveniently operated by the thumb of the user of the lantern.

The detent by which the operating-arm is retained in depressed position is embodied in a plate 8 which is fixed to the inner end of the bearing-pin 4. In the simplest form of the device, as illustrated in Figs. 4 and 5, this detent-plate consists of a disk of sheet metal which is rigidly secured to the bearing-pin, the pin having a squared portion to prevent rotation of the plate thereon and being upset at its extremity 9 to retain the detent-plate in place. The detent proper 10 is formed by an offset or bent portion of the plate which projects outwardly, that is, toward the side-tube 5, into position to be engaged by the operating-arm 7. The flexibility of the lifter-lever is such that when the arm is depressed it may spring outwardly enough to pass the detent, until it assumes the position shown in dotted lines in Fig. 4. In this position the operating-arm rests entirely beneath the detent, so that it is retained in depressed position thereby, until sprung outwardly by the user sufficiently to permit it to pass upwardly over the detent, when the globe is to be lowered again.

The construction just described is simple and inexpensive, but produces a rigid bearing and detent for the lifter-lever. The coiled portion of the lever, in addition to furnishing a bearing to cooperate with the bearing-pin, has the further advantage that it increases the resiliency of the lever so as to facilitate the cooperation of the lever with the detent.

Where a particularly rigid construction is desirable the detent-plate may be made in the form illustrated in Figs. 1, 2 and 3. In this case the plate has a portion 11 which is bent outwardly and shaped to fit against the curved inner surface of the tube, being also extended upwardly, as shown in Fig. 2, so as to produce a long bearing between the

plate and the tube. This portion 11 of the plate is preferably soldered to the tube, and thus a very rigid and strong construction is produced.

5 I claim:—

1. In combination with a tubular lantern having a cranked globe-lifter, a straight bearing-pin, upon which the globe-lifter is pivotally mounted, fixed to and projecting
10 inwardly from a side-tube of the lantern, and a plate fixed to the inner end of the bearing-pin and having an outwardly-convex marginal projection coöperating with the globe-lifter and constituting a detent
15 therefor.

2. In combination with a tubular lantern having a cranked globe-lifter, a bearing-pin

for the globe-lifter fixed to and projecting inwardly from a side-tube of the lantern, and a plate connecting the side-tube and the
20 inner end of the bearing-pin and having a projection coöperating with the globe-lifter and constituting a detent therefor.

3. In a tubular lantern, the combination of a side-tube, a bearing-pin projecting in-
25 wardly from the side-tube and provided at its inner end with a detent-projection, and a cranked globe-lifter having a portion coiled around the bearing-pin and an operating-arm coöperating with said detent-projection.
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