E. D. Murfey,

Spindle.

No. 108079. Patented Oct. 4. 1870.

Fig. 1.

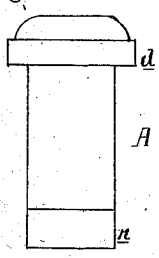


Fig. 3.

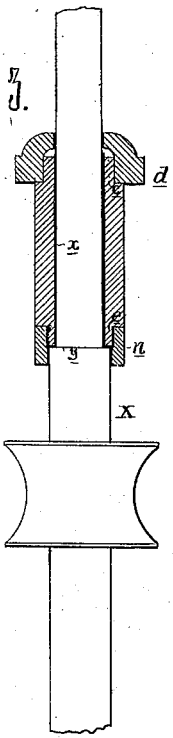
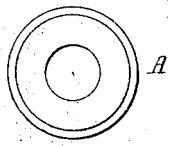


Fig. 2.



Witnesses
Albert H. Norris
B. Severson

E. D. Murfey
By her attorneys
Howson & Howson

United States Patent Office.

ELIZA DEXTER MURFEY, OF NEW YORK, N. Y., ASSIGNOR TO MANHATTAN PACKING MANUFACTURING COMPANY.

Letters Patent No. 108,079, dated October 4, 1870.

IMPROVEMENT IN JOURNAL-BOXES.

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

I, ELIZA DEXTER MURFEY, of New York, county of New York, State of New York, have invented an Improved Journal-Box, of which the following is a specification.

Nature and Object of the Invention.

My improved journal-box and bearing consist of a hollow block of wood, lined with the material patented to me on the 12th day of July, 1870, or the equivalent of such material, and otherwise constructed, as fully described hereafter, the whole forming a box and bearing which is cheaper, more durable, and less liable to become heated than the usual metal boxes with metal bearings.

Description of the Accompanying Drawing.

Figure 1 is an external view of my improved journal-box;

Figure 2, a plan view; and

Figure 3, a sectional view of the box, with portion of a spindle or shaft, which turns in the box.

General Description.

The journal-boxes of the spindles of a spinning-machine, and of other light shafts, are generally of brass or other metal, bored out, either to receive a detachable metal bearing, or to fit the journal of the shaft, the box or bearing being highly polished, internally, to diminish the friction to as great an extent as possible, a reservoir being sometimes formed at the top of the box, to contain oil, or other lubricant, with which the journal must be constantly supplied.

Boxes constructed in this manner are expensive to manufacture, the boxes or detachable bearing must be replaced as soon as they become worn to a slight extent; they consume a large quantity of oil, and sometimes occasion excessive friction, causing the heating of both bearing and journals.

I have found that a box consisting of wood, and containing a lining of non-metallic absorbent material impregnated with lubricant, will not become heated, or cause the heating of the journal. It is much cheaper than one of metal, equally efficient, and more durable; and that the composition with which the lining is impregnated, being partly absorbed by the wood, causes the lining to adhere firmly to the box.

The box may be of any suitable shape, externally, adapted to the situation which it is to occupy; preferably, it is a cylinder, A, bored, to admit the detachable non-metallic bearing *x*, through which the spindle X passes, and provided, at its upper and lower ends, with annular ribs or projections, *c e*.

The bearing may be made from the material patented to me on the 12th day of July, 1870, or of equivalent material, and bent to a tubular form, to fit the box, the lower end of the paper tube being expanded to form a flange, which is confined to the rib *e* by a ring, *n*, as shown in fig. 3, that portion of the tube which is folded over the lower edge of the rib forming a bearing for the shoulder *y* of the spindle.

To the top of the box is fitted a cap, *d*, and the ring *e* accurately fits, without bearing against the enlargement of the spindle, the access of dust to the bearing being thus prevented.

I claim as a new manufacture—

A journal-box and bearing, consisting of a hollow block of wood, containing a lining, *x*, of material, substantially as described, and adapted to a journal, as set forth.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses.

ELIZA DEXTER MURFEY.

Witnesses:

ALBERT H. NORRIS,

CHARLES E. FOSTER.