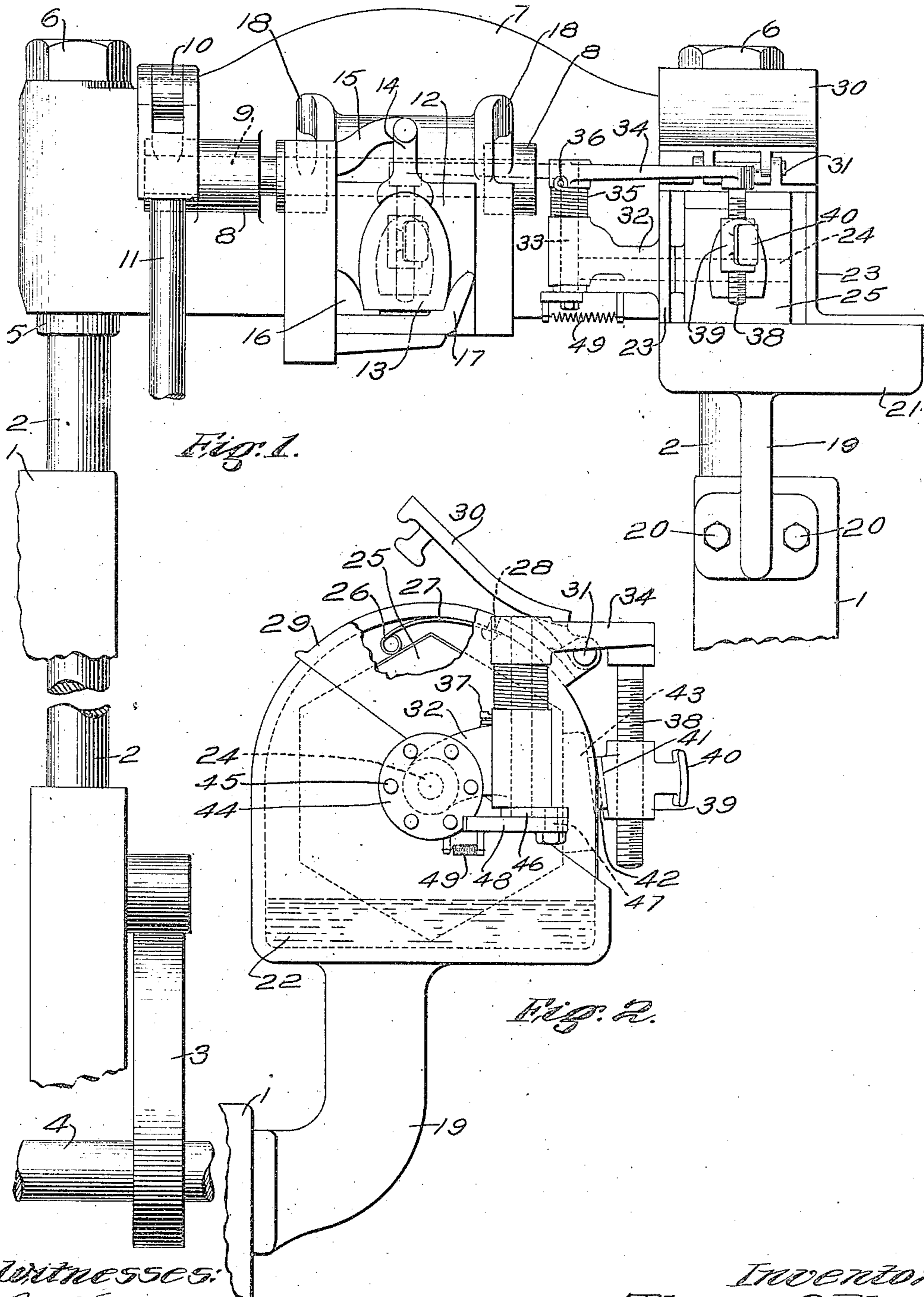


T. G. PLANT.
HEELING MACHINE ATTACHMENT.
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UNITED STATES PATENT OFFICE.

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HEELING-MACHINE ATTACHMENT.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, THOMAS G. PLANT, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented an Improvement in Heeling-Machine Attachments, of which the following description, in connection with the accompanying drawings, is a specification, like numerals on the drawings representing like parts.

