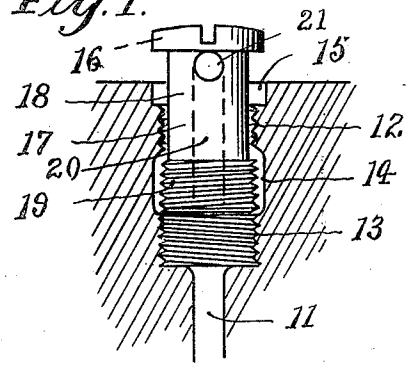
F. O. HOAGLAND.

OIL CUP.

APPLICATION FILED APR. 22, 1920.

1,423,112. Patented July 18, 1922.

Fig. 1.



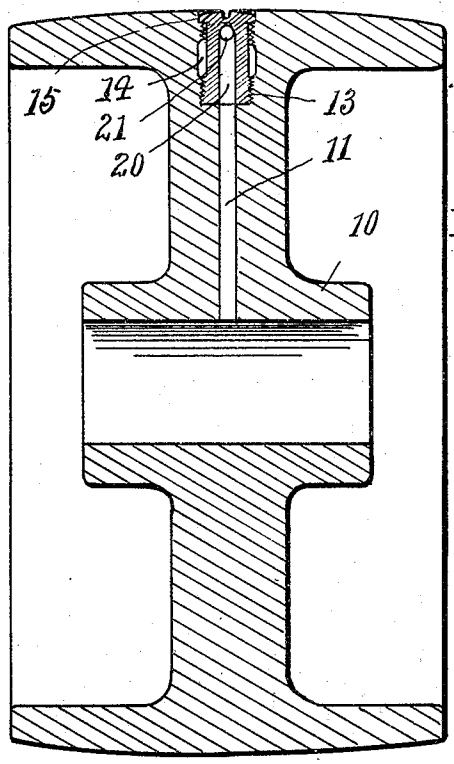


Fig. 2.

Fig. 3.

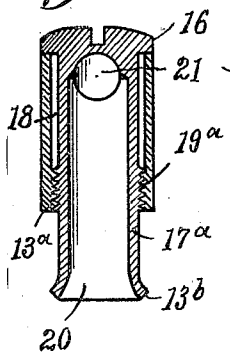


Fig. 4.

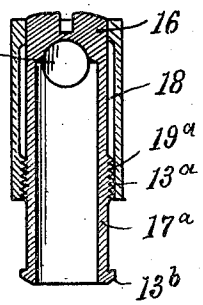
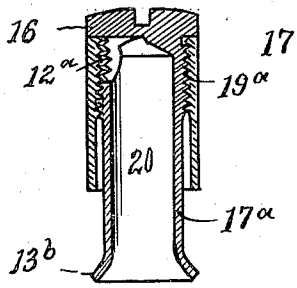


Fig. 6.

Fig. 5.



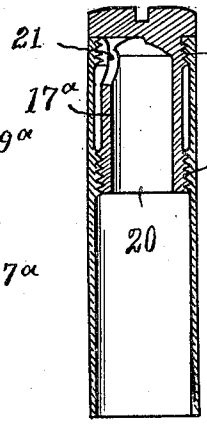


Fig. 7.

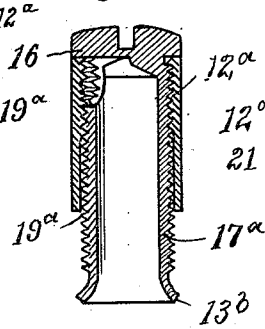
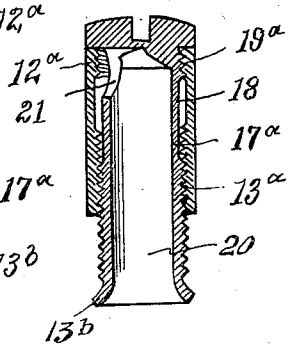


Fig. 8.



Inventor

Frank O. Hoagland

By

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UNITED STATES PATENT OFFICE.

FRANK O. HOAGLAND, OF BRIDGEPORT, CONNECTICUT, ASSIGNOR TO THE BILTON MACHINE TOOL COMPANY, OF BRIDGEPORT, CONNECTICUT, A CORPORATION OF CONNECTICUT.

OIL CUP.

1,423,112. Specification of Letters Patent. Patented July 18, 1922.

Application filed April 22, 1920. Serial No. 375,687.

To all whom it may concern:

Be it known that I, FRANK O. HOAGLAND, a citizen of the United States, and resident of Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Oil Cups, of which the following is a specification.

This invention relates to new and useful improvements in oiling devices for pulley bearings, wheel spindles and the like and includes adjustable means whereby the oil inlet may be readily opened and closed for oiling purposes.

The object of the invention is to provide a simple and inexpensive form of oiler through which lubricant may be supplied to a bearing and whereby the same may be kept free from dirt, and particularly to provide a flush oiler, that is adapted to be mounted in the periphery of a pulley or other form of wheel, so as to finish flush with the surface thereof and thereby better adapting it to be applied in the peripheral portion of a belt-carrying pulley or other elements to be oiled, where a projecting oil cap would be objectionable.

Another feature of the invention is to construct the same so as to form a commercial article which can readily be applied to pulleys already in use or formed in the pulleys when originally manufacturing the same; further to provide means whereby the principal parts of the oiler may be readily removed for cleaning the oil pocket and oil ports to the bearing, should the same be necessary.

