

P. P. Lane.

Self-Lubricating Journal Box.

N^o 7,1313

Patented Nov. 26, 1867.

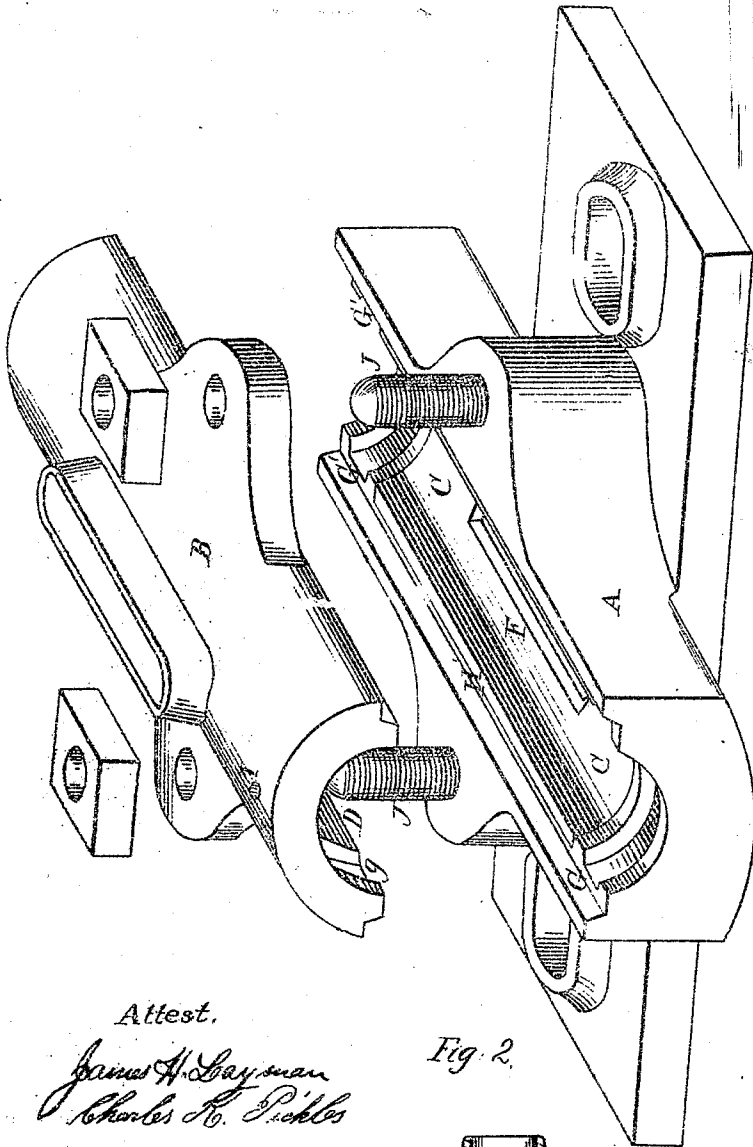
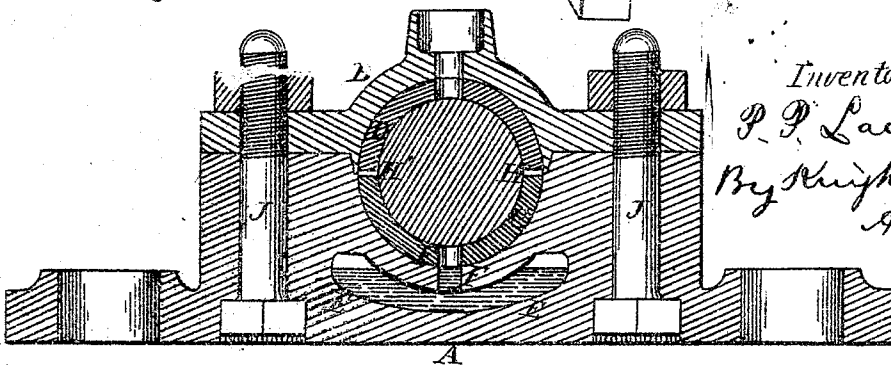


Fig. 1.

