

(No Model.)

W. H. WILKINSON.
AUTOMATIC OIL CUP.

No. 468,489.

Patented Feb. 9, 1892.

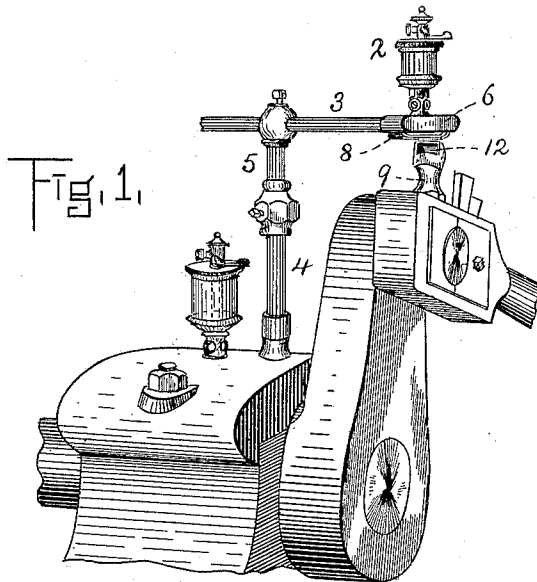


Fig. 2.

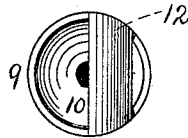
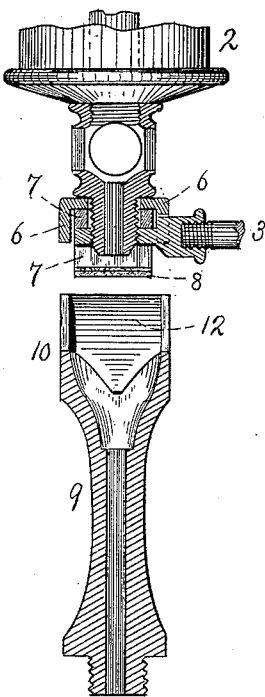


Fig. 4.

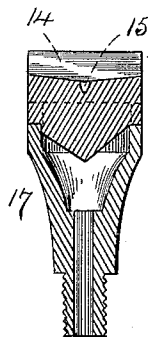
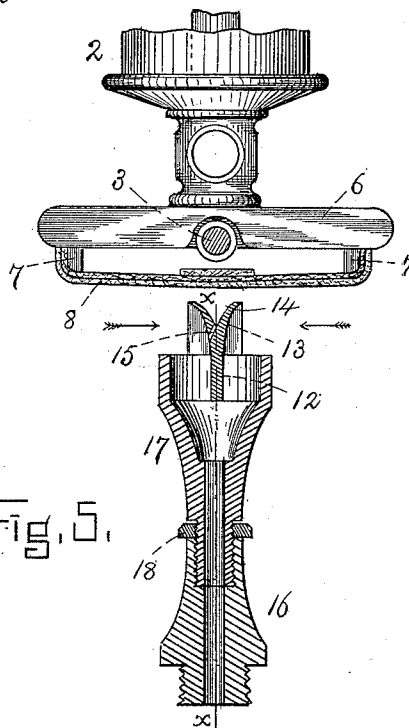


Fig. 5.

Fig. 3.



Witnesses.

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UNITED STATES PATENT OFFICE.

WILLIAM H. WILKINSON, OF BOSTON, MASSACHUSETTS.

AUTOMATIC OIL-CUP.

SPECIFICATION forming part of Letters Patent No. 468,489, dated February 9, 1892.

Application filed September 18, 1891. Serial No. 406,097. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. WILKINSON, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Oilers; 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, reference being had to the accompanying drawings, and to figures of reference marked thereon, which form a part of this specification.

This invention relates to oilers, particularly that class employed in lubricating the pins in cranks or cross-heads or upon any machine where continuous movement of the parts is desirable.

The prominent characteristic in oilers is embodied in feeding a strip of fibrous material with oil from a proper source of supply and in so mounting and supporting said fibrous material that each revolution of the crank or other moving part shall wipe off a drop of oil.

My improvements are contained in the "wiper-cup," so called, which is attached to the moving mechanism and by means of which the drop of lubricant is removed from the fibrous substance and conveyed to the part to be oiled.