The invention to be hereinafter described relates to boot and shoe heeling machines and more particularly to such machines wherein top lifts are spanked onto a heel.

As well known by those skilled in the art, it is usual to provide that surface of the top lift which is to be next to or in contact with the heel lift with an adhesive, such as glue or the like.

The main objects of the present invention are to provide a machine of the above general type with means whereby, when the top lift holder is in its top lift receiving position, the surface of the top lift may be provided with an adhesive in a simple and expeditious manner, all as will be hereinafter more fully described; and the invention consists of the features and combinations as hereinafter set forth in the claims.

In the drawings—Figure 1 is a rear elevation of so much of a heeling machine as is necessary to clearly illustrate the application of the present invention thereto, many of the parts being omitted and others broken away to more clearly present the relations of the more essentials; and Fig. 2 is a detail side elevation of the adhesive supplying means, a transferrer and the arm for carrying the transferrer from the supplying means to the surface of the top lift, and other adjuncts.

The machine frame 1 may be of any desired or suitable construction to provide guides or bearings for the cross head actuating rods 2, there being one of such rods preferably at each side of the machine frame, said rods being actuated or raised and lowered by means of suitable cams 3 on a shaft 4 which may be driven from any suitable source of power, it being understood that the shaft 4 preferably extends transversely of the machine frame and that there is a cam 3 or like operating means for each of the rods 2. Connected to the top of the rods 2, as by the fixed collars 5 and cap nuts 6, is a cross head 7 to which the heel nailing

devices, usual in this type of machine and well understood by those skilled in the art, may be connected.

Mounted in suitable bearings 8 connected to the cross head 7 is a top lift actuating shaft 9 having an arm 10 projecting therefrom and connected with an actuator 11 which is shown as a rod extended downward to an operative part of the machine, whereupon vertical reciprocation of the rod 11 the top lift carrying shaft 9 may be suitably rotated for the purpose of carrying the top lift holder from its receiving to its delivering position, as will hereinafter more fully appear. The top lift holder may be of any suitable character or construction and in the present illustration it is typified by a plate 12 against which that surface of the top lift 13, which is to be the tread surface of the heel, rests when a top lift is in position on the top lift holder.

In order that the top lift 13 may be properly sustained and carried by the top lift holder, said holder is provided with a part 14 carried by an arm 15, which part 14 is adapted to receive the rounded or back edge portion of the top lift 13, and the said top lift holder is further provided with breast engaging portions 16, 17, between which and the part 14 the top lift 13 may be securely held, as will be clearly understood by those skilled in the art without further elucidation.

The top lift holder with its top lift engaging parts, as hereinbefore described, is carried by suitable arms 18 secured to the top lift holder shaft 9, the construction being such that upon rotation of the shaft 9 a part of a revolution, the top lift holder and perforce the top lift carried thereby will be moved from the receiving position, indicated in Fig. 1, to a delivering position beneath the cross head 7, whereupon, as usual in this class of machines, on downward movement of the cross head, the top lift will be secured to or spanked onto the heel.

From the construction described it will be apparent that when the top lift holder is in the position indicated in Fig. 1, the cross head 7 is in a raised position, though not necessarily its highest position, and that the top lift is placed in the holder at this time, so that the surface which is to contact with the heel lift is exposed, and for identification hereinafter this surface may be designated the under surface of the top lift.

Mounted upon or secured to the machine frame 1 is a bracket 19 connected thereto by bolts 20 or otherwise, and provided at its upper portion with a reservoir or pan 21 for containing an adhesive or glue 22. This pan is preferably provided with upwardly extending side portions 23 provided with suitable supports for a shaft 24 on which is mounted or secured an adhesive lifter 25, said lifter being shown, in the present form of the invention, as a wheel, the cross section of which, as indicated in Fig. 2, presents a polygon. The surface of this lifter 25 extends into the adhesive or glue 22, as indicated in Fig. 2, so that upon rotation of the lifter 25 it will be evident that the surface thereof will carry the adhesive or glue in proper amounts with it. In order that the adhesive or glue thus carried by the lifter 25 may be properly distributed over the surface thereof, there is provided a spreader 26 carried by a spring arm 27 secured at 28 to the inside of a casing 29 which extends about the lifter or wheel 25. The front portion of this casing is provided with a door 30 hinged at 31 to the casing and adapted to be turned into the position indicated in Fig. 2 to expose through the front open face, thus provided in the casing, the surface of the lifter or wheel 25, as will be clear from Fig. 2.

