

(No Model.)

A. B. CLARK.

LASTING JACK.

No. 371,305.

Patented Oct. 11, 1887.

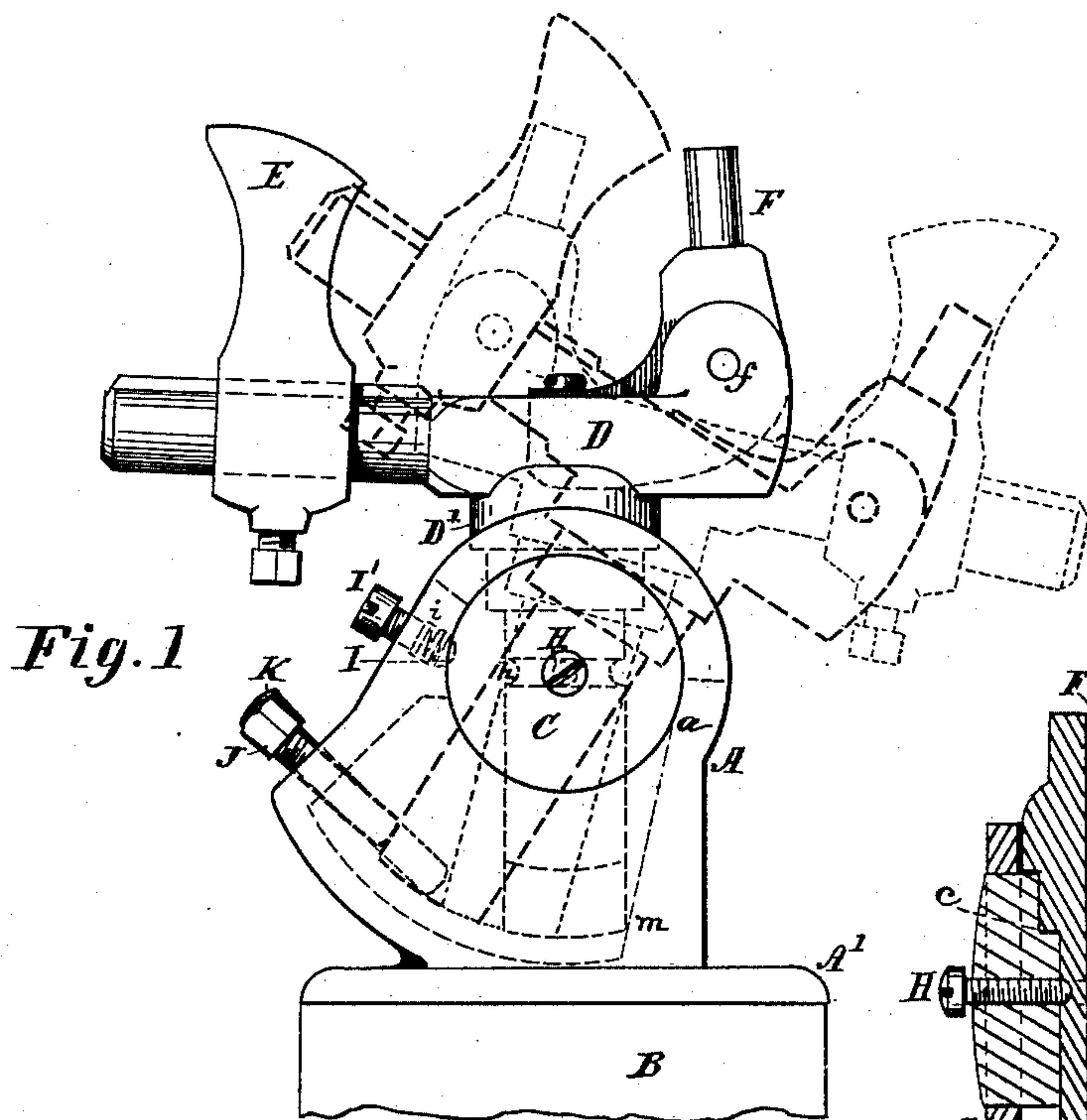


Fig. 1

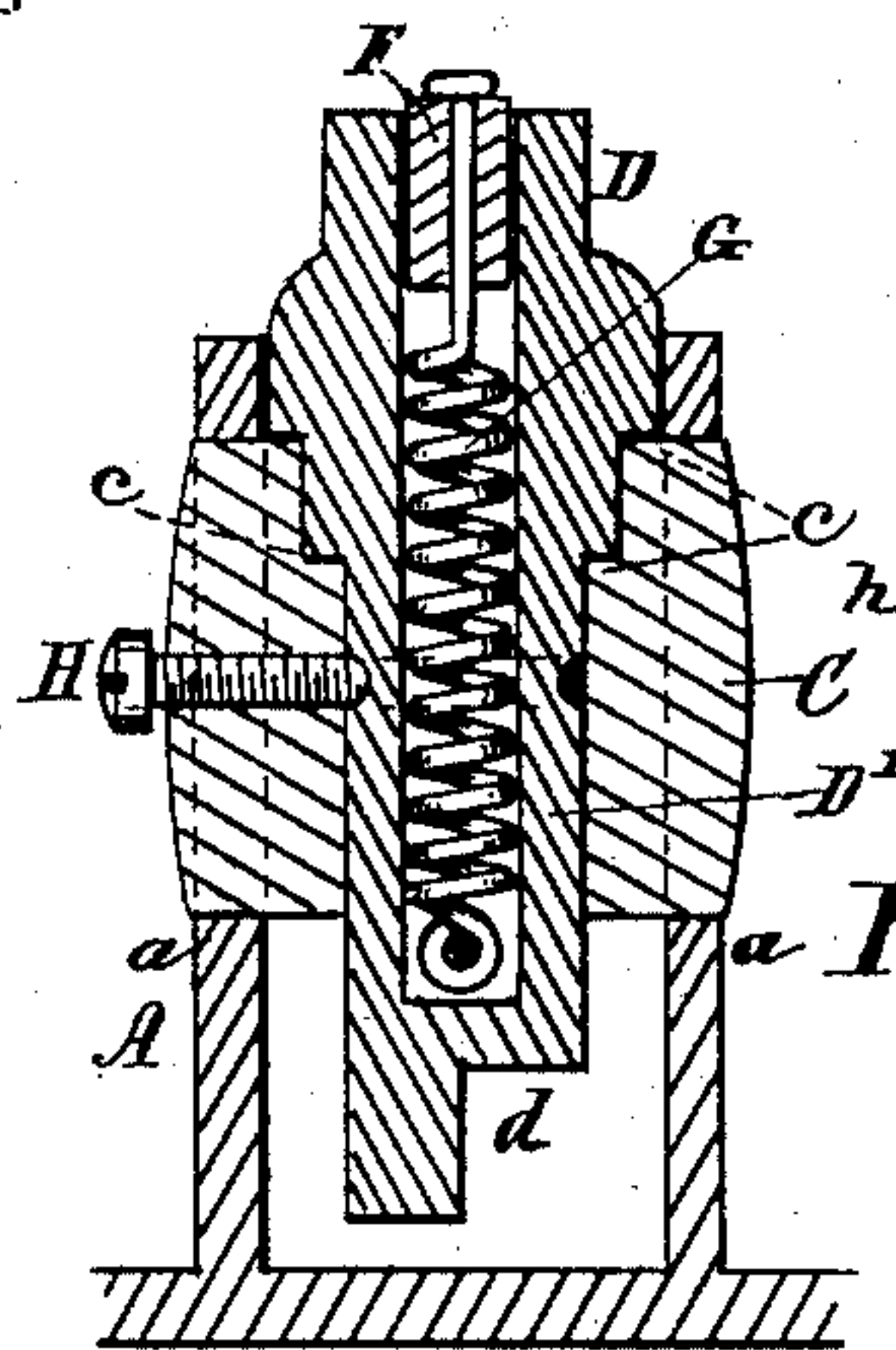


Fig. 3

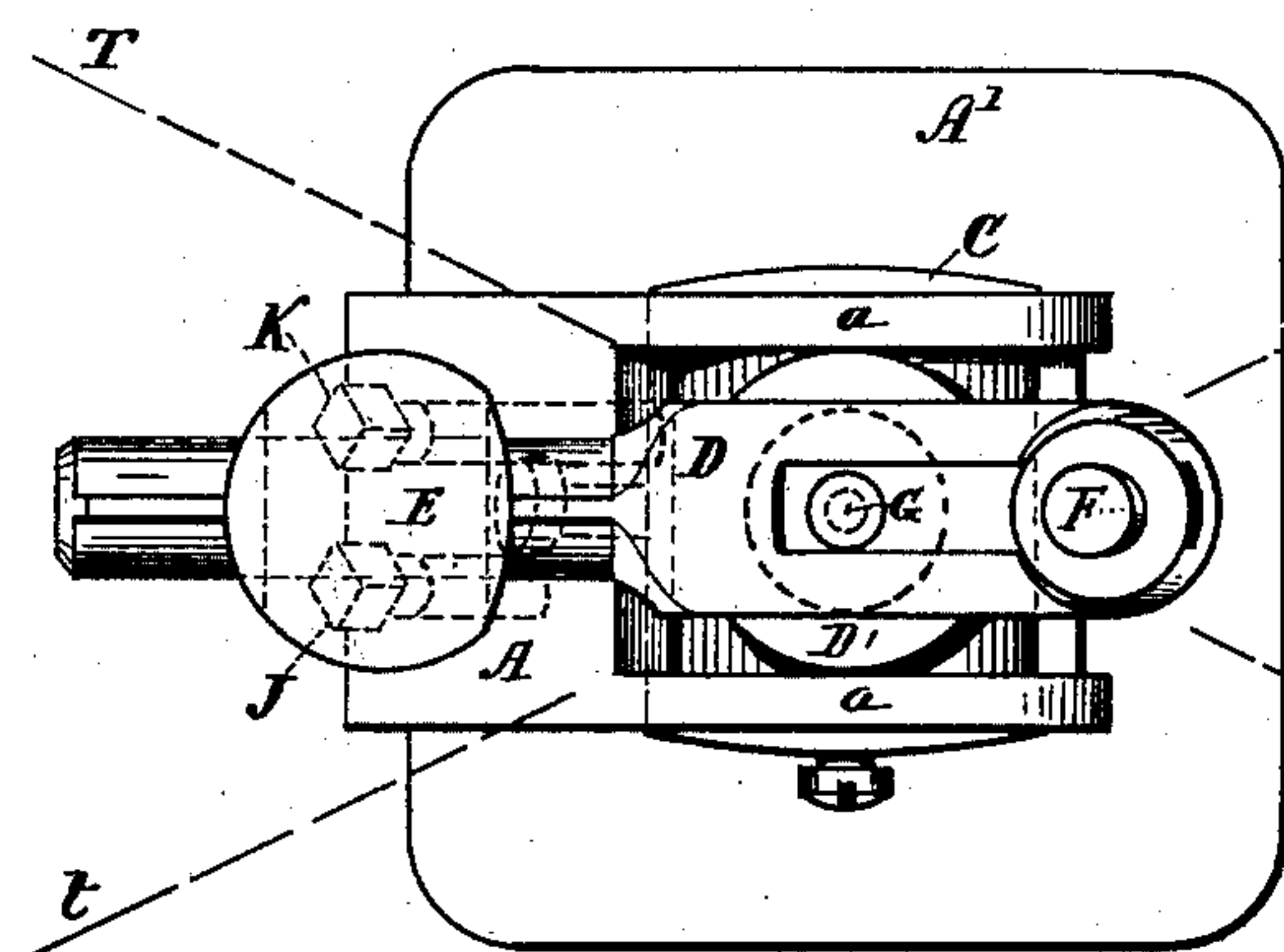


Fig. 2

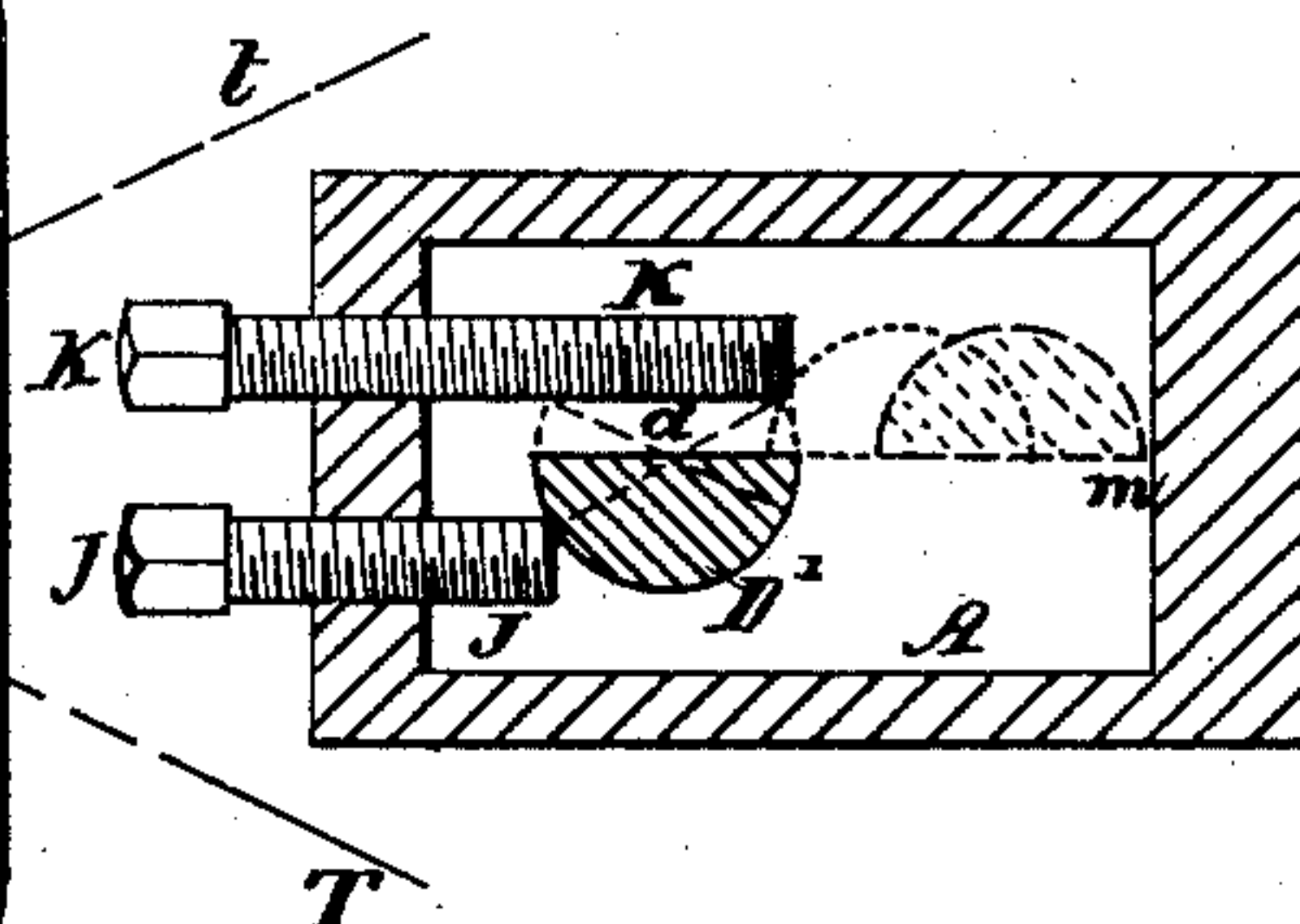


Fig. 4

Witnesses

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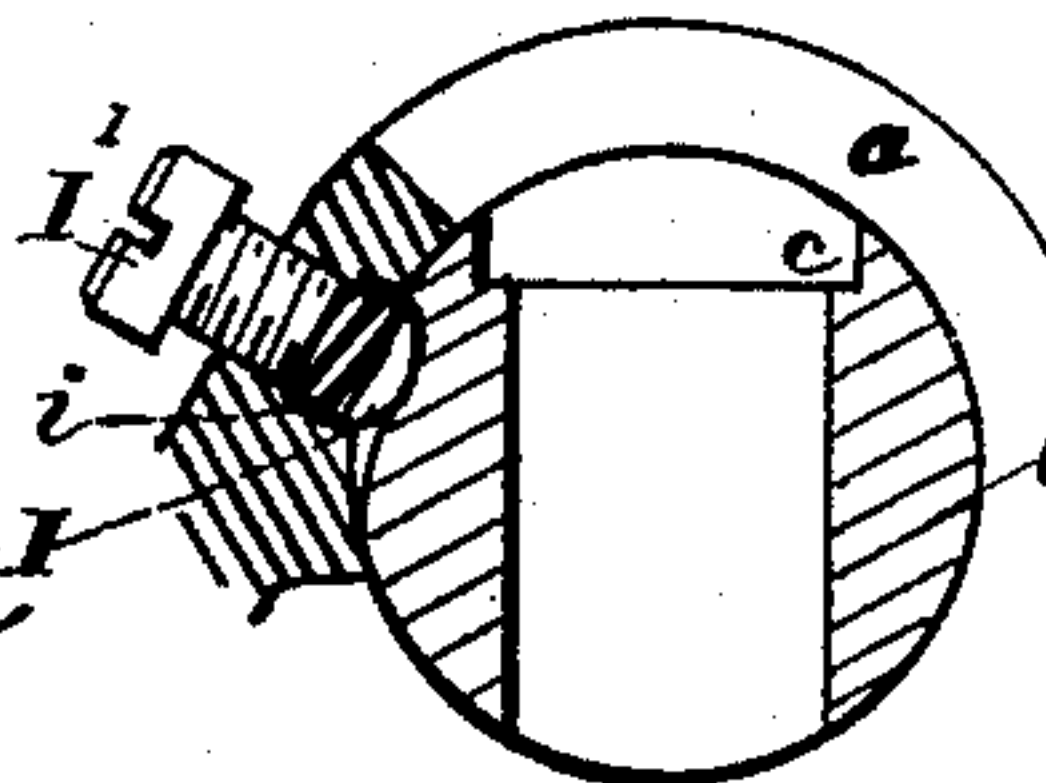


Fig. 5

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UNITED STATES PATENT OFFICE.

ALVAH B. CLARK, OF AUBURN, ASSIGNOR TO RUSSELL M. PETERS, OF WORCESTER, MASSACHUSETTS.

LASTING-JACK.

SPECIFICATION forming part of Letters Patent No. 371,305, dated October 11, 1887.

Application filed April 23, 1887. Serial No. 236,420. (No model.)

To all whom it may concern:

Be it known that I, ALVAH B. CLARK, a citizen of the United States, residing at Auburn, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Lasting-Jacks, of which the following, together with the accompanying drawings, is a specification sufficiently full, clear, and exact to enable persons skilled in the art to which this invention appertains to make and use the same.

The object of my present invention is to provide a simple and convenient lasting-jack for shoe-makers having certain novel features of construction, and whereby the boot or shoe can be readily brought into and retained at certain positions to facilitate the lasting in of the uppers in a convenient and rapid manner; also, to afford a jack wherein the adjustments are retained with a sufficient degree of firmness without the necessity of clamps or treadle devices, which require to be locked and unlocked as the position of the jack is changed. These objects I attain by a lasting-jack constructed and operated in the manner described, the particular subject-matter claimed being definitely specified.

In the drawings, Figure 1 is a side view of a lasting-jack constructed in accordance with my invention, with dotted lines illustrating different positions of adjustment in which the jack-head may be placed. Fig. 2 is a plan view of the same. Fig. 3 is a vertical transverse section through the head-supporting pintle. Fig. 4 is a sectional diagram through the lower part of the supporting block or frame, illustrating the action of the pintle in relation to the stop devices. Fig. 5 is a vertical section showing the frictional pressure device for holding the rocker-block.

In reference to parts, A denotes the support block or frame, provided with the flanged base A', through which to arrange the screws whereby the jack is attached to the bench or post B when set up for use. Said frame A is made hollow in its interior, and is provided with bearings *aa* in its respective sides, wherein is supported a short cylinder or rocking block, C, extending from side to side of the frame and capable of partial rotation with its central axis in horizontal position.

D indicates the head of the jack, on which the last or shoe is supported and retained, substantially in the usual manner, said jack-head being provided with an adjustable toe-piece, E, and a jacking-spindle, F, which latter is pivoted to the head, as at *f*, and its arm is connected to a suitable spring, G, which acts to force the toe of the last down upon the toe-piece E, thereby jacking the last firmly in position. The head D is provided with a supporting-pintle, D', which extends downward through an opening formed in the rocker-block C, and serves as the pivot or center of rotation for the head. One or more shoulders, *c*, are formed on the parts D' and C, for sustaining the shocks of hammering on the last. The pintle is retained within the rocker-block by a set-screw, H, the point of which enters an annular groove, *h*, formed around the pintle, and thus confines the pintle from being withdrawn, while permitting its free rotation for reversing or changing the position of the jack-head. The axis of the pintle is preferably disposed perpendicular to the axis of the rocker-block. The lower end of the pintle, which extends below the rocker-block, is made offsetting, halved, or cut away at one side, as indicated at *d*.

In the rear side of the frame I arrange a frictional presser, I, which acts against the rocker-block to give sufficient friction for retaining said block, with the jack-head, at any position with a sufficient degree of force for practical purposes, but which force can be overcome readily when it is desired to move the head of the jack and shift the position of the work. Said frictional presser in the present instance is made adjustable by means of a screw, I', fitted in a threaded opening through the frame, and which can be turned down upon the presser-spring *i* (see Fig. 5) to increase or diminish the tension of the friction as required. The spring G, which draws down the jack-spindle lever, is disposed within the hollow of the pintle D, as indicated in Fig. 3.

J and K indicate adjustable stops or screw-studs which are fixed in the rear part of the frame A for engaging the lower offsetting end of the pintle D', to assist in the adjustment of the jack-head to the various convenient positions desired for facilitating the lasting in of

the uppers at the toe or heel of the boot or shoe. One of said stops, K, is made longer than the other, J, and they are disposed at such position that they arrest the movement of the rocking block and pintle of the jack-head by contact with the lower divided or offsetting end of the pintle, as said pintle swings back when the head is tilted forward to throw up the toe or heel conveniently to the reach of the operator. The jack is prevented from tipping over from the front by its lower end striking the interior of the frame, as indicated at *m*.

The action of the mechanism is as follows: When the jack is in upright position, as shown in full lines in Fig. 1, the head D and pintle D' can be rotated about the vertical axis in a complete circle. In this position the jack can be turned about for readily drawing in the opposite sides of the upper along the ball and shank of the shoe. When lasting in the toe, the jack may be tipped toward the operator, as indicated by coarse dotted lines, Fig. 1, in which position the offset end of the pintle is brought against the stop J. (See Fig. 4.) When tipped to this position, the jack-head can be only partially rotated on its pintle to the right or left, so as to stand at the quartering positions or at angles, somewhat as indicated by the dotted lines T T and *t t*, thus bringing the toe into convenient position, right or left, for drawing in the upper over the respective corners of the toe. At the same time the jack-head is supported in a manner that will prevent its swinging round or rotating out of place by the hammering on the toe of the last. This resistance to rotation is given by the corner of the halved pintle at *d* coming in contact with the screw or stop K, in the manner indicated by the dotted lines in Fig. 4. If preferred, a permanent lug could be formed on the bottom of the frame for engaging said halved end of the pintle for effecting the same result in substantially equivalent manner.

For lasting in the heel the position of the jack-head is reversed and the jack is tipped, as indicated in fine dotted lines, Fig. 1. When so reversed, the lower end of the pintle is shifted to the opposite side of the central line, (see dotted lines, Fig. 4,) so that when the head is rocked toward the operator the offset end of the pintle is brought into contact with the stop K. This stop, being longer than the stop J, prevents the tipping of the jack to the same degree of inclination as is done with the toe in the first direction. Consequently the jack is held at an inclination best suited to the convenient lasting in of the upper at the heel of the boot. The stops J and K being adjustable, the degree of inclination to which the mechanism can be tipped may be fixed to suit the individual convenience or desire of the operator, and when once established the jack and last will be brought to the same convenient positions consecutively in the work without any especial care on the part of the operator.

Among the advantages incident to my invention may be mentioned that it obviates the necessity of any foot-work or treadles. The movements of the jack are easily and quickly made. The head of the jack is stopped and supported at the several convenient positions for lasting in the heel and toe both at the right and left sides, and the jack does not swing round by striking on the top when at the different positions of adjustment or on the quarter-line T *t*.

It will also be observed that all of the movements of the jack are made without the necessity of unlatching or unlocking any parts, it being simply necessary to grasp the last and with a little exertion of force turn the jack-head to the position required, which is indicated by the end of the pintle striking the stops at the back of the frame, so that the work of lasting can be performed on this jack with great facility and rapidity.

What I claim as of my invention, and desire to secure by Letters Patent, is—

1. In a lasting-jack, the combination, as described, of the supporting-frame, the cylindrical rocking block extending through and supported at its ends in bearings on said frame, with its axis horizontal, the jack-head provided with means, substantially as described, for securing a last or shoe thereon, and having the shouldered pintle extending through and rotatively supported within the rocking block, with its axle perpendicular thereto, and the fastening-stud fitted in the end of said rocking block, with its point engaging a groove in the pintle, substantially as shown and described.
2. The pintle carrying the jacking-head and having an offsetting or semi-cylindrical lower end, and the rocking block wherein said pintle is supported, in combination with stops which engage the lower end of the pintle for limiting the rocking movement of the jack when the heel or toe of the jack-head is elevated, substantially as set forth.

3. The combination of the supporting-frame, the rocking block, and the pintle carrying the jack-head and having an offsetting or semi-cylindrical lower end, and the adjustable stops or screws J and K, respectively engaging said lower end of the pintle when at right or left reversed position, for the purpose set forth.

4. The combination, with the frame A, the rocking block C, and the pintle D', carrying the jack-head D, of a frictional presser operating against the surface of said rocking block, substantially as and for the purpose set forth.

5. The combination, with the frame A, the rocking block C, the pintle D', carrying the jack-head D and supported in said rocking block, and the frictional presser, of means, substantially as described, for regulating the tension of said frictional presser.

6. The combination, with the pintle D', carrying the jack-head D, and the rocker-block C, wherein said pintle is rotatively supported, of stop devices at *m* and J, limiting the tipping action of the jack-head, and means, sub-

stantially such as described, for limiting the lateral rotative action of said pintle and jack-head at quartering positions or at lines T t when the toe is elevated, substantially as and
5 for the purpose set forth.

7. The combination of the jack-head mounted on the hollow rotative pintle and provided with an adjustable toe-piece and a jacking-spindle, a horizontally-rocking block in which
10 said spindle is supported, the jacking-spindle spring arranged within said pintle, the sup-

porting-frame, and a friction device or stop on said frame acting against said rocking block, and means for controlling the rocking movement and adjustment of the jack-head, sub- 15
stantially as and for the purpose set forth.

Witness my hand this 15th day of April, A.
D. 1887.

ALVAH B. CLARK.

Witnesses:

CHAS. H. BURLEIGH,
ELLA P. BLENUS.