

B. H. JENKS.

Improvement in Spindle-Bearings for Spinning-Machines.

No. 129,413.

Patented July 16, 1872.

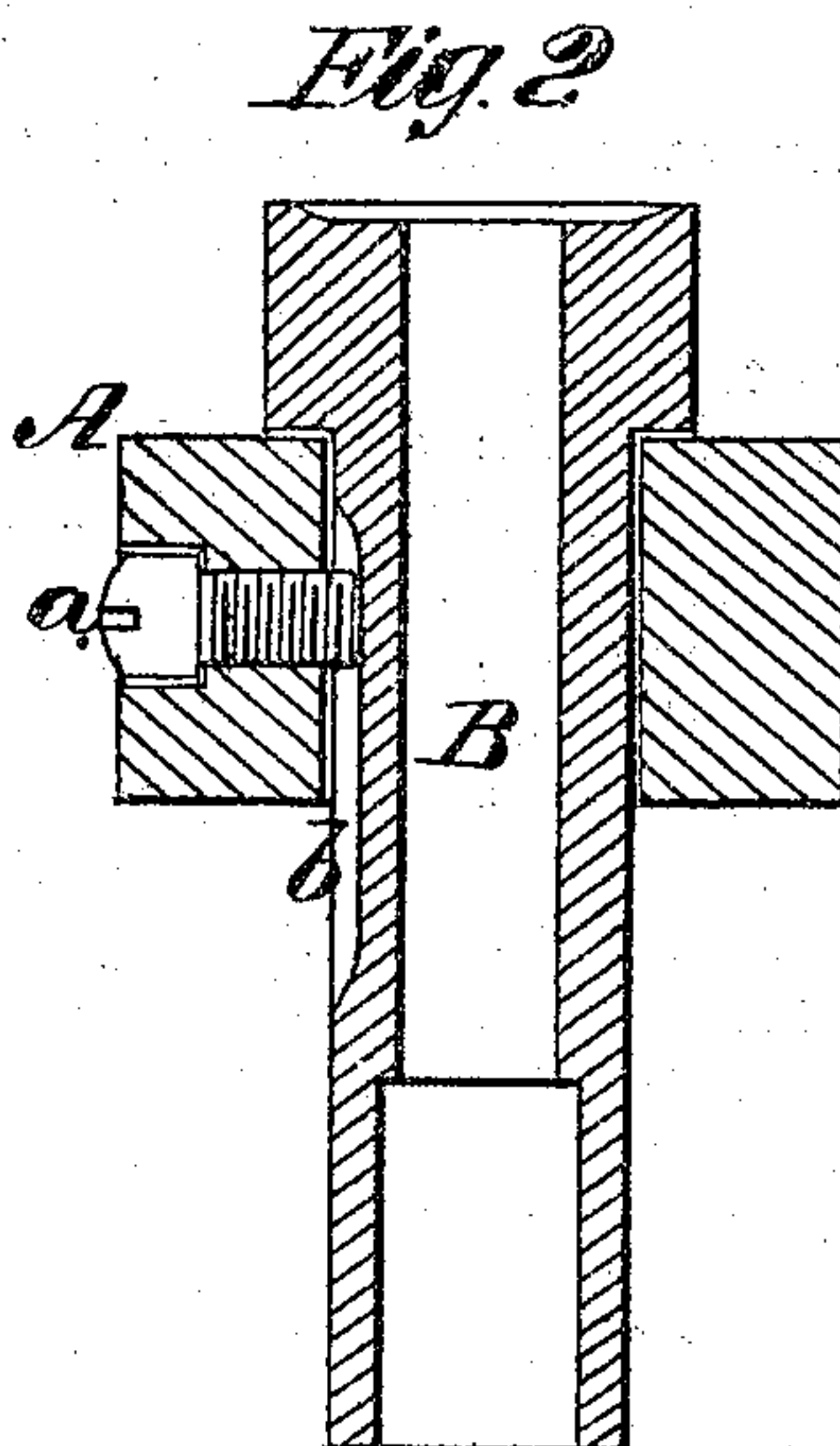
