

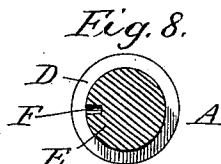
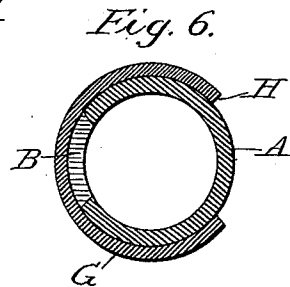
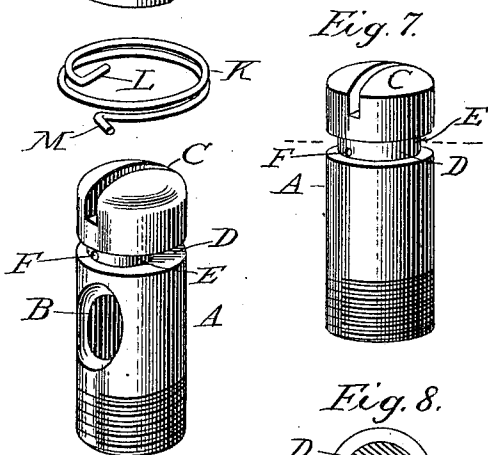
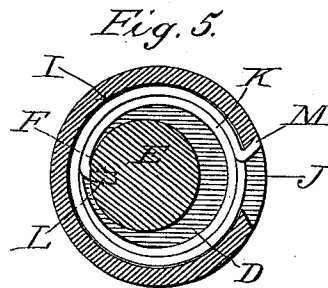
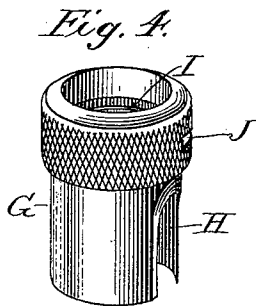
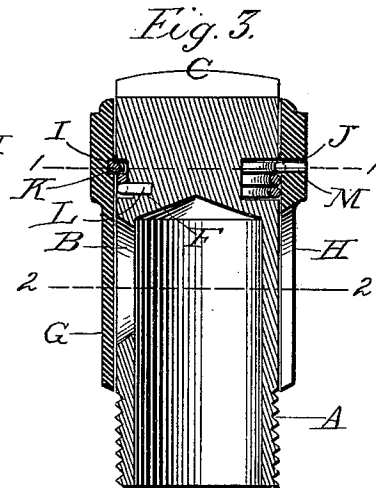
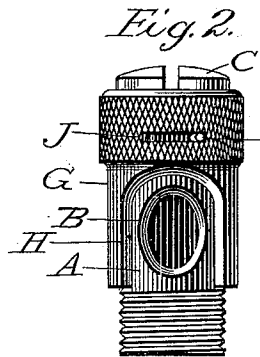
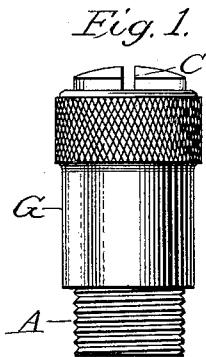
No. 642,860.

Patented Feb. 6, 1900.

F. D. WINKLEY.  
OIL HOLE COVER OR CAP.

(Application filed Apr. 12, 1899.)

(No Model.)



Witnesses  
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# UNITED STATES PATENT OFFICE.

FRANK D. WINKLEY, OF MADISON, WISCONSIN.

## OIL-HOLE COVER OR CAP.

**SPECIFICATION** forming part of Letters Patent No. 642,860, dated February 6, 1900.

Application filed April 12, 1899. Serial No. 712,785. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK D. WINKLEY, a citizen of the United States, residing at Madison, in the county of Dane and State of Wisconsin, have invented certain new and useful Improvements in Oil-Hole Covers or Caps, of which the following is a specification.

