

(No Model.)

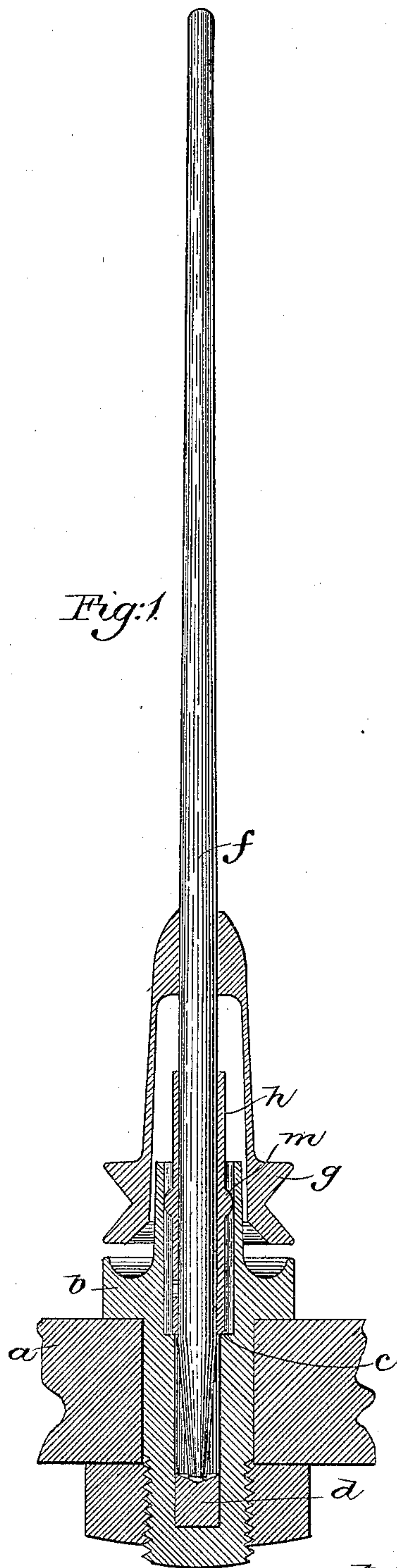
G. O. DRAPER.
SUPPORT FOR SPINNING SPINDLES.

No. 436,754.

Patented Sept. 16, 1890.

Fig: 1

Fig: 2.



Witnesses:
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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. 436,754, dated September 16, 1890.

Application filed February 11, 1890. Serial No. 340,003. (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 on the drawings representing like parts.

10 In my aim to improve the construction of spindle-supports to reduce them to the fewest possible parts I have discovered that springs and packings may be done away with and a good and efficient spindle-bearing be produced by the employment of a swiveled bolster supported at its lower end below the whirl on a shoulder of the supporting-case, the bolster having externally between its ends a ball-like projection or swell which
15 contacts with the cylindrical interior of the support in the plane of the band-pull, the lower end of the spindle resting and being free to wander on the top of a step or surface in the bottom of a hole in the supporting-
20 case, the said surface upon which the foot of the spindle rests being concaved in such manner that the foot of the spindle may wander up the sides of the concavity, and so that during such wandering the weight of the spindle and its load will act to restrain too free lateral movement of the foot of the spindle.

Figure 1 in elevation and section shows a spindle and support embodying my invention, and Fig. 2 a modified form of step which
35 may be used.

The rail *a* receives the shank of the supporting-case *b*, shown as provided with an interior shoulder *c*. The hole in the supporting-case receives at its bottom a step plate or block *d*, the top of which is concaved to receive the foot of the spindle, the shape of the concavity being such as to enable the foot of the spindle to wander and, in moving from the center of the step toward its side,
40 to rise slightly, thus causing the weight of the spindle and its load to act as a check to the too free lateral movement of the foot.

I disclaim the use of a step having a hole or socket into which the foot of the spindle
50 enters and in which the spindle near its point takes a lateral bearing.

The bolster *h* rests at its lower end on the shoulder *c*, and has an annular rim or projection *m*, which contacts with the interior of the supporting-case substantially in the
55 plane of the band-pull, so that the bolster swivels freely about a point substantially in the plane of the band-pull. The described swiveling bolster enables the foot of the spindle to wander on the step to accommodate
60 itself for any inequalities of load, and yet run without jar or injurious gyration.

I also disclaim a swiveling bolster.

The bolster shown as free to tip about a point in the plane of the band-pull is extended a considerable distance above and
65 below the said line of band-pull; but the lateral movement of the foot of the spindle is only restrained by the friction on the top of the step, the shape of which is such as to
70 make it necessary for the spindle with its load to be lifted whenever its foot moves laterally. This small restraint is beneficial in tending to keep the spindle properly centered.

I am aware that it is not new to employ a swiveled bolster; but prior to my invention I am not aware that a swiveled bolster has been supported upon a shoulder below the whirl, thus avoiding the making of a seat in
80 the bolster-case to receive the ball-like annular projection of the bolster. In the construction herein contemplated, the supporting-case has only to be bored and the bolster is dropped
85 loosely into it.

By locating the shoulder of the supporting-case on which the swiveled bolster rests above the step-bearing and between it and the lower end of the whirl the movement of the lower end of the bolster may be less than were the
90 lower end of the bolster extended down to the step, and yet permit the bolster to swivel and adapt itself to the requirements of the spindle.

I claim—

1. The spindle-step, the supporting-case to
95 contain the said step, and provided with a shoulder below the whirl but above said step, combined with a spindle and with a bolster located in said case and swiveled substantially in the plane of the band-pull, substan-
100 tially as described.

2. The sleeve-whirl spindle, the shouldered

supporting-case, and a step therein provided
at its upper side with a concavity up the sides
of which the lower end of the spindle may
wander, combined with a bolster swiveled
5 substantially in the plane of the band-pull,
the weight of the bolster being supported on
the shoulder of the supporting-case below the
whirl to operate substantially as described.

In testimony whereof I have signed my
name to this specification in the presence of 10
two subscribing witnesses.

GEO. OTIS DRAPER.

Witnesses:

E. D. BANCROFT,
H. F. SEARLES.