

(No Model.)

B. N. GOODALE.
SUPPORT FOR SPINNING SPINDLES.

No. 409,638.

Patented Aug. 20, 1889.

Fig. 1.

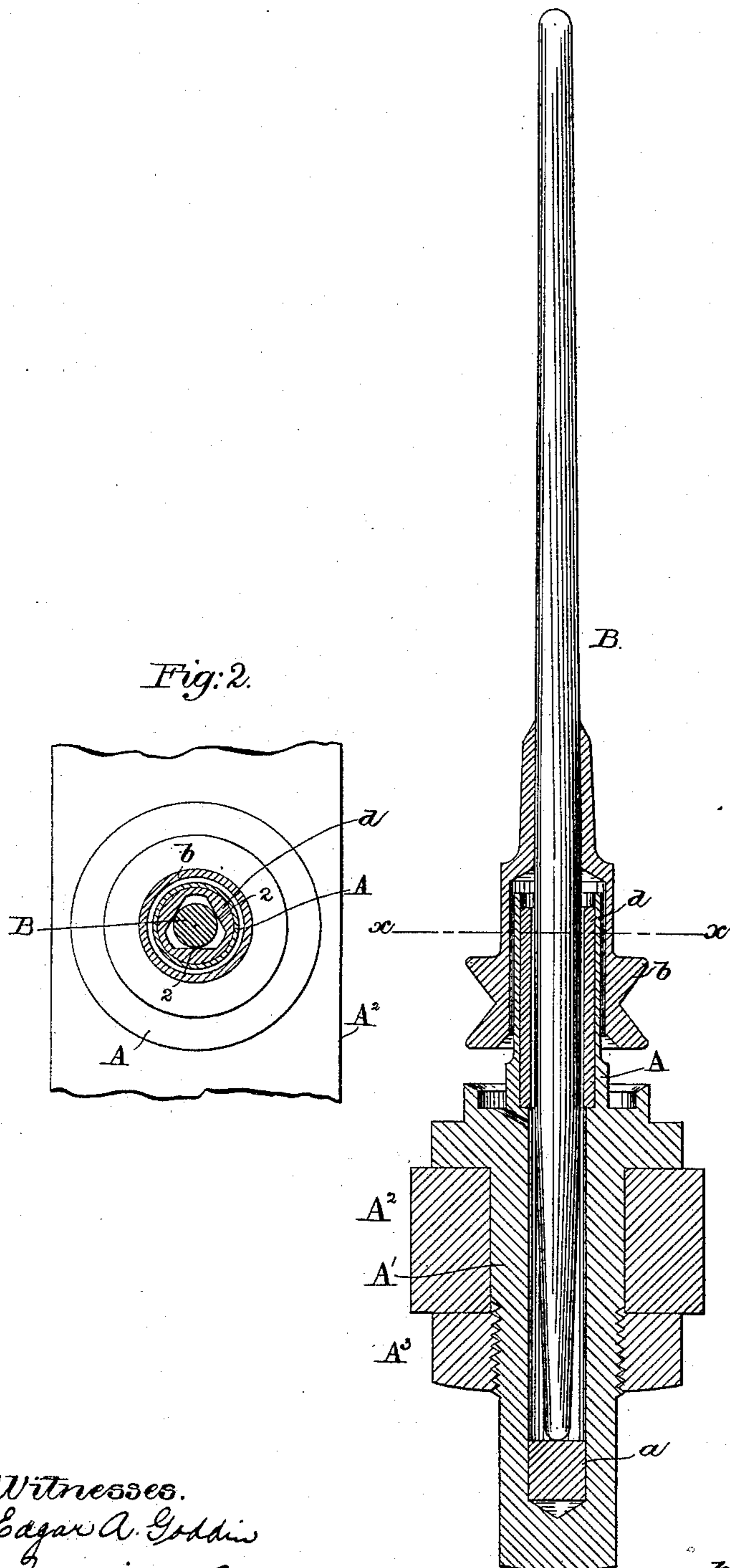


Fig. 2.

