

(No Model.)

A. SCHEID.
SPINDLE.

No. 580,720.

Patented Apr. 13, 1897.

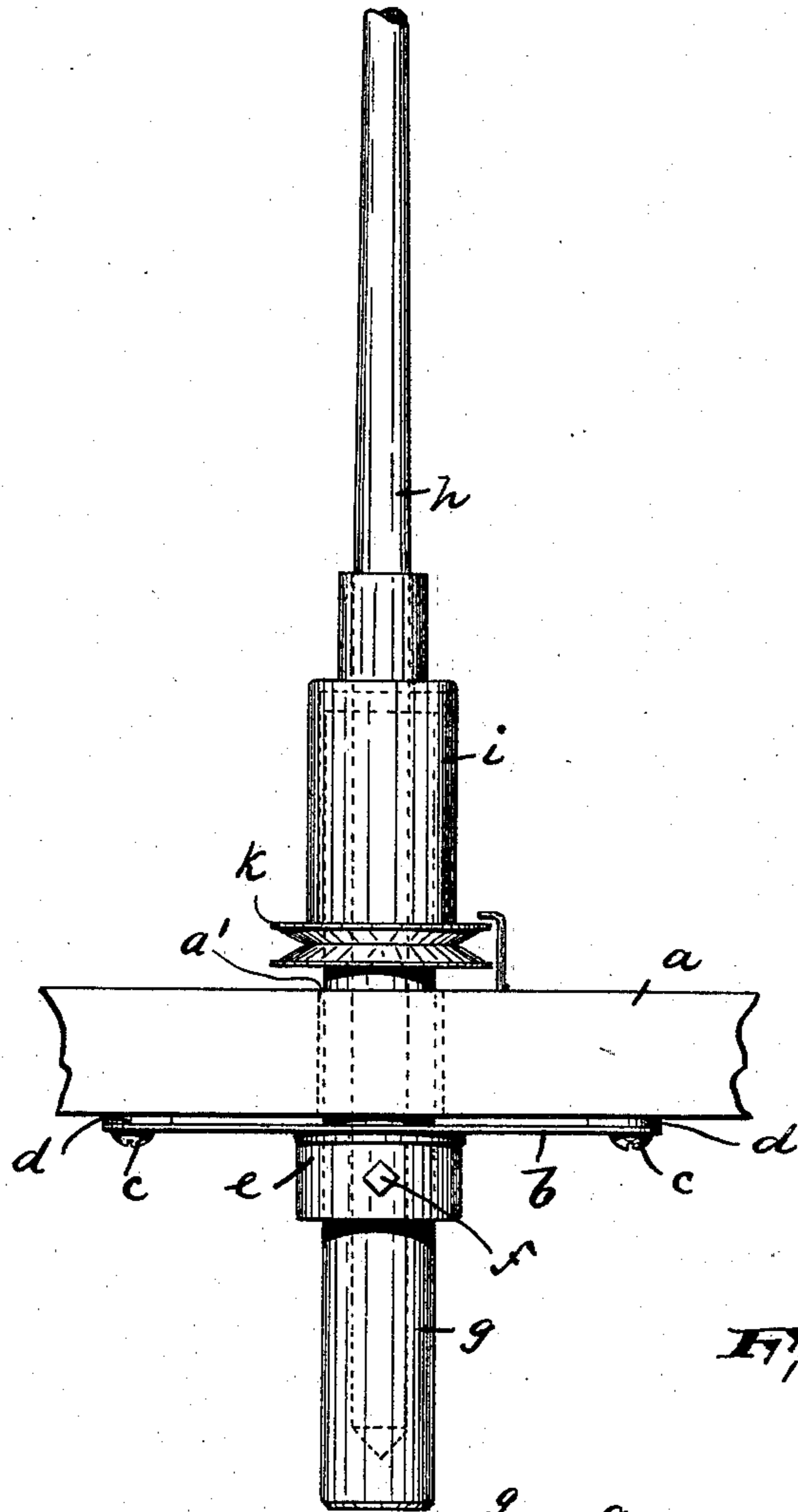


Fig. 1.

