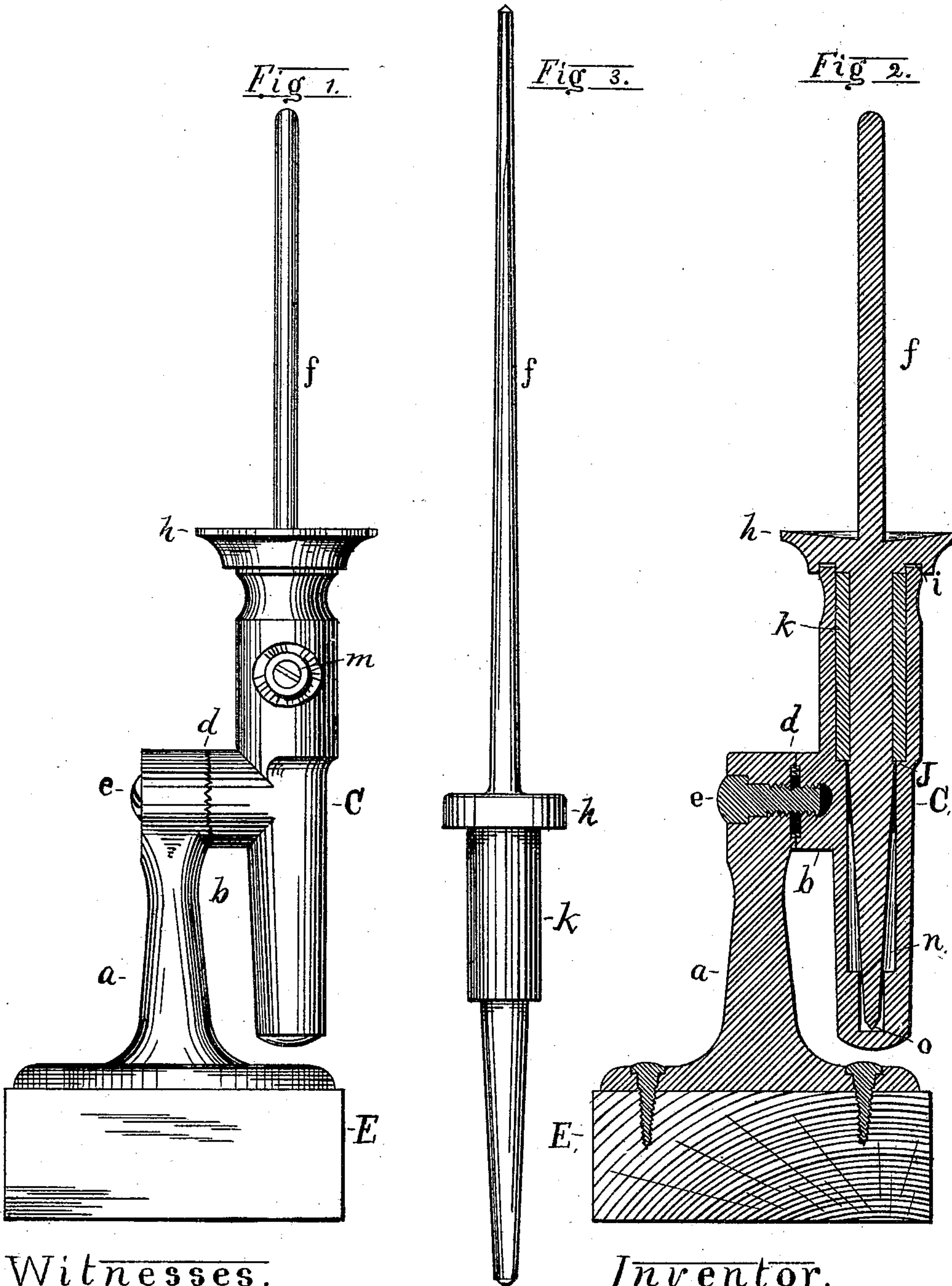


W. G. PERRY.

DEVICE FOR ADJUSTING SPINDLES.

No. 179,463.

Patented July 4, 1876.



Witnesses.

Geo. W. Stevens.

Israel Dow

Inventor.

