R. Fethney.

Spinning Bolster.

No. 40,980. Patented Dec. 15, 1863.

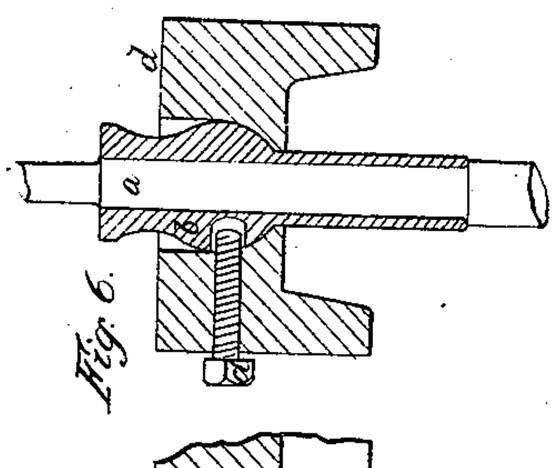

Fig. 6.

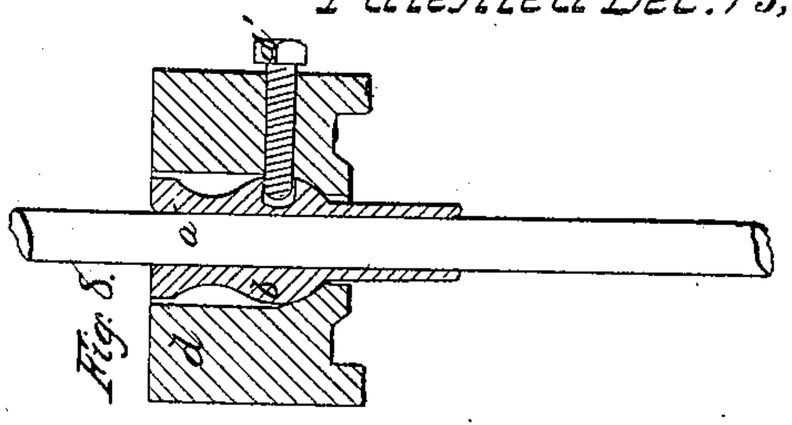

Fig. 8.

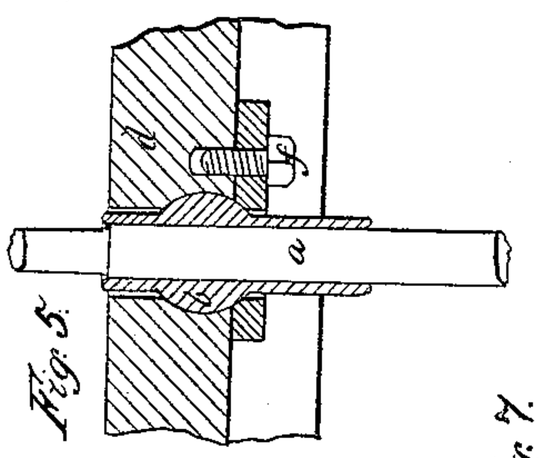

Fig. 5.

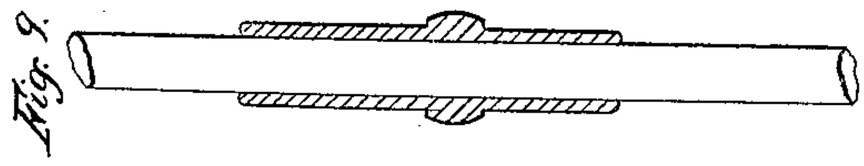

Fig. 9.

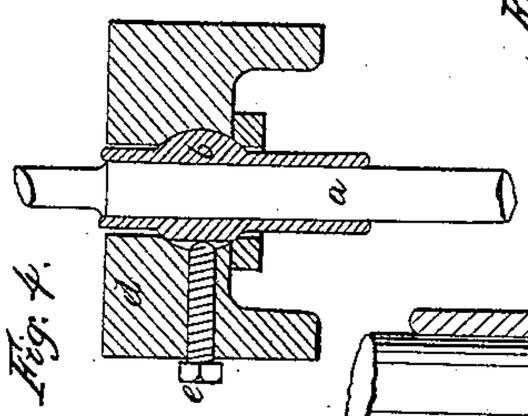

Fig. 4.

