

(No Model.)

A. SCHEID.
SPINDLE.

No. 580,721.

Patented Apr. 13, 1897.

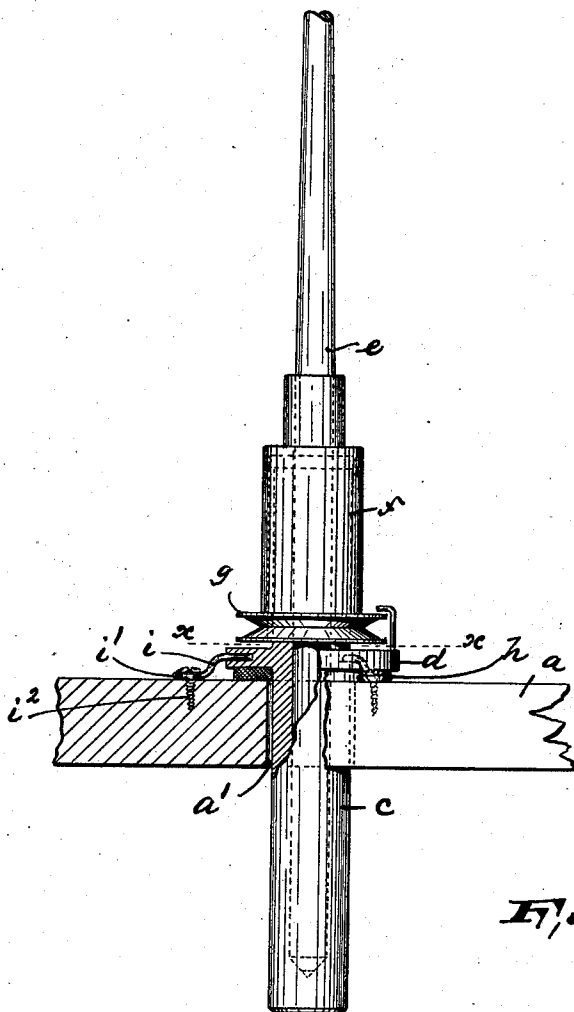


Fig. 1.

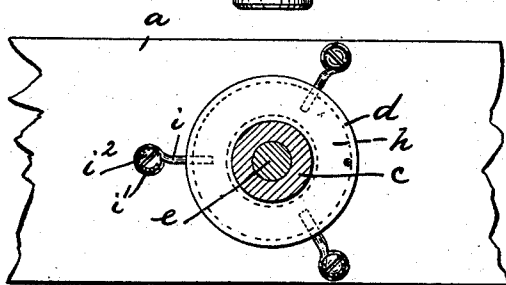


Fig. 2.

WITNESSES:

Wm. D. Bell.

Luncan M. Robertson

INVENTOR:

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BY Partner & Co. ATTY'S.

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. 580,721, dated April 13, 1897.

Application filed December 22, 1896. Serial No. 616,647. (No model.)

To all whom it may concern:

Be it known that I, ADAM SCHEID, a citizen of the United States, residing in Harrison, county of Hudson, and State of New Jersey, have 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 drawings, and to letters of reference marked thereon, which form a part of this specification.

The object of this invention is to provide a spinning-spindle which will adjust itself to an unbalanced load and which is of simple construction and reliable in operation.

The invention consists in the improved spinning-spindle and in the combination and arrangement of parts, substantially as will be hereinafter more fully described, and finally embodied in the clauses of the claim.

In the accompanying drawings, Figure 1 is a front elevation of my improved spinning-spindle and its support with certain portions broken away and others shown in section to better illustrate the nature of my said invention, and Fig. 2 a sectional view on the line *x x* of Fig. 1.

In said drawings, *a* represents a spindle-rail provided with the vertical hole or opening *a'*, penetrated by the tube *c*, containing step and bolster bearing for the spindle *e*. The latter is provided with the sleeve *f* and whirl *g*, by means of which motion is imparted to the said spindle, as will be manifest.

The tube *c*, which is of smaller external diameter than the internal diameter of the hole or opening *a'*, is provided above the rail with an annular flange *d*, resting on the intermediate washer *h*, made of suitable elastic material. The said flange is provided in its periphery at uniform distances with a series of holes (preferably three) arranged substantially horizontal and radially with relation to the spindle *e*, in which holes are arranged the spring-wires *i*, bent substantially as shown and provided at their free ends with loops *j*, penetrated by set or thumb screws *k*,

by means of which said spring-wires are securely held to and on the spindle-rail *a*. It will be seen from the foregoing that the spring-wires *i* securely hold the tubes *c* in position and its flange *d* in close contact with the elastic washer *h*, thus rendering the mounting of the tube flexible and the spindle *e* capable of adjusting itself to an unbalanced load.

The spring-wires *i* are so constructed and bent that when not under the action of the screws *k* their looped portions *i'* are at acute angles to the spindle-rail—that is to say, the spring-power of each wire can be increased by tightening its respective screw. By this arrangement the flexibility of the spindle-tube can easily be adjusted, as will be manifest.

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 flexibly mounted on said rail and provided with an annular flange, a whirl-driven spindle in said tube, and a series of radially-arranged spring-wires adjustably secured with their outer ends to the spindle-rail, and engaging with their inner ends the annular flange of the tube, substantially as and for the purposes described.

2. The combination with the spindle-rail, of a tube flexibly mounted on said rail and provided above the rail with an annular flange, a whirl-driven spindle in said tube, a series of radially-arranged spring-wires having their inner ends substantially parallel to the spindle-rail and engaging the annular flange, and having their outer ends formed into loops, at an acute angle to the said spindle-rail, and a screw penetrating each of said loops and engaging the said spindle-rail, all said parts, substantially as and for the purposes described.

In testimony that I claim the foregoing I have hereunto set my hand this 17th day of December, 1896.

ADAM SCHEID.

Witnesses:

ALFRED GARTNER,
DUNCAN M. ROBERTSON.