

(No Model.)

3 Sheets—Sheet 1.

W. M. BRINKERHOFF.
LUBRICATING MECHANISM.

No. 282,837.

Patented Aug. 7, 1883.

Fig. 1.

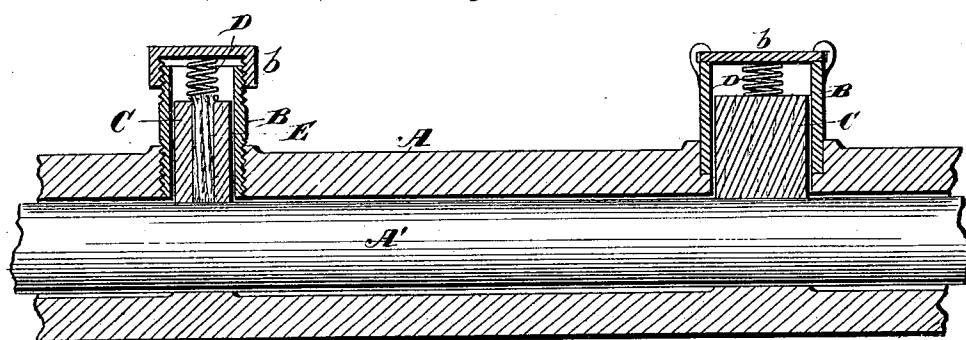


Fig. 2.

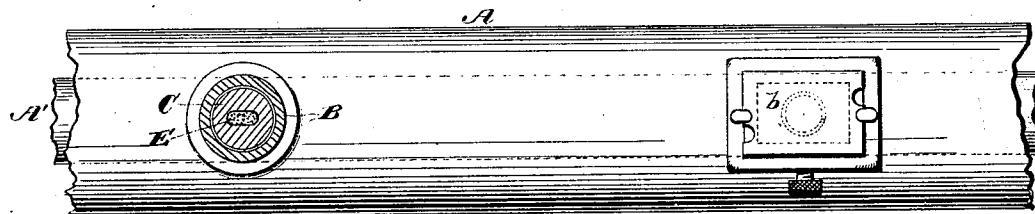


Fig. 3.

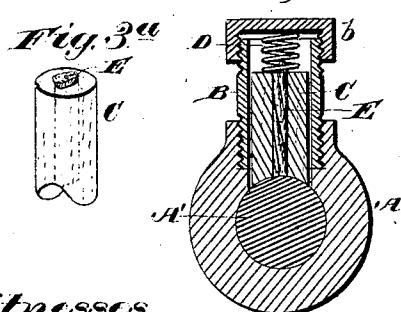
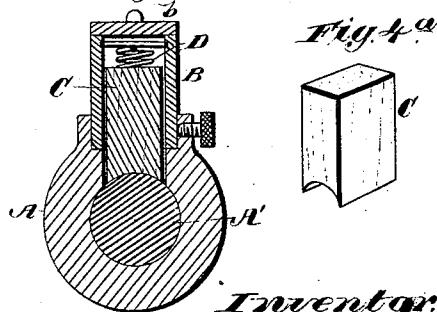


Fig. 4.



Witnesses.

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2 Sheets—Sheet 2.

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Fig. 5.

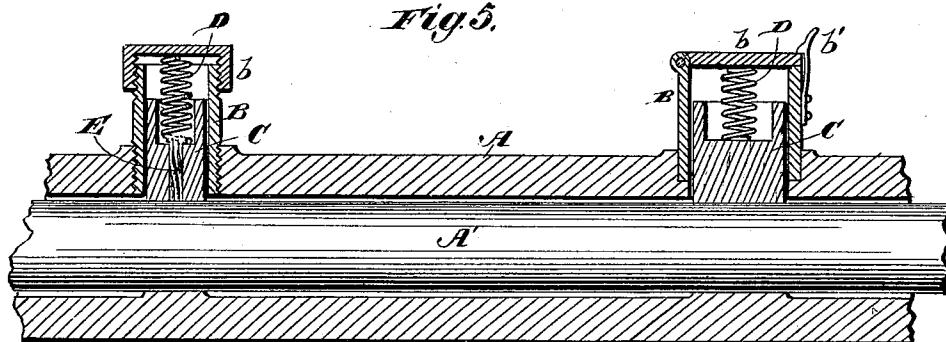


Fig. 6.

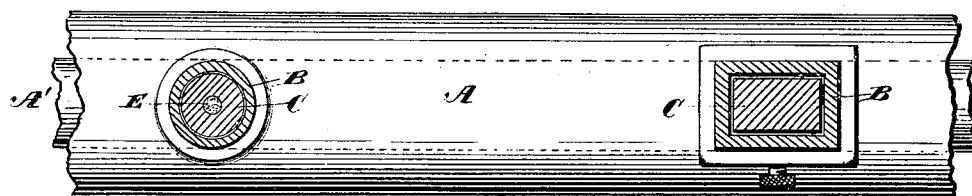


Fig. 7a.



Fig. 7.

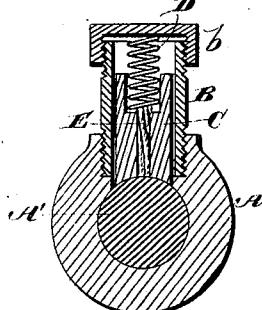


Fig. 8.

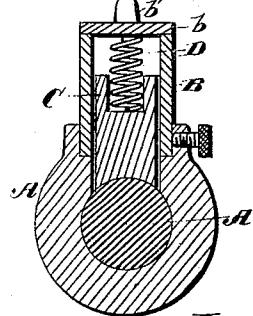
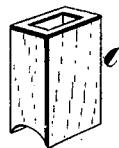


Fig. 8a



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UNITED STATES PATENT OFFICE.

WARREN M. BRINKERHOFF, OF AUBURN, NEW YORK:

LUBRICATING MECHANISM.

SPECIFICATION forming part of Letters Patent No. 282,837, dated August 7, 1883.

Application filed June 30, 1883. (No model.)

To all whom it may concern:

Be it known that I, WARREN M. BRINKERHOFF, a citizen of the United States, residing at Auburn, in the county of Cayuga and State of New York, have invented new and useful Improvements in Lubricating Mechanism for Hangers, Journal-Bearings, &c., of which the following is a specification.

My invention relates to lubricating mechanism for hangers, journals, axles, and other bearings, the purpose being to provide the shaft with a conductor through which the lubricant is fed to the bearing-surface, said conductor being surrounded by a casing having a chamber or oil-reservoir between the end of the conductor and the top or lid of the casing.

My invention consists in the combination of a shell or casing, a conductor inclosed therein, and a chamber or oil-reservoir between the end of the conductor and the lid of the casing, with means arranged within the casing for constantly maintaining said conductor in contact with the shaft as it is reduced by friction thereon, said conductor being homogeneous throughout, or having a material placed, if desired, within its body, said material being more porous than the latter to facilitate the passage of the lubricant.

Referring to the drawings forming part of this application, Figure 1 is a vertical longitudinal section of a shaft-bearing with lubricators attached. Fig. 2 is an elevation of the upper side of said bearing. Fig. 3 is a transverse section of Fig. 1 in the plane 3 3. Fig. 3^a is a detail perspective of the conducting-block shown in Fig. 3. Fig. 4 is a transverse section of Fig. 1 in the plane 4 4. Fig. 4^a is a detail perspective of a modified form of the conducting-block. Fig. 5 is a vertical longitudinal section of a shaft-bearing with lubricators attached. Fig. 6 is an elevation of the top of said shaft-hanger. Fig. 7 is a cross-section in the plane 7 7 of Fig. 5. Fig. 7^a is a detail perspective of the conductor shown in Fig. 7. Fig. 8 is a cross-section in the plane 8 8 of Fig. 5. Fig. 8^a is a detail perspective of the conducting-block shown in Fig. 8.

A in said drawings represents the shaft-hanger or journal-box, which may be of the usual construction. In any suitable part of the box or hanger-bearing is formed an opening, which may be either rectangular or cy-

lindrical, by which a portion of the shaft or journal is exposed. Connected with this opening is a shell or casing, B, which may be tapped into the opening, as shown in Figs. 1, 3, 5, and 7, or fastened in place in any other suitable manner.

Within the casing B is placed a conductor, C, which lies closely against the vertical walls of said casing, or, if any space intervenes, is provided with a suitable packing, by which the escape of the lubricant is prevented. This conductor may be made of any material whatever—such, for example, as wood, iron, or composition of metal—the sole requirement being that it shall possess sufficient porosity, either throughout or in a portion of its body, to permit the passage of the lubricant by capillary action or by permeation, whereby the conductor itself may become a saturated block to furnish the required lubrication.

The casing B is provided with a cover or lid, b, which, in the cylindrical form of casing shown in Figs. 2, 3, 6, and 7, may be threaded upon the open end of the casing, and in the rectangular form is hinged to one side and fastened by a spring-latch, b', or in any other suitable manner. Between this lid and the upper end of the conductor C is placed a suitable spring, D, by which the conductor is held in constant contact with the shaft or journal. Instead of the spring resting against the lid of the casing, it may lie against a cross-bar or other suitable support interposed between the lid or top of the casing and the end of the conductor, as shown in Fig. 4 of the drawings. Between the upper end of the inclosed conductor C and the lid of the casing B may be formed a chamber, within which the spring D is placed, and this chamber may be utilized as a reservoir for the lubricating material; or said chamber may be formed by recessing the upper end of said conductor, said recess affording space for the lubricant and at the same time a seat for the spring D; or, again, the body of the conductor itself may be used as a reservoir for the lubricating fluid or material.

I may place within the body of the conductor or an auxiliary conducting substance of any suitable fibrous or porous material, the arrangement of the parts being substantially shown at E in Figs. 1, 2, 3, 5, and 7.

Instead of the form of spring shown at D,

I may employ any other device by which the conductor C may be drawn or forced downward or against the shaft; or I may dispense with such devices altogether and rely upon 5 gravity to accomplish said result.

It will be seen that by supporting the conductor C within the casing B and the opening in the journal-box, which forms a continuation of said casing, the end of said conductor, 10 which is of light and porous material, is prevented from undue injury or from crumbling away by the friction of the shaft, thus providing a more durable and efficient lubricating device than where a block of tallow within a 15 tube is maintained in contact with a journal, as in such the heat developed by the revolution of the journal will rapidly melt the tallow, and hence furnish a greater supply of lubricant than is requisite, besides necessi- 20 tating frequent renewal.

Having thus described my invention, what I claim is—

1. The combination of a shell or casing, a

conductor inclosed therein, a chamber or oil-reservoir between the end of the conductor 25 and the lid of the casing, with means arranged within the casing for constantly maintaining said conductor in contact with the shaft as it is reduced by friction thereon, substantially as described.

2. The combination with a shell or casing, a conductor inclosed therein, a porous material within the body of said conductor, a chamber or oil-reservoir between the end of said conductor and the lid of the casing, within which 35 chamber or reservoir is seated means for maintaining the conductor in constant contact with the shaft as it is reduced by friction thereon, substantially as described.

In testimony whereof I have hereunto set 40 my hand in the presence of two subscribing witnesses.

WARREN M. BRINKERHOFF.

Witnesses:

JAMES L. NORRIS,
JOS. L. COOMBS.