My present invention pertains to covers for oil-holes, the construction and advantages of which will be hereinafter set forth, reference being had to the annexed drawings, wherein—

Figure 1 is a side elevation of the device, the cover or sleeve being shown in a position covering the opening in the body or post; Fig. 2, a similar view, the opening being uncovered; Fig. 3, a vertical sectional view; Fig. 4, a perspective view showing the parts detached; Fig. 5, a horizontal sectional view on the line 1 1 of Fig. 3; Fig. 6, a similar view on the line 2 2 of Fig. 3; Fig. 7, a perspective view of a modified form of the post or body, and Fig. 8 a horizontal sectional view taken through the reduced portion of the body.

The object of my invention is to produce a simple and at the same time efficient oil-hole cover or cap and one in which the movable or rotatable part of the cover will be brought back to its closed position after the attendant has introduced the oil into the hollow body portion.

Referring to the drawings, and more particularly Figs. 1 to 6, inclusive, A denotes the body or post of the device, hollow through the lower portion of its length and provided with a lateral opening B. The lower end of the body or post is threaded, while the upper closed end is formed with a cross-slot C for the purpose of facilitating its attachment to the part to which it is to be applied. Formed around the upper portion of the body A is a groove or channel D, said channel or groove being eccentric to the axis of the body, as is clearly indicated in Figs. 3, 4, and 5. The formation of this groove of course produces a reduced stem E, which connects the upper and lower portions of the body, said stem of course being eccentric to the axis of the body proper.

As will be seen upon reference to Figs. 3, 4, and 5, the shallow portion of the groove or channel is formed upon that side of the body in which the opening B is made, and at this

point the stem E is drilled, forming a hole or seat F.

G indicates the outer cylindrical member or sleeve, having a portion of its side cut away, forming an opening H. Upon the inner face of said sleeve near its upper end is a groove or channel I, while above the opening H a slot J is cut through the sleeve, said slot opening into the groove or channel I, as shown in Figs. 3 and 5.

To secure the parts together and also to maintain the sleeve in its closed position relative to the opening B, I employ a spring K of the form illustrated in the drawings. The spring is provided with an inturned end or hook L, adapted to enter opening F, and an outturned end or hook M, said hook M being bent back somewhat sharply toward the body of the spring. The spring in shape is essentially a coiled one, and when formed the coils thereof are made somewhat larger than the internal diameter of the sleeve G, necessitating its being twisted up, and thereby reduced in diameter and put under tension or strain when the parts are to be assembled.

In assembling the parts the operator introduces end L into opening F and draws or twists the spring into the groove or channel E, holding the spring by the end M. When the spring has been twisted about the stem E sufficiently to draw it into the channel, end or arm M will be in the deepest portion thereof, so that the operator can slip sleeve G over the upper end of the body and down to place. When slot J comes opposite the outwardly-extending arm M, said arm will spring therein and occupy the position indicated in Figs. 2, 3, and 5. At the same instant that coil of the spring which is opposite the channel or groove I will expand into it, and thus lock the sleeve against endwise movement relative to the body portion.

The parts are so proportioned and arranged that when they are assembled and the spring has expanded as far as it is possible for it to expand sleeve or member G will occupy the position indicated in Figs. 1, 3, 5, and 6, wherein it will be noted that opening B is closed. By rotating the sleeve in the direction of the arrow, Figs. 5 and 6, the operator can uncover the opening B; but it is nec-

essary to hold the sleeve, for instantly it is released the spring will again expand and rotate the sleeve.

To facilitate the turning of the sleeve or shell, it is provided with a slightly-enlarged milled surface near its upper end.

The construction of the groove or channel D eccentric with reference to the axis of the device is advantageous, for the reason that it enables the maker to drill hole F more readily than could be done were the surface of the stem E back farther from the face of the body, also in that it holds the hook L in place with more certainty, for the reason that there is not space enough between the parts for the hook to work out after the sleeve has been passed down over the body or post to its place. In assembling the parts the eccentric formation of the slot is also advantageous in that it affords space in which the hook or arm L may be forced back as the sleeve or outer member G is passed down to place.

The groove I formed upon the inner face of the sleeve serves, as above stated, to hold the parts together; but it is manifest that the arm M may be relied upon solely, although this construction would not be nearly as good as the other.