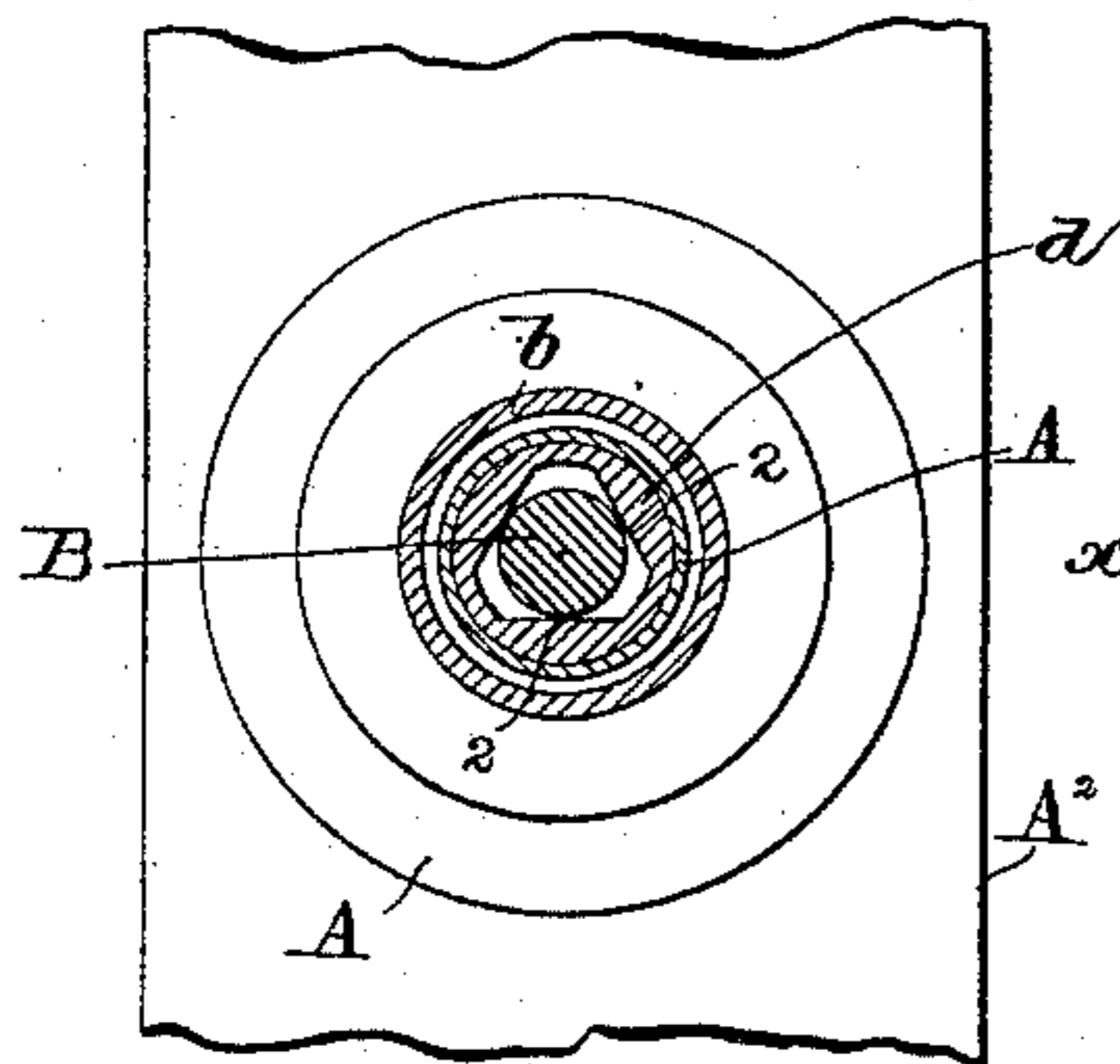
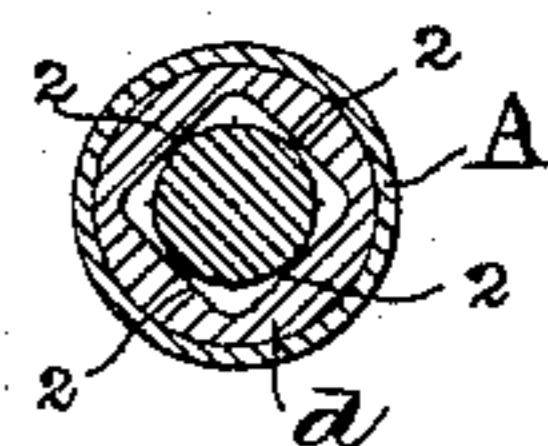


