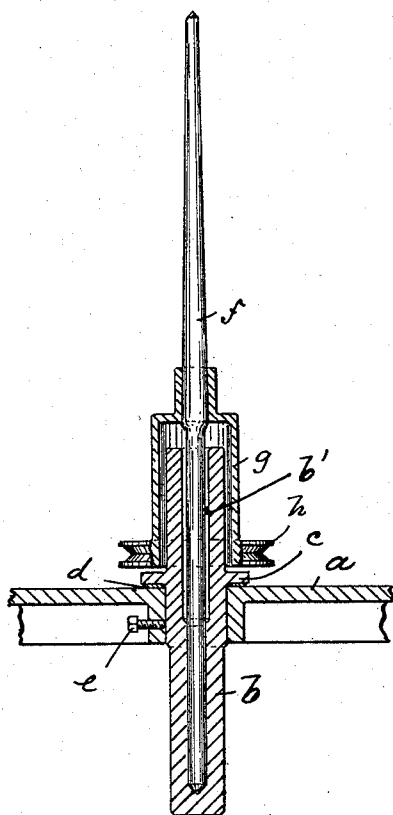


(No Model.)

A. SCHEID.
SPINDLE.

No. 580,717.

Patented Apr. 13, 1897.



WITNESSES:

Wm. D. Zell.
Duncan M. Robertson.

INVENTOR:

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ATTORNEYS

UNITED STATES PATENT OFFICE.

ADAM SCHEID, OF HARRISON, NEW JERSEY, ASSIGNOR TO THE DRAPER COMPANY, OF PORTLAND, MAINE.

SPINDLE.

SPECIFICATION forming part of Letters Patent No. 580,717, dated April 13, 1897.

Application filed December 3, 1896. Serial No. 614,273. (No model.)

To all whom it may concern:

Be it known that I, ADAM SCHEID, a citizen of the United States, residing in Harrison, Hudson county, and State of New Jersey, have
5 invented certain new and useful Improvements in Spindles; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawing, and to letters of reference marked thereon, which forms a part of this specification.

The object of my present invention is to
15 provide an efficient spinning-spindle of simple and durable construction, and which, notwithstanding that its support is firmly mounted on the spindle-rail, is allowed sufficient yielding motion to adjust itself to an
20 unbalanced load.

The invention consists in the peculiar construction and combination of the various parts, substantially as will be hereinafter more fully described and finally embodied in
25 the clauses of the claim.

In the accompanying drawing, which represents in a vertical central section my improved spinning-spindle when mounted on a rail, *a* is the spindle-rail, and *b* the tube, containing step and bolster bearing for the spindle *f*. Said tube is provided with an annular
30 flange *c*, resting on the intermediate washer or elastic cushion *d*, which latter surrounds the said tube and, in turn, rests on the top of the rail *a*. The tube *b* is rigidly secured to and
35 within the said rail by means of the thumb or set screw *e* or in any desired manner.

The tube *b* is provided with a vertical centrally-arranged annular chamber *b'*, extending from the top portion to about the middle
40 of said tube, which latter at its lower portion forms the bearing for the spindle *f*, as clearly shown in the drawing. On said spindle is se-

cured the sleeve *g*, provided with the whirl *h*, by means of which latter motion is im-
45 parted to the spindle *f*.

From the foregoing it can be seen that the spindle although having sufficient bearing-surface with its supporting-tube *b* is free within the upper portion of the latter, and
50 thus allowed sufficient yielding motion to adjust itself to an unbalanced load.

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

1. The combination with the spindle-rail, of a tube mounted in said rail and containing step and bolster bearing in its lower portion, a spindle mounted in said lower portion
60 of the tube and forming with the upper portion thereof a continuous annular chamber extending considerably below the spindle-rail, and means for operating said spindle, arranged above said rail, all said parts, substantially as and for the purposes described.
65

2. The combination with the spindle-rail, of a tube mounted in said rail and provided in its lower portion with step and bolster bearing, and in its upper portion with a cylindrical chamber of larger diameter than the diameter of the bolster-bearing and extending
70 a considerable distance below the spindle-rail, a spindle arranged in the bolster-bearing of said tube and freely revoluble in its cylindrical chamber, and a whirl on said spindle and above the spindle-rail, all said parts,
75 substantially as and for the purposes described.

In testimony that I claim the foregoing I have hereunto set my hand this 14th day of October, 1896.

ADAM SCHEID.

Witnesses:

WM. D. BELL,
ALFRED GARTNER.