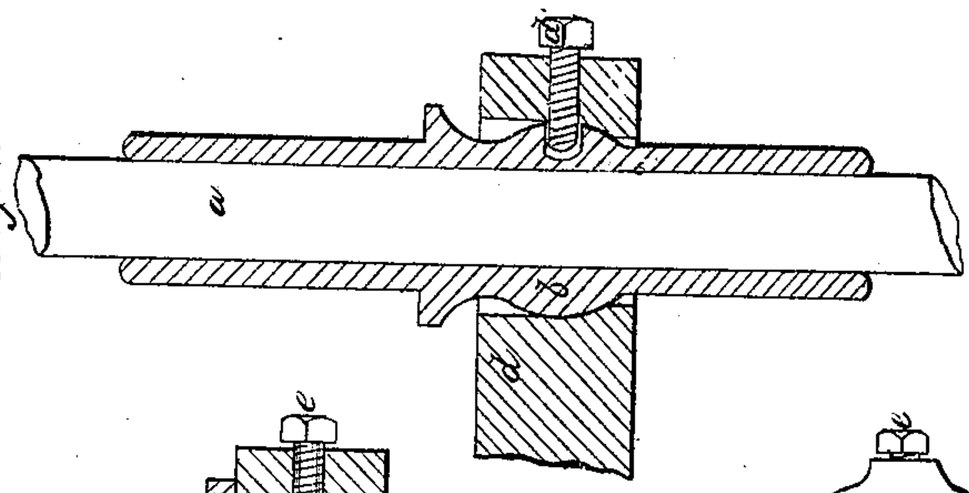

Fig. 7.

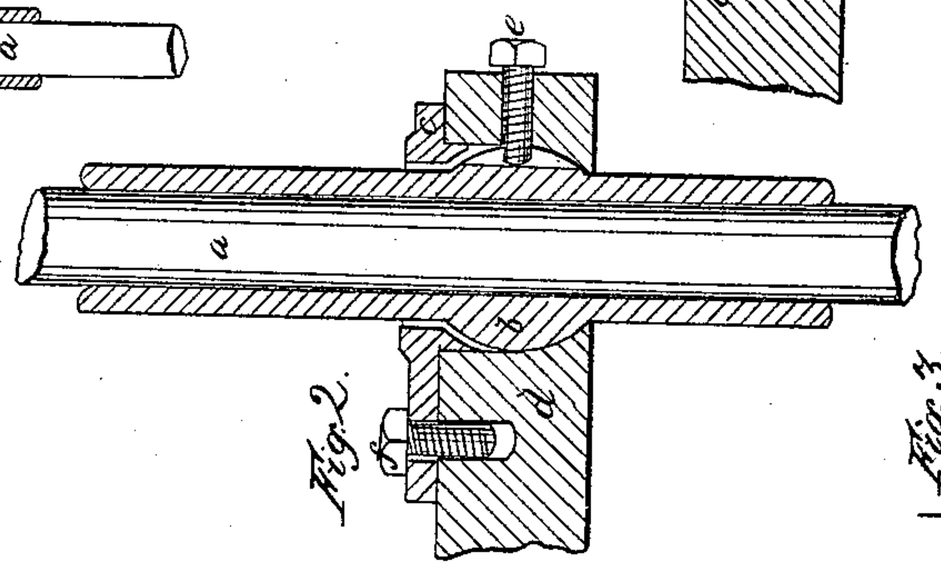

Fig. 2.

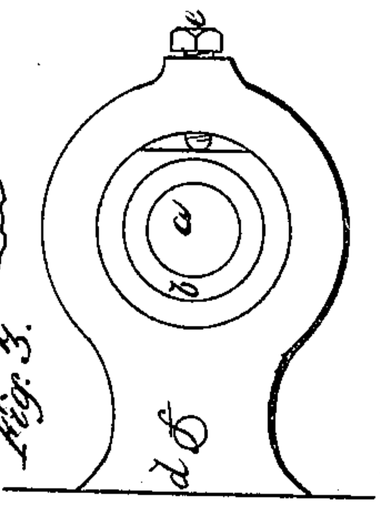

Fig. 3.

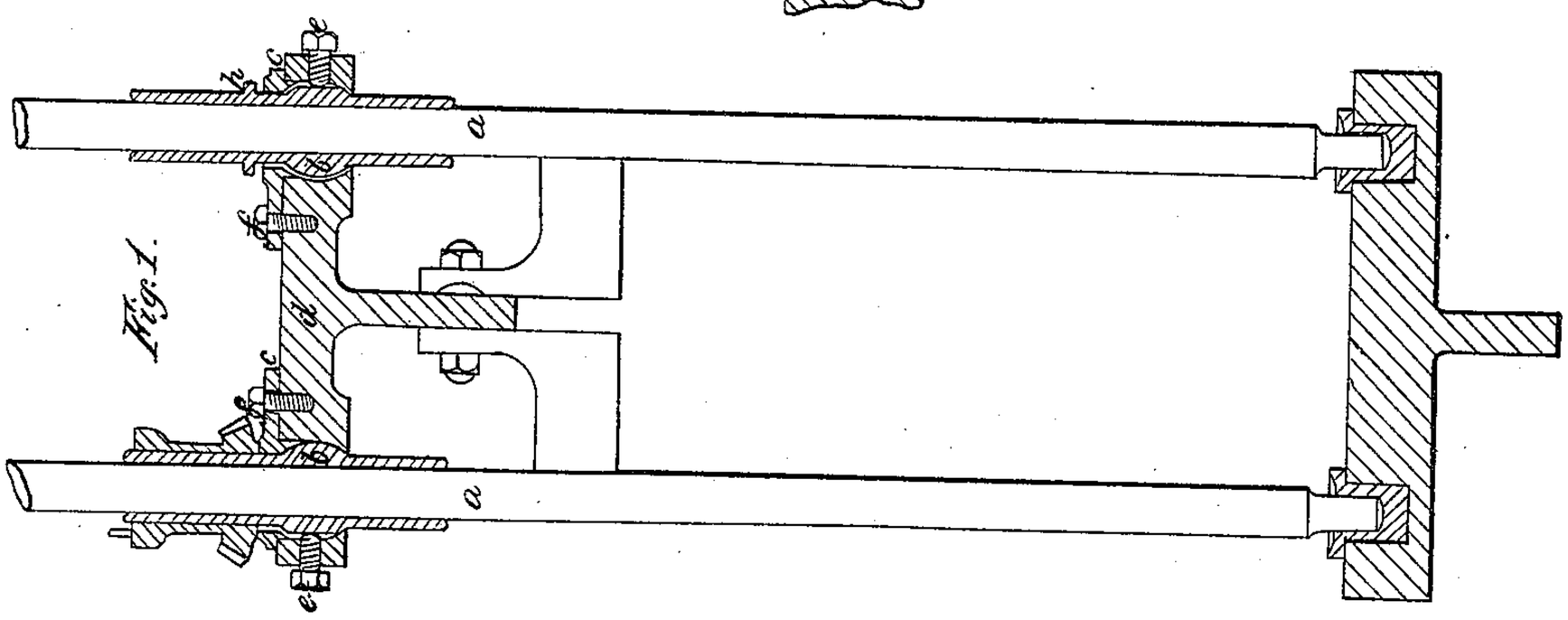

Fig. 1.

Witnesses:
Robert Smith
Josh Willcox

Inventor:
Richard Fethney

UNITED STATES PATENT OFFICE.

RICHARD FETHNEY, OF MANCHESTER, ENGLAND, ASSIGNOR TO LEWIS LEIGH, OF SEYMOUR, CONNECTICUT.

IMPROVEMENT IN SPINDLE-BOLSTERS OF SPINNING-MACHINES.

Specification forming part of Letters Patent No. **40,980**, dated December 15, 1863.

To all whom it may concern:

Be it known that I, RICHARD FETHNEY, of the city of Manchester, in the county of Lancaster, Great Britain, machinist, have invented certain Improvements in Bolsters for Spindles Employed in Spinning, Winding, and otherwise Manufacturing Fibrous Materials; and I do hereby declare that the following, taken in connection with the drawings which accompany and form part of this specification, is a description of my invention, sufficient to enable those skilled in the art to practice it.

This invention relates to an improved swivel-bolster to be used in machinery for preparing, spinning, doubling, and winding fibrous materials. Part of the bolster is made of a globular or partly globular form, and fits a recess of a similar shape in the copping or spindle rail, there being a pin or projection to prevent its revolving with the spindle. This pin or projection may either stand out of the bolster and fit into a slot or notch in the rail or it may project from the rail and fit a slot or recess in the bolster. There is also fitted on the upper or lower side of the rail or other convenient part a cap or other appliance to hold the bolster in its place, or the same effect is produced by entering a pin into a circular recess in the bolster. This arrangement enables the bolster to accommodate itself to any displacement or deviation of the copping or movable rail, so that it can never bind the spindle, but will always allow it to rotate freely, and thereby prevent much friction and effect a saving in oil, especially in those bolsters or spindle-rails that slide up and down, as this form of bolster does not skim the oil off by pressing more on one side than the other. Any length of tube or bolster can be used in order to give greater steadiness to the spindle when it runs at a high velocity.

These improvements will be clearly understood by referring to the figures and letters on the accompanying sheet of drawings.

Figure 1 is a cross-section drawn about half size of the copping or lifting rail of a roving-frame having my improved bolster. Fig. 2 is a full-sized section of one spindle and bolster, and Fig. 3 a full-sized plan of the same; Fig. 4, a cross-section of the spindle-rail of a throstle or doubling frame with one of my improved bolsters; Fig. 5, a longitudinal section of the same; and Figs. 6, 7, 8, and 9 are vertical sections of modifications of my improved bolster.

In Figs. 1, 2, 3, 4, and 5 *a* represents the spindle; *b*, the bolster; *c*, the cap which holds the bolster in its place; *d*, the copping or lifting rail in which the bolster is placed; *e*, a screw or pin for preventing the revolution of the bolster, and *f* a screw for fixing the cap to the rail. It will be seen from the construction of the bolster that if the position of the copping-rail should be altered by the wearing of the slides, the sinking or displacement of its supports, or from any other cause, it can never bind the spindle, as the globular part of the bolster will accommodate itself to the change and still allow the spindle to rotate freely, which would not be the case had it been tightly fixed in the rail. The screw *e* enters a slot or recess in the globular part of the bolster; but the point of the screw is not entered so far into the slot as to tighten the bolster, but merely to prevent its revolving with the spindle. This arrangement of bolster is very easily fitted to the rail, however perfect the fit of the spindle, no reaming being required, as is the case with the ordinary bolster. In some cases the bolsters are made, as at *h*, Fig. 1, with a collar for the bobbin-wheel to rest upon, in which case the cap *c* requires to be formed open in front. It will easily be perceived that if a pin is fixed to the globular part of the bolster and a recess formed in the rail the revolution of the bolster may be effectually prevented.

In Figs. 6, 7, and 8 I represent vertical sections of my improved bolster, in which the cap is dispensed with. The spindle is shown at *a*, the bolster at *b*, and the copping or lifting rail at *d*. In these arrangements the screw or pin *d'* is caused to enter a circular recess in the globular part of the bolster, and thereby prevent any vertical as well as revolving movement. In some cases it may be desired to form the bolster partly globular, as shown at Fig. 9, in which the center part only is curved, the other parts next the tube being cut away.

Letters Patent on this invention have been granted in Great Britain, and the specification thereof enrolled May 5, 1862.

Having described the nature and particulars of my said invention, I desire it to be under-

stood that I do not claim a globular bearing or spindle; but

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

1. The tubular bolster for spindles herein described, provided with a spherical bearing fitting a recess in the spindle-rail, for the purposes and substantially as specified.

2. The means, substantially as described, for preventing the rotation of said bolster and retaining it in its recess in the spindle-rail, as set forth.

RICHARD FETHNEY.

Witnesses:

ROBERT SMITH,

JOSH. WILLCOCK.