In Figs. 7 and 8 I have shown a construction of the post or body wherein the slot corresponding to the groove or channel D is formed concentric with the axis of the body portion. While this formation of the slot is feasible in the use of the device, still the eccentric formation is the preferred one. It will be noted more particularly upon reference to Fig. 5 that the arm or hook L, which is bent back quite sharply upon itself, engages one wall of the slot or opening J and that by so bending this arm there is little or no liability of the spring slipping out of place, as might be the case were it bent at right angles or at an obtuse angle.

Having thus described my invention, what I claim is—

1. In an oil-hole cover or cap, the combination of a body portion; a sleeve or shell rotatably mounted thereon; a spring interposed between said parts; and means coacting with said spring, substantially as described, whereby the sleeve is held against endwise movement, is capable of being rotated a limited distance about the body portion, and is returned to a determinate position relative to the body portion when released by the operator.

2. In an oil-hole cover or cap, the combination of a hollow body portion provided with an opening; a sleeve or shell rotatably mounted on said body portion and likewise provided with an opening; a spring-locking device interposed between said parts; and means coacting with said device, serving to hold the parts against separation and to rotate the sleeve a limited distance about the body portion, whereby the openings are nor-

mally held out of alinement, substantially as described.

3. In an oil-hole cover or cap, the combination of a hollow body portion provided with a lateral opening; a sleeve rotatably mounted thereon and also provided with an opening; a coiled spring interposed between the adjacent side walls of said parts and having its ends attached to the body and sleeve respectively; and means coacting with said spring whereby the openings are normally held out of alinement and endwise movement of the sleeve is prevented.

4. In an oil-hole cover or cap, the combination of a body portion; a sleeve rotatably mounted thereon; a groove formed around the body portion; a groove formed upon the inner face of the sleeve; and a coiled spring seated within said groove and having its ends attached to the body and sleeve respectively, whereby the sleeve is held against endwise movement and may be rotated a limited distance about the body portion, substantially as described.

5. In an oil-hole cover or cap, the combination of a body portion provided with an eccentric groove extending around the same; a sleeve rotatably mounted on said body portion; and a spring seated within said groove, and having its ends attached to the body and sleeve respectively.

6. In an oil-hole cover or cap, the combination of a body portion provided with an eccentric groove extending around the same; a sleeve rotatably mounted upon said body portion; a coiled spring mounted within said groove and having one end attached to the body portion at the shallow part of the groove, and its opposite end connected to the sleeve.

7. In an oil-hole cover or cap, the combination of a body portion provided with a lateral opening and also with an eccentric groove extending around the same above the opening; a sleeve rotatably mounted upon said body portion and likewise provided with an opening; a coiled spring K mounted in said groove and having one end L directly connected to the body portion at the shallow portion of the groove or channel formed therein, and its opposite end M connected to the sleeve, substantially as and for the purposes described.

8. In an oil-hole cover or cap, the combination of a hollow body portion provided with a lateral opening and an eccentric groove or channel formed around the same above said opening; a sleeve rotatably mounted upon said body portion and provided with a groove I and a slot J; and a coiled spring K seated within said groove and having one end L directly connected to the body at the shallow portion of the groove, and its opposite end M bearing against the side wall of the slot J.

9. In an oil-hole cover or cap, the combination of a hollow body portion A provided with a lateral opening B; an eccentric channel or groove D formed about said body portion

above the lateral opening; an opening F  
formed in the body at the shallow portion of  
the groove or channel D; a sleeve G mounted  
upon the body portion; a groove I formed  
5 upon the inner face of said sleeve; a slot J  
extending through the sleeve into the groove  
I; and a coiled spring K mounted in said  
channel D and groove I, and having its ends

L, M, respectively, seated in the opening F  
and slot J. 10

In witness whereof I hereunto set my hand  
in the presence of two witnesses.

FRANK D. WINKLEY.

Witnesses:

CHARLES N. BROWN,  
FRANK J. SHEALY.