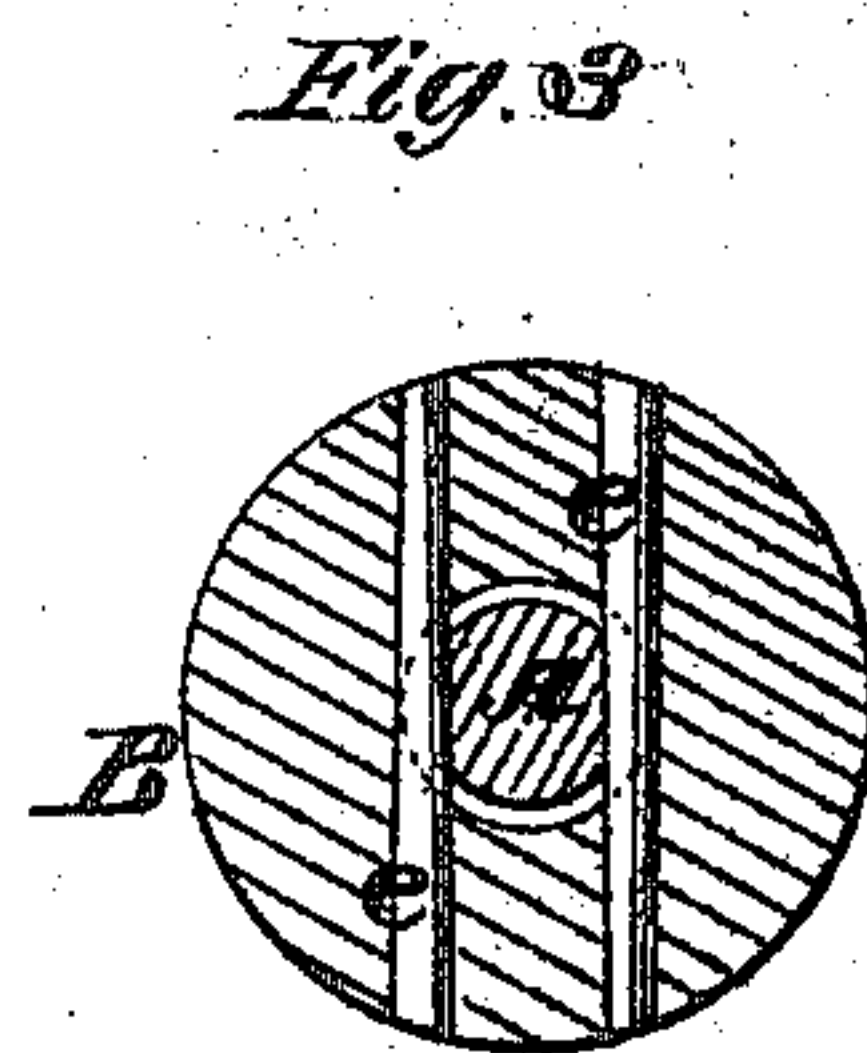
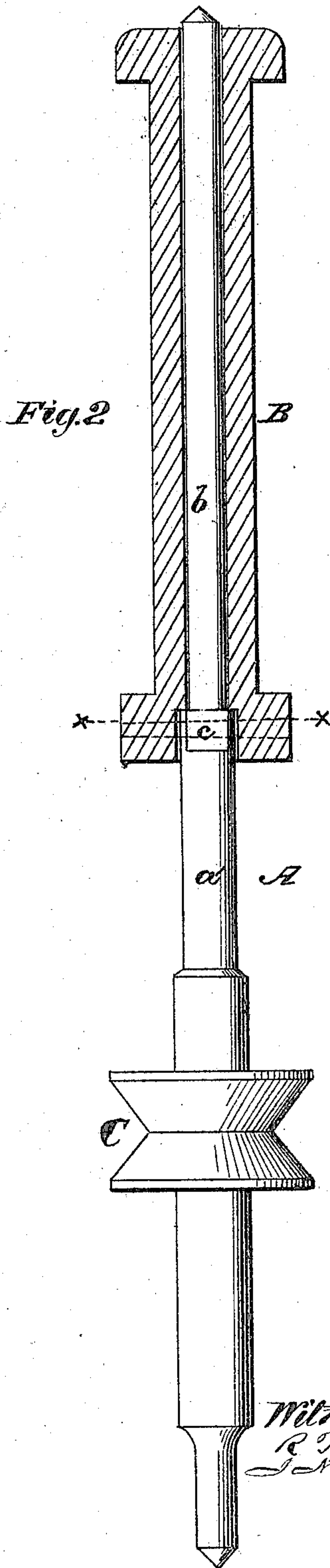
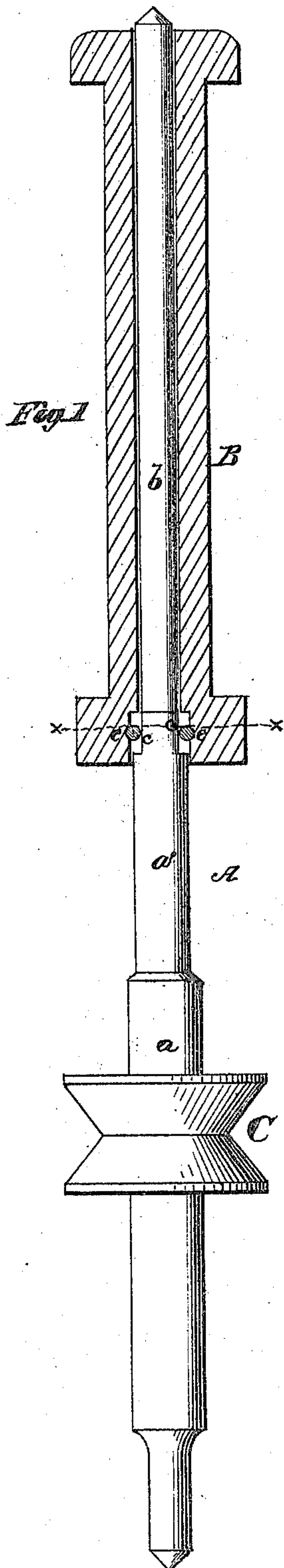


R. GARSED.

Spindles and Bobbins for Spinning Frames.

No. 134,535.

Patented Jan. 7, 1873.



Inventor
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Witnesses.
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UNITED STATES PATENT OFFICE.

RICHARD GARSED, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN SPINDLES AND BOBBINS FOR SPINNING-FRAMES.

Specification forming part of Letters Patent No. 134,535, dated January 7, 1873.

To all whom it may concern:

Be it known that I, RICHARD GARSED, of the city and county of Philadelphia and State of Pennsylvania, have invented an Improvement in Spindles and Bobbins for Ring-Spinning; 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—

Figures 1 and 2 are different views of the spindle with the bobbin in section. Fig. 3 is a section through the spindle and bobbin taken in the horizontal plane indicated by dotted lines *x x*.

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

The object of this invention is to improve spindles and bobbins so as to insure the turning of the latter with the former in a very simple and cheap manner, and, at the same time, allow them to be driven at a very high rate of speed without vibration, as will be hereinafter explained.

The following description of my invention will enable others skilled in the art to understand it.

In the accompanying drawing, A represents a spindle, on which is fitted a bobbin, B. The spindle presents three different diameters, to wit: The portion *a*, on which is the pulley C; the portion *a'*, on which is applied the bolster; and the stem *b*, of less diameter than the portion *a'*, on which is applied the bobbin. The upper end of the cylindrical portion *a'* terminates in a shoulder, on which is supported the bobbin B, and is flattened, as at *c*. The lower end of the bobbin is centrally bored out to receive the upper flattened end of the portion *a'*; and across this chamber or socket, on opposite sides of the center thereof, pins *e e* are inserted, as shown by Figs. 1 and 3, which receive

between them the flattened sides of the cylindrical portion *a'*.

In this way I positively prevent the bobbin from turning on the spindle, and, at the same time, apply the bobbin on the spindle so that it can be readily lifted off the same. The bobbin is taken hold of at its lower end and by a portion of the spindle which is in close relation to the bolster in which the spindle turns.

This feature of driving a bobbin by taking hold of it at its lower end is not new with me, in its broadest sense, for the well-known button and pins do this; but it is very difficult and expensive to construct the button and pins and apply the same on a spindle accurately. Nor is it new with me to drive a bobbin by means of a prismatic portion formed on the upper end of a spindle and fitted into the upper end of a bobbin. Such a device will be found in the Letters Patent of the United States granted to T. Mayor, July 20, 1869. It is also old to employ a spindle with its upper end forked and receiving a pin passed diametrically through the upper end of the bobbin.

All of these old plans are practically objectionable and very expensive, while my improvement is exceedingly simple and readily applicable to most of the old kinds of spindles and bobbins.

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

A spindle, A, flattened, as at *c*, at the upper end of the bolster portion *a'*, in combination with the bobbin B having pins or cheek-pieces *e* inserted into its lower end, substantially as set forth.

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Witnesses:

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