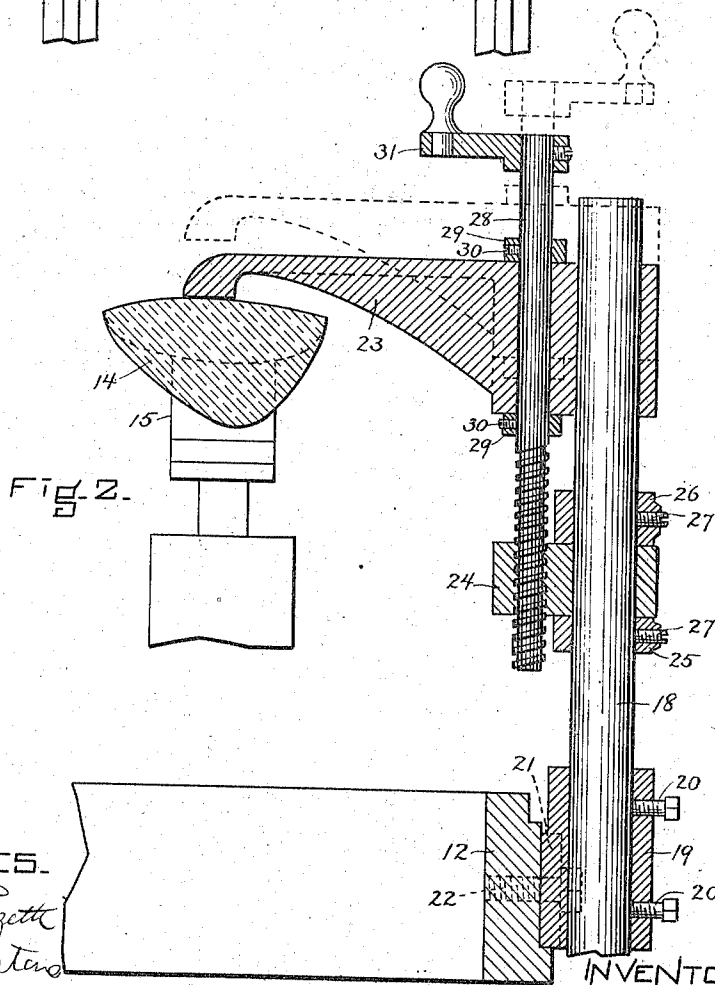
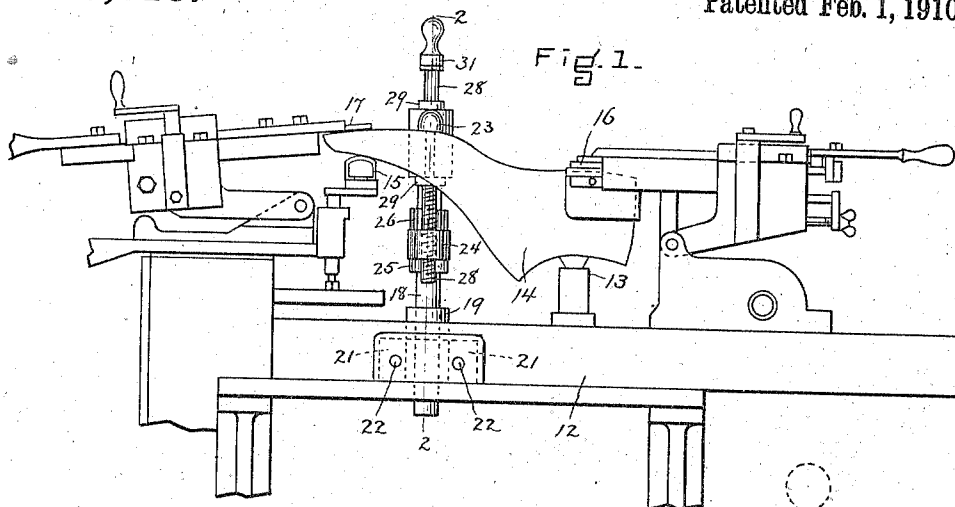


E. F. HEFFERNAN.
 HOLDDOWN ATTACHMENT FOR LASTING MACHINES.
 APPLICATION FILED MAY 18, 1909.

947,818.

Patented Feb. 1, 1910.



WITNESSES.

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UNITED STATES PATENT OFFICE.

EDUARD F. HEFFERNAN, OF BROCKTON, MASSACHUSETTS, ASSIGNOR TO UNITED SHOE MACHINERY COMPANY, OF PATERSON, NEW JERSEY, A CORPORATION OF NEW JERSEY.

HOLDDOWN ATTACHMENT FOR LASTING-MACHINES.

947,818.

specification of Letters Patent.

Patented Feb. 1, 1910.

Application filed May 18, 1909. Serial No. 496,734.

To all whom it may concern:

Be it known that I, EDUARD F. HEFFERNAN, of Brockton, in the county of Plymouth and State of Massachusetts, have invented certain new and useful Improvements in Holddown Attachments for Lasting-Machines, of which the following is a specification.

This invention relates to a lasting machine having a spindle for supporting the heel portion of a last, a toe rest for supporting the toe portion of the last, and wipers which are movable lengthwise of the last and over the heel and toe portions of the bottom of the same to wipe the corresponding portions of the edges of the upper over the bottom of the last.

The invention has for its object to provide improved means for holding down the last and preventing its upward displacement during the lasting operation.

The invention consists in the improvements which I will now proceed to describe and claim.

Of the accompanying drawings, forming a part of this specification,—Figure 1 represents a side elevation of portions of a lasting machine provided with my improved attachment. Fig. 2 represents a section on line 2—2 of Fig. 1.

The same reference characters indicate the same parts in both figures.

In the drawings,—12 represents the frame of a lasting machine which is provided with the usual support 13 for the heel portion of a last 14, said support being formed as a spindle adapted to enter the usual spindle socket in the last, a toe rest 15 adapted to support the toe portion of the last, and suitable wipers 16 and 17 which are movable longitudinally over the bottom of the last, and are adapted to wipe the heel and toe portions of the margin of an upper over the corresponding portions of the bottom of the last.

The machine including the parts above mentioned may be of any suitable construction, and operated in any suitable manner.

In carrying out my invention, I provide as an attachment for a machine of the character stated, a hold down adapted to be applied to the bottom of the last between the heel and toe wipers, and to be quickly applied to and removed from the last, and displaced to a position at one side of the last when its use is not required, the attachment

as a whole being adapted to firmly support the last against upward displacement during the lasting operation.

My improved attachment comprises a standard 18 having means for engagement with the frame 12, the means here shown comprising a socket 19 to which the standard 18 is attached by set screws 20, said socket having ears 21 attached by screws 22 to a portion of the frame 12, said portion being so located that when the standard is in place, it occupies a vertical position at one side of the space occupied by the last.

23 and 24 represent arms mounted to swing in unison upon the standard 18, said arms being located at different heights on the standard. The upper arm 23 is elongated and formed to bear upon the bottom of the last 14, or upon an inner sole placed thereon. The lower arm 24 is considerably shorter than the upper arm, so that it may project from the standard under the upper arm without coming in contact with an adjacent part of the machine. The lower arm 24 is confined against vertical movement on the standard by means of collars 25 and 26 which are adjustably secured to the standard by means of set screws 27. The upper arm is vertically movable on the standard so that it may be raised and lowered as indicated by full and dotted lines in Fig. 2. The arms 23 and 24 are provided with adjusting means having provisions for vertically adjusting the upper arm, confining it against vertical movement at any position to which it may be adjusted, and resisting upward pressure of the last against the upper arm, said adjusting means being adapted to swing horizontally with the arms. In the embodiment of my invention here shown, the said adjusting means include a rod 28 which is journaled in a bearing or socket formed for its reception in the inner portion of the upper arm, said rod being freely rotatable in the upper arm and confined against endwise movement relatively thereto by collars 29 attached by set screws 30 to the rod and bearing against the upper and lower edges of the upper arm. The lower portion of the rod 28 is screw threaded and engaged with an internally threaded socket formed for its reception in the lower arm 24.

It will be seen from the foregoing that a rotary movement of the rod 28 in one direc-

tion will cause a downward movement of the upper arm, so that when the arms are swung to position to cause the upper arm to project over the bottom of the last and the upper arm is adjusted downwardly, its outer end will come to a firm bearing on the bottom of the last, said arm being supported against upward pressure of the last against it conjointly by the standard 18, the collars 25 and 26, the arm 24, the rod 28, and the collars 29. When the rod 28 is turned in the opposite direction, the upper arm is raised from the last, the two arms being adapted to swing in unison to remove the upper arm from the space above the last, and locate the same entirely out of the way. The rod 28 is preferably provided with an operating crank or handle 31.

I am aware that a lasting machine has been provided with a swinging arm mounted to swing on a center located at one side of the last, the swinging end of the arm being provided with a screw threaded socket and a screw threaded rod engaged therewith and adapted to bear on the bottom of the last.

My improved attachment is distinguished from the prior art by the fact that the part which bears upon the last to hold it down is an arm which is supported against upward pressure not only by a fixed standard attached to the frame of the machine, but also by a lower arm mounted to swing in unison with the last-engaging arm, and adjusting means coöperating with the two arms and having provisions for vertically adjusting the upper arm, confining it against vertical movement in any position to which it may be adjusted, and resisting upward pressure against the upper arm.

I do not limit myself to the details of construction here shown and described, and may variously modify the same to produce the described results without departing from the spirit of my invention.

I claim:

1. A lasting machine attachment comprising a standard having means for engagement with the frame of a lasting machine, and two arms of different length mounted at different heights on said standard and adapted to swing horizontally thereon in unison, the longer upper arm being vertically movable on the standard and formed to project over a last supported by the machine, while the shorter lower arm is confined against vertical movement relatively to the standard, said arms being provided with adjusting means having provisions for vertically adjusting the upper arm, confining it against vertical movement at any position to which

it may be adjusted, and resisting upward pressure against the upper arm.

2. A lasting machine attachment comprising a standard having means for engagement with the frame of a lasting machine, an upper arm adapted to swing horizontally and to move vertically on the standard, and formed to project over a last supported by the machine, a shorter lower arm adapted to swing horizontally with the upper arm on the standard, and confined against vertical movement thereon, said lower arm having a screw threaded socket, and an adjusting rod journaled in the upper arm and engaged therewith to partake of its vertical movement, said rod having a screw threaded portion engaging the said threaded socket.

3. A lasting machine attachment comprising a standard having means for engagement with the frame of a lasting machine, two arms of different length mounted at different heights on said standard and adapted to swing horizontally thereon in unison, the longer upper arm being vertically movable on the standard and formed to project over a last supported by the machine, while the shorter lower arm is confined against vertical movement relatively to the standard, said arms being provided with adjusting means having provisions for vertically adjusting the upper arm, confining it against vertical movement at any position to which it may be adjusted, and resisting upward pressure against the upper arm, and means for vertically adjusting the lower arm and for securing it against vertical movement in any position to which it may be adjusted.

4. A lasting machine attachment comprising a standard having means for engagement with the frame of a lasting machine, an upper arm adapted to swing horizontally and to move vertically on the standard, and formed to project over a last supported by the machine, a shorter lower arm adapted to swing horizontally with the upper arm on the standard, collars adjustable vertically on the standard with the lower arm and confining the latter against vertical movement in the standard, said lower arm having a screw threaded socket, and an adjusting rod journaled in the upper arm and engaged therewith to partake of its vertical movement, said rod having a screw threaded portion engaging the said threaded socket.

In testimony whereof I have affixed my signature, in presence of two witnesses.

EDUARD F. HEFFERNAN.

Witnesses:

JOHN H. GORDON,
HELEN L. JONES.