W. G. Perry

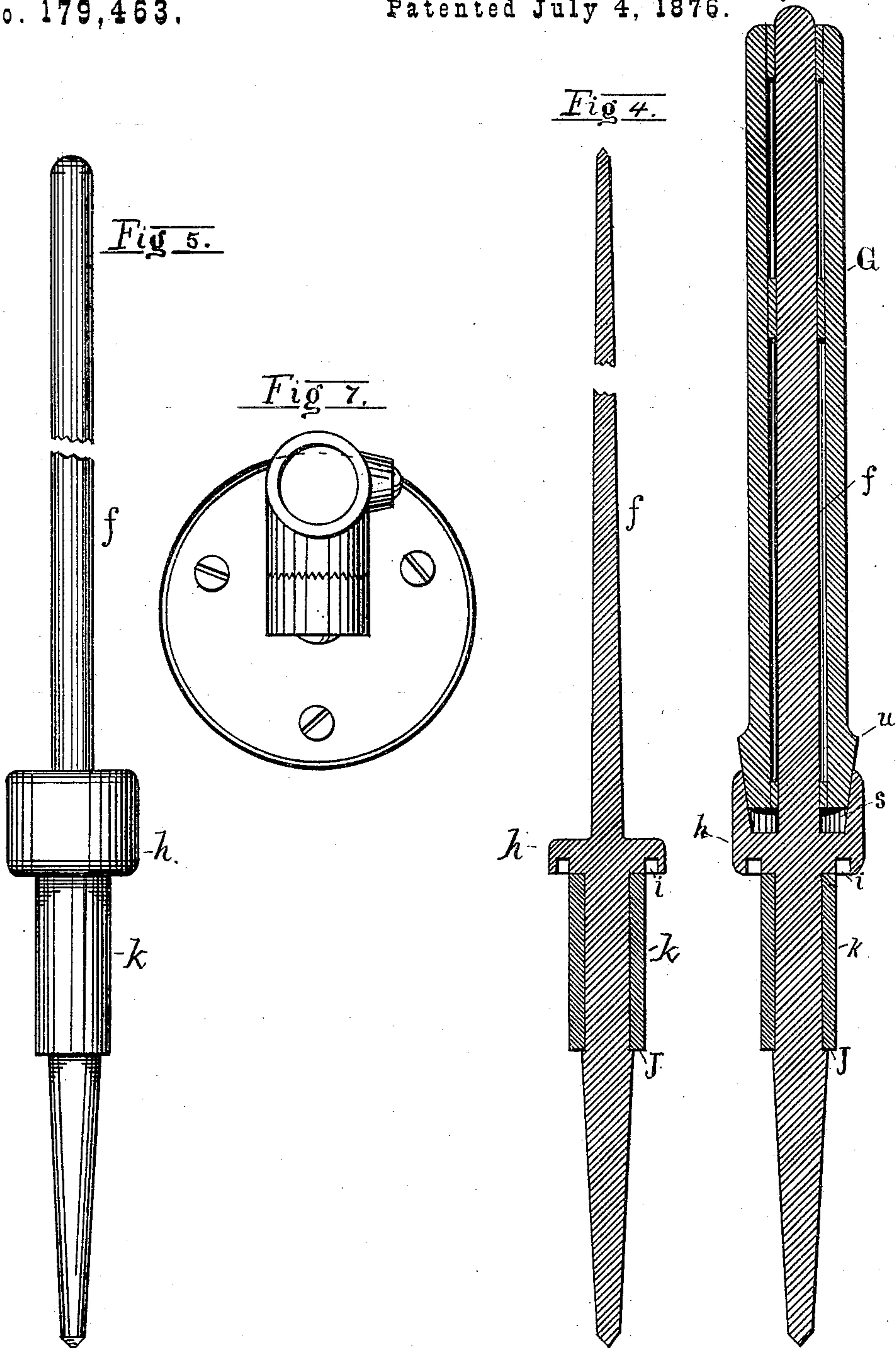
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Fig 6.

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UNITED STATES PATENT OFFICE.

WILLIAM G. PERRY, OF MANCHESTER, NEW HAMPSHIRE.

IMPROVEMENT IN DEVICES FOR ADJUSTING SPINDLES.

