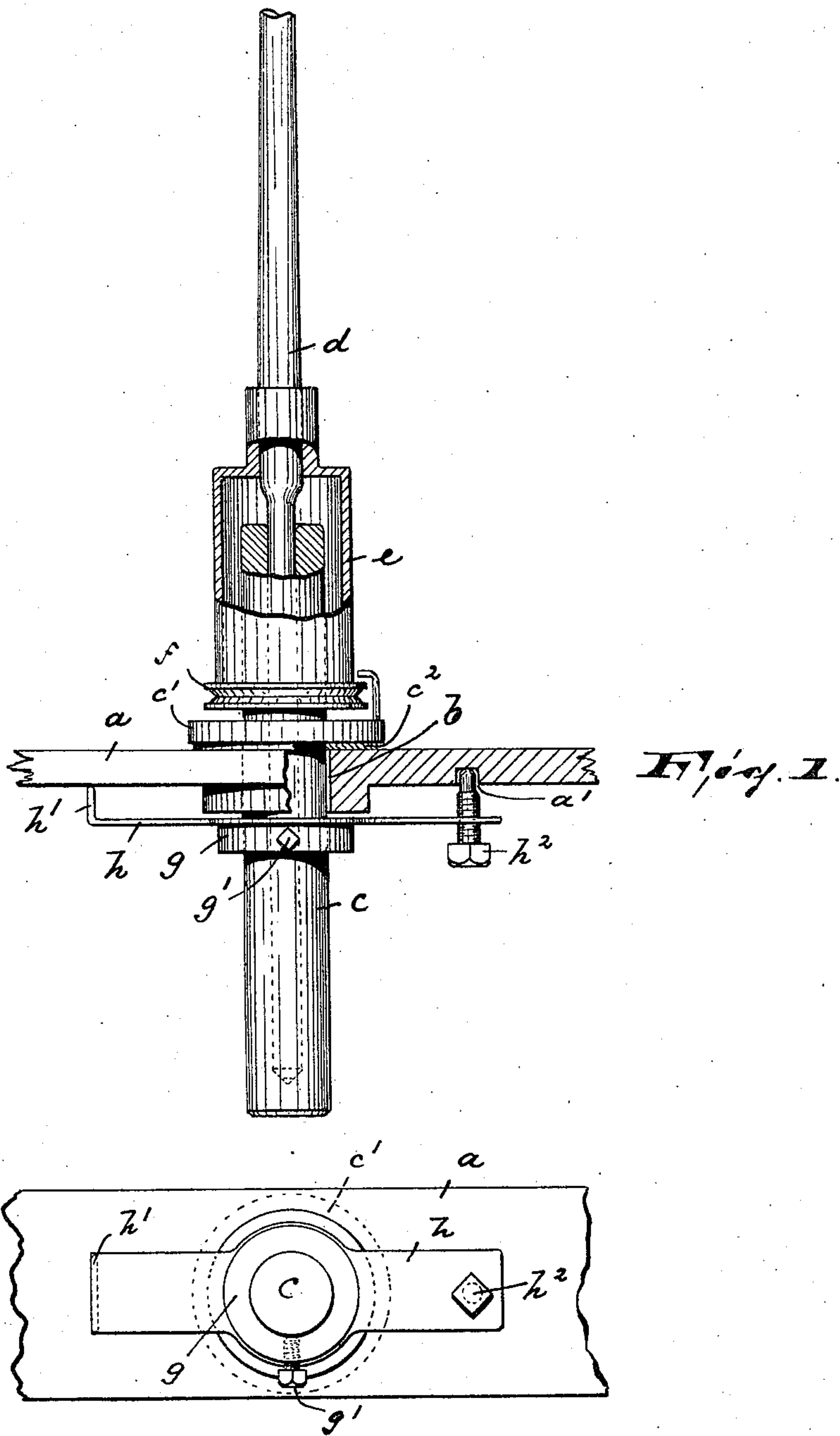


(No Model.)

A. SCHEID.  
SPINDLE.

No. 574,947.

Patented Jan. 12, 1897.



WITNESSES:

*Wm. D. Bell.*  
*Samuel M. Robertson.*

INVENTOR:

*Adam Scheid*

BY *Partner & Co* ATTY'S.

# UNITED STATES PATENT OFFICE.

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

## SPINDLE.

SPECIFICATION forming part of Letters Patent No. 574,947, dated January 12, 1897.

Application filed November 17, 1896. Serial No. 612,515. (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  
10 others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The object of my present invention is to provide a spindle-support for spinning-spindles,  
15 whereby the spindles are capable of adjusting themselves to unbalanced loads and whereby the flexibility of the said spindles can be easily and quickly adjusted without stopping  
20 their operation.

The invention consists in the improved spindle-support, in the arrangement of an adjusting-spring tending to draw the spindle-supporting tube downward, and in the combination and arrangement of the various parts  
25 thereof, substantially as will be hereinafter fully described and claimed.

In the drawings, in which Figure 1 is a front elevation, partly in section, of my improved support, and Fig. 2 an underneath  
30 view thereof, *a* represents the spindle-rail, penetrated by the vertical opening *b*. The tube *c*, containing step and bolster bearing for the spindle *d*, (provided with sleeve *e* and  
35 whirl *f*,) is loosely arranged in said opening and rests with its annular flange *c'* on the intermediate flexible washer *c<sup>2</sup>*. On said tube and below the rail *a* is adjustably secured by means of the set-screw *g'* a ring or collar *g*,  
40 engaged by the flat spring *h*, having one end bent upward at substantially right angles, as at *h'*, and bearing against the under side of the rail, and having its other end provided with an internally-threaded hole penetrated  
45 by a set or thumb screw *h<sup>2</sup>*, the rounded end of which bears against the under side of the rail or engages a recess *a'* therein, as shown in Fig. 1.

The flat spring *h* is provided, substantially  
50 in its center, with a circular opening of a size sufficient to allow the passage of the tube *c*.

By simply turning the set or thumb screw *h* the flexibility of the tube and spindle is easily regulated, the flat spring increasing or decreasing its pressure upon the ring or collar *g*, and thus drawing the tube and its flange  
55 *c'* downward against the washer *c<sup>2</sup>*. Should the adjustment by means of the screw *h<sup>2</sup>* not be sufficient, the ring or collar *g* is raised or lowered until the desired yielding movement  
60 of the spindle is obtained.

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

1. The combination with the spindle-rail, of a tube flexibly mounted on said rail, a ring  
65 or collar adjustably secured on said tube and below the rail, a flat spring provided with a central opening arranged on said ring or collar, and having one end bent upward at right angles and bearing against the under side of  
70 the rail, an adjusting-screw arranged in the other end of said flat spring and bearing with its rounded end against the under side of the rail, and a whirl-driven spindle in said tube, all said parts, substantially as and for the  
75 purposes described.

2. The combination with the spindle-rail provided with a vertical opening, a tube of smaller diameter than the opening and containing step and bolster bearing, penetrating  
80 said opening, an annular flange on said tube and above the rail, an intermediate washer between said flange and the rail, a ring or collar adjustably secured on said tube and below the rail, a flat spring provided with a central  
85 opening arranged on said ring or collar, and having one end bent upward at right angles and bearing against the under side of the rail, an adjusting-screw arranged in the other end of said flat spring and bearing with  
90 its rounded end against the under side of the rail, and a whirl-driven spindle in said tube, all said parts, substantially as and for the purposes described.

In testimony that I claim the foregoing I  
95 have hereunto set my hand this 3d day of October, 1896.

ADAM SCHEID.

Witnesses:

ALFRED GARTNER,  
WM. D. BELL.