No. 636,644. Patented Nov. 7, 1899.

H. H. DONOVAN.

LASTING JACK.

(Application filed Feb. 28, 1898.)

(No Model.)

Fig. 1.

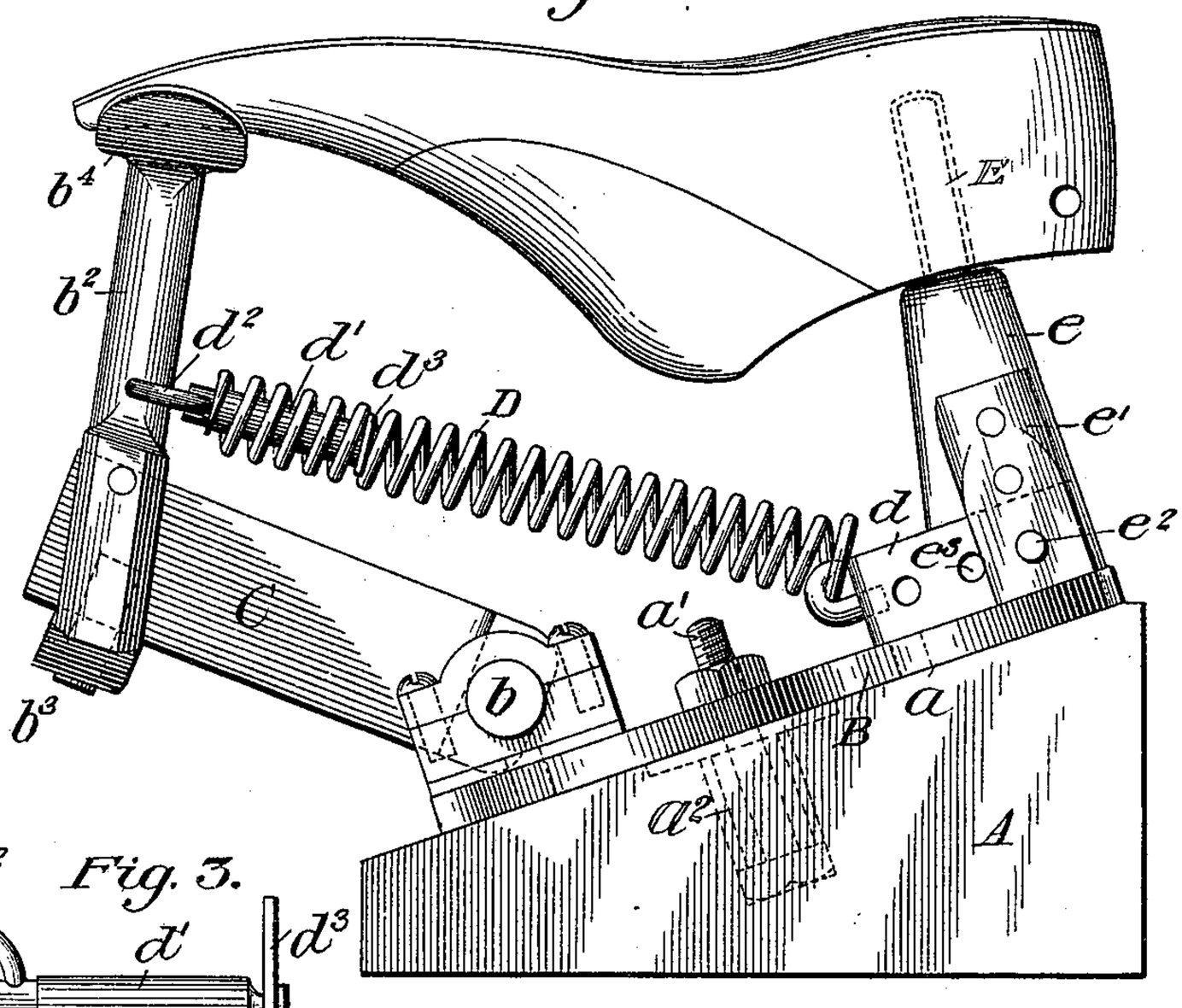

Fig. 3.

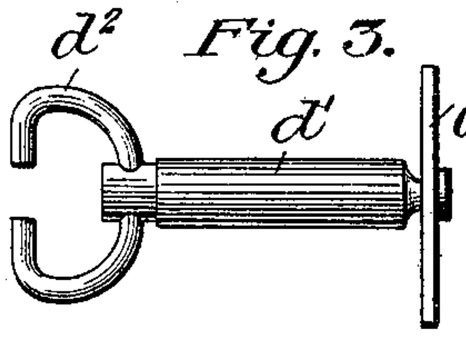

Fig. 2.