Attest.
James H. Layman
Charles H. Pickles

Fig. 2.



Inventor.
P. P. Lane
By Knight Bros
Attys.

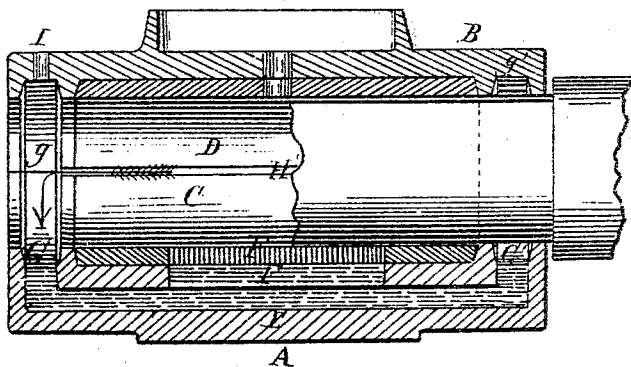
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Fig. 3.



Attest:

James H. Bayman
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United States Patent Office.

PHILANDER P. LANE, OF CINCINNATI, OHIO, ASSIGNOR TO LANE AND
BODLEY, OF SAME PLACE.

Letters Patent No. 71,313, dated November 26, 1867.

IMPROVEMENT IN SELF-LUBRICATING JOURNAL-BOX.

The Schedule referred to in these Letters Patent and making part of the same.

TO WHOM IT MAY CONCERN:

Be it known that I, PHILANDER P. LANE, of Cincinnati, Hamilton county, Ohio, have invented a Self-Lubricating Journal-Box, and do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification.

This invention relates to a journal-box so constructed as, during the rotation of the shaft, to afford a constant supply of lubricating oil without the use of either wicks or of an elevated reservoir.

Figure 1 is a perspective view of the parts detached.

Figure 2 is a transverse section of the box.

Figure 3 is a longitudinal section thereof.

A is the lower member or step, and B the upper member or cap of a journal-box. C and D represent the "Babbit" lining of cap and step respectively. The step A contains, at its lower portion, a chamber, E, whose upper part is preferably lower than the lowest part of the journal. F is a narrow longitudinal slot, which extends upward from the chamber E through the bottom of the bearing. G g G' g' are ducts near the ends of the step, which ducts communicate with the ledges or channels H H' at the meeting of the step and cap. I is an orifice in the cap, through which oil may be supplied when desired. J represents the customary screw-bolts for fastening the cap. One or more circular or other apertures may be employed instead of the slot F.

The operation of this box is as follows: The reservoir or chamber E being supplied with oil, the shaft is placed in the step, and the cap screwed in place. A few drops of oil are then poured into the hole I, and, the shaft being set in motion, oil is found to continually flow up through the slot F, so as to keep the journal fully lubricated, so long as any oil remains in the chamber E. The overplus of oil returns along the ledges H H', and is caught by the ducts G g G' g' and returned to the reservoir.

This plan of journal-box avoids the expense and annoyance of wicks, with their liabilities of becoming clogged by the accumulated feculencies, or scorched by an overheated shaft; and it also avoids the dirt and waste which constantly attend the overflow of those reservoirs which are wholly or partially above the bottom of the journal.

I claim herein as new and of my invention—

The self-lubricating journal-box, having the oil-chamber E below the bottom of the journal, and communicating with the journal, at or near its mid-length, by one or more apertures F, and, at or near the ends thereof, by ducts G g G' g', to which the overplus of oil is conveyed by the channels H H', substantially as set forth.

In testimony of which invention I hereunto set my hand.

P. P. LANE.

Witnesses:

GEO. H. KNIGHT,
JAMES H. LAYMAN.