

No. 681,516.

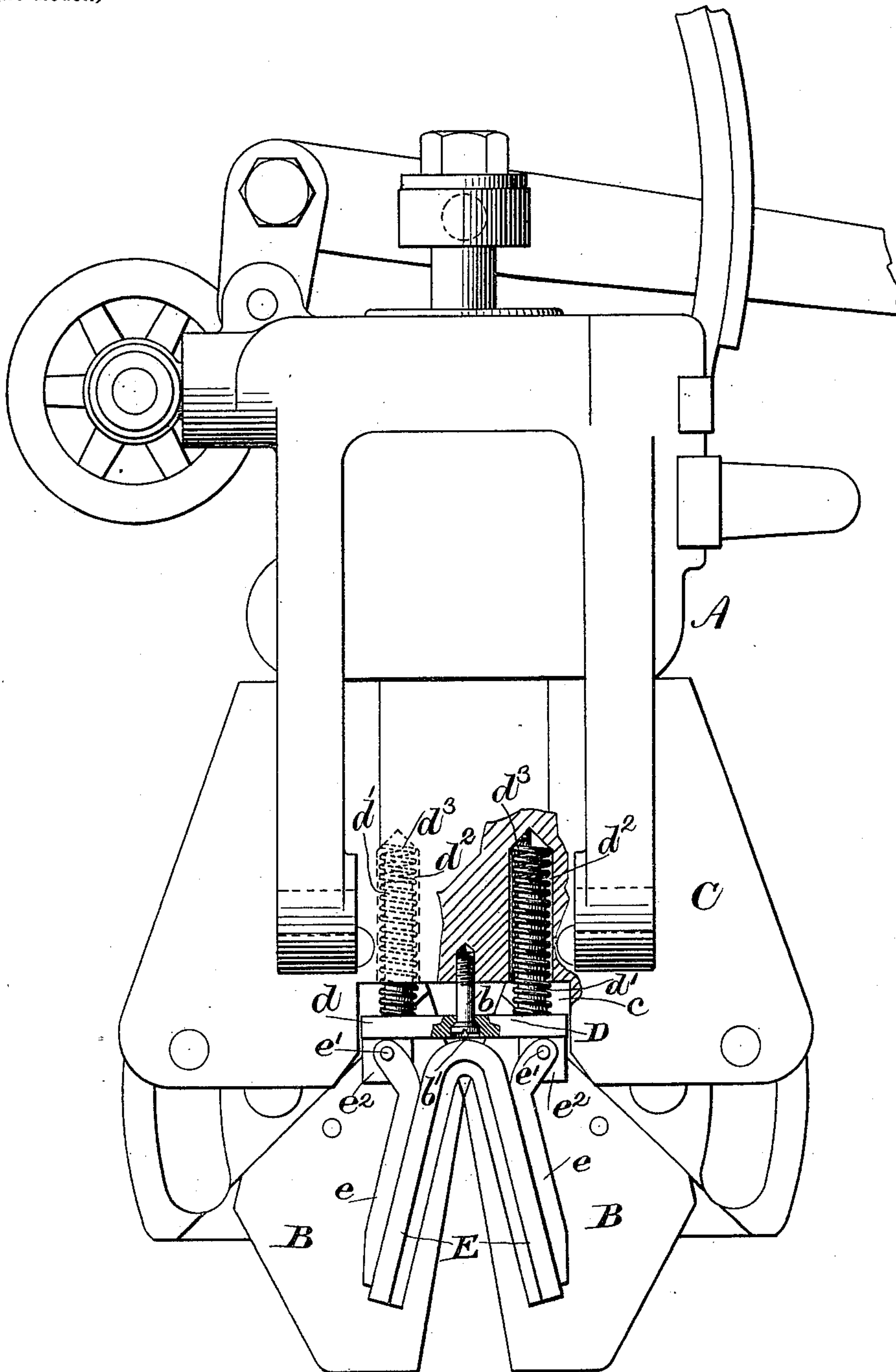
Patented Aug. 27, 1901.

T. SHEA.

LASTING MACHINE.

(Application filed July 31, 1896.)

(No Model.)



WITNESSES

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UNITED STATES PATENT OFFICE.

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LASTING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 681,516, dated August 27, 1901.

Application filed July 31, 1896. Serial No. 601,168. (No model.)

To all whom it may concern:

Be it known that I, THOMAS SHEA, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Lasting-Machines; 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.

The present invention relates generally to that type of lasting-machine embodying in its construction a last band or clamp which is designed to clamp and hold the upper in position during the operation of lasting; and its object is to provide an improved last band or clamp which in and of itself is so constructed that when the last carrying the upper is jacked the last band or clamp will without the assistance of levers, equalizing-bars, or other devices usually employed to operate the same tightly clamp the upper at the toe or heel and hold the same from movement during the lasting operation.

The present invention has for its further object to so arrange the last band or clamp and its controlling mechanism that prior to the closing movement of the band or clamp it will have a limited rubbing or smoothing action on the upper.

To this end my invention consists of the last band or clamp constructed and arranged as hereinafter fully described, and pointed out in the claims.

The present invention is illustrated in the accompanying drawing, wherein similar letters of reference refer to similar parts and in which is illustrated an under side plan view of a toe-lasting head, showing my improved last band or clamp in position thereon, a portion of the base-plate being broken away for the purpose of more clearly showing the construction.