Mounted in a bracket 32, Fig. 1, preferably extended from one of the side walls 23 of the pan or reservoir, is a pin or short shaft 33 rotatable in a suitable bearing of said bracket, Fig. 1. Secured to the upper end of the pin or shaft 33 is an arm 34 between the hub of which and the top of the bracket 32 is interposed a spring 35, one end of which is secured to the arm 34, as at 36, the other end being secured at 37 to the bracket 32, the construction being such that the tendency of the spring is to hold the arm 34 out of the path of the top lift holder, or in the position as indicated in Fig. 1. Connected to the outer end of the arm 34 is a screw stem 38 on which is mounted the interiorly screw-threaded transferrer 39, the construction being such that the transferrer 39, preferably formed as a sleeve or collar rotatable on the stem 38, may, by rotation thereof or of the screw stem 38, be adjusted with relation to the arm 34 in order that as the arm 34 is moved against the tension of its spring 35 to swing the transferrer toward the top lift when the latter is in its receiving or upper position, Fig. 1, the transferrer may be properly positioned to deliver to the under surface of the top lift its supply of adhesive or glue. The transferrer 39 may be provided with a handle 40 and also with a dove-tailed way 41 to receive a complementary dove-tail 42 on a pad or brush 43, which serves to contact with the surface of the lifter or wheel 25 and carry a supply

of adhesive or glue therefrom to the top lift 13 when the arm 34 is swung from the position shown by full lines, Fig. 1, to the dotted line position, same figure.

In order to turn the lifter or wheel 25 to bring a fresh supply of glue or adhesive to the pad 43 each time said pad is swung by the arm 34 to deliver adhesive or glue to the under surface of the top lift, the shaft 24 is extended beyond the side wall 23 of the pan or reservoir 21 and carries a pin disk 44, Fig. 2, provided with a series of pins 45. The lower end of the shaft 33, carrying the arm 34, is extended below the bracket 32 and provided with an eccentric or crank arm 46 having a pin 47 connecting thereto a pawl 48, the end of which is normally disposed to contact with the pins 45 of the pin disk 44 when said shaft 33 is turned, as hereinbefore described, a spring 49 normally holding said pawl with its end against the pin disk 44; the construction being such that when the arm 34 is manipulated to transfer adhesive or glue to the under surface of the top lift, the pawl 48 is reciprocated and contacts with one of the pins 45, thereby turning the shaft 24 and perforce the lifter or wheel 25, as will be readily understood.

From the construction described it will be apparent to those skilled in the art that the disposition and relation of parts are such that when the top lift holder, regardless of its particular construction, is in top lift receiving position, or in a position presenting the under surface of the top lift outwardly, as indicated in Fig. 1, the arm 34 and the transferrer are so related thereto that upon swinging the arm 34 from its full to dotted line position, Fig. 1, the adhesive or glue carried by the pad 43 will be transferred to the under surface of the top lift; and that the transferrer, being loosely mounted on the stem 38, may be grasped by the handle 40 and moved, as above indicated, conveniently and without loss of time; also that the transferrer may be readily adjusted by relatively turning for one or more revolutions the stem 38 and transferrer, and that when the transferrer is released after having delivered its charge of adhesive to the under surface of the top lift, the arm 34, under the actuation of the spring 35, will carry the parts back to the position indicated in Fig. 1.

What is claimed is:

1. In a boot and shoe heeling machine, the combination of a frame, a movable cross head, means for raising and lowering said cross head, a top lift holder for sustaining a top lift with a surface exposed and mounted on said movable cross head, an adhesive applying member, an arm carrying said member and sustained by the frame, and an adhesive supplying means secured to the frame at the upper limit of cross-head movement, said arm being mounted to permit the adhe-

sive applying member to be moved from the adhesive supplying means to the top lift when the cross head is in a raised position and the top lift is sustained by the top lift holder.