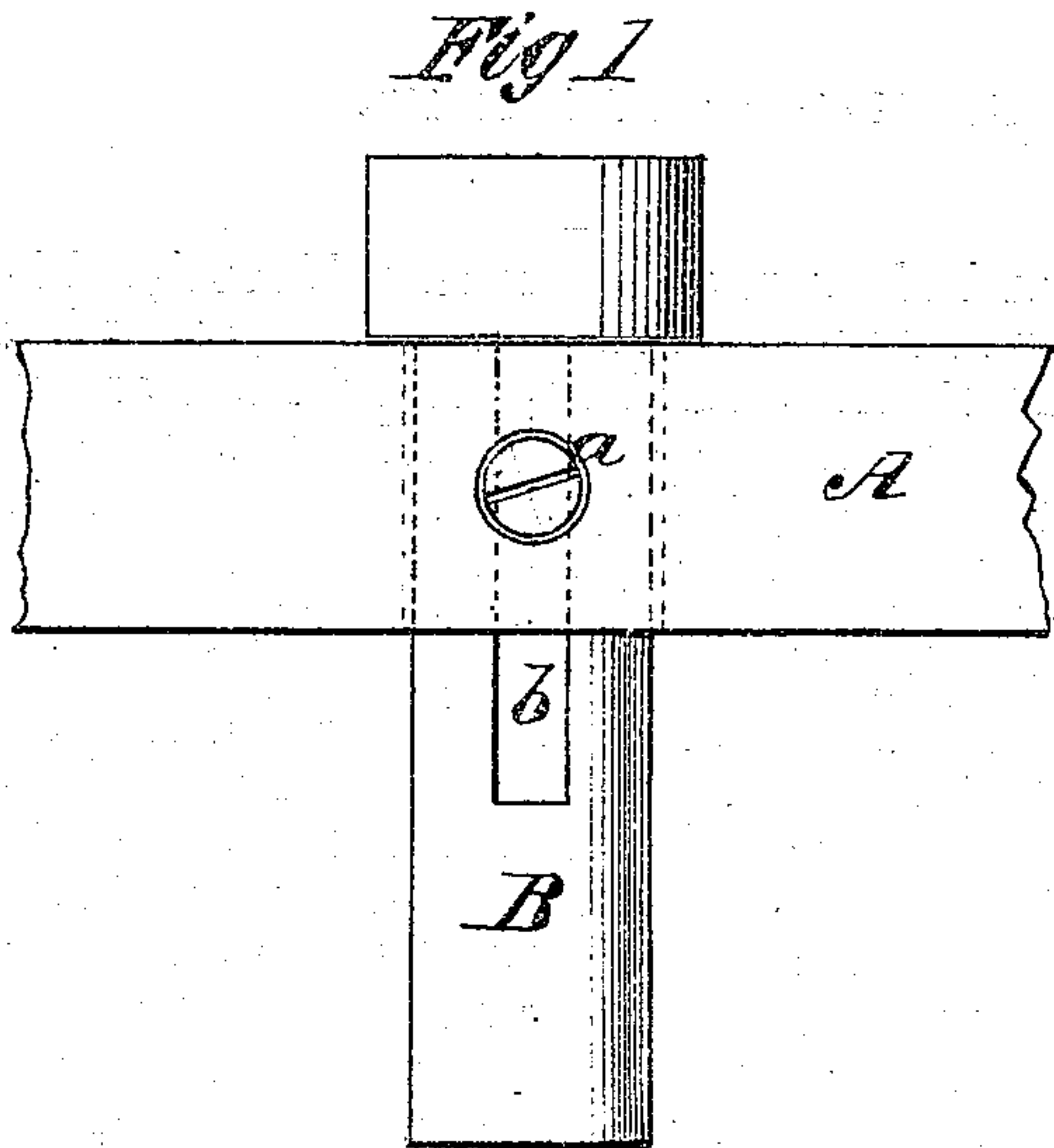
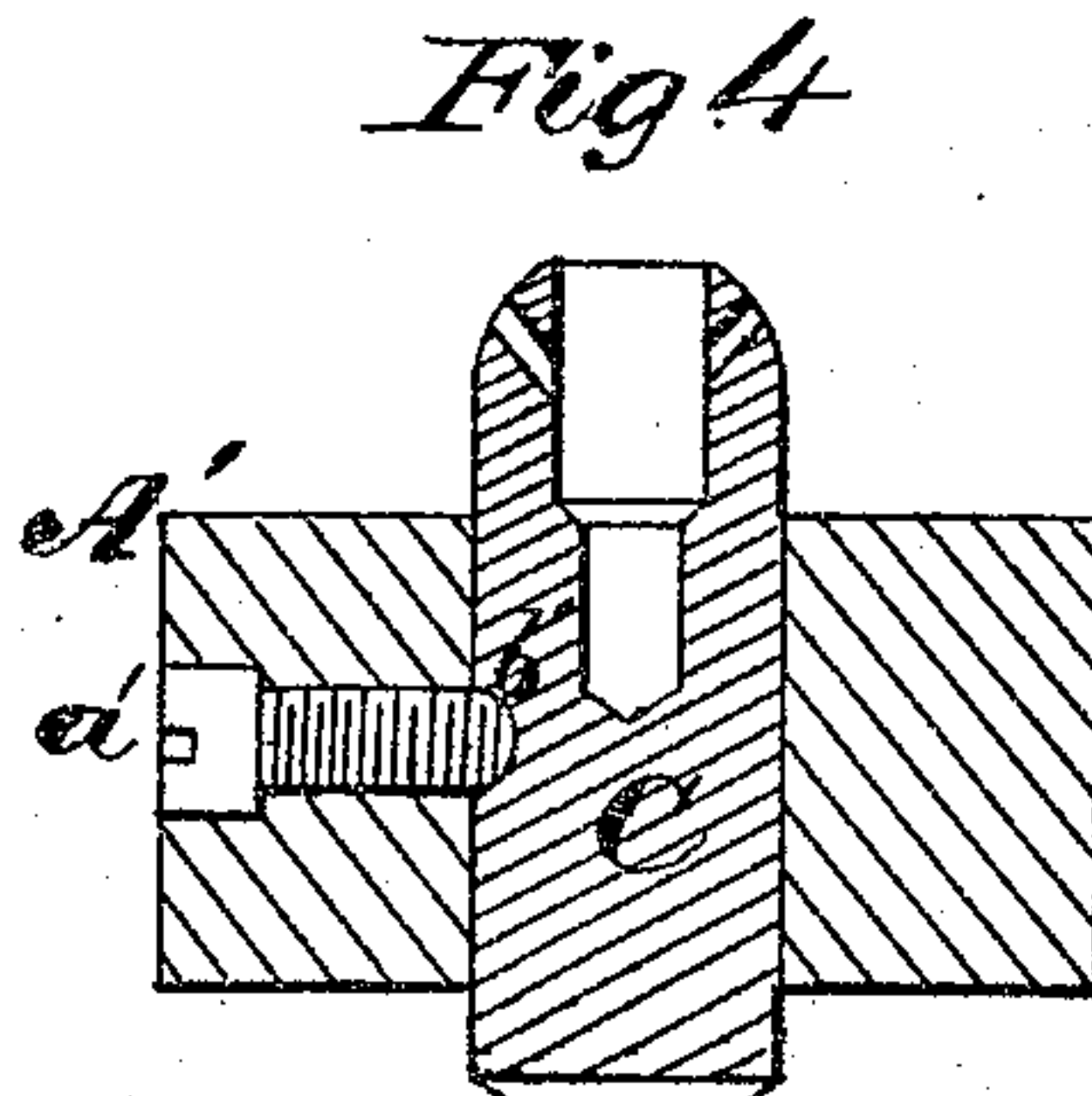
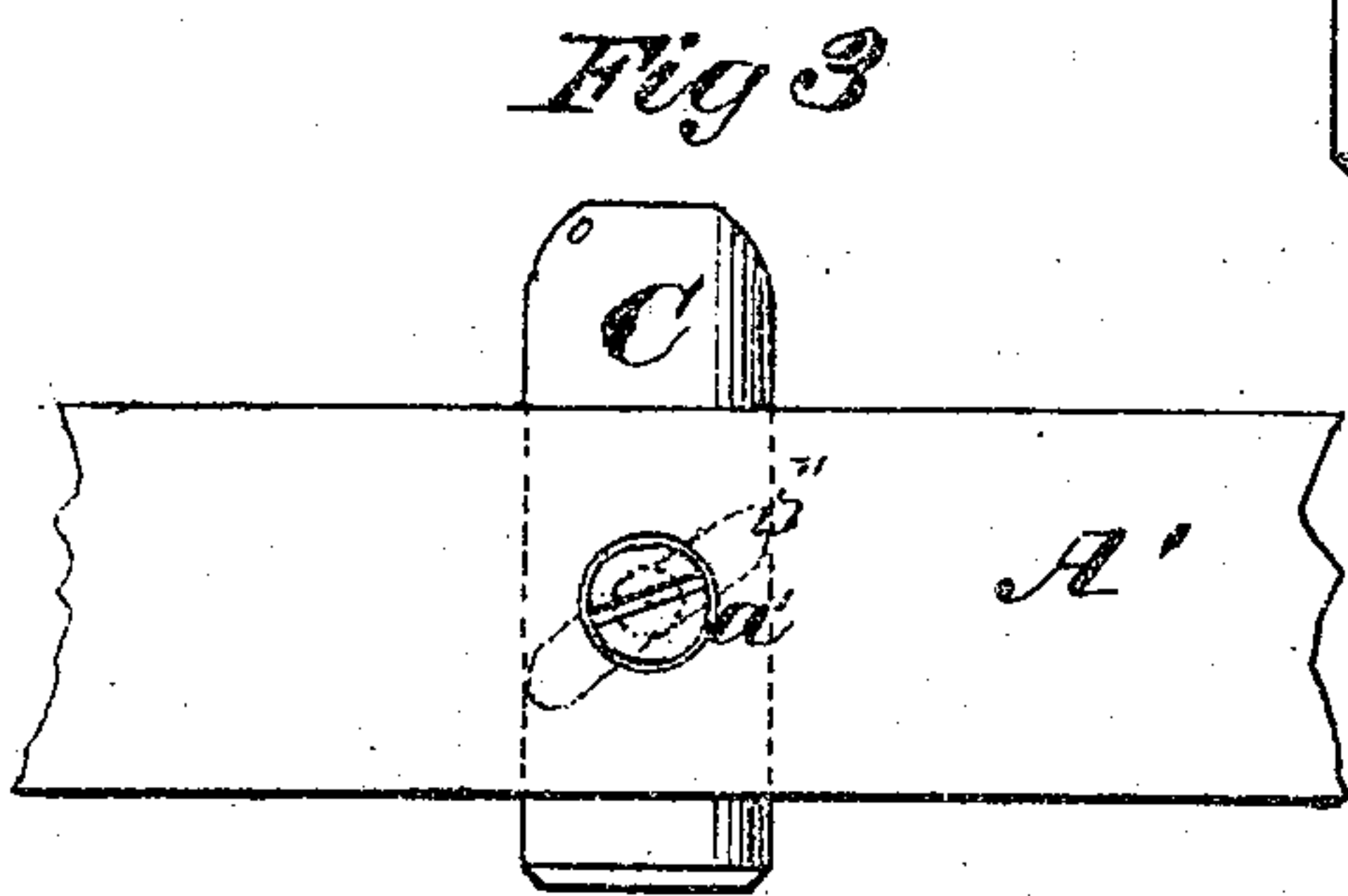


