

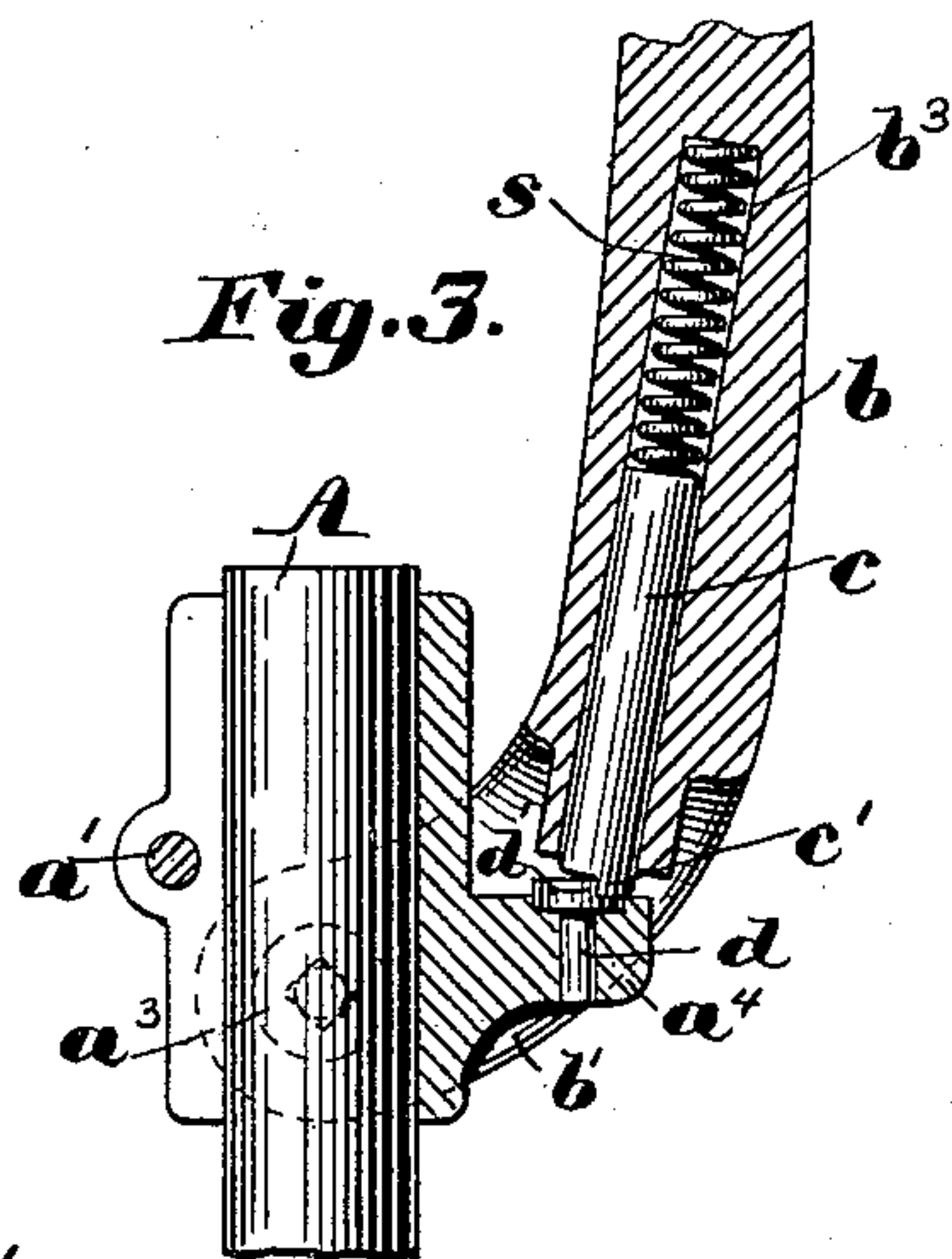
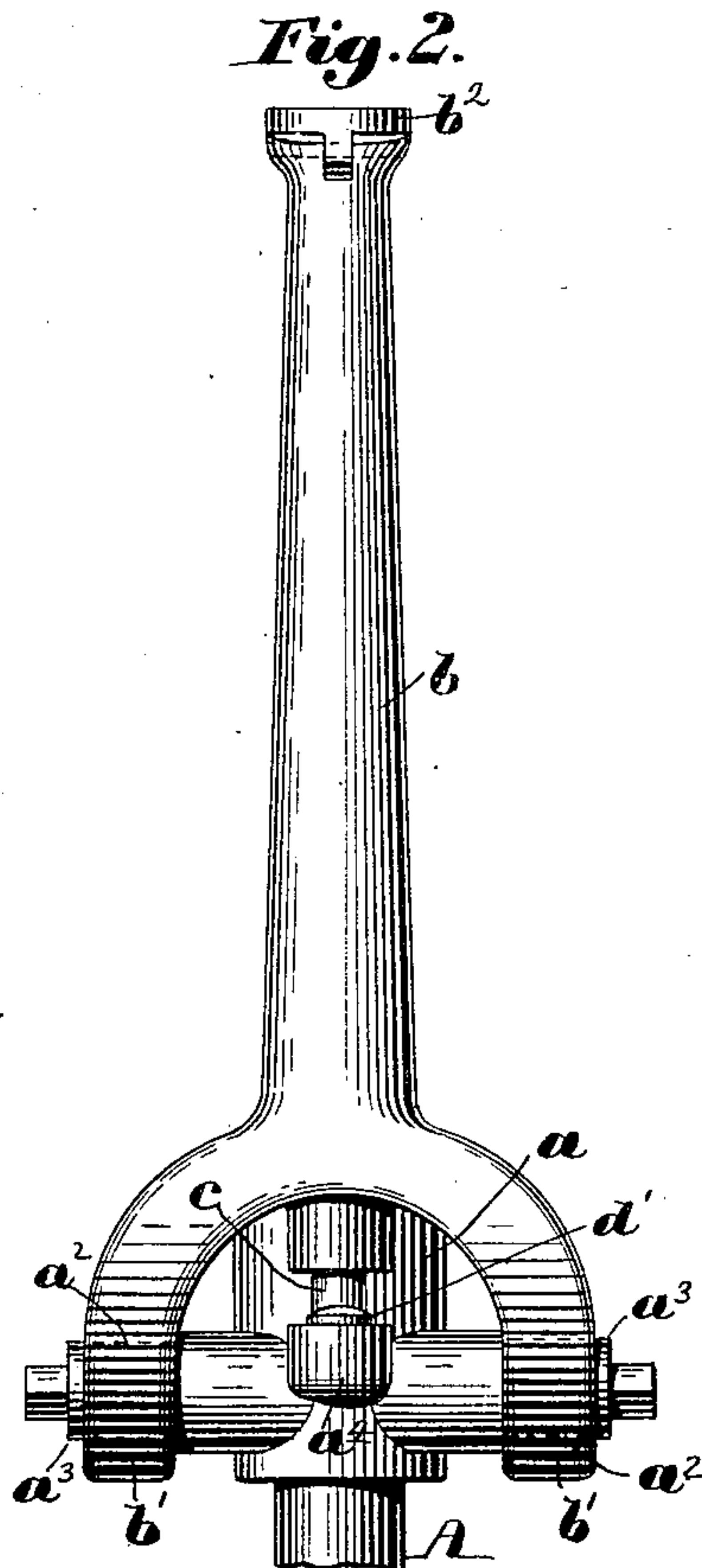
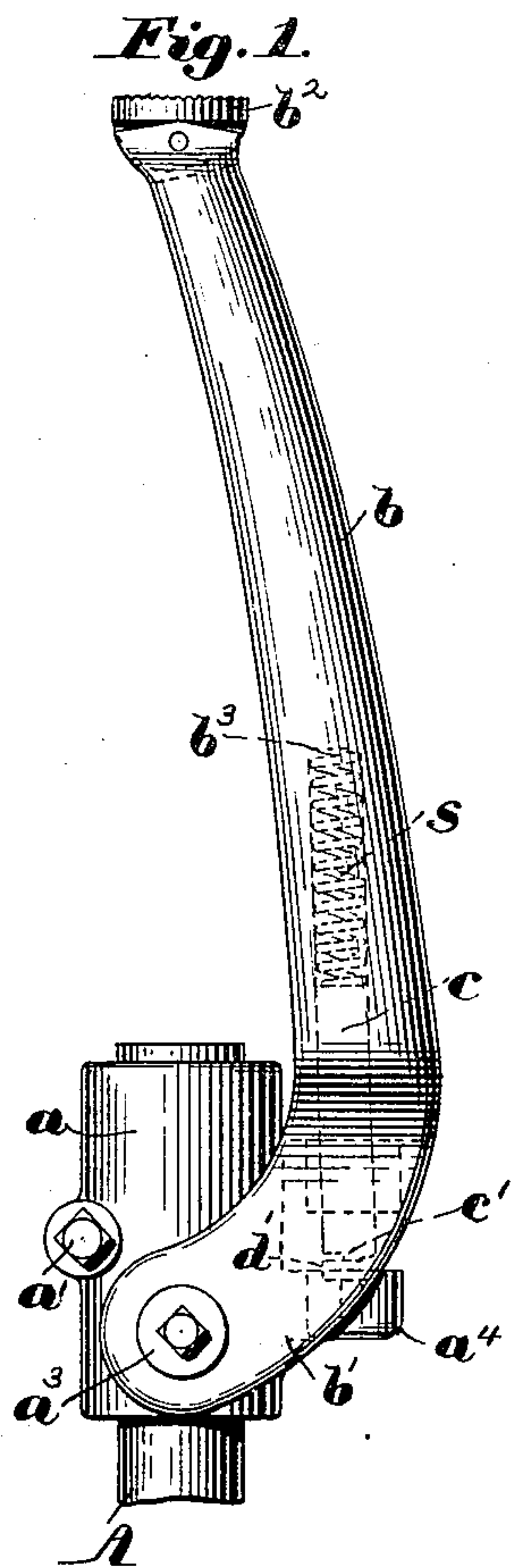
(No Model.)

