

H. E. SMITH.

LUBRICATING JOURNAL-BOXES.

No. 170,907.

Patented Dec. 7, 1875.

Fig. 1.

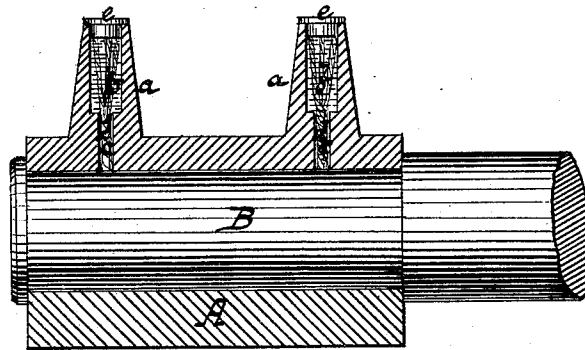
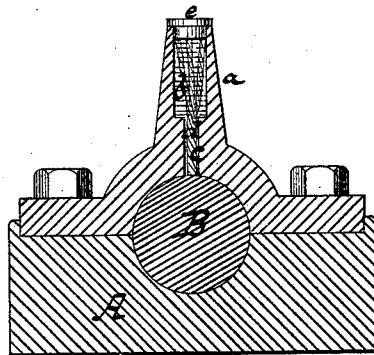


Fig. 2.



Witnesses.

Wm. Hufeland
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Inventor.

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per
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UNITED STATES PATENT OFFICE

HAMILTON E. SMITH, OF NEW YORK, N. Y.

IMPROVEMENT IN LUBRICATING JOURNAL-BOXES.

Specification forming part of Letters Patent No. **170,907**, dated December 7, 1875; application filed November 4, 1875.

To all whom it may concern :

Be it known that I, HAMILTON E. SMITH, of the city, county, and State of New York, have invented a new and useful Improvement in Self-Lubricating Journal-Boxes, which improvement is fully set forth in the following specification, reference being had to the accompanying drawing, in which—

Figure 1 represents a longitudinal vertical section of my journal-box. Fig. 2 is a transverse vertical section of the same.

Similar letters indicate corresponding parts.

This invention consists in the combination, with a journal-box, of a projection, (one or more,) which is cast solid with the cover of the box, and which is bored out to form a reservoir for the lubricating material and for a wick and a channel extending down through the cover of the box, said reservoir being provided with a closely-fitting plug or stopper, so that when the reservoir is filled up with lubricating material and the journal is set in motion, said lubricating material will be slowly drawn down, and the journal will be kept lubricated, and when the journal is at rest the flow of the lubricating material will be stopped.

In the drawing, the letter A designates my journal-box, which is bored out to receive the journal B. On the cover of my journal-box is cast a projection, *a*, (one or more,) which is bored out to form an enlarged reservoir, *b*, for the lubricating material, and a contracted channel, *c*, which extends through the cover. Through this contracted channel is passed a wick, *d*, the upper end of which lies in the reservoir *b*. The mouth of said reservoir is closed by a stopper or plug, *e*, so as to exclude the atmosphere.

If the reservoir is filled with a suitable lubricating material, therefore, such material will find its way to the journal by the capillary attraction of the wick *d*, unassisted by the atmospheric pressure.

The lubricating material which I use by

preference is lard and plumbago, or any other material which will not become fluid at the ordinary or mean temperature, and consequently no lubricating material will flow to the journal as long as the same is at rest; but when the journal is set in motion, and the journal-box becomes slightly warmed, the lubricating material will be slowly carried down to the journal by the capillary attraction of the wick *d*.

By this arrangement a comparatively small quantity of lubricating material is sufficient to keep the journal lubricated for a long time, and all danger of soiling the journal-box, or the parts adjacent thereto, by a surplus of lubricating material is avoided. For this reason my journal-box is particularly applicable to clothes-wringers, sewing-machines, mangles, or other machinery of a similar nature, which are used for operating on textile fabrics, and in which it is particularly desirable not to expose such fabrics to the danger of becoming soiled by the lubricating material.

My lubricating-box can be applied to journals in any desired position, the reservoir *b* being made to extend either up or down or in a horizontal position, as may be desirable.

Since the reservoir is closed, the lubricating material will be carried to the journal whatever the position of the reservoir may be.

What I claim as new, and desire to secure by Letters Patent, is—

The cover of the journal-box formed with the projection *a*, having the enlarged reservoir *b*, and the contracted channel *c*, with the wick and stopper arranged in position, substantially as shown and described.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 3d day of November, 1875.

HAMILTON E. SMITH. [L. S.]

Witnesses:

W. HAUFF,

E. F. KASTENHUBER.