No. 795,552. PATENTED JULY 25, 1905.

M. T. SHEETS.

LUBRICATING JOURNAL BEARING.

APPLICATION FILED APR. 3, 1905.

Fig. 1.

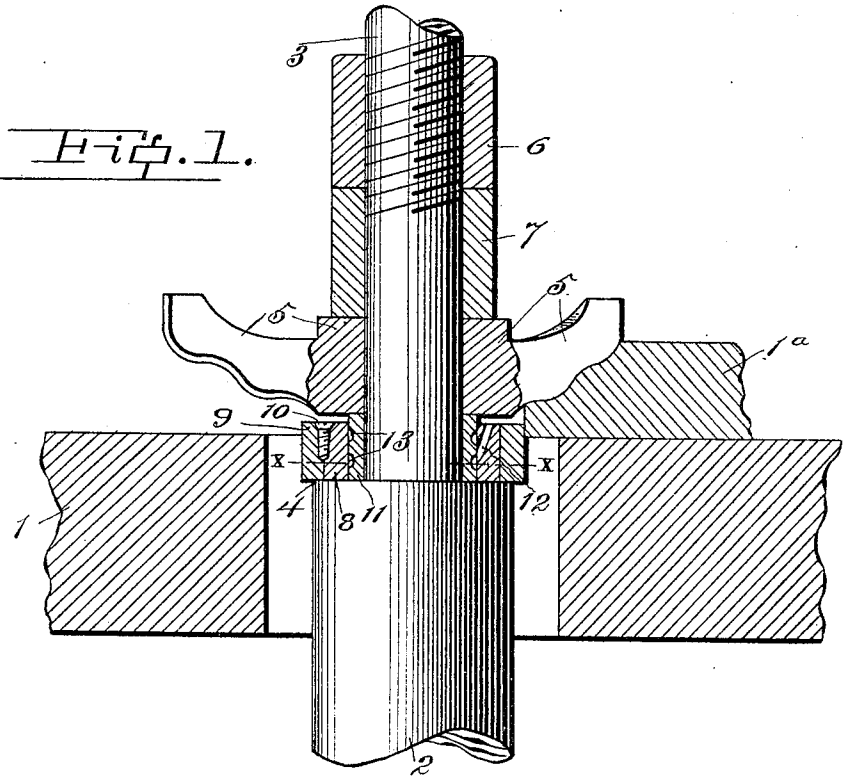


Fig. 3.

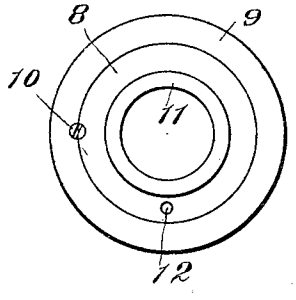


Fig. 2.

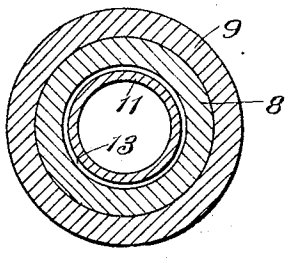
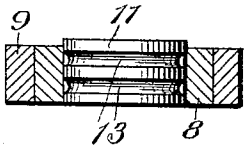


Fig. 4.



Witnesses

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LUBRICATING JOURNAL-BEARING.

No. 795,552. Specification of Letters Patent. Patented July 25, 1905.

Application filed April 3, 1905. Serial No. 253,424.

To all whom it may concern:

Be it known that I, MARION T. SHEETS, a citizen of the United States, residing at Salem, in the county of Washington and State of Indiana, have invented certain new and useful Improvements in Lubricating Journal-Bearings, of which the following is a specification.

This invention relates to journal-bearings, and has special reference to lubricating shaft-bearings.

The object of the invention is to provide a lubricating journal-bearing adapted to fit loosely about a shaft or journal so as to turn with the latter or independent thereof.

A further object of the invention is to provide a lubricating journal-bearing specially adaptable for shaft-collars of shapers or frizzers of wood-finishing machines for the purpose of preventing heating of the collars.

A still further object of the invention is to provide a novel and peculiar lubricating-bearing between a shaft and a loose collar carried by the shaft to allow the collar free revolution independent of the movement of the shaft and to prevent overheating of the collar.

It is well known that the cutter-shaft of woodworking-machines for shaping molding or other articles employ a collar against which the edge of the molding or other board is slid under the cutter to limit the cut. These collars being non-revolving and without lubrication, become heated from the rotary movement of the shaft and scorch and burn the edge of the board or wood, necessitating dressing and finishing to remove the burned surface. Such collars often indent the wood at intervals, which produces an uneven unfinished surface afterward necessary to be removed by a separate operation.

It is therefore the purpose of this invention to overcome these and various other objections and disadvantages and to furnish a collar rotatable independent of its shaft by the action of the wood as the latter is slid under a rotary cutter and to provide a loosely-fitting lubricating-bearing between the shaft and the collar.

In the accompanying drawings, forming part of this application, Figure 1 is a sectional view showing a cutter in operation and the application of the invention. Fig. 2 is a sectional view on the line x x, Fig. 1. Fig. 3 is a top view of the collar and bearing assembled. Fig. 4 is an enlarged sectional elevation of the assembled parts.

The same numeral references denote the same parts throughout the several views of the drawings.

While the invention is herein shown and described in connection with a wood-cutter and its shaft, it may be found applicable to various other shafts and journals, and although only one bearing-collar will be herein referred to it is obvious that any number of the collars may be used, varying only in diameter to suit the depth of the cut or the character of the cutter.

The machine to which the invention is specially applicable consists of a table 1, upon which the board 1^a is worked, a revoluble shaft 2, having a screw-stem 3 projecting from a shoulder 4 above the table, and a cutter 5, secured to the stem by a nut 6 and a sleeve 7.

The lubricating-bearing consists of a ring 8, fitting within and secured to the wood-bearing collar 9 by a set-screw 10, and a bushing 11, loosely fitting the screw-stem 3 within the ring 8 and projecting slightly above the latter. The ring 8 has an oil-duct 12 extending from its top surface to its inner periphery, and the bushing is provided with annular oil-grooves 13.

The parts being assembled as shown, they are slid over the screw-stem to the shoulder 4. The cutter is seated on the projecting portion of the bushing and secured to the said stem by the sleeve and nut. This arrangement elevates the cutter slightly above the ring and collar, so that the two latter elements do not engage the cutter; yet the collar is close enough to the cutter and of sufficient height above the surface of the table to afford ample bearing for the board on the periphery of the collar.

It is obvious that during the revolution of the cutter the board is slid on the table against the cutter with a portion of the board edge engaging the collar, which is turned independent of the shaft by the board.

It will be seen that the ring which intervenes the bushing and the collar with the oil-grooves between the ring and the brass or bushing prevents frictional heat being con-

veyed to the collar, and the latter only being revolved by the action of the sliding board will not become heated.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

A lubricating journal-bearing comprising a loose collar, a ring having an oil-duct and fixed to the collar, and a loose bushing projecting from within the ring above the latter and having annular oil-grooves.

In witness whereof I hereunto set my hand in the presence of two witnesses.

MARION T. SHEETS.

Witnesses:
WARDER SHANKS,
THOMAS A. SMITH.