In Figure 1 is shown a perspective view of an oiler of the class above described containing my invention and applied to a crank-pin. Fig. 2 is an enlarged view, in vertical cross-section, of an oiler with wiper-cup, the latter adapted for rotating movement. Fig. 3 is a sectional elevation of a wiper-cup adapted for oscillating or reciprocating movement. Fig. 4 is a plan. Fig. 5 is a section on line $x-x$.

In the above class of oilers, and as shown in the accompanying drawings, an oil-cup 2, preferably an open-sight feed, is mounted upon a horizontal rod or support 3, adjustably secured to a post 4, set in some fixed portion of the machine. Said post is fitted with a telescopic or sliding upper end 5, whereby both horizontal and vertical adjustment is provided for the oil-cup, and thus the varying conditions under which said oiler is applied are easily accommodated. Beneath and removably affixed to the end of the oiler-cup

is a shield or cover 6, adapted to inclose in part a frame or plate 7, to which is secured an oil-fed band or a strip of fibrous material 8. The latter is caused to sag in the center by means of yarn or other equivalent, in order to cause the globules of oil to form at that point.

The object of my invention is to cause an even contact of the wiper-cup blade on the under side of the strip 8 and to so construct said blade that the latter will not strike and spatter the oil, but wipe said material and take the oil therefrom, a result consequent upon the movement of the part to which the wiper-cup is affixed. Said wiper-cup 9 consists of a tubular post with an enlarged head 10, to which is secured the wiper-cup blade 12. The latter extends across the mouth of said head, the oil being conducted therefrom to the point to be lubricated. To obviate the spattering or throwing of oil consequent upon the wiper-cup blade when at high speed meeting with the drop of oil, I have formed the blade concave or with the active edge of said blade placed in advance of the other and retreating portion. Hence the drop is removed by a sliding motion. The lower portion of said blade, or that contained within the head 10, preferably tapers to a point, in order to collect the oil deposited upon the upper part of the blade and allow the same drop by drop to pass through the tubular post.

In Fig. 2 the wiper-cup will be seen with a single blade or a simple one, since it is employed for circular movement, as for crank-pins, in which event the blade always approaches the drop from the same direction. Conversely the blade shown in Fig. 3 is compound and is adapted for oscillating or reciprocating movement. When so used, it is evident that either concave surface may receive the drop of oil. In said Fig. 3 the blade is shown with oppositely-disposed concave surfaces 13 13, while the top part of said blade is grooved at 14. Said groove pitches from both ends toward the center, which is here provided with a hole 15, whereby any oil which may collect upon the top of the wiper-cup blade is directed along the groove 14, through the hole 15, and into the tubular post.

In applying said oiler it is very requisite that the wiper-cup, which is affixed upon the

crank or other moving part to be lubricated, shall be so positioned that its blade shall stand transversely of or at right angles to the longitudinal axis of the fibrous band. Hence
5 I have divided the post into two pieces 16 17, the lower piece being screwed firmly into the crank or other part at the desired spot. The upper piece is adjustably fastened thereto by screw attachment, and a check-nut 18 is pro-
10 vided. Thus after inserting the lower piece in place the upper part of the post is screwed into it sufficiently to make a firm union and then adjusted with the blade at right angles, or thereabout, to the oil-supplying band taken
15 lengthwise. The check-nut is then turned home, and the post is in readiness for use. It is evident that without this arrangement it is difficult in many cases to have the wiper-cup blade properly positioned and yet have the
20 post firmly fastened in place.

What I claim is—

1. In combination with a crank or other moving piece of mechanism, a wiper-cup provided with a concave wiper-cup blade adapt-
25 ed to collect drops of lubricant from an oil-

fed band, substantially as and for the purposes specified.

2. In combination with an oscillating or reciprocating piece of mechanism, a wiper-cup composed of a hollow post surmounted with
30 a wiper-cup blade formed with oppositely-disposed concave faces adapted to receive drops of lubricant from a stationary oil-fed band, substantially as explained.

3. The combination, with a moving part of
35 an organized machine and a wiper-cup composed of a tubular post in two parts adjustably united and surmounted with a wiper-cup blade having a concave surface, of a station-
40 ary oil-holder adjustably mounted, a fibrous oil-fed band, its supporting-frame, and the inclosing shield pendent from the oil-holder, all operating as herein set forth.

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

WM. H. WILKINSON.

Witnesses:

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