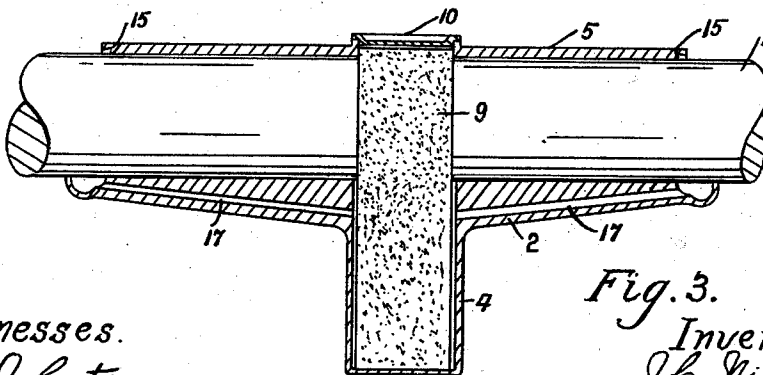
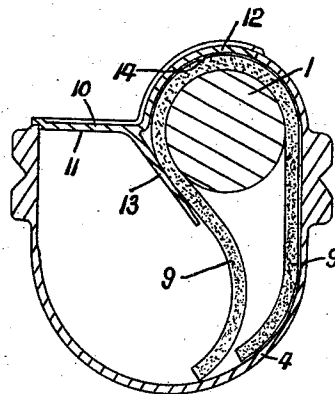
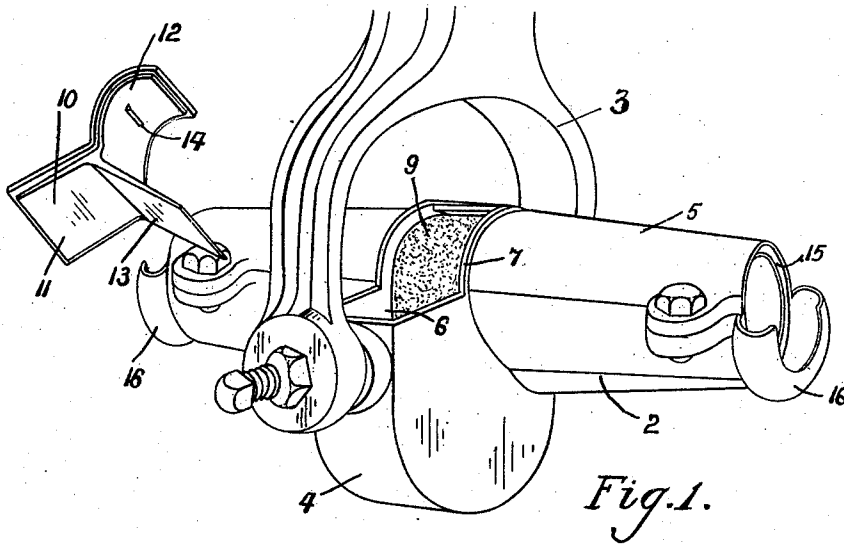


J. C. NICHOL.
LUBRICATING DEVICE.
APPLICATION FILED DEC. 30, 1909.

986,849.

Patented Mar. 14, 1911.



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UNITED STATES PATENT OFFICE.

JOHN CHRISTOPHER NICHOL, OF OTTAWA, ONTARIO, CANADA.

LUBRICATING DEVICE.

986,849.

Specification of Letters Patent. Patented Mar. 14, 1911.

Application filed December 30, 1909. Serial No. 535,664.

To all whom it may concern:

Be it known that I, JOHN CHRISTOPHER NICHOL, a subject of the King of Great Britain, and residing at No. 347^A Elgin street, in the city of Ottawa, in the Province of Ontario, in the Dominion of Canada, have invented certain new and useful Improvements in Lubricating Devices; and I do hereby declare that the following is a full, clear, and exact description of the same.

The invention relates to improvements in lubricating devices, and more particularly to a form of lubricating device applicable to shaft hangers, as described in the present specification and illustrated in the accompanying drawings, that form part of the same, though it must be understood that the invention is not confined to the particular use as shown and described in the present specification and drawings, and it will be readily seen that it is equally adaptable for the lubrication of the journal of any rotating member.

The invention consists essentially of a well supported under the journal and a strip of textile material extending over and bearing against the rotating member, and held in position, whereby a portion thereof extends into the well.

The objects of the invention are to devise a simple and cheap device which will efficiently lubricate journal bearings, whereby a continuous supply of oil will be fed to the journal clear of all grit or foreign matter, and more especially adapted for the journal bearings of shafting, whereby the same can be readily applied and supported by the shafting hangers as customary.

A further object of the invention is to provide a lubricator which will have no moving parts, and may be readily supplied with oil when required.

In the drawings, Figure 1 is a perspective view of the lubricator as applied to a shaft hanger, showing the cover thereof removed. Fig. 2 is a cross sectional view of the lubricator. Fig. 3 is a longitudinal sectional view of the lubricator.

Like numerals of reference indicate corresponding parts in each figure.

Referring to the drawings, 1 is a rotating shaft.