Fig. 3.



Witnesses.
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UNITED STATES PATENT OFFICE.

BENJAMIN N. GOODALE, OF SACO, MAINE, ASSIGNOR TO THE SAWYER
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SUPPORT FOR SPINNING-SPINDLES.

SPECIFICATION forming part of Letters Patent No. 409,638, dated August 20, 1889.

Application filed May 24, 1889. Serial No. 311,959. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN N. GOODALE, of Saco, county of York, State of Maine, have invented an Improvement in Supports for Spinning-Spindles, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

Heretofore great effort has been made and many inventions have been patented having for their aim the production of improved bearings for spindles, whereby the same could be run at high speed and carry an unbalanced load.

In my experiments to produce a bolster-bearing which would permit the spindle to have sufficient looseness to run with an unbalanced load at high speed I have devised a bolster-bearing the interior of which is faceted, thus forming plain surfaces, against which the spindle bears when being rotated, and in practice the diameter of the spindle where it enters the faceted bearing is enough smaller than the diameter of the opening in the bolster-bearing that the spindle bears against two, at least, of the facets of the bearings, leaving a space between for oil.

My invention consists, essentially, in the combination, with a vertical spindle and step, of a faceted bolster-bearing, substantially as will be described.

Figure 1, in partial elevation and section, represents a spindle and bolster-bearing therefor embodying my invention. Fig. 2 is a section below the dotted line *x*, Fig. 1; and Fig. 3 is a similar section of a modified form of my invention.

The supporting-case A has its shank A' extended through the rail A², and below the rail the shank has applied to it a nut A³, of usual construction. The supporting-case has at its lower end a step *a*, shaped to sustain the weight of the spindle B and to let the foot of the spindle move laterally thereon, as required, as the spindle seeks to find the center of rotation of the load, and at its upper end the said case has a bolster or lateral bearing *d*, the interior of which is faceted or provided

with a series of faces, as best shown in Figs. 2 and 3, against which the spindle bears in its rotation.

In Fig. 2 the bolster-bearing has three facets with spaces between for oil, while in Fig. 3 the bolster has four facets; but in action, when the spindle rotates, the latter is drawn to and rotates in contact with but two of the facets or faces.

I do not desire to limit my invention to the exact number of facets so long as there are two or more.

I am not aware, prior to my invention, that the bolster-bearing for a spinning-spindle has ever had a faceted inner surface.

I have shown my improved bolster-bearing as employed with a sleeve-whirl spindle, with which class of spindle it possesses peculiar advantages; but I do not desire to limit my invention in bolster-bearings to its employment only with a sleeve-whirl spindle, as the said bolster-bearing may be advantageously used with other usual forms of spinning-spindles.

In my invention, as herein illustrated, the looseness for the spindle is provided by making it of somewhat less diameter, as stated, than the inner diameter of the bolster-bearing.

In Figs. 2 and 3, wherein the spindle is represented in section, it will be seen that the spindle does not actually contact with the bolster-bearing, but as soon as the band is applied to the spindle it will be immediately aligned, so as to cause the spindle to touch two of the facets, the two facets so touched depending upon the direction in which the band-pull is exerted.

I claim—

The combination, with a spindle and step, of a faceted bolster-bearing, substantially as described.

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

BENJ. N. GOODALE.

Witnesses:

GEORGE A. EMERY,
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