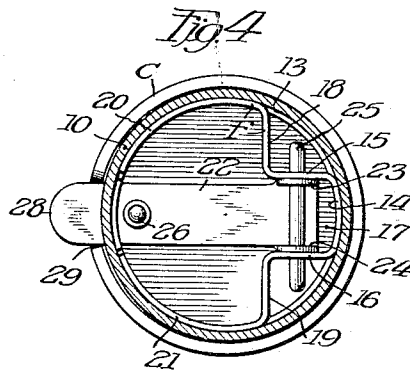
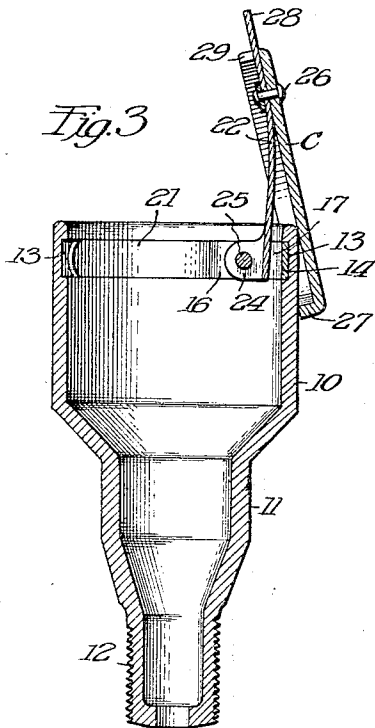
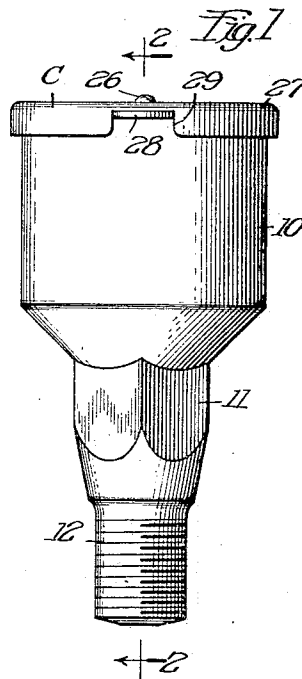
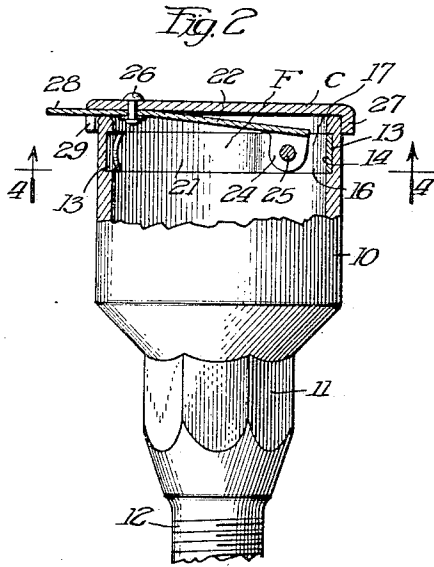


E. NOLAN.
OIL CUP.
APPLICATION FILED NOV. 30, 1917.

1,288,141.

Patented Dec. 17, 1918.



Witness:
Leonard W. Norander.

Inventor
Edmund Nolan
By James R. Office,
Atty

UNITED STATES PATENT OFFICE.

EDMUND NOLAN, OF DETROIT, MICHIGAN, ASSIGNOR TO BOWEN PRODUCTS CORPORATION, OF DETROIT, MICHIGAN, A CORPORATION OF NEW YORK.

OIL-CUP.

1,288,141.

Specification of Letters Patent.

Patented Dec. 17, 1918.

Application filed November 30, 1917. Serial No. 204,594.

To all whom it may concern:

Be it known that I, EDMUND NOLAN, a citizen of the United States, and a resident of Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Oil-Cups, of which the following is a specification.

My invention relates to oil cups, and covers improved features of construction and arrangement which enables such cups to be more practically and easily used.

Oil cups are usually provided with a threaded end for screwing into a tapped hole leading to the surface to be lubricated. Some of these cups of the prior art have a rotatable cover provided with a side opening to be brought into registration with a side opening through the cup body to permit the charging in of oil. In screwing these cups into the tapped hole the registering oil holes of the cup will not always be in a convenient position after the cup has been screwed into place. The cover is apt to become displaced to open the oil holes in which case oil can readily escape or dust and dirt enter.

Among the important objects of my invention are therefore to provide a cup in which there are no holes drilled through the cup body or cover; to provide a cover or top which is hinged in such manner as to be rotated axially on the cup to be conveniently opened from any side thereof; to provide an improved hinge support for the top preferably located entirely within the cup body to be rotatable therein; to provide a hinged support in the form of a spring frame which can be readily inserted or withdrawn from the cup; and to provide spring means, inside of the cup, for yieldingly holding the top either in closed or open position and tending to snap the top shut after a short distance of movement thereof from its open position toward closed position.

The above features of the invention are embodied in a cup structure disclosed on the accompanying sheet of drawings in which—

Figure 1 is a side elevational view of the cup,

Fig. 2 is a side elevational view with the upper part in section on plane 2—2, Fig. 1,

Fig. 3 is a sectional view on plane 2—2,

Fig. 1, showing the cover in open position, and

Fig. 4 is a sectional view on plane 4—4, Fig. 2.