2 is the lower half of the bearing in which the shaft 1 rotates, said shaft being shown in the accompanying drawings as supported by a shaft hanger 3, though it must be un-

derstood that the invention is in no way restricted in use to shaft hangers, as it will readily be understood that any journal may be formed for the reception of the lubricating device as hereinafter explained. The lower half of the bearing is formed intermediate of its length with a well 4.

5 is the upper half of the bearing, having the opening 6 therethrough intermediate of its length and immediately over the well 4. The opening 6 preferably has a flange 7 extending therearound for the reception of the well cover as hereinafter explained.

9 is a strip of felt or other textile material hanging over the shaft 1, so that the ends thereof extend into the well 4, the bearing being annularly recessed around the interior thereof above the well 4 to accommodate the strip 9.

10 is the cover having the section 11 thereof fitting over the extending portion of the well and the arc section 12 fitting the flange 7 around the opening 6 through the upper half of the bearing, whereby the felt strip 9 is completely covered, so that dust or foreign matter can in no way get into the well 4. The cover 10 has the apron 13 extending angularly from the section 11 thereof, whereby the felt strip 9 is lapped part way under the shaft 1, so that the said strip where it hangs over the shaft almost completely encircles the same.

14 is a teat or ridge formed on the inner face of the arc-shaped section 12 of the cover, and engaging the strip 9 where it hangs over the shaft to prevent the said strip from moving around the shaft and becoming misplaced.

In the operation of the device, the well 4 is partially filled with oil, so that the ends of the felt strip 9 are immersed, whereby the oil will saturate the said strip 9, and will be carried through the capillary action of the textile material completely around the shaft 1, and effectually lubricate the shaft which will carry the oil with it throughout the length of the journal bearing.

In forming the bearing it is preferable to have the ends thereof counter-bored at 15, whereby the oil will not reach the extreme end of the bearings which are clear of the shaft. It is also preferable to have the lower half of the bearing formed with the arc-shaped pockets 16 at the ends thereof to receive the oil which finds its way to the

extremities of the journal, the said pockets 16 communicating with the well 4 by the cored passages 17 through the lower half of the bearing, so that the oil has a continuous passage through the felt strip 9 to the shaft and along the shaft to the end of the bearing, where it is gathered by the pocket 16, and returned through the cored passage 17 to the well 4.

10 In a lubricating device of this kind no grit or foreign matter which may be in the oil can in any way be carried to the journal, as the strip 9 effectually filters the oil, so that it is perfectly clear when it reaches the shafting or other rotating member.

15 It will of course be understood that the cover 10 may be arranged in many ways to hold the strip 9 to its place, the essential feature of the invention being the manner in which the said strip is hung over the rotating member to almost encircle the same, and still prevented from in any way working therearound.

20 In applying the lubricating device to a solid bearing, it is only necessary to have the bearing recessed for the reception of the felt strip, the said strip being held to its place by any convenient means, such as a pointed screw or pin or plates similar to the cover shown in the accompanying drawings suitably supported at the sides of the bearing.

25 The apron extending from the cover need not be rigid, and it may be preferable to have the same made of a spring material to clasp the under side of the rotating member or shaft.

What I claim as my invention is:

1. In a device of the class described, the combination with a journal or similar rotatable member, of a bearing encircling said journal and having a well formed in the lower half thereof intermediate of its length and an opening through the top thereof into said well, a strip of textile material hanging over said journal and depending into said well, of a cover fitting the open upper side of said bearing and having an apron extending therefrom against the depending end of said strip and holding the same under said journal.

2. In a device of the class described, the combination with a journal or similarly rotatable member, of a bearing encircling said journal and having a well formed in the

lower half thereof intermediate of its length and an opening through the top thereof into said well, a strip of textile material hanging over said journal and depending into said well, of a cover fitting the open upper side of said bearing and having an apron extending therefrom against the depending end of said strip and holding the same under said journal and a teat or ridge projecting from said cover and contacting with said strip over said journal.

3. In a device of the class described, the combination with a journal or similar rotatable member, of a bearing encircling said journal and having a well formed in the lower half thereof intermediate of its length and an opening through the top thereof into said well and counter-bored extremities and arc-shaped pockets formed at the extremities of said bearing and communicating through suitable cored passages with said well, a strip of textile material hanging over said journal and depending into said well, a cover fitting the open upper side of said bearing and having an apron extending therefrom against the depending end of said strip and holding the same under said journal.

4. In a device of the class described, the combination with a journal or similar rotatable member, of a bearing encircling said journal and having a well formed under the lower half thereof intermediate of its length and an opening through the top thereof into said well and counter-bored extremities and arc-shaped pockets formed at the extremities of said bearing and communicating through suitable cored passages with said well, a strip of textile material hanging over said journal and depending into said well, of a cover fitting the open upper side of said bearing and having an apron extending therefrom against the depending end of said strip and holding the same under said journal and a teat or ridge projecting from said cover and contacting with said strip over said journal.

Signed at the city of Ottawa, in the Province of Ontario, in the Dominion of Canada, this 20th day of December, 1909.

JOHN CHRISTOPHER NICHOL.

Witnesses:

K. F. MACGIBBON,
C. J. COTE.