

(No Model.)

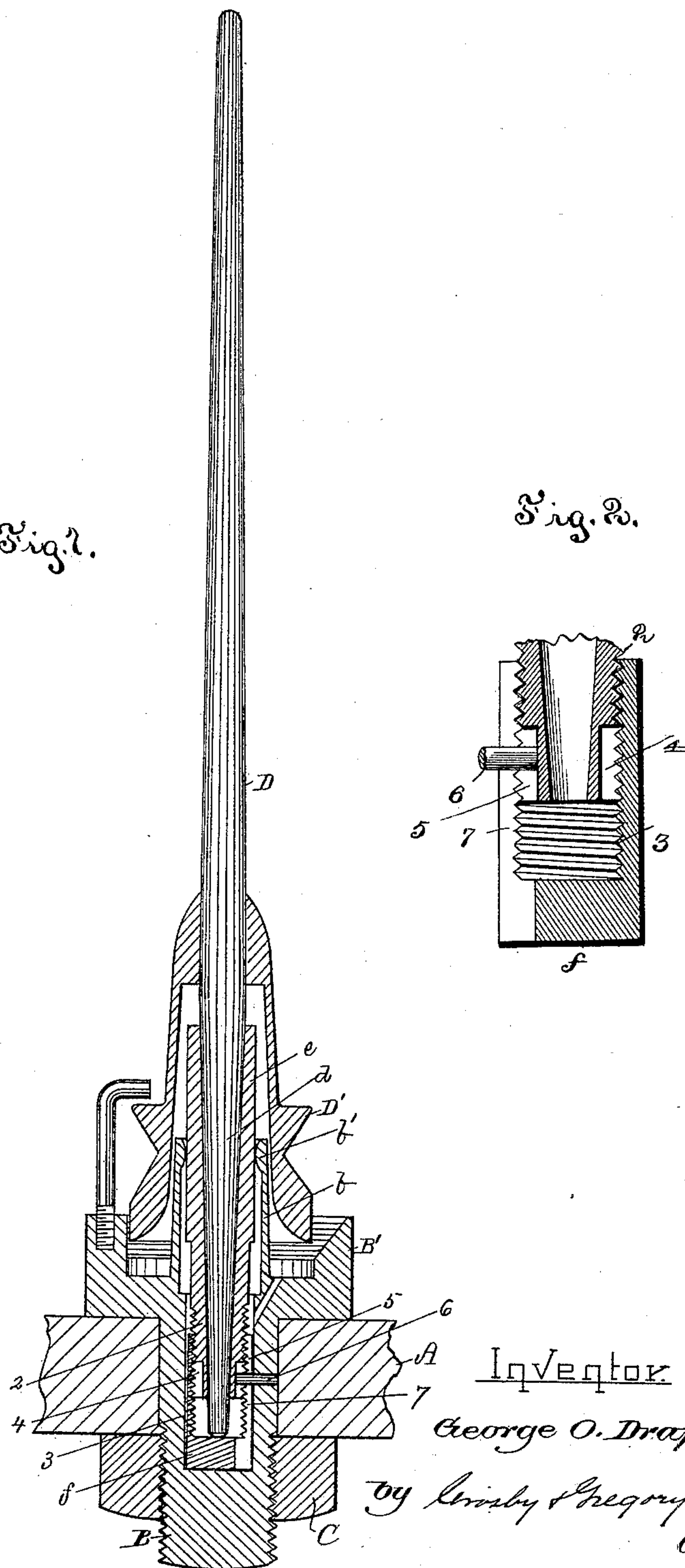
G. O. DRAPER.
SUPPORT FOR SPINNING SPINDLES.

No. 434,981.

Patented Aug. 26, 1890.

Fig. 1.

Fig. 2.



Witnesses.

Edgar A. Soddin

Francis L. Emery

Inventor

George O. Draper

by Limby & Gregory

Attys.

UNITED STATES PATENT OFFICE.

GEORGE OTIS DRAPER, OF HOPEDALE, MASSACHUSETTS, ASSIGNOR TO
GEORGE DRAPER & SONS, OF SAME PLACE.

SUPPORT FOR SPINNING-SPINDLES.

SPECIFICATION forming part of Letters Patent No. 434,981, dated August 26, 1890.

Application filed February 10, 1890. Serial No. 339,794. (No model.)

To all whom it may concern:

Be it known that I, GEORGE OTIS DRAPER, of Hopedale, county of Worcester, State of Massachusetts, 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 and figures on the drawings representing like parts.

10 This invention has for its object to provide a spindle-support in which the bolster is free to tip about a point substantially in the plane of the band-pull, the construction of the bolster and support being such that the bolster
15 may be raised or lowered to enable the fit of the spindle to be adjusted or to enable wear between the interior of the bolster and the tapering exterior of the spindle to be taken up, the point about which the bolster tips being
20 always substantially the same, notwithstanding adjustment of the bolster.

All bolster-bearings heretofore made, so far as I am aware, which are adapted to tip about a point in the plane of the band-pull have
25 had a globular or annular projection to rest in a seat made in the surrounding supporting case or holder; but in this my present invention the interior of the supporting case or holder has an inwardly-bulged rim or seat
30 against which the substantially-cylindrical exterior of the bolster rests and tips. I screw the lower end of the bolster into a step, so that the bolster, having a tapering hole to receive the tapering pintle of the spindle, may
35 be adjusted vertically by rotating the bolster, and I have shown a single pin or projection as employed to prevent at times the rotation of both the bolster and the step and at other times to restrain only the step, as
40 will be described.

Figure 1 of the drawings, in elevation and section, represents a spindle and bolster embodying my invention; and Fig. 2 shows an enlarged detail to represent the loose fit between the screw-threaded portions of the step
45 and the bolster.

The rail A is provided with a suitable hole to receive the shank B of the supporting-case B', having an upright tubular extension b.
50 The case B' is held seated on the rail by a

nut C. The spindle D, provided with a sleeve-whirl D', has a tapering pintle d.

The upright extension b of the supporting case or holder has within its upper end an inwardly-bulged annular rim b', within which
55 stands the bolster e, cylindrical externally and having a tapering bore, the bolster at its lower end being provided externally with a coarse thread 2, which is screwed within the step f, threaded internally at 3, the rotation
60 of the bolster in the step in one or the other direction lifting or lowering the bolster with relation to the said step, on which latter the lower end of the spindle rests to thus take
65 up any wear between the surface of the pintle and the interior of the bolster and keep the desired contact between the pintle and the bolster.

The necessary looseness for the lower end of the spindle and bearing may be provided
70 for by making the fit between the screw-threads loose, as shown in Fig. 2, or by allowing a little looseness between the exterior of the step and the interior of the supporting-case, as shown in Fig. 1, so that the lower end
75 of the spindle and bolster may move laterally to obviate jar or to enable the spindle to find its proper center of rotation, as the bolster tips or rocks to a limited extent on the said bulge or seat as a fulcrum. The lower end
80 of the bolster is slotted longitudinally, as shown, at opposite points, as at 4 5, and a pin or projection 6 enters one of the said slots and prevents the rotation of the bolster with the spindle. This pin held in the sup-
85 porting-case also enters and stands in a slot 7 in the step, thus always preventing rotation thereof. When a bolster has an annular projection which serves as a fulcrum for the bolster to rock on, it is evident that if the
90 bolster is moved vertically with relation to the foot of the spindle the annular projection must change its relative position to the band-groove on the whirl. This fulcrum should always be practically opposite the
95 whirl, and I provide for this necessity by forming a bulge or projection b' upon the interior surface of the supporting-tube. This construction allows free vertical movement of the bolster without changing the relative po-
100

sitions of the line of the band-pull and the rocking-point. The projection 6 at times restrains the rotation of both the bolster and step and at other times only the rotation of the step, and this single pin to hold both or one at different times is an important feature of my invention, as is also the inwardly-bulged rim or projection.

I do not desire to limit my invention to the particular shape shown for the bulge or projection *b'*, or whether it is in one piece with or separate from the upright *b*; but the bulge or pivot must be substantially in the line of the whirl.

I claim—

1. The sleeve-whirl spindle and the supporting-case chambered for the reception of both the bolster and the step and having an internal bulge or projection to form a point about which the bolster may tip in the plane of the band-pull, combined with a cylindrical bolster and connected step and means to restrain the rotation of the bolster and step with the spindle, substantially as described.

2. A spindle, a supporting-case having an upright portion provided with an annular

bulge or projection, and a bolster, the cylindrical exterior of which may bear against and rock or tip on the said bulge or projection as a fulcrum, combined with a step to which the lower end of the bolster is screwed and made adjustable vertically, substantially as described.

3. The supporting-case, the bolster having a tapering bore and threaded at its lower end and slotted at its lower end, as described, and the slotted step in which the said bolster is screwed, combined with a single pin or projection to prevent the rotation of the bolster and step with the spindle, yet permit the bolster to be lifted out of engagement with the said pin, leaving it to hold the step from rotation while the bolster is being rotated to adjust it with relation to the step, substantially as described.

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

GEO. OTIS DRAPER.

Witnesses:

E. D. BANCROFT,

H. F. SEARLES.