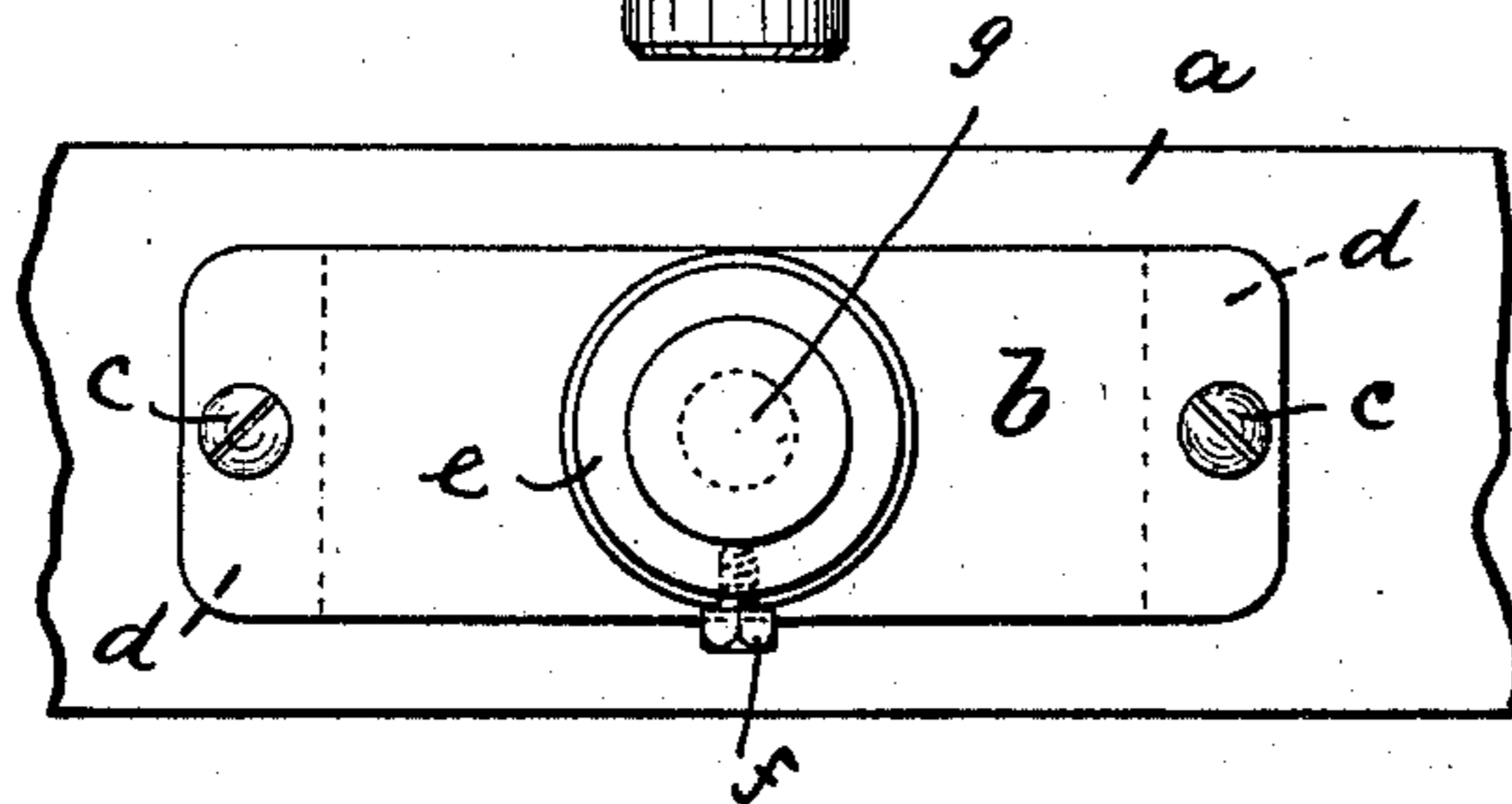


Fig. 2.

WITNESSES:

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UNITED STATES PATENT OFFICE.

ADAM SCHEID, OF HARRISON, NEW JERSEY, ASSIGNOR TO THE DRAPER
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SPINDLE.

SPECIFICATION forming part of Letters Patent No. 580,720, dated April 13, 1897.

Application filed December 22, 1896. Serial No. 616,646. (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.

This invention relates to spinning-spindles having a flexible mounting and thus being rendered capable of adjusting themselves to unbalanced loads.

The invention consists in the improved spindle and its support 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 spindle and its support, and Fig. 2 an underneath view of Fig. 1.

In said drawings, *a* is the spindle-rail, having the vertical hole or opening *a'*, penetrated by the tube *g*, containing step and bolster bearing for the spindle *h*. The latter is provided with the sleeve *i* and whirl *k*, by means of which motion is imparted to the said spindle. On the under side of the rail is arranged a flat spring-plate *b*, secured at or near each end by means of a screw *c* to the rail *a*, and is separated therefrom by the elastic plates or washers *d d*, as clearly shown.

The spring-plate *b* is provided in its center with a circular hole or opening concentrically arranged with the opening *a'* of the spindle-rail *a*. Said opening (in the spring-plate) is surrounded by an annular sleeve or flange *e*, projecting downward from the said spring-plate and secured thereto in any desired manner and adapted to support the tube *g*, which latter is adjustably secured within said

sleeve or flange by means of the set-screw *f*. The elasticity of the spring-plate *b* can easily be adjusted by tightening or loosening the screws *c c*, and as the tube *g* is supported by said spring-plate and its projecting sleeve, respectively, the said adjustment controls or regulates the yielding movement of the spindle, as will be manifest.

As the tube *g* can be raised and lowered within the sleeve *e*, the center of oscillation is easily changed.

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 flat spring-plate flexibly secured at each of its ends to the said rail, and provided in its center with a circular opening, a sleeve carried by said spring-plate and surrounding said opening, a tube adjustably secured within said sleeve, and a whirl-driven spindle in said tube, all said parts, substantially as and for the purposes described.

2. The combination with the spindle-rail provided with a vertical hole or opening, of a flat spring-plate arranged on the under side of the rail and secured at each of its ends to the said rail, said spring-plate being provided with a central circular opening in alinement with the opening in the rail, an elastic plate arranged between each end of the spring-plate and the under side of the rail, a sleeve projecting downward from the spring-plate and surrounding the circular opening therein, a tube penetrating the opening in the rail and adjustably secured to and within the said sleeve, and a whirl-driven spindle in the tube, 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.