L. A. CASGRAIN.

WORK SUPPORT FOR NAILING MACHINES.

No. 606,045.

Patented June 21, 1898.



Witnesses:

Walter E. Lombard.
Thomas J. Drummond.

Inventor:

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UNITED STATES PATENT OFFICE.

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WORK-SUPPORT FOR NAILING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 606,045, dated June 21, 1898.

Application filed August 4, 1896. Serial No. 601,576. (No model.)

To all whom it may concern:

Be it known that I, LOUIS A. CASGRAIN, a subject of the Queen of Great Britain, residing at Winchester, county of Middlesex, State of Massachusetts, have invented an Improvement in Work-Supports for Nailing-Machines, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention has for its object the production of a work-support for boot and shoe nailing machines, to be mounted on the usual horn-spindle, whereby the support will be moved to always sustain the work at the nailing-point and to maintain its proper position relative to the work-gage as the operator guides the boot or shoe and without necessitating the tipping thereof at times. I accomplish this object by mounting the work-support on the horn-spindle in such manner that it tends to maintain the work pressed toward the usual gage in a yielding manner, whereby the operator is greatly assisted in providing a firm support for the work directly in line with the path of movement of the nail-driving device.

The work-support when swung fully in or out is maintained in such position by a retaining device until positively moved therefrom by the operator, so that the work can be more conveniently placed upon or removed from the support.

Figure 1, in side elevation, represents a work-support embodying my invention in operative position and mounted on the usual horn-spindle common in boot and shoe nailing machines. Fig. 2 is a front elevation thereof, and Fig. 3 is a partial vertical section of the work-support in inoperative position.

The horn-spindle A, of usual construction, has clamped thereon a split hub a , held in place by a suitable bolt a' , said hub having oppositely-extended lateral bosses a^2 , threaded to receive bearing-studs a^3 . These studs are extended through holes in the forked or bifurcated lower end b' of the work-support b , shown as an upturned arm or bar provided

at its upper end with a tipping, preferably roughened, plate b^2 , upon which the work rests.

As shown in Fig. 3 and in dotted lines, Fig. 1, the work-support b is longitudinally recessed in its lower end at b^3 to receive a locking-plunger c , cut away at its extended end to leave a transverse shoulder c' , a spring a in the bottom of the recess b^3 tending to project the plunger. The hub a is provided with a foot a^4 , extended therefrom at right angles to the bosses a^2 and between the legs b' of the work-support, said foot having a hole to receive a stud d , having a head provided with a transverse shoulder d' to cooperate with the locking-plunger c' , the lower portion of the head being outermost to permit swinging of the work-support outwardly, as shown in Fig. 3.

When the work-support is in operative position, Fig. 1, with the upper end thereof in vertical alinement with the horn-spindle A, the said work-support b being bent in the direction of its length for that purpose, the end of the plunger c bears upon the head of the stud d with a substantially vertical pressure, while permitting the support to yield slightly during the nailing operation.

The line of pressure is at one side of the vertical axis of the horn-spindle, and the pressure exerted by the spring s is sufficient to retain the work-support yieldingly in operative position until positively moved therefrom. This movement is effected by the operator, who draws the work-support b toward him till the tip of the plunger rests on the cut-away portion of the head of the stud d , the shoulders c' d' engaging each other and retaining the work-support in the position shown in Fig. 3, the spring maintaining such cooperative action of the shoulders and also serving to prevent further outer movement of the work-support, so that the operator can conveniently remove a boot or shoe from or place it upon the work-support.

My invention is not restricted to the precise construction and arrangement herein shown, as the same may be modified without departing from the spirit and scope of my invention.

Having fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In an apparatus of the class described, 5 a spindle, an upturned work-support pivotally mounted thereon, to swing in a vertical plane, and a retaining device at the lower end of and to automatically hold the work-support in operative or inoperative position until released by positive movement of said 10 work-support, substantially as described.

2. In an apparatus of the class described, a spindle, a work-support mounted thereon to rock in a vertical plane, and a yielding con- 15 nection between said spindle and work-support, whereby the latter may give laterally relatively to the spindle when subjected to positive force, to thereby provide at all times a support for the work, the plane of move- 20 ment of said support being in line with the path of movement of the device for inserting the fastenings into the work, substantially as described.

3. In an apparatus of the class described, 25 a spindle, a work-support pivotally mounted thereon to swing in a vertical plane, a spring-controlled plunger carried by and longitudinally movable in the lower end of said support, and a stationary, cooperating member, 30 engagement therewith by the plunger maintaining the work-support in operative or inoperative position, until released by positive

movement of the work-support to overcome the force of the spring, substantially as described. 35

4. A spindle, a hub thereon having laterally-extended bearings, a work-support mounted to be rocked on said bearings, a shouldered abutment on the hub, and a cooperating 40 spring-controlled plunger carried by the work-support and having its outer end shouldered, to retain the work-support in operative or inoperative position, substantially as described.

5. In an apparatus of the class described, a spindle, a work-support bent in the direc- 45 tion of its length and pivotally mounted thereon, a fixed, shouldered abutment extended laterally from the spindle, and a yielding plunger carried by the work-support, having a shouldered end to cooperate with the 50 shoulder of said abutment when the work-support is in inoperative position, and to bear with substantially vertical yielding pressure upon the abutment at one side of the spindle when the work-support is in opera- 55 tive position, substantially as described.

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

LOUIS A. CASGRAIN.

Witnesses:

JOHN C. EDWARDS,
ALEX. C. PROUDFIT.