The cup shown comprises the cylindrical oil containing body 10, the wrench receiving polygonal shank 11, and the threaded end 12 for screwing into tapped holes. A short distance below the upper edge of the body 10 is the annular rectangular groove 13 forming a seat for the frame F which supports the cover C. The frame F is bent up from a band of sheet metal, preferably spring steel, and is of general U-shape, the base 14 and the sections 15 and 16 of the sides forming a rectangular pocket 17, the sides beyond the pocket extending first laterally at 18 and 19, the ends 20 and 21 being arcuate to fit in the groove 13 in which the base 14 of the frame also engages. Before insertion of the frame in the groove its sides are first spread a trifle and then when the frame is slipped into the groove its expansion will cause it to be clamped in the groove against axial displacement but permitting it to revolve readily. A flat spring 22 has at one end the downwardly extending wings 23 and 24 which extend into the pocket 17 and against the sections 15 and 16 of the frame F, a hinge pin 25 extending through these sections and the wings. The spring at its other end is rigidly secured against the under side of the cover C as by means of a rivet 26. The spring is normally flat but when it is applied its hinged end is held a distance away from the top C so that the spring will tend to hold the rear end of the top against the upper edge of the body 10. When the axial component of the spring pull predominates the spring will tend to swing the cover to closed position, while when the diametral pull predominates the spring will tend to hold the cover in the open position shown in Fig. 3. The top C is provided with a peripheral flange 27 for engaging with the oil cup sides and the end 28 of the spring 22 preferably projects a distance outwardly through the slot 29 formed in the flange, the spring being thus locked against turning in the rivet. The projecting end also forms a finger abutment for enabling the top to be readily raised to open position. When fully opened the edge

of the flange 27 abuts against the side of the cup 10 as shown in Fig. 3. The arrangement is preferably such that when the cover is in open position a slight touch or jar on the cover will start it and permit a spring to snap it into closed position.

My improved cup is very practical in that no matter how far the body is turned in screwing the cup into place on its support the top can be rotated in a convenient position for opening. The supporting structure for the top is all inside of the cup leaving the outside of the cup entirely free from attachments. The supporting mechanism is also very simple in its construction and can be very readily inserted into the groove 13. Oil in the cup will lubricate the groove as well as the hinge connection and the supporting frame can therefore readily be rotated at any time and the top freely moved into open or closed position. The hinged cover eliminates all side openings in the cup or top and when closed seals the cup against oil escape or the entrance of dust and dirt.

I do not of course desire to be limited to the details of construction and arrangement shown and described as changes and modifications could no doubt be made which would still come within the scope of my invention.

I claim as follows:

1. In an oil cup, the combination with an oil containing body, of a frame detachably secured within the body and axially rotatable therein, and a top for the cup hinged to said frame and rotatable therewith.

2. The combination with an oil cup frame, of a cover thereof, a frame rotatable on said cup around its axis, and a spring secured to said cover at one end and hinged to said frame at its other end.

3. The combination with an oil cup, of a spring frame at the inside thereof clampingly engaging therewith and rotatable about the cup axis, a spring hinged at its inner end to said frame, and a cover for the cup secured to the other end of said spring whereby said cover may be swung to open and close said cup and may be rotated with said frame.

4. The combination with a cylindrical receptacle having an annular internal groove below its upper edge, a supporting frame engaging in said groove to rotate around the receptacle axis, a hinge spring pivoted at its inner end to said frame, and a cover for the receptacle rigidly secured to the outer end of

said spring whereby said cover may be swung to open or close the receptacle and may be rotated axially.

5. The combination with a receptacle, of a supporting frame therein rotatable about the receptacle axis, a flat hinge spring pivoted at its inner end to said frame at one side of the receptacle, a cover for the receptacle rigidly secured to the hinge spring at its other end, the hinge end of the spring being held away from the cover whereby said spring will tend to hold the hinged end of the cover against the entrance edge of the receptacle.

6. The combination with a cylindrical receptacle, of a supporting frame rotatable therein, means on said receptacle for preventing axial displacement of said frame during rotation thereof, a cover for said receptacle, and a spring hinge connecting said cover with said frame and tending to hold it in open or closed position.

7. The combination with a cylindrical receptacle, of a supporting frame formed of a band of elastic material, the receptacle having an internal annular groove near its inlet edge and said frame seating in said groove and free to rotate therein around the receptacle axis, a cover for the receptacle, and a flat spring hinged at its inner end to said frame at one side of the receptacle and secured at its outer end to said cover, said spring permitting swing of said cover to open or closed position and said frame permitting said cover to be axially rotated on said receptacle.

8. In an oil cup, the combination of an oil containing body, a spring frame at the inside thereof clampingly engaging therewith and rotating about the cup axis, an annular abutment for preventing escape of said spring frame from said body, a cover for said body and a spring hinge connecting said cover with said spring frame.

9. The combination with an oil cup, of a detachable supporting frame at the inside thereof, a spring hinged at one end to said frame within said cup, a cover for said cup, said spring at its other end being secured to the cover near the front thereof, said cover having a slot and the front end of said spring extending through said slot to assist in securing said spring.

In witness whereof, I hereunto subscribe my name this 23rd day of November, A. D., 1917.

EDMUND NOLAN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."