

A. A. MACLEOD.
 HOLDDOWN FOR LASTING MACHINES.
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1,237,356.

Patented Aug. 21, 1917.

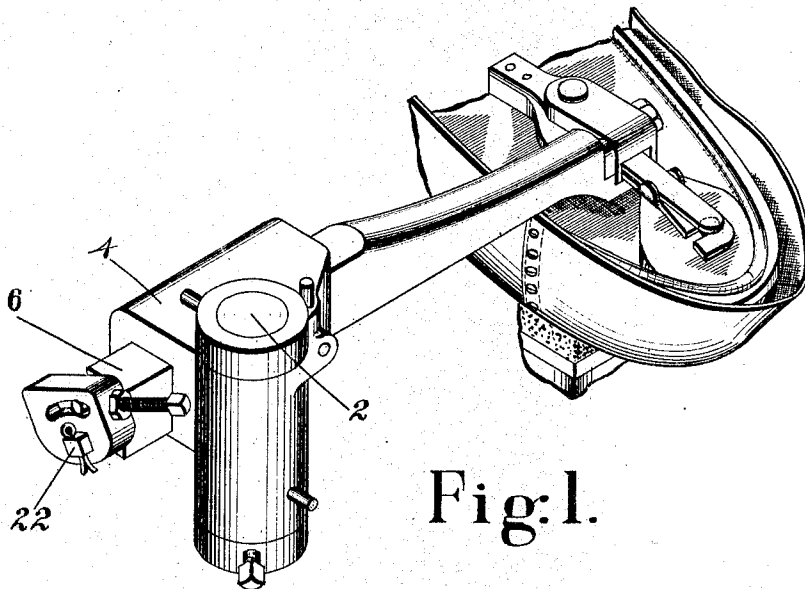


Fig. 1.

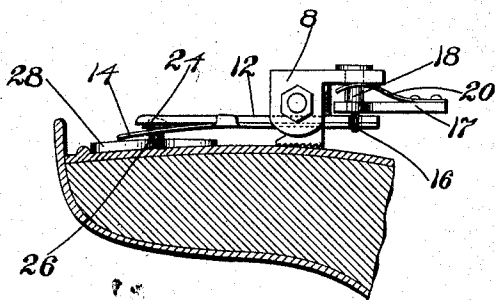


Fig. 2.

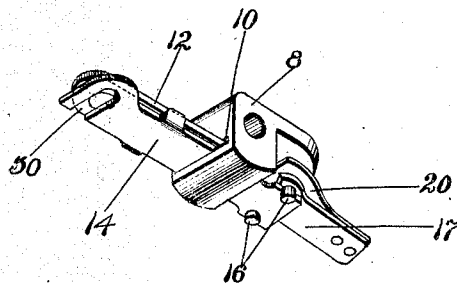


Fig. 3.

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HOLDDOWN FOR LASTING-MACHINES.

1,237,356.

Specification of Letters Patent.

Patented Aug. 21, 1917.

Application filed November 9, 1916. Serial No. 130,457.

To all whom it may concern:

Be it known that I, ALBERT A. MACLEOD, a citizen of the United States, residing at Swampscott, in the county of Essex and State of Massachusetts, have invented certain Improvements in Holddowns for Lasting-Machines, of which the following description, in connection with the accompanying drawings, is a specification, like reference characters on the drawings indicating like parts in the several figures.

This invention relates to hold-downs for lasting machines and particularly to new and improved means for holding a hold-down plate upon its supporting finger. A hold-down of a type to which a construction embodying this invention is applicable is shown and described in United States Letters Patent No. 1,188,403, granted June 27, 1916, on application of Louis M. Brown.

The toe portion of the upper of a shoe usually has placed between the upper and the lining a piece of stiffening material, for example, leather or fabric. This stiffener with the upper materials forms, in the lasted shoe, the box toe. The stiffener or stiffening material which is inserted between the upper and the lining is frequently referred to as the "toe box."

Recently, there has come into extensive commercial use a toe stiffener or toe box composed of a piece of felt or other fabric impregnated with a cementitious substance which prior to the lasting operation has to be softened by steaming or by heat otherwise applied and which by the time the lasting operation has been completed has cooled and set.

When hold-downs having the construction shown in the patent above referred to are used in lasting shoes provided with a toe box of the kind above referred to, it has been found that frequently the hold-down plate sticks quite securely to the innersole and innersole rib for the reason that some of the heat softened cementitious substance with which the toe box is saturated is squeezed out by the pressure of the wipers in the lasting operation and subsequently hardens in contact with the plate and innersole. Under such conditions when the hold-down pressure is released and the hold-down arm is swung into inoperative position, the plate may adhere sufficiently to the innersole to

cause the plate to become detached from the finger.

A feature of the present invention consists in improved plate attaching mechanism which, while affording means for the ready detachment of the plate, will insure that the plate remain attached to its supporting finger during operation of the machine to do its work. As shown herein, the construction provides means for preventing detachment of the plate by stress tending to produce relative movement of the plates and finger, longitudinally of the finger, that is, lengthwise of the shoe, while at the same time affording convenient means for detachment of the plate from the finger by relative movement of the plate and finger laterally of the finger in one direction.

In the drawings,

Figure 1 is a perspective view of a hold-down embodying this invention;

Fig. 2 is a side view of the hold-down showing the shoe in longitudinal section; and

Fig. 3 is a perspective view showing the under side of the hold-down finger.

Referring to Fig. 1, the vertically movable post by which the hold-down is operated to apply pressure to the shoe bottom is indicated at 2. The post 2 carries rotatably mounted thereon a block 4 through which a hold-down arm 6 extends and in which it is movable for lateral adjustment of the hold-down.

At the outer end of the arm 6 is mounted a block 8 having a slot 10 through which a hold-down finger 12 extends.

Beneath the finger 12 and passing with it through the slot 10 is a relatively resilient member 14 and both the finger and the member 14 are retained in the block 8 by pins which engage notches in the opposite edges of the finger 12 and the member 14. The pins are fixed in a member 17 having a stud 18 which is movable vertically against a leaf spring 20 to permit the pins to be raised above the finger 12 and the member 14 and allow their removal from the slot 10. The block 8 is connected to a torsion spring 22 passing longitudinally through the arm 6 by which the forward end of the finger is held yieldingly toward the shoe.

The forward end of the finger 12 has in its lower face a recess in which is seated

the upper face of the head 24 of a stud 26 which is fixed in a hold-down plate 28. Underlying the head 24 of the stud is the resilient member 14 which has a slot 30 wide enough to admit the stem 26 of the stud but not wide enough to permit the head 24 to pass through it. The slot 30 extends laterally of the member 14 and hence prevents relative movement of the stud and finger longitudinally of the finger and when the parts are in operative position as shown in Fig. 1 relative movement of these parts longitudinally of the shoe is prevented. Hence if in the operation of lasting the toe the plate should stick to the innersole or upper materials it would be pulled away when the hold-down pressure is released and the arm 6 is swung into inoperative position about the post 2. When it is desired to remove the plate from the finger, however, it is only necessary to spring downwardly the member 14 and move the plate laterally of the finger to disengage the stud 26 from the slot 30.

Having fully described my invention, I claim as new and desire to secure by Letters Patent of the United States:

1. In a device of the class described, the combination of a hold-down plate having a headed stud, a hold-down finger having a recess to receive the head of the stud, and a stud retaining member beneath the finger

and having a slot open at a lateral side of the finger.

2. In a hold-down, the combination of a hold-down plate, a hold-down finger, and means for holding the plate upon the finger constructed and arranged to prevent relative movement of the plate and finger longitudinally of the finger and permitting separation of the plate and finger by relative lateral movement of the plate and finger.

3. In a hold-down for lasting machines, a hold-down finger arranged to extend longitudinally of the shoe when in operative position, a hold-down plate, a stud on the plate having an enlargement and adapted to bear on the under side of the finger, and a stud retaining member comprising a flat spring having a slot opening at one side of the finger and adapted to engage the stud below the enlargement.

4. A hold-down for lasting machines comprising an arm extending transversely across a shoe bottom, a finger secured to the arm and having a concavity in the end opposite the arm, a hold-down plate having a projection adapted to engage the concavity, and means comprising a flat spring having a slot open at one side of the finger for holding the projection in the concavity.

In testimony whereof I have signed my name to this specification.

ALBERT A. MACLEOD.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."