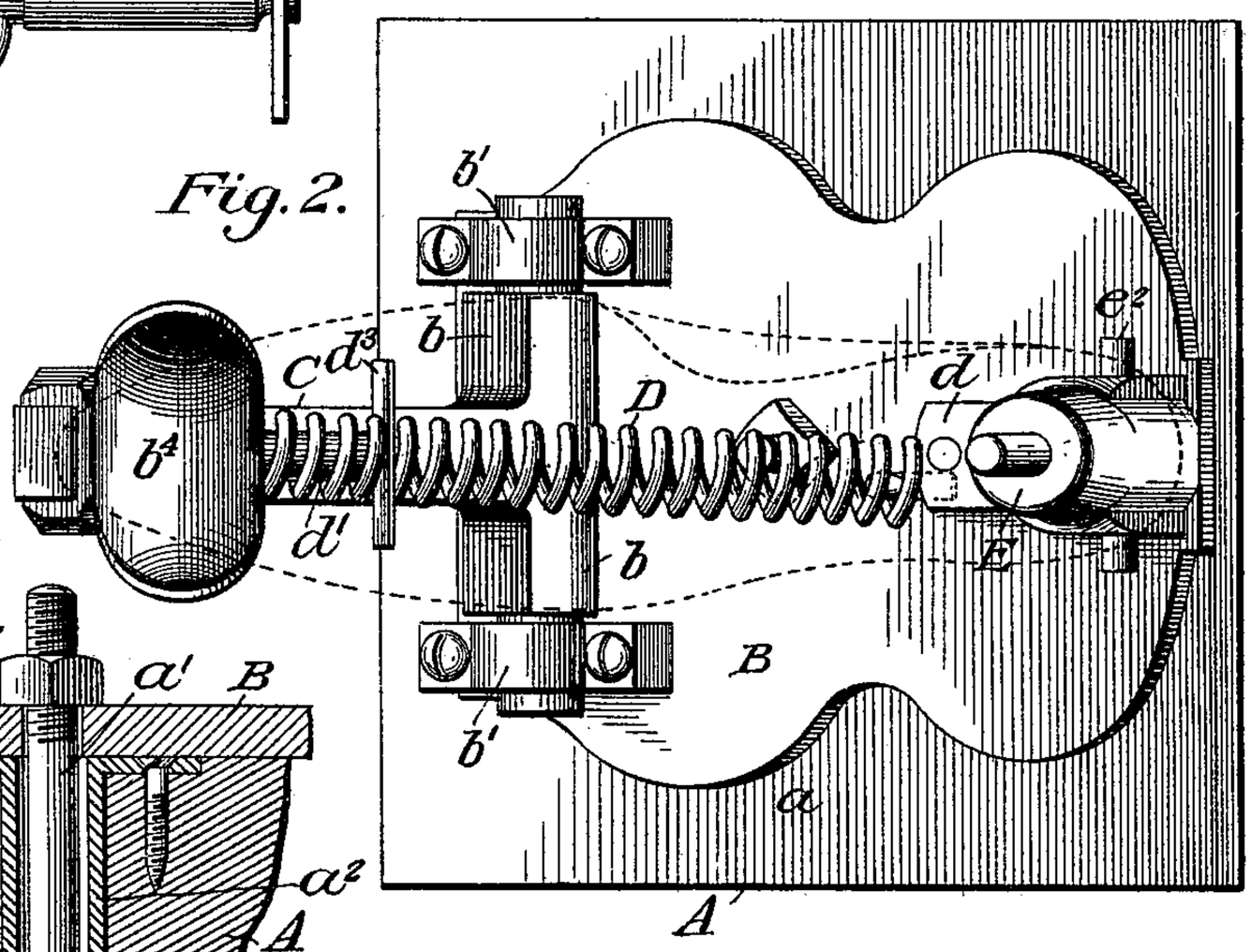

Fig. 4.

Witnesses.
James H. Dwyer
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UNITED STATES PATENT OFFICE.

HORACE H. DONOVAN, OF ABINGTON, MASSACHUSETTS.

LASTING-JACK.

SPECIFICATION forming part of Letters Patent No. 636,644, dated November 7, 1899.

Application filed February 28, 1898. Serial No. 672,474. (No model.)

To all whom it may concern:

Be it known that I, HORACE H. DONOVAN, of Abington, in the county of Plymouth and State of Massachusetts, have invented certain new and useful Improvements in Lasting-Jacks; 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.

This invention contemplates certain new and useful improvements in lasting-jacks.

The object of the invention is to provide an improved jack whereby the pulling over of the upper on the last may be readily and easily accomplished, better results being obtained, and the strain of holding the shoe in the hands while working is entirely avoided.

A further object is to provide a jack of this character applicable for large or small shoes and by which a shoe may be brought into any desired position, avoiding the use of mechanism for raising or lowering the work.

The invention will be hereinafter fully set forth, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a side elevation. Fig. 2 is a plan view, a last being indicated in dotted lines. Fig. 3 is an enlarged view of the spring-tension regulator. Fig. 4 is a vertical sectional view, with parts broken away, showing the pivot-bolt of the jack-base.

Referring to the drawings, A designates a base which is composed of a block, the upper surface a of which is inclined.

