(No Model.)

C. A. CHAPPELL.

SUPPORT FOR SPINNING SPINDLES.

No. 450,992. Patented Apr. 21, 1891.

Fig: 1.

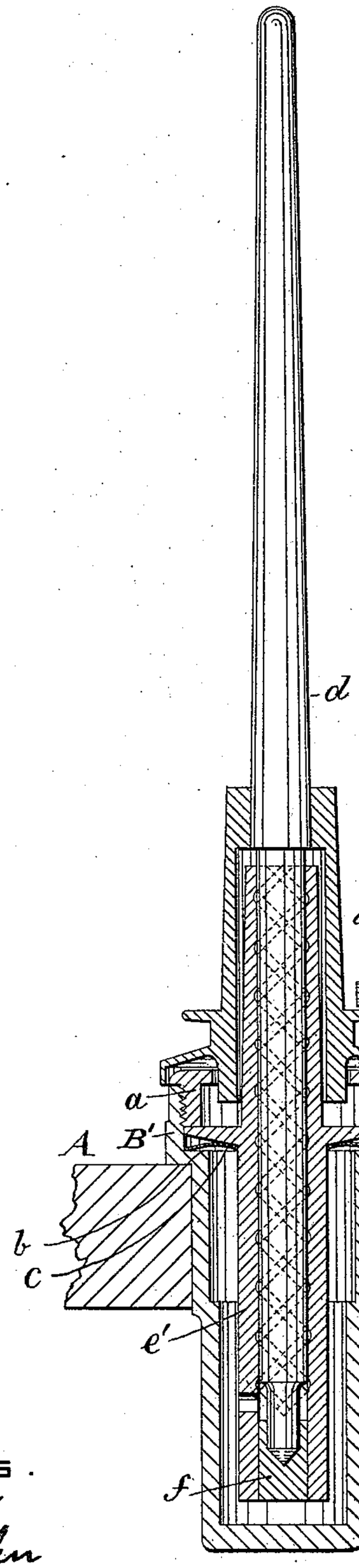
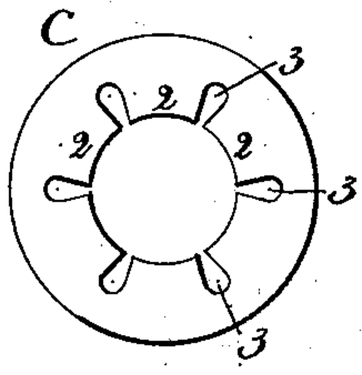


Fig: 2.



Witnesses.
Fred. L. Gunby
Edward F. Allen

Inventor.
Charles A. Chappell,
by Crosby & Gregory Attys

UNITED STATES PATENT OFFICE.

CHARLES A. CHAPPELL, OF WILLIMANTIC, CONNECTICUT, ASSIGNOR TO GEORGE DRAPER & SONS, OF HOPEDALE, MASSACHUSETTS.

SUPPORT FOR SPINNING-SPINDLES.

SPECIFICATION forming part of Letters Patent No. 450,992, dated April 21, 1891.

Application filed September 5, 1890. Serial No. 364,024. (No model.)

To all whom it may concern:

Be it known that I, CHARLES A. CHAPPELL, of Willimantic, county of Windham, State of Connecticut, have invented an Improvement in Supports for Spinning-Spindles, of which the following description, in connection with the accompanying drawings, is a specification, like letters and figures on the drawings representing like parts.

This invention has for its object to provide a novel and efficient support for the bolster in which the spindle takes its lateral bearing.

In accordance with this invention the bolster, provided with a flange or projection between its ends, rests on a dished or spring-pronged washer supported by a shoulder at the inner side of the bolster-case, the said washer forming an elastic support for the bolster to permit it to tip, as required, under rapid rotation when the load on the spindle is unbalanced. The ease with which the bolster tips depends upon the length, thickness, and number of prongs or springs of the washer, modified, however, by the position of a nut or collar screwed into the oil well or curb at the top of the bolster-case and acting on a collar of the bolster seated on the washer. Preferably the step for the spindle is carried by the bolster.

Figure 1 in section and elevation shows a spindle and its surrounding parts constituting the support and part of the rail, and Fig. 2 is a plan view of the spring-washer.

The usual rail A (shown in section) has a suitable hole for the reception of the bolster case or shell B, shouldered to rest on the rail and having an oil-chamber inside the curb B′, which, as shown, is threaded for the reception of the threaded nut or ring *a*. The bolster case or shell has a shoulder or rest *b*, on which is laid an annular spring-washer *c*, (shown separately in Fig. 1,) it being a concavo-convex or dished washer, slotted, as at 3, to leave springs 2. This spring-washer *c* receives upon it the flange *e* of the bolster *e′*. (Shown as extended above and below said flange and entering the bolster-case loosely.) The freedom with which the bolster tips depends upon the number of spring-prongs, their length, and the thickness of the washer. This spring-washer permits the bolster to move and tip as required to center itself to the load carried by the spindle. The spindle *d*, having a whirl *d′* to surround the bolster-case, has its end bearing on a step *f*. (Shown as connected to the bolster.) The bolster has usual appliances by which to insure the circulation of oil.

I am aware that it is customary to sustain a step upon a spiral spring, and so also parts of a bolster have been sustained upon spiral springs; but a spring-washer of sheet metal possesses supporting properties different from a spiral spring, is more uniform in its action in every direction, is of less cost, and is more durable.

The hollow nut or collar *a*, by acting on the top of the flange *c*, seats the same on the spring-washer with sufficient tension to keep the bolster upright.

I claim—

1. A bolster-support having a shoulder and a flanged bolster, combined with a sheet-metal spring-washer having a series of prongs which receive upon them the shoulders of the bolster, the said prongs supporting the said bolster uniformly but in a yielding manner entirely about the spindle, substantially as described.

2. A bolster-support having a shoulder and a flanged bolster, combined with a sheet-metal spring-washer having a series of prongs which receive upon them the shoulders of the bolster, the said prongs supporting the said bolster uniformly but in a yielding manner entirely about the spindle, and a hollow nut or collar, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHAS. A. CHAPPELL.

Witnesses:

ROBERT E. CARNEY,

CHARLES E. INGALLS.