(No Model.)

A. SCHEID.

SPINDLE.

No. 590,382. Patented Sept. 21, 1897.

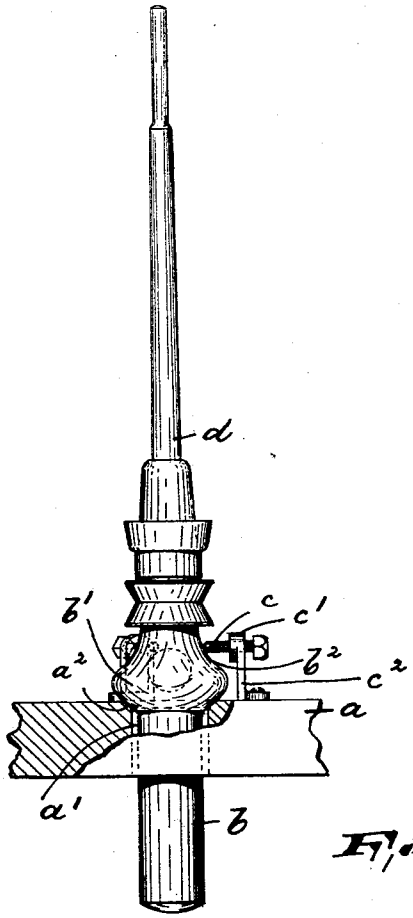


Fig. 1.

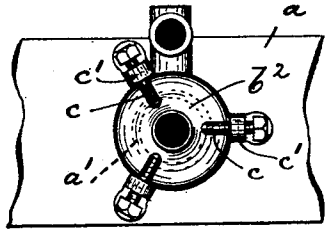


Fig. 2.

WITNESSES:

Wm. D. Bell.

W. Parker.

INVENTOR:

Adam Scheid

BY Gartner & Co ATTY'S

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

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. 590,382, dated September 21, 1897.

Application filed June 15, 1897. Serial No. 640,804. (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.

My invention relates to improvements in spinning-spindles which are adapted to revolve at high speed and therefore must be capable of adjusting themselves to unbalanced loads.

The invention consists in the detail of construction 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 a spinning-spindle mounted on the spindle-rail by means of my improved support, a portion of the rail being shown in section; and Fig. 2, a top plan view of Fig. 1, the sleeve-whirl spindle being removed.

In said drawings, a represents the spindle-rail, penetrated by a vertical hole or opening a', connecting with a concave seat a^2, arranged in the top of the rail a. In the hole or opening a' is arranged the tube b, provided with an annular enlargement b', resting with its lower convex portion on the seat a^2, above referred to. A series of brackets c^2 are arranged around the vertical hole or opening a' and secured to the spindle-rail a at certain uniform intervals by means of screws or in any desired manner. Each of said brackets is provided at or near its top portion with an internally-threaded sleeve or bushing c', penetrated by a set-screw c, adapted to engage the upper concave portion b^2 of the enlargement b'.

In the tube b is revolubly mounted the spindle d, provided with a sleeve-whirl through which motion is imparted to the said spindle, as will be manifest.

From the foregoing it can be seen that the enlargement of the tube rests upon the seat a^2 of the spindle-rail and is held in position by the said screws c.

The brackets c^2 are to a certain extent flexible, and thus permit the tube b and spindle d to yield in any direction for the purpose of adjusting itself to an unbalanced load. It must also be remarked that by adjusting the screws the said flexibility can easily be changed, and, further, that an adjustment of the spindle at an angle to the rail can also be accomplished by means of said set-screws.

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 provided with a vertical hole or opening and in its top portion with an annular seat surrounding said hole or opening, of a tube loosely arranged in said opening and provided with an annular enlargement resting on the said annular seat, a series of brackets projecting from the rail and arranged around said opening at uniform intervals, a set-screw adjustably arranged in each of said brackets and engaging the top portion of the enlargement on the tube, and a sleeve-whirl spindle in said tube, substantially as and for the purposes described.

2. The combination with the spindle-rail provided with a vertical hole or opening and in its top portion with an annular concave seat, of a tube penetrating said hole or opening, an annular enlargement on said tube and provided with a lower convex and an upper concave portion, the lower convex portion of said enlargement resting on the concave seat in the spindle-rail, a series of set-screws suitably supported on the spindle-rail. and in engagement with the concave top portion of the enlargement, and a sleeve-whirl spindle in the tube, substantially as described.

3. The combination with the spindle-rail provided with a vertical hole or opening and in its top portion with an annular concave

seat surrounding said opening, of a tube loosely arranged in said opening, an annular enlargement on said tube and having a lower convex and an upper concave portion, the lower convex portion resting in the annular concave seat in the spindle-rail, a series of brackets on said rail and arranged at uniform intervals around the opening, a set-screw adjustably arranged in each of said brackets and in engagement with the concave top portion of the enlargement, and a sleeve-whirl spindle in the tube, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand this 28th day of April, 1897.

ADAM SCHEID.

Witnesses:
ALFRED GÄRTNER,
WM. D. BELL.