B is a base-plate which is pivoted centrally on base A by means of a nutted bolt a' passed upwardly through a cylindrical sleeve a^2, set down in the base A. This bolt so holds the plate B that the latter may be turned axially on said bolt over the inclined surface of the base-block.

C is an arm having lateral trunnions b loosely mounted at their ends in bearings b', set on base-plate B. This arm has an angularly-extended branch b^2, which may be formed integral therewith, although it is shown as being secured thereto by a set-screw b^3, which engages the under side of arm C when the latter is extended through a slot in the branch b^2. On the upper end of this branch of arm C is a toe-block b^4, the upper surface of which is concaved. This toe-block is fast and cannot be moved independently of the swinging arm C—that is, when the branch of the latter is fixedly held.

D is a coil-spring which at one end is hooked to a block d, projecting from the base-plate B, and at its outer end this spring is connected to the branch of arm C in such manner that the position of the arm may be changed at pleasure and the tension of the spring regulated. This I accomplish by means of an adjusting device, which consists of a plate d', located longitudinally within the convolutions of the spring D and having at its outer ends two hooks d^2, which engage the angular branch of arm C. On the inner end of this plate d' is a swiveled button d^3, which, being at right angles to said plate and in engagement with the coils of the springs, will hold the said plate d' at any point at which it may be adjusted. By turning this button, causing it to move the plate d' inwardly or outwardly in relation to the spring, the position of the arm C may be regulated and the tension of the spring increased or diminished.

E is the heel-spindle, which projects upwardly from a block e, adjustably mounted on block d—that is, parallel side plates e' of block e inclose or hug block d, and a bolt e^2, passed through coincident holes in said plates e' and any one of a series of holes e^3 in block d, will hold the heel-spindle at the desired point relatively to the swinging arm C. This adjustment of the heel-spindle is intended to accommodate lasts of different sizes, since in lasting boys' or youths' shoes the heel-spindle must be moved nearer to the swinging arm C.

In practice the arm C is brought to the required position according to the size of the last on which the work is to be done. For instance, at the maximum point—that is, with the button of the adjusting device adjacent to the extreme end of the spring—the arm will be in position for a No. 10 or No. 12 man's last, which when placed on the jack will cause the toe-block to engage at the back of the tip. In working on a No. 8 last the button of the adjusting device is turned so as to bring the toe-block into the required position with proper tension of the spring. In fact,

but very little tension is required, since the heel-spindle being stationary the slightest pressure upward of the toe-block holds it firmly. The upper is placed on the last and the latter is then placed straight downward on the jack, the hole in the last being in line with the heel-spindle, and upon a slight pressure forward with the toe of the shoe the swinging arm C allows the last to drop down on the heel-spindle. When the upper is pulled over the toe, the arm gives and comes back with a firmer clutch as the last sinks still lower or reaches its base. It is then firmly on the jack and can be displaced in no way until the workman completes the lasting. Then the last may be quickly and easily removed from the jack. As the work on the toe is completed a slight pressure forward on the arm releases the shoe, and it can be easily lifted from the jack. By mounting the jack on an inclined base over which it has an axial movement much superfluous work is avoided, such as raising or lowering, and by turning the jack on this inclined base a shoe can be readily brought into any desired position.

A lasting-jack constructed in accordance with my invention is extremely simple and inexpensive. Its advantages are apparent to those skilled in the art.

I claim as my invention—

1. A lasting-jack having a stationary heel-rest, a pivoted arm carrying a toe-rest, a coil-spring, held at one end, a plate extended longitudinally within said spring and connected at one end to said arm, and a swiveled button on the other end of said plate, substantially as set forth.

2. The combination with the base-plate having a block, of an arm pivotally mounted on said base-plate having a branch carrying a toe-rest, a heel-rest adjustably connected to said block, and a spring secured at one end to said block and at its other end adjustably connected to said arm, substantially as set forth.

3. The combination with the inclined base, of the plate set on said base, the pivoted arm mounted on said plate and carrying a toe-rest, the adjustable heel-rest mounted on said plate, the spring, held at one end, and the adjusting device connecting said spring to said arm, said spring tending to draw said arm toward said heel-rest, substantially as set forth.

4. A lasting-jack having a base-plate provided with a block formed with a series of holes, a heel-rest having side plates hugging said block, a bolt passed through coincident holes of said side plates and any one of the holes of said block, a pivoted arm carrying a toe-rest, and a spring held at one end and connected at its other end to said arm, substantially as set forth.

5. The combination with the base having an inclined surface, of the base-plate axially mounted on said base and fitting against said inclined surface, a heel-rest rigidly secured to said base-plate, a pivotally-mounted toe-rest carried by said base-plate, and a spring held at one end and connected at its other end to said toe-rest, substantially as set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 27th day of January, A. D. 1898.

HORACE H. DONOVAN.

Witnesses:
MICHAEL H. REDDISH,
AUGUSTUS T. DONOVAN.