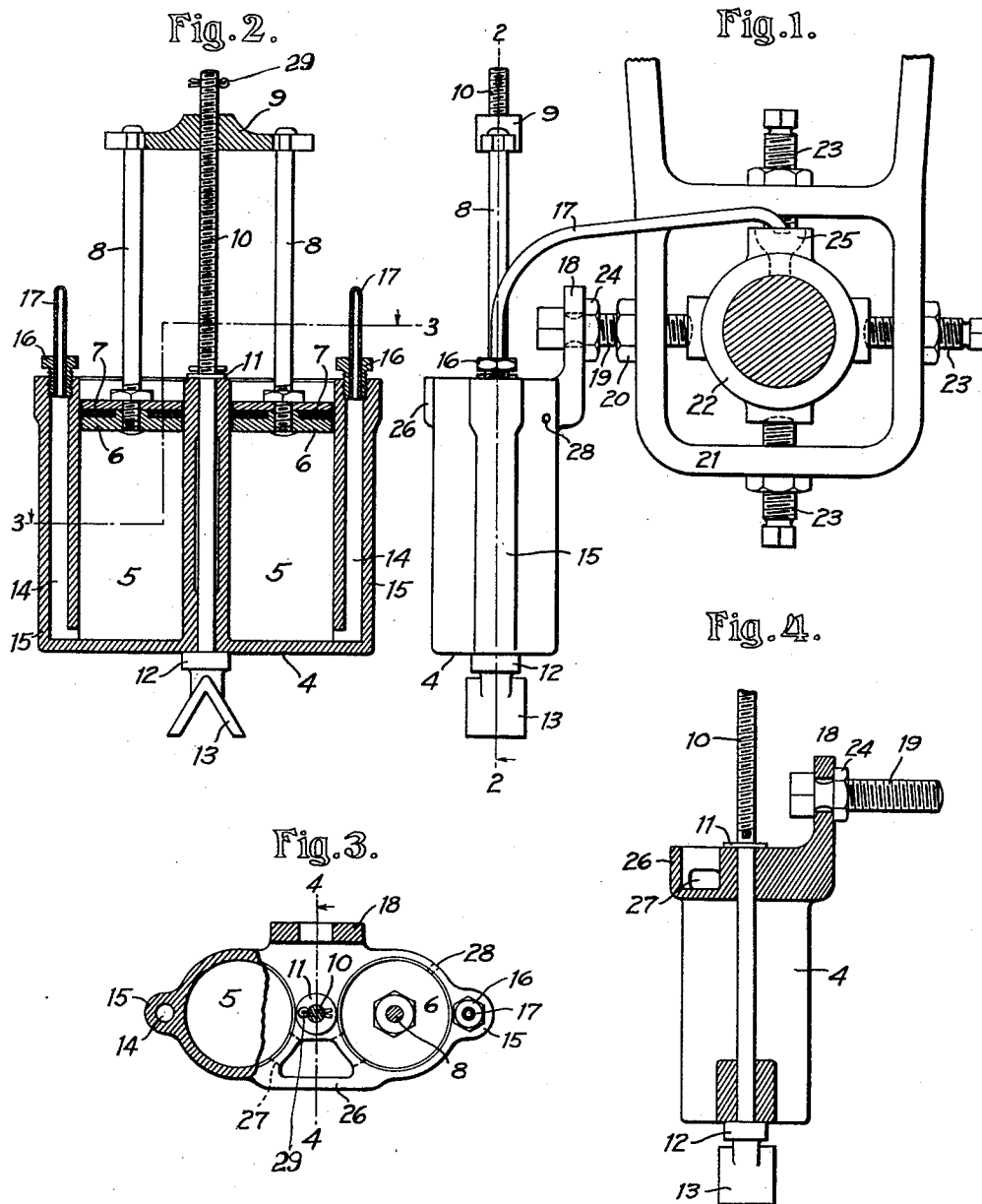


F. R. ASHTON.
SHAFT OILER.

APPLICATION FILED NOV. 9, 1911.

1,049,191.

Patented Dec. 31, 1912.



Witnesses:
E. W. Carroll
L. Thon

Inventor:
Frank R. Ashton
by his attorneys,
Osgood, Davis & Dorsey

UNITED STATES PATENT OFFICE.

FRANK R. ASHTON, OF ROCHESTER, NEW YORK.

SHAFT-OILER.

1,049,191.

Specification of Letters Patent.

Patented Dec. 31, 1912.

Application filed November 9, 1911. Serial No. 659,372.

To all whom it may concern:

Be it known that I, FRANK R. ASHTON, 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 Shaft-Oilers, of which the following is a specification.

This invention relates to means for supplying oil to the bearings of over-head shafting.

In factories and shops the shafting is usually supported in bearings mounted in shaft-hangers fixed to the ceiling. As the oil-holes are usually located in the upper surface of the shaft-bearing, it is usually necessary to employ a ladder in introducing oil to these bearings.

The object of the present invention is to produce a device of simple, compact and inexpensive construction, which may be conveniently secured to any shaft-hanger of ordinary form, this device being adapted to contain a supply of oil and to discharge it into the shaft-bearing when a manually-operable member conveniently accessible from below the device is actuated.

One feature of the invention resides in the use of a device for mounting the oil-receptacle upon the shaft-hanger, this device being adapted to engage the screw-threaded hole normally occupied by one of the set-screws employed to fix the shaft-bearing in the shaft-hanger.