My invention also embodies certain other novel features of construction, combination and arrangement of parts substantially as disclosed therein and illustrated in the accompanying drawings forming part of this specification and in which,

Fig. 1 shows a sectional elevation of my improved oiler shown in an open position.

Fig. 2 shows a central vertical section of a pulley having my improved oiler applied therein.

Figs. 3 and 4 show longitudinal sectional views of modified forms of my invention the same being made in two parts in a way to form the device complete in itself and adapted to be inserted in a plain hole of a pulley.

Figs. 5, 6, 7 and 8 show further slight modified forms of constructions of oilers and each may be of two parts and all adapted to be utilized and operated in the same manner as that shown in the preceding figures.

In Figs. 1 and 2 of the drawings I have shown my oiler applied and positioned in the peripheral face of a belt pulley, the outer end being flush with the face of the wheel. It should be borne in mind, however, that the invention is equally applicable for use in other places including not only movable members, but fixed bearings where it is desirable to form a dust-proof oiler that will finish flush with or below the surface of the member in which the oiler is mounted.

Referring in detail to the characters of reference marked upon the drawings, 10 represents an ordinary type of belt pulley having an oil port 11 formed radially therein through the web or spoke portion, said port communicating with the shaft hole through the hub of the wheel and extending out in alignment with my oiler positioned in the pocket formed in the outer peripheral portion of the wheel. As shown in both Figs. 1 and 2, I provide within the peripheral portion of the pulley a special form of pocket to receive an adjustable oiler member which is made operatably effective in conjunction with the pocket as will be understood from the further description to follow. This pocket is formed in radial alignment with the oil port and is considerably larger in diameter, and includes two threaded side wall portions 12 and 13 having an annular enlargement 14 formed therebetween which is of a slightly greater depth than that of the lower threaded end portion of the pocket. These two threaded portions should both include a right hand thread of equal size and pitch so as to accommodate the same screw thread. The upper end of the pocket includes a further enlargement 15 to receive the head 16 of the hollow adjustable screw 17.

The screw so-called is of special construction and serves to form an inlet for the lubricant and also a closure for the pocket. As will be seen, it includes a cylindrical shank portion 18, an enlarged threaded end portion 19 for engagement with the before mentioned threaded wall of the pocket. It is further provided with a central longitudinal oil passage 20 therein that communicates with a side oil inlet 21 positioned immediately beneath the under portion of the head 16 of the screw so that when the same is run

out of the lower threaded socket portion 13 of the inlet hole the screw will be exposed and positioned to receive the spout of an oil can, by means of which the oil may be injected in the screw, oil pocket and port within the pulley. After this the screw may be again engaged with the threaded wall and turned in to close the opening as shown in Fig. 2.

If for any reason it is desirable to clean the port or socket the screw can readily be removed by first turning its threaded portion out of the lower threaded portion 13 to the free position shown in Fig. 1 and then by further lifting it and turning it to engage its thread with the upper threaded portion 12 it may be run out for complete detachment.

In each of the constructions shown in Figs. 3 to 8 inclusive I employ a screw 17^a having side and central oil passages through which the oil is admitted and directed to the oil port in the pulley. This screw includes one or more peripheral threaded portions 19^a for engagement with the threaded portions 12^a and 13^a of the wall of the outer sleeve 10^a which is adapted to be forced in to a plain hole, not shown, of a pulley and takes the place of the special formation of the pocket shown in Figs. 1 and 2. The lower end of the screw shown in Figs 3, 4, 5 and 7 are provided with annular flanges 13^b which are designed to prevent the complete disengagement of the screw from the sleeve and to limit the distance of which the screws may be withdrawn for oiling purposes. The constructions shown in Figs. 6 and 8 are substantially like that shown in Figs. 1 and 2 except that they are designed to form an oiler complete, ready for placement in a plain form of oil hole.

From the foregoing it will readily be seen that my improved oiler includes an adjustable hollow screw having a communicating opening in the side below the head portion and provided with a suitable socket wherein it may be adjusted, and the amount of said adjustment limited or temporarily arrested to permit oiling. Therefore I do not wish to be limited in the matter of detail of construction since as shown the principle of the invention may be successfully carried out with slight modifications.

Having thus described my invention, what I claim and desire to secure by Letters Patent, is—

1. An oiler of the class described, including a casing having a pocket formed therein adapted to be closed by a screw and provided with a threaded and plain side wall portion, a hollow screw adjustably mounted in the pocket and having part only of its periphery threaded to adjustably engage the threaded portion of the socket and provided with means to limit its withdrawal movement, said screw further including a side filling opening below the head of the screw and positioned to be closed when the screw head is seated.

2. An oiler of the class described, including a casing having a pocket formed therein and provided with two threaded portions and a plain side portion intermediate of the said threaded portions, a hollow screw adjustably mounted in the pocket and having part only of its periphery threaded to engage either of the threaded portions of the socket and adapted to be disengaged when positioned between the said threaded portions, said screw further including a side filling opening below the head of the screw to be closed when the screw head is seated.

Signed at Bridgeport in the county of Fairfield and State of Connecticut this 20th day of April A. D., 1920.

FRANK O. HOAGLAND.

Witnesses:
C. M. NEWMAN,
LILLIAN M. ALLING.