Specification forming part of Letters Patent No. **179,463**, dated July 4, 1876; application filed February 16, 1876.

To all whom it may concern:

Be it known that I, WILLIAM G. PERRY, of Manchester, in the county of Hillsborough and State of New Hampshire, have invented a certain Improvement in Securing a Spindle to the Bolster-Rail on Reeling and Spooling Machines, of which the following is a specification:

My invention relates to a joint in combination with a bolster-stand attached to a bolster-rail, and a bolster holding a spindle, so arranged that by means of the joint the points of the spindle may be adjusted to any angle required. The upper point of the spindle may be moved by means of the joint toward and from the reel or spool in the machine, the object of my invention being to so locate the upper point of the spindle at any degree of the circle required that either the yarn in the form of a cop or on the bobbin may be run off onto a reel or spool in reeling and spooling yarn.

Figure 1 is a front elevation of the bolster-stand, bolster, and spindle for a double-headed bobbin with a section of the bolster-rail. Fig. 2 is a longitudinal section of the same. Fig. 3 is a cop or bobbin spindle, with flange and spindle-tube. Fig. 4 is a longitudinal section of the same. Fig. 5 is a bobbin-spindle, with cup and spindle-tube attached. Fig. 6 is a longitudinal section of the same with bobbin. Fig. 7 is a bolster-stand and bolster with the spindle and spindle-tube detached, as seen by looking down upon the same.

In Fig. 2, E is a section of the bolster-rail. *a* is the bolster-stand, which is attached to the bolster-rail E, at the foot of the bolster-stand *a*, by means of three screws, as seen in Fig. 7. C is the bolster, with the short arm *b* attached to the head of the bolster-stand *a* of the joint *d* by means of the screw *e*, and the bolster C and spindle *f* are firmly held in the required position by means of the angular teeth at the joint *d*, as seen in Fig. 1, and by starting the screw *e*, to allow the teeth to pass each other, the spindle *f* and bolster-tube C may be set in any position required. The joint *d* and bolster-stand *a*, with bolster, may be applied to holding the trumpets used on drawing-frame.

The spindle *f*, above the bolster C, as

seen in Figs. 1 and 2, is constructed in the usual manner for a double-headed bobbin. The groove *i* in the flange *h* is made to receive the head of the bolster C. The spindle-tube *k* is attached to and held on the spindle *f* by means of the flange *h* and small flange *j*, and the spindle *f* being free to rotate in the spindle-tube *k*, as seen in Fig. 2. The spindle *f*, when adjusted in the bolster C, rests its foot in the step of the bolster C at *o*, and the spindle *f* is held in the bolster C by means of the screw *m* (see Fig. 1) pressing against the spindle-tube *k*, leaving spindle *f* to rotate freely. The bolster C is enlarged a portion of the way on the inside to admit of the free adjustment of the spindle-tube *k* on the spindle *f*. That portion of the spindle *f* below the spindle-tube *k* decreases in size until it forms its foot in the step *o*, thus leaving a space for an oil-reservoir. (Seen at *n*.) The reservoir after being filled only requires to be refilled once in six months.

The spindle *f*, as seen in Figs. 3 and 4, is constructed above the flange *h*, the same as the ordinary mule-spindle, and is adapted to hold a cop or bobbin. The flange *h* on spindle *f* projects less in Fig. 3 than in Fig. 2.

The spindle *f*, in Figs. 5 and 6, is constructed with flange *h*, having cup *s* to receive the foot *u* of the bobbin G.

In Figs. 3, 4, 5, and 6 those portions of spindle *f* below flange *h* are all constructed the same as spindle *f*, in Fig. 2, below the flange *h*, and all of the spindles have groove *i* in flange *h*, and they are all intended to fit the same bolster C, so that each of the three spindles *f* can be used in the same bolster C.

I do not claim anything new in spindles *f*, above the flanges *h*, for I am aware that such is the common construction of the tops of spindles.

I claim—

The bolster-stand *a* and bolster C, united by the serrated joint *d* and screw *e*, in combination with the spindle *f*, as and for the purposes hereinbefore set forth.

WM. G. PERRY.

Witnesses:

C. H. BARTLETT,
JAMES E. DODGE.