Another feature of the invention resides in the use of a manually-operable device of novel and convenient form for operating the oiler.

Other objects and features of the invention will be set forth in connection with the following description of the illustrated embodiment of the invention.

In the accompanying drawings:—Figure 1 is a side-elevation of a shaft-oiler embodying the present invention, together with a shaft-hanger upon which the device is mounted; Fig. 2 is a vertical section on the line 2—2 in Fig. 1; Fig. 3 is a horizontal section on the line 3—3 in Fig. 2; and Fig. 4 is a vertical section on the line 4—4 in Fig. 3.

The illustrated embodiment of the invention is adapted to supply oil to two oil-holes simultaneously. To this end the oil-reservoir 4 is formed to provide two cylindrical

chambers 5. The oil is expelled from these chambers by means of pistons 6, provided with packings 7. To actuate the pistons they are provided with stems 8 projecting upwardly and connected with the ends of a yoke 9. The yoke has a screw-threaded hole engaging screw-threads upon a rod 10. This rod projects downwardly through bearings between the two cylindrical portions of the oil-reservoir, and is freely rotatable, while being restrained from longitudinal movement in its bearings by means of upper and lower collars 11 and 12, respectively. By the rotation of the rod 10 the yoke 9 may be drawn downwardly, thus forcing the pistons into the cylinders and expelling more or less of the oil from the cylinders.

At the lower end of the rod 10 is a device 13 by which the rod may be turned. This device is in the form of two plates arranged at an angle to each other and thus forming a socket between them. This device may be conveniently operated either by hand or by the end of a stick. In the latter case the stick may be either square, flat or beveled on the end, as either form will cause it to engage the angularly-arranged plates in such a manner as to turn the rod.

The oil expelled from the cylinders 5 passes through vertical passages 14, cored or otherwise formed in lateral projections 15 on the oil-receptacle. At the upper ends of the passages 14 are screw-plugs 16 in which oil-tubes 17 are fixed. These tubes provide for the discharge of the oil into the oil-holes of the shaft-bearing.

In order that the oiler may be conveniently mounted upon the shaft-hanger it is provided with a lug 18, which is perforated to receive, loosely, a set-screw 19. The screw 19 is of the same size, and is threaded to the same pitch, as the set-screws ordinarily employed to fix the shaft-bearing in the shaft-hanger. Accordingly, as shown in Fig. 1, one of the set-screws 23 may be removed from the shaft-hanger 21, and the screw 19 introduced in its place. After the screw has been properly adjusted it is fixed in place by the usual lock-nut 20, and the oiler is then fixed upon the screw by a lock-nut 24, whereby the oiler is rigidly mounted in proper position upon the shaft-hanger. After the oiler has been so mounted it is necessary only to bend the oil-tubes 17, which are made sufficiently slender and flexi-

ble for this purpose, so as to bring their ends directly over the oil-holes 25 in the shaft-bearing 22.

To fill the oil-reservoir the rod 10 is rotated to the left sufficiently to raise the pistons to the upper ends of the cylinders. The oil may then be poured into a receptacle 26 which is integral with the upper end of the reservoir and communicates with the cylinders through passages 27. The air escapes, at this time, from the cylinders through vents 28. The yoke is prevented from passing over the upper end of the rod 10 at this time by a cotter 29, which thus arrests the pistons when they have reached the tops of the cylinders. After the reservoir has been filled it is necessary only to rotate the rod 10 to the right in order to oil the shaft-bearing, oil being positively discharged and the quantity of each discharge being accurately gaged by the angle through which the rod is rotated. Owing to the use of two independent but simultaneously-operated pistons for discharging the oil, the amount of oil discharged through the respective oil-tubes is always exactly alike, thus providing for efficient lubrication without the waste of oil.

The flexible oil-tubes make it possible to apply the oiler conveniently to shaft-hangers and bearings of different sizes and shapes, so that the device is of universal application, and the amount of oil discharged may obviously be regulated according to the size of the shaft-bearing, or the frequency with which it is oiled, such regulation being accomplished merely by imparting the necessary degree of movement to the rod 10.

My invention is not limited to the embodiment thereof hereinbefore described and illustrated in the accompanying drawings, but may be embodied in various other forms within the nature of the invention, as it is defined in the succeeding claims.

I claim:—

1. A shaft oiler comprising, a pair of integrally formed cylinders having a vertical bearing between them open from end to end, the lower ends of the cylinders forming the base or lower end of the oiler, oil outlets, a suspension bracket at the upper end of the oiler between the two cylinders and integral therewith, pistons in the cylinders, a cross-head connecting the pistons and having a threaded aperture and a vertical rod mounted to rotate in said bearing and provided with a threaded upper end engaging said threaded aperture; the lower end of the rod extending below the oiler and provided with means for manual operation.

2. A shaft-oiler comprising, a pair of connected cylinders open at their upper ends, and having separate outlets; a vertical bearing being formed between said cylinders, a filling receptacle formed between and connecting the upper ends of the cylinders at one side and having lateral passages leading into the upper ends of the cylinders, pistons working in the cylinders, and a manually operable rod swiveled in the said vertical bearing with its upper end operatively connected to the pistons and its lower end accessible below the cylinders.

FRANK R. ASHTON.

Witnesses:

D. GURNEE,
L. THON.