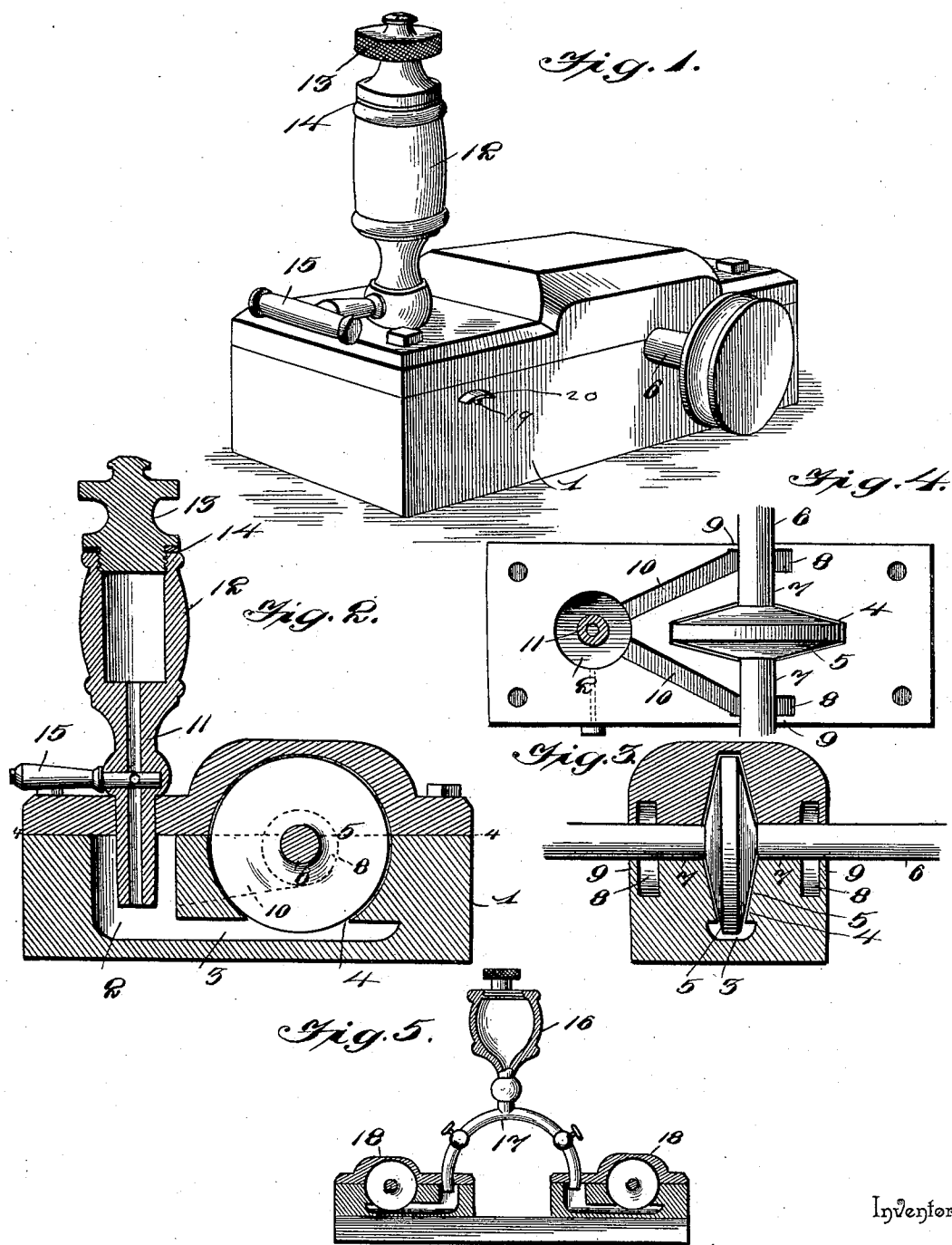


(No Model.)

F. D. FORNEY.
LUBRICATOR.

No. 575,030.

Patented Jan. 12, 1897.



Inventor

Franklin D. Forney,

By his Attorneys,

Cash & Co.

Witnesses

W. L. Koerth
C. E. May

UNITED STATES PATENT OFFICE.

FRANKLIN D. FORNEY, OF GLENVILLE, PENNSYLVANIA, ASSIGNOR OF
ONE-HALF TO J. A. SHUE, OF SAME PLACE.

LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 575,030, dated January 12, 1897.

Application filed June 10, 1896. Serial No. 594,976. (No model.)

To all whom it may concern:

Be it known that I, FRANKLIN D. FORNEY, a citizen of the United States, residing at Glenville, in the county of York and State of Pennsylvania, have invented a new and useful Lubricator, of which the following is a specification.

