

(No Model.)

A. W. PARKHURST.

BOBBIN STAND.

No. 363,671.

Patented May 24, 1887.

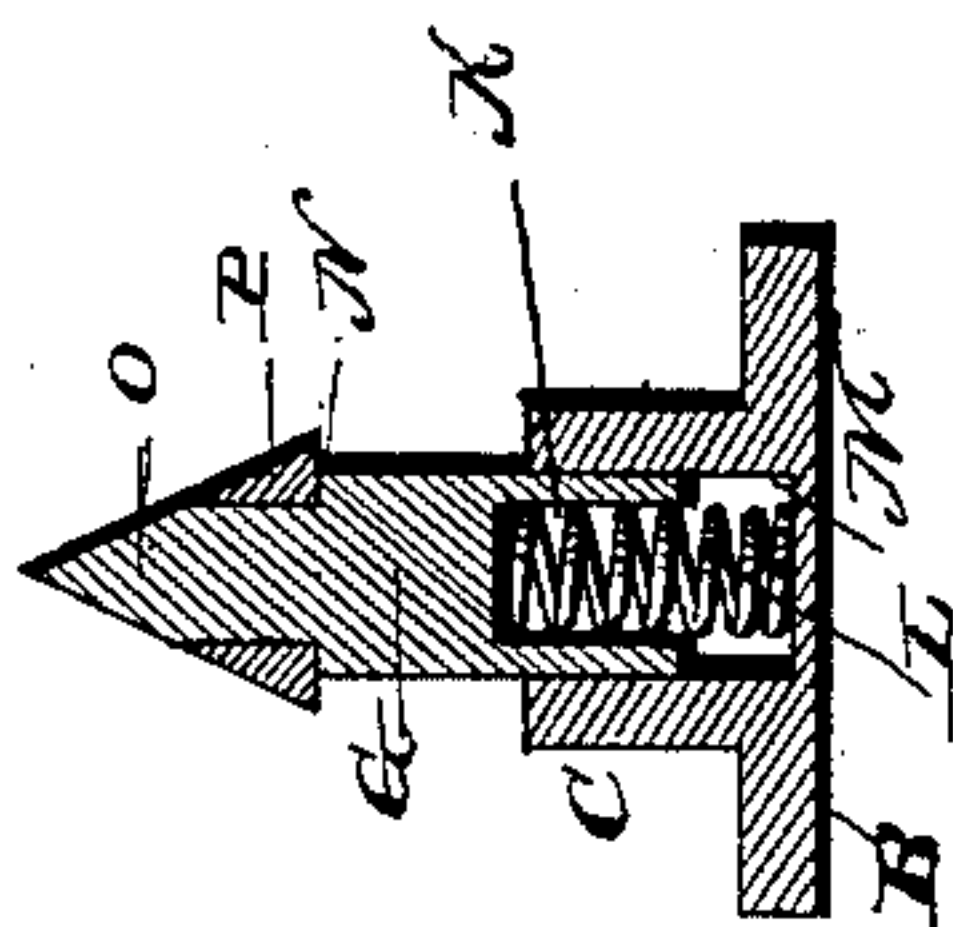


Fig. 3.

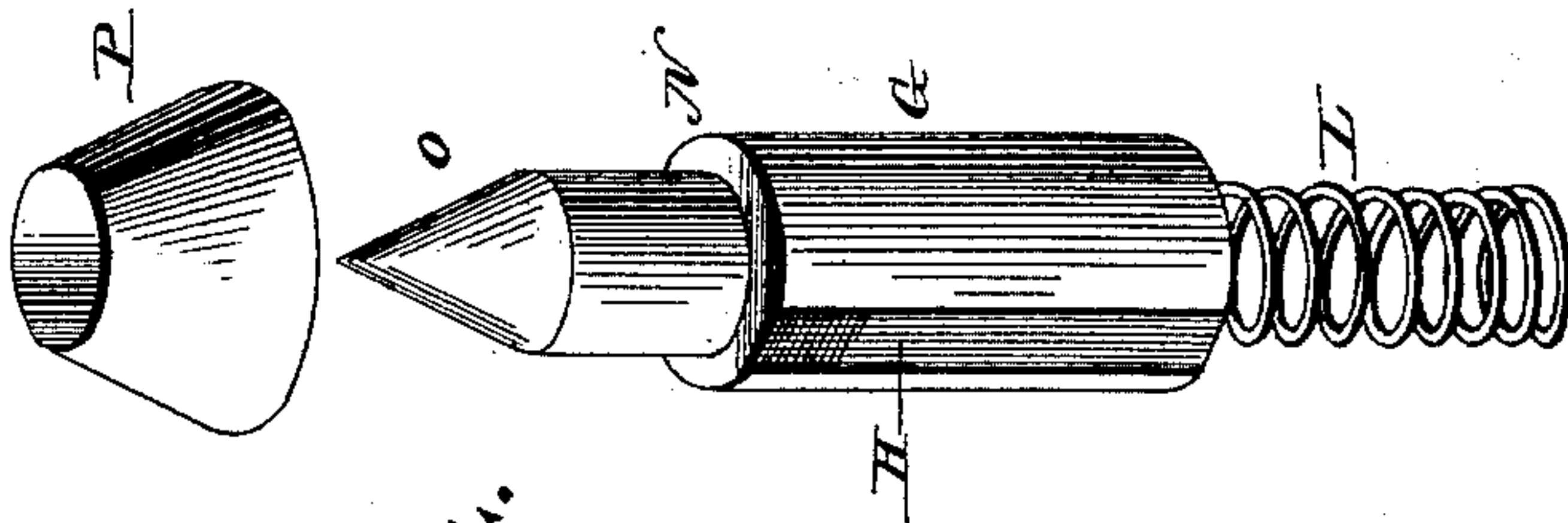


Fig. 4.

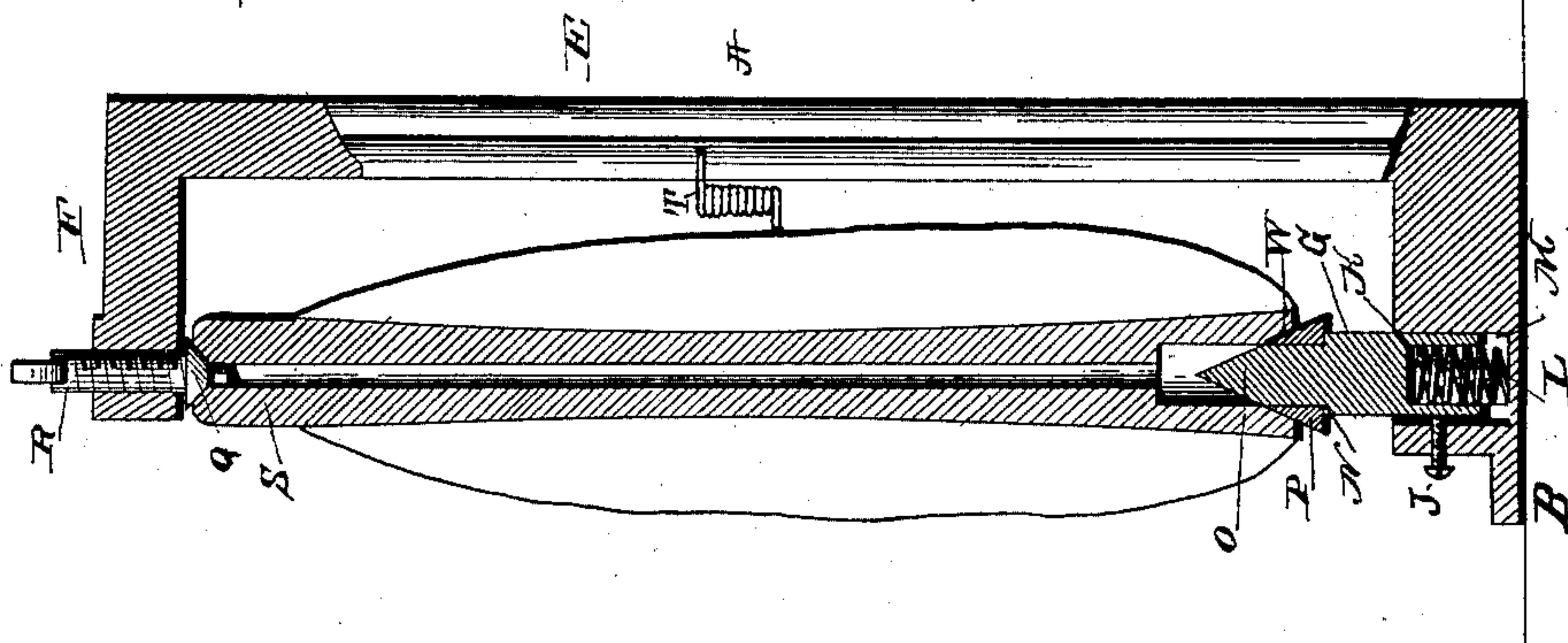


Fig. 2.

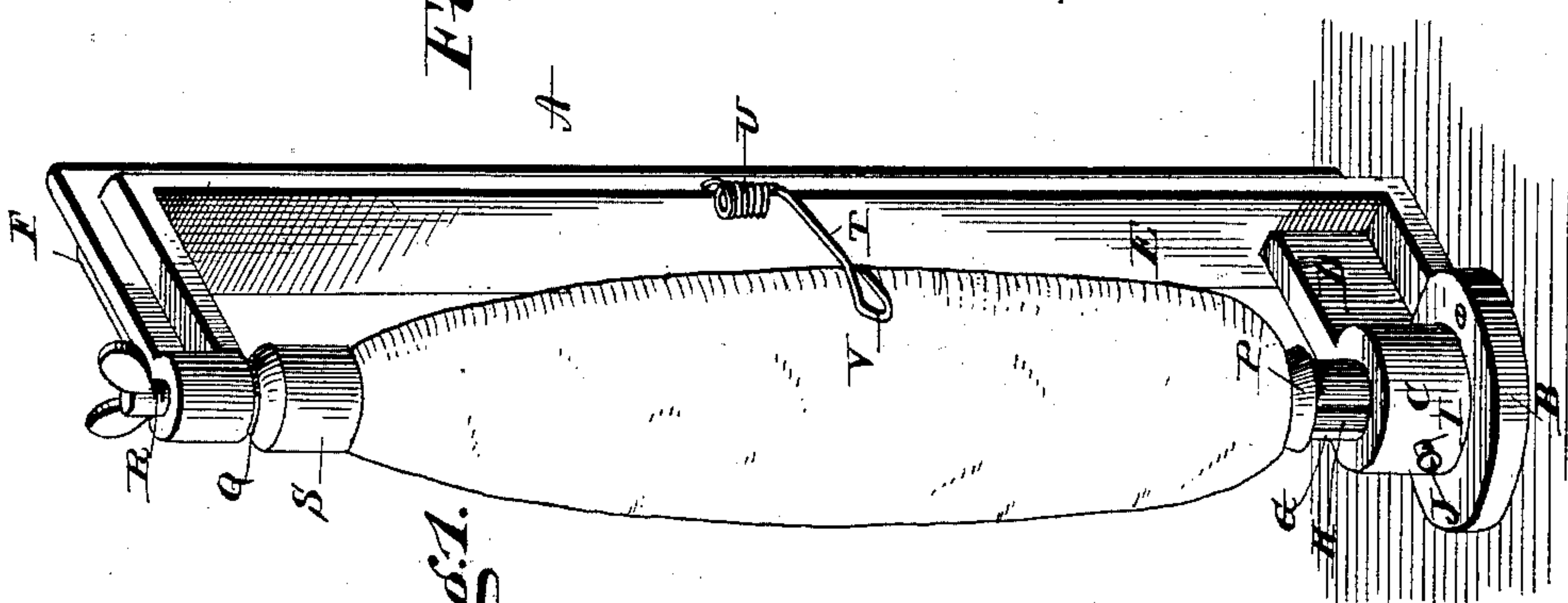


Fig. 1.

WITNESSES

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UNITED STATES PATENT OFFICE.

ARTHUR W. PARKHURST, OF MILFORD, NEW HAMPSHIRE, ASSIGNOR TO
LOUIS C. BILLINGS AND FRANK E. KALEY, BOTH OF SAME PLACE.

BOBBIN-STAND.

SPECIFICATION forming part of Letters Patent No. 363,671, dated May 24, 1887.

Application filed February 14, 1887. Serial No. 227,497. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR W. PARKHURST, a citizen of the United States, and a resident of Milford, in the county of Hillsborough and State of New Hampshire, have invented certain new and useful Improvements in Bobbin-Stands; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of my improved bobbin stand. Fig. 2 is a vertical sectional view of the same, partly in elevation. Fig. 3 is a vertical sectional view of the base through a plane at right angles to the view shown in Fig. 2; and Fig. 4 is a perspective detail view of the spindle-cone spring and sleeve-whirl removed from the frame.

Like letters of reference denote corresponding parts in all the figures.

My invention relates to bobbin stands, or the frames for holding the spools or bobbins used in spoolers, warping-machines, spinning-machines, reeling-machines, and other machines or devices of a similar nature in which bobbins are used; and it consists in the detailed construction and combination of parts of a device of that class, which will be hereinafter more fully described and claimed.

In the accompanying drawings, the letter A denotes the frame of my improved bobbin stand, of which B is the base-plate. This base-piece is provided with a cylindrical box, C, which may be re-enforced by a rib or web, D, connecting it with the base of the vertical standard E, at the upper end of which is the usual arm, F, projecting at right angles parallel to the base B and rib D.

Inserted into the central bore or recess in the box C is a cylinder, G, one side of which is flattened or cut away, as shown at H. This flattened side of the cylinder faces a screw-threaded aperture, I, in the box C, into which is inserted the set-screw or binding-screw J, the inner end of which should press lightly against the flat part of cylinder G. The bot-

tom of said cylinder is recessed, as shown at K, to fit the upper end of a spiral spring, L, the lower end of which rests in a recess, M, in the base-plate of the frame A.

The upper part of cylinder G is reduced, so as to form a shoulder or offset, N, and the top of said reduced part terminates in a cone, O. The cylindrical reduced part of cylinder G, below said cone, is provided with a loose sleeve or collar, P, forming a truncated cone adapted to revolve freely upon the shoulder N, on which it rests.

Inserted through the outer end of the upper horizontal arm, F, is the usual conical upper bearing, Q, which may be adjusted by means of a screw, R, in a well-understood manner, so as to fit into the recess in the head or upper end of the bobbin S.

Upon one side of the standard E is soldered or otherwise fastened a spring, T, formed with a coil, U, to give the free end of said spring the requisite tension or bearing against the yarn on the spool or bobbin. The free end of said coiled spring T U is bent to form a loop, as shown at V, of such shape that it will bear evenly against the yarn on the spool or bobbin.

The lower end of the bobbin has a conical recess, W, adapted to fit upon the cone O P and revolve with the sleeve P of said cone. As the central part, O, of the cone is stationary and does not revolve, it operates to hold the spool or bobbin in a steady vertical position, while the sleeve P, against which the lower end of the bobbin rests, revolves with it, spring L operating to push the conical sleeve P against the lower end of the bobbin with sufficient pressure to cause the requisite friction and contact.

It will be seen that the bobbin may be removed from the stand in a moment of time simply by pressing it in a downward direction, so as to depress spring L in its recess and thus release the upper end of the bobbin from the cone. Similarly, the bobbin may be replaced in a moment of time.

It is obvious that the arrangement herein shown and described may be reversed, and that the cone and whirl, with their actuating spring, may be arranged in the upper part of the

stand—viz., in the bearing Q—without deviating from the spirit of my invention, in which case, of course, the screw R and its appurtenances are arranged in the base. By means of the spring T an even pressure will be brought to bear upon the yarn as it is reeled off of the bobbin, so that this will also be found to work evenly and satisfactorily under all circumstances.

10 Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. The combination, in a bobbin stand, of a standard the upper end of which is provided with an arm and a bearing, the recessed box, the spring arranged within said recess, the vertically-sliding cylinder flattened on one side, having a reduced upper portion terminating in a cone, a set-screw adapted to bear with its inner end against the flattened part of the cyl-

inder, and the conical sleeve rotating upon the reduced part of the cylinder, substantially as and for the purpose set forth.

2. The combination, in a bobbin stand, of the standard, the cone-shaped sleeve, the spring, the solid cylinder terminating in a cone and forming a bearing for the sleeve, the tension-spring bearing with its free end against the yarn upon the bobbin, and the adjustable bearing arranged in the stand opposite to the sleeve, substantially as and for the purpose shown and set forth.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

ARTHUR W. PARKHURST.

Witnesses:

LOUIS C. BILLINGS,

FRANK E. KALEY.