

C. PURDY.
 SELF LUBRICATING JOURNAL BOX AND BEARING.
 No. 62,500. Patented Feb. 26, 1867.

Fig. 1.

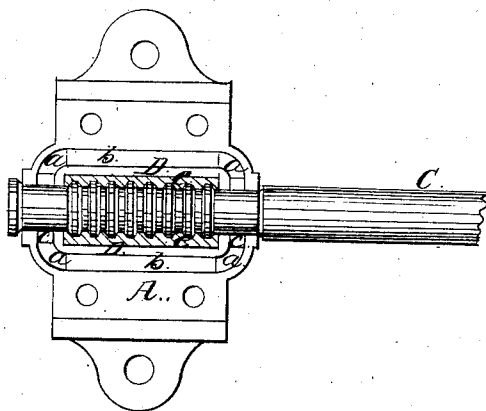


Fig. 2.

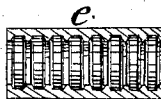


Fig. 4.

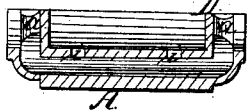
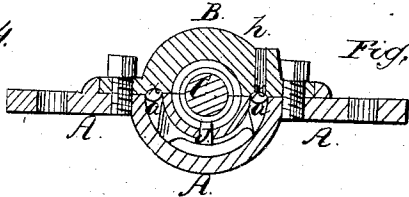


Fig. 3.



Witnesses:
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United States Patent Office.

CHESTER PURDY, OF BEDFORD, OHIO.

Letters Patent No. 62,500, dated February 26, 1867.

IMPROVEMENT IN SELF-LUBRICATING JOURNAL-BOX AND BEARING.

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

TO ALL WHOM IT MAY CONCERN:

Be it known that I, CHESTER PURDY, of Bedford, in the county of Cuyahoga, and in the State of Ohio, have invented certain new and useful improvements in Self-Lubricating Journal-Box and Bearings; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon.

In the annexed drawings, making part of this specification, A represents the lower part of the journal-box, and B the upper part or cap, said parts being neatly fitted and bound or secured together by means of screws or bolts. This journal-box is cast of iron or steel, or any other suitable metal. Within the lower part of the box is cast on half of a tube, D, said tube being separated from the box, except at its four corners, where it is connected by the cast lugs *a a*. There is a chamber beneath the tube between it and the bottom of the box, said chamber extending around the tube, and is marked *b b* at its sides and *c c* at its ends. The tube D is lined with any suitable soft metal, said lining being marked *e*. The lugs *a a* are a little below the top of the tube, and are grooved out so as to make a channel for oil to run through or over. C represents the shaft, which has its bearings in the journal-box. This shaft is provided, upon that portion which lies in the box, with a series of threads similar to the threads of a screw, only they do not connect with each other, but run directly around the shaft. The threads on the shaft run in corresponding depressions or grooves in the lining *e*. By the use of these threads and grooves the shaft is prevented from any longitudinal play in its bearing. The cover B is cast with a semicircular opening, which said opening is provided with a soft-metal lining similar to that of the lower part of the box. This lining is of course provided with depressions or grooves to fit the threads upon the shaft. A groove is cast in the face of the cap B, all around, which fits over the chambers *b b* and *c c* and also over the groove in the lugs *a a*. This groove in the cap is marked *x x* and seen in fig. 3. The tube D and its lining *e* are both provided in their bottoms with openings *i i* at proper distances apart, and the end of a wick, J, (see fig. 3,) placed in chamber *b* is inserted in each of the holes. There is a wick in the chamber for each hole. The object of the wick is to convey oil up from chamber *b* to the shaft, where it bears in the lining *e*. *h* represents a hole through the cap for the purpose of introducing oil to the oil chamber *b*.

It will be readily seen that by this arrangement and construction of journal-box there is a great saving of oil effected, and that the journal is protected from dirt and dust. This box can be used for all kinds of machinery where a pivot or tilting or stationary box is required. It is not absolutely necessary that the lining should be corrugated or the axle threaded, as a plain axle and box may be used and by the same means made self-lubricating.

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

1. A plain or corrugated journal-box fitted with soft-metal lining and provided with a chamber around its sides and ends, as and for the purpose specified.
2. The employment of wicks or other equivalent for conveying oil from the chamber beneath the axle to the journal-box, as and for the purpose set forth.
3. The combination of the cap and lower part of the box provided with grooves and chambers, as set forth, with the pipe D suspended and connected by lugs *a a* or equivalents, as and for the purpose specified.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 20th day of November, 1866.

CHESTER PURDY.

Witnesses:

M. M. HATHAWAY,

L. TARBELL.