2. In a boot and shoe heeling machine, the combination of a frame, a movable cross head, means for raising and lowering said cross head, a top lift holder for sustaining a top lift with a surface exposed and mounted on said movable cross head, an arm pivotally supported by the frame, an adhesive applying means loosely carried by said arm to turn with respect thereto as the arm is swung, and means to supply an adhesive for said applying means, pivotal movement of the said arm upon its support carrying the adhesive applying means from the supplying means to the top lift when the cross head is in a raised position and the top lift is in position on the holder.

3. In a boot and shoe heeling machine, the combination of a supporting frame, a cross head, means for raising and lowering the cross head, a top lift holder movable with the cross head and adapted to swing from operative position beneath the cross-head to inoperative position at one face thereof and sustain a top lift with a surface exposed, an adhesive supplying means, an adhesive transferrer, an arm carrying said transferrer and mounted to move said transferrer from the adhesive supplying means to the surface of a top lift when the cross head is in raised position and the top lift is held by its holder in inoperative position, and means to normally maintain the arm and transferrer out of the path of movement of the top lift holder as it is swung from inoperative to operative position.

4. In a boot and shoe heeling machine, the combination of a supporting frame, a cross head, means for raising and lowering the cross head, a top lift holder movable with the cross head, means for swinging the toplift holder under the cross-head to operative position in applying a toplift to the heel and to inoperative position to the rear of the cross-head to sustain a top lift with a surface exposed, an adhesive supplying means, an adhesive transferrer, an arm carrying said transferrer and mounted to move said transferrer from the adhesive supplying means to the surface of a top lift when the cross head is in raised position and the top lift is held by the holder in inoperative position and the underface of the toplift exposed, and means to adjust the transferrer with relation to said arm to cause the transferrer to properly apply the adhesive to the top lift.

5. In a boot and shoe machine, the combination of a toplift holder, a cross-head on which it is mounted, means for moving the toplift holder to operative position beneath

the cross-head and to inoperative position at one face thereof, means for holding a toplift on said holder with its under surface presented in an upward direction in view of the operator, a pivotally mounted arm carrying a transferrer for adhesive material having an adhesive carrying face extending in a plane parallel to the exposed surface of the toplift when the holder sustains the toplift in inoperative position, an adhesive supplying means, and means for normally maintaining the transferrer in connection with the adhesive supplying means.

6. In a boot and shoe machine, the combination of a toplift holder, a cross-head on which it is mounted, means for moving the toplift holder to operative position beneath the cross-head and to inoperative position at one face thereof, means for holding a toplift on said holder with its under surface presented in an upward direction in view of the operator, a pivotally mounted arm having a projecting stem, a transferrer movable on said stem and having an adhesive carrying face extending in a plane parallel to the exposed surface of the toplift when the holder sustains it in inoperative position, and an adhesive supplying means for delivering an adhesive to the said face of the transferrer.

7. In a boot and shoe heeling machine, the combination of a toplift holder provided with means for sustaining a toplift with its under surface presented in an upwardly extending plane to the view of the operator, an adhesive supply tank supported on the machine frame at one side of the toplift holder, a wheel in said tank, an arm pivotally mounted between the toplift holder and said tank, a transferrer carried by said arm and having a face extending parallel to the exposed face of the toplift when sustained by the holder as stated, means for swinging the arm in one direction, and means for turning the said wheel when the arm is swung.

8. In a boot and shoe heeling machine, the combination of a supporting frame, a cross head, a top lift holder movable with relation to the cross head to carry a top lift from receiving to delivering position and sustain a top lift with its under surface exposed, a glue supply, an arm, a transferrer carried by said arm to transfer glue from the supply to the under face of the top lift, and a hand piece carried by the transferrer for moving it axially on its support and from the glue supply to the top lift on the holder.

9. In a boot and shoe heeling machine, the combination of a supporting frame, a cross head, a top lift holder movable with relation to the cross head to carry a top lift from receiving to delivering position and sustain a top lift with its under surface exposed, a glue supply, an arm, a stem thereon, a

transferrer carried by the said stem and
freely rotatable thereon, and a handle for
moving the transferrer from the glue supply
to the face of a top lift on the top lift holder
5 when the latter is in receiving or a raised
position.

In testimony whereof, I have signed my

name to this specification, in the presence of
two subscribing witnesses.

THOMAS G. PLANT

Witnesses:

EVERETT S. EMERY,
EDWARD H. PALMER.