My invention relates to a lubricating device, and has for its object to provide a simple and efficient construction and arrangement of parts whereby the oil is fed only when required and is kept at a uniform depth in the reservoir provided for its reception to avoid flooding, and, furthermore, to provide means for conveying back to the reservoir the waste lubricant to prevent the same from working out beyond the bearings.

Further objects and advantages of this invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claims.

In the drawings, Figure 1 is a perspective view of a lubricating device constructed in accordance with my invention. Fig. 2 is a longitudinal section of the same. Fig. 3 is a transverse section taken in the plane of the axis of the shaft. Fig. 4 is a horizontal section on the line 4 4 of Fig. 2. Fig. 5 is a transverse section of a slightly-modified arrangement of the lubricating device adapted for use in connection with car-axles.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

The body portion or shell 1 of the lubricator is provided with a reservoir or well 2, from the bottom of which extends a channel 3 to a basin or cavity 4, in which is arranged a feeding-disk 5, fixed to the shaft 6, said feeding-disk being tapered toward its periphery and being adapted to dip into the lubricating material in the basin, which is supplied from the reservoir. The basin or cavity in which the disk is arranged is constructed to fit the latter snugly to prevent the disk from carrying an excessive amount of lubricant.

The bearings 7, which are arranged upon opposite sides of the basin or cavity, are cut away to form the waste-receptacles 8, closed at their outer sides by guards 9, whereby the

oil or other lubricant which is carried by the shaft beyond the bearings is received by the waste-receptacles, which connect by means of passages 10, having downwardly-inclined floors, with the well or reservoir 2 to prevent the escape of the lubricant beyond the shell.

Projecting through the top of the shell and dipping into the contents of the well or reservoir is the feed-tube 11 of an oil-cup 12, which forms a tank to contain a quantity of lubricant to be fed to the well or reservoir. This oil-cup is provided with a screw-cap 13, having suitable packing 14 to form an airtight joint, and the feed-tube is provided with a controlling-cock 15, which should be closed during the filling of the cup to prevent an excessive amount of oil from entering the well or reservoir. After the cap of the oil-cup has been replaced the controlling-cock 15 may be opened to allow lubricant to feed to the well or reservoir, and when the lubricant has filled the well or reservoir sufficiently to cause the lower extremity of the feed-tube to dip therein the flow will cease. As the oil becomes used and the surface thereof falls below the plane of the lower extremity of the feed-tube an additional supply will be fed to the well or reservoir from the oil-cup.

From the above description it will be seen that the device is simple and that lubricating material which passes beyond the bearings of the shaft is caught by the waste-receptacles and returned to the well or reservoir, while the arrangement of the feeding-disk upon the shaft between the bearings of the latter serves to maintain the bearings thoroughly lubricated.

When the device is used in connection with car-axles, a single oil-cup, as shown at 16, is preferably used to feed oil through branch feed-pipes 17 to two reservoirs, the construction of the interiors of the shells 18 being identical with that above described.

The reservoir is preferably provided with an air-inlet port 19 to provide for the proper flowing of the lubricant to the feeding-disk, and over said port is arranged a shield or guard 20 to prevent dust from accumulating therein.

Various changes in the form, proportion,

and the minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

5 Having described my invention, what I claim is—

10 1. A lubricator for shafts having a basin or cavity, means for maintaining lubricating material at a uniform depth in said basin or cavity, and a lubricating-disk carried by the shaft and tapered toward its periphery to dip into the lubricant contained in the basin or cavity, the walls of the basin or cavity fitting snugly against the surfaces of said disk, substantially as specified.

15 2. A lubricator for shafts having spaced bearings, an interposed basin or cavity, a well or reservoir and means for maintaining lubricating material at a uniform depth therein, said well or reservoir being in communication with the basin or cavity, a lubricating-disk arranged in the basin or cavity and adapted to be carried by a shaft, and waste-receptacles arranged contiguous to and beyond the bearings and communicating by declined passages with the well or reservoir, substantially as specified.

3. A lubricator having a well or reservoir, a basin or cavity in communication with the well or reservoir and arranged contiguous to a shaft-bearing to receive a lubricating-disk carried by the shaft, and an air-tight oil-cup having a feed-tube extending into the well or reservoir and adapted to dip into the contents thereof to regulate the flow of lubricant, substantially as specified. 35

4. A lubricator having a well or reservoir, a basin or cavity arranged contiguous to a shaft-bearing and adapted to receive a lubricating-disk carried by the shaft, an air-tight oil-cup having a removable cap, and a feed-tube provided with a controlling-top and extending from the oil-cup to the well or reservoir, the extremity of said feed-tube dipping into the contents of the well or reservoir to maintain a uniform depth of lubricant therein, substantially as specified. 45

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

FRANKLIN D. FORNEY.

Witnesses:

C. W. GIBBS,
N. R. BORTNER.