Fig. 5



Witnesses.
R. T. Campbell.
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by his atty
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UNITED STATES PATENT OFFICE.

BARTON H. JENKS, OF BRIDESBURG, PENNSYLVANIA.

IMPROVEMENT IN SPINDLE-BEARINGS FOR SPINNING-MACHINES.

Specification forming part of Letters Patent No. 129,413, dated July 16, 1872.

To all whom it may concern:

Be it known that I, BARTON H. JENKS, of Bridesburg, in the county of Philadelphia and State of Pennsylvania, have invented certain Improvements for Supporting and Guiding the Spindles of Spinning Machinery; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making part of this specification, in which—

Figure 1 is a front view of the bolster applied to a section of rail. Fig. 2 is a cross-section through Fig. 1. Figs. 3, 4, and 5 are different views of the step.

Similar letters of reference indicate corresponding parts in the several figures.

The object of this invention is to improve spindle-bolsters and steps for all kinds of spinning-frames; first, by applying the upper cylindrical part of the bolster which is below the collar in an enlarged opening in the rail, and preventing it from turning by a screw or stop, in such a manner that there is freedom for said part of the bolster to vibrate or oscillate laterally, as the spindle oscillates or vibrates on its lower stepped end to assume the perpendicular of the line of gravity; second, by constructing the steps for the spindles with oblique grooves in them and using set-screws for securing the steps into their rails, whereby any desired degree of vertical adjustment can be given to the steps and the latter secured against working loose, as will be hereinafter explained.

The following description of my improvements will enable others skilled in the art to understand them.

In the accompanying drawing, A represents a portion of the horizontal rail of a spinning-frame for supporting the bolster B, and A' represents a portion of the step rail for supporting the steps C. I have not represented in the drawing a spindle applied to said bolster and step, for the reason that well-known spindles are used supported above by the bolsters through which they pass, and below by the steps into which their lower ends are fitted. The bolster B consists of a cylindrical stem, which passes loosely through the rail A, and an enlarged head which rests upon the rail A. A groove, b, is made into the stem, in which

the end of a screw, a, is received loosely. The screw is tapped through the rail A, and when set up properly it merely enters the said groove far enough to prevent the bolster from turning with the spindle. By thus applying a bolster loosely to its rail the speed of the spindle may be greatly increased over the speed which can be practically given to rigidly-fixed bolsters, for the reason that with the latter kind the motion of the spindle communicates vibration to the rail. Instead of the slot b a hole might be made into the bolster of sufficient size to receive the end of the screw loosely; or, if desired, a stop-lug might be formed on the bolster on the rail to prevent rotation of the bolster in the rail; or a cross-pin and slot might be used. The step C, which is applied into the rail A', may be made of the usual well-known form. It has a groove, b', made obliquely into it, which receives the end of a set-screw, a', that rigidly confines the step to its rail.

Spindles are frequently depressed in the act of putting the bobbins on them, to obviate which heads have been formed on the steps, which heads rest on the rails, set-screws being used to prevent the steps from turning. This mode is objectionable for the reason that as the spindles wear down in the steps they cannot be readily elevated. Steps have also been constructed with annular grooves in them, made as close together as possible, so that the same screws which prevented the steps from turning were also used for allowing the steps to be adjusted up or down from one groove to another. My plan of having an oblique or spiral recess formed in a step to receive the end of a screw obviates the objections to the step above referred to and allows the step C to be given any desired degree of adjustment by simply loosening the set-screw a. By this device the proper position for a spindle can be always maintained with very little alteration.

I am aware that a bolster with a spherical enlargement has been prevented from turning by a screw or stop, such stop allowing the spherical part of the bolster to roll in its seat; but I am not aware that the opening in the rail through which the bolster passes has ever been enlarged and the confining-screw applied with the object of allowing the bolster to vi-

brate laterally and thereby relieve the rail from jarring effects.

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

1. The bolster B, applied to an opening in its rail of larger diameter than itself, in combination with the stop for preventing the bolster from turning, substantially in the manner set forth.

2. The step C, made adjustable vertically by means of an oblique or spiral recess, *b*, and a set-screw, *a'*, substantially as described.

BARTON H. JENKS.

Witnesses:

JAMES W. BURKE,
W. D. BRITTAIN.