(No Model.)

H. W. WINTER.

TOP LIFT HOLDER FOR HEELING MACHINES.

No. 401,620. Patented Apr. 16, 1889.

Fig. 1.

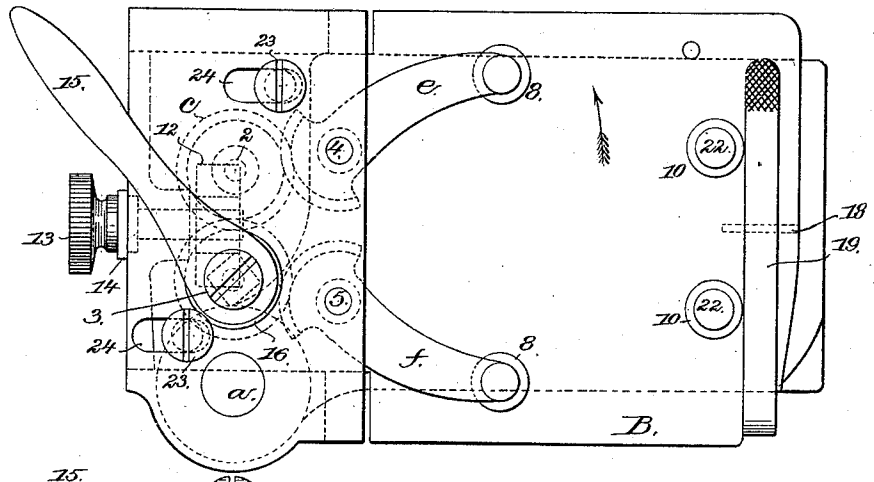


Fig. 2.

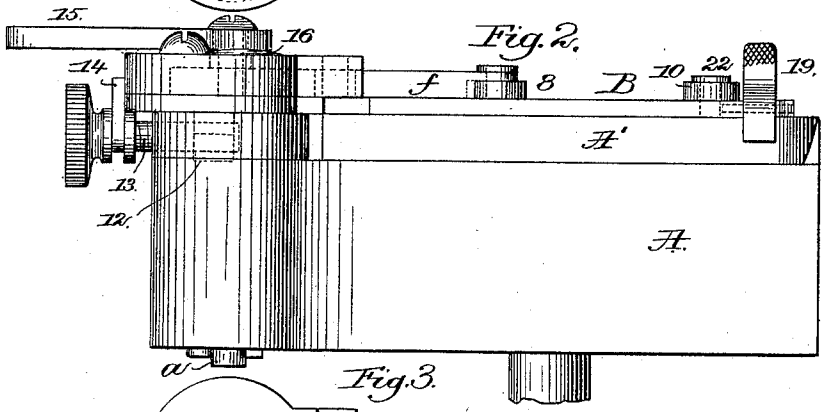


Fig. 3.

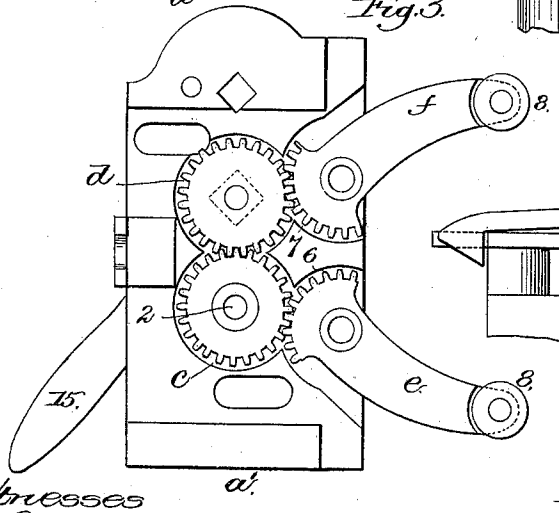


Fig. 4.

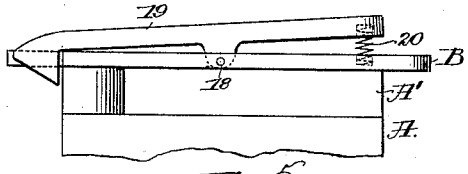


Fig. 5.



Witