E. D. Murfey,

Spindle Step.

No. 109,238. Patented Nov. 15. 1870.

Fig. 1.

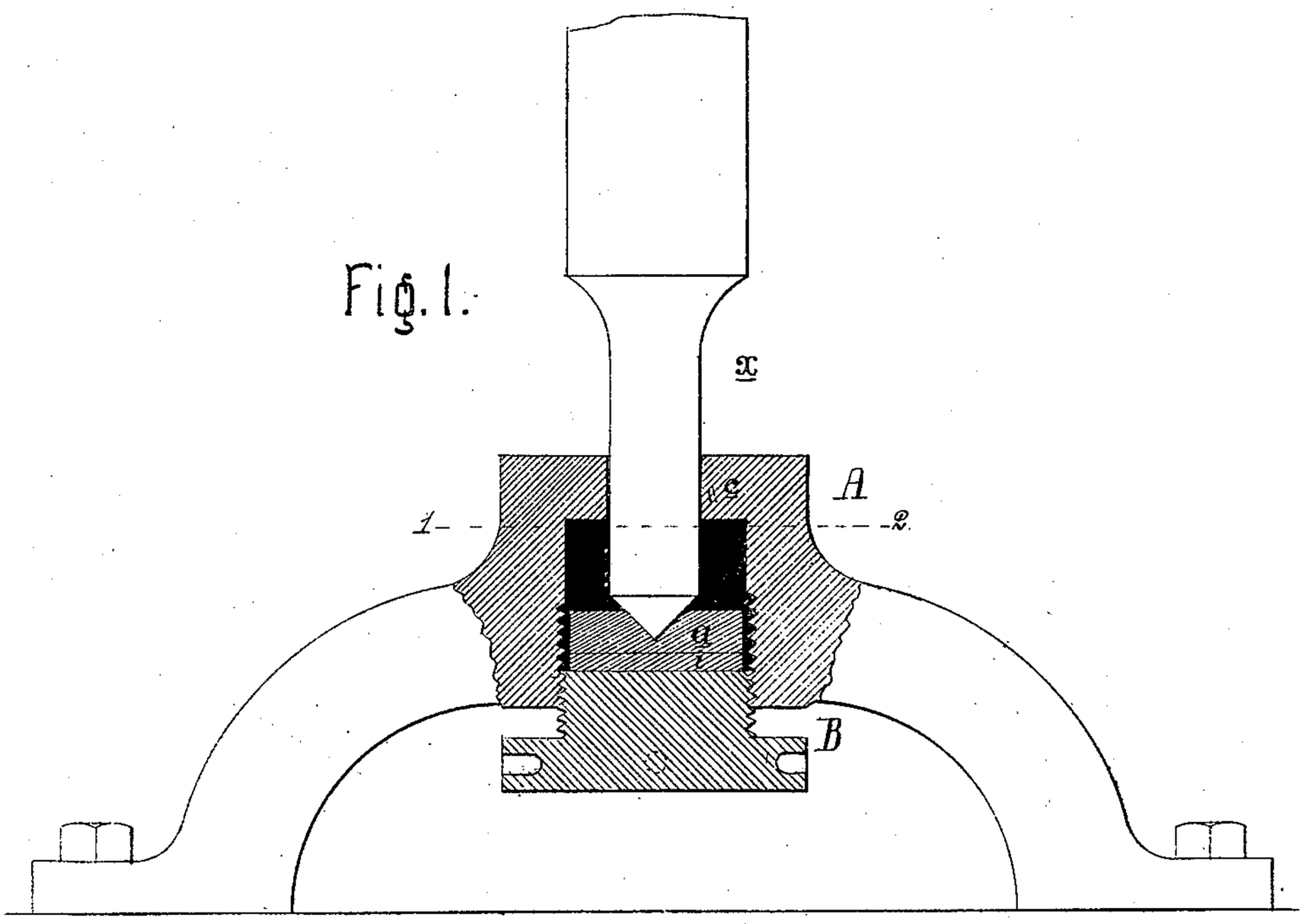
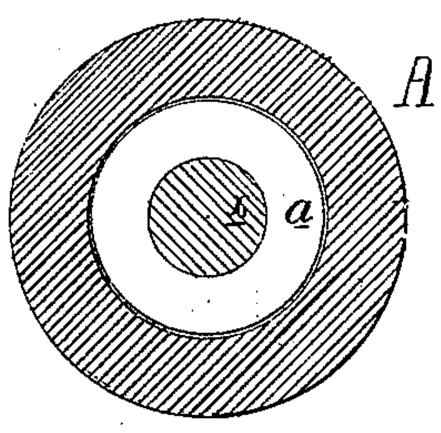


Fig. 2.



Witnesses.

T. J. Logan

Albert D. Norris

E. D. Murfey

By his attys.

Howson & Sons

United States Patent Office.

ELIZA D. MURFEY, OF NEW YORK, N. Y., ASSIGNOR TO "THE MANHATTAN PACKING MANUFACTURING COMPANY," OF SAME PLACE.

Letters Patent No. 109,238, dated November 15, 1870.

IMPROVEMENT IN SPINDLE-STEPS.

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

I, ELIZA D. MURFEY, of New York, county of New York, State of New York, have invented an Improved Step for Spindles, &c., of which the following is a specification.

Nature and Object of the Invention.

My invention relates to end bearings for vertical spindles and shafts, and consists of devices, too fully described hereafter to need preliminary explanation, whereby a nice adjustment of the spindle may be readily effected, the vibration or tremor which generally results from the rotation of numerous spindles in one frame is prevented, and the battering of the bearing from carelessly inserting the spindle in the box is avoided.

Description of the Accompanying Drawing.

Figure 1 represents, in section, my improved step, with a spindle resting therein, and

Figure 2 is a section on the line 1 2, fig. 1.

General Description.

A is a cylindrical box, which may be supported by radial arms, as shown in the drawing, or in any other suitable manner.

A solid cylinder, B, having external screw-threads adapted to internal threads of the box, screws into the latter, and has, at its lower end, a flange recessed to receive the end of a detachable rod or lever, by which the cylinder may be turned.

At the upper end of the box is an internal flange, *c*, the edge of which is almost in contact with the shaft or spindle *x*, the lower end of the latter being conical, and having its bearing in a step, *a*, resting upon an intervening washer, *i*, of leather or other similar material.

The nicest adjustment of the step within the box may be obtained by turning the screw-cylinder B, and the washer *i* prevents the vibration of the spindle from being imparted to the bearing, so that the frame of the machine is free from that disagreeable tremor which generally results from the rapid rotation of spindles in unyielding bearings.

When spindles have to be frequently removed from and replaced in their bearings, the step is apt to become battered by inserting the spindle carelessly in the box, so that its point strikes the inclined bearing-surface, the friction at the bearing being consequently greatly increased.

The flange *c* guides the spindle, so that its point shall pass directly to its bearing, however carelessly the spindle is inserted, while the access of dust to the box is effectually prevented.

Claim.

The box A, its flange *c*, and screw-cylinder B, in combination with the step *a* and washer *i*, arranged below the step, as described.

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

ELIZA D. MURFEY.

Witnesses:

THOMAS PRUDEN,

HENRY MCMANUS.