In the drawing, A represents the head of a lasting-machine, carrying the toe-lasting plates or wipers B, and C the under or base plate thereof, all of which parts may be and conveniently are of the same construction as similar parts in the machine shown in Letters Patent of the United States issued to Ed-

ward F. Grandy January 7, 1896, No. 552,834, except as hereinafter noted.

The base-plate C is cut away at *c*, and in the recess thus formed the carrier D, upon which is mounted the last band or clamp, is adapted to have a limited reciprocating movement. The carrier D comprises the plate or abutment *d*, having secured to or formed on its rear face the guide-rods *d'*, which are adapted to reciprocate and be guided in the bearings *d''*, formed in the base-plate C. Within the bearings *d''* and surrounding the guide-rods *d'* are the coiled springs *d'''*, which bear at one end against the base of the bearings *d''* and at the other end against the plate or abutment *d* of the carrier D, the construction being such that a forward yielding movement is imparted to the carrier D. For the purpose of limiting the forward movement of the carrier D, I provide a suitable stop, shown as a headed bolt *b*, fixed in the plate C and passing through an aperture in the plate or abutment *d* and the head of which rests in a countersunk recess *b'* in the front face of the plate or abutment *d*.

The band or clamp E is connected to and supported by the plate or abutment *d* by means of the arms *e*, which are pivoted at *e'* to said plate or to blocks *e''*, fixed to the front face thereof. The arms *e* are preferably of the angular construction shown and are normally inclined outwardly, and to the inner opposing faces thereof the band or clamp E, of any suitable flexible material, such as leather or rubber, is secured by any suitable means. The band or clamp E, as shown, is preferably formed in one piece of sufficient length to extend along the arms to a point approximating the angle or bend and to be bent or curved, as shown, spanning the space between the base of the arms, at which point the band or clamp is unsupported.

The above construction is such that as the sides of the toe of the upper on the last come in contact with the forward portions of the band E the arms *e* will open or spread apart and adjust themselves to the width of the last at this point, and as the extreme toe portion of the upper and last strikes the curved intermediate portion of the band E the strain exerted thereon will cause arms *e* to be drawn

toward each other, thus causing the clamp or band E to be brought into close contact with the upper and last along its entire length, clamping the upper and preventing any movement thereof during the lasting operation. In this connection it is to be noted that the contacting of strap E with stop *b*, as shown in the drawing, seldom, if ever, occurs in the operation of this device, inasmuch as the insertion of the end of a last within the band E spreads the arms *e* to a considerable extent, and therefore moves the curved portion of the band a sufficient distance from the stop *b* to make the device operative.

It will be observed that my last band or clamp is brought into operation upon the jacking of the last and upper and without the necessity of manipulating levers, equalizing-bars, or other devices, and that it will instantly adjust itself to any size and shape of toe and firmly clamp and hold the upper during the operation of lasting. It will be further noted in this connection that since the arms *e* are inclined outwardly and the sides of the toe portion of the upper, as above stated, come in contact with the band or clamp E before the end of the toe the band E will have a limited rubbing or smoothing action on the upper prior to its closing movement, which clamps the upper in the position in which it is held during the lasting operation, thus removing the liability of the upper to wrinkle or crease under the band. It will be further noted that by reason of the band or clamp E being unsupported at its central portion and the arms *e* being free to have a swinging lateral movement the band or clamp will automatically adjust itself to "rights" and "lefts" and to lasts having more or less "swing" or lateral deflection from the shank to the toe.

I have illustrated my invention in connection with toe-lasting devices; but I desire to state that with slight modifications not involving any departure from the principle thereof it could be applied to heel-lasting devices, and I consider such an application thereof clearly within the scope of my invention.

Having fully described my invention and its

mode of operation, I claim as new and desire to protect by Letters Patent of the United States—

1. In a lasting-machine the combination with a head carrying lasting devices, of a last band or clamp comprising outwardly-diverging pivoted arms, a movable abutment supporting said arms, and a pad secured along the inner faces of said arms; and springs interposed between said abutment and a fixed portion of the head, substantially as described.

2. In a lasting-machine, the combination with a head carrying lasting devices, of a last band or clamp comprising angular outwardly-diverging pivoted arms, a movable abutment supporting said arms, and a pad secured along the inner faces of said arms; springs interposed between said abutment and a fixed portion of the head and a suitably-placed stop to limit the forward motion of said abutment, substantially as described.

3. In a lasting-machine, the combination with a head carrying lasting devices, of a band or clamp comprising, angular outwardly-diverging arms, an abutment supporting said arms mounted on the head, and movable longitudinally thereof and a pad secured along the inner faces of said arms; and suitably-placed springs normally holding the abutment in its forward position.

4. In a lasting-machine, the combination with a head carrying lasting plates or wipers, of a last band or clamp comprising outwardly-diverging arms pivotally mounted on said head, a pad secured along the inner faces of said arms, and means to advance the head toward the end of a last whereby the last band or clamp will be caused to engage and clamp the end of the last, substantially as described.

5. In a lasting-machine, the combination with a last band or clamp, of inwardly-bent and outwardly-inclined arms supporting said last band or clamp, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

THOMAS SHEA.

Witnesses:

JOHN ESLER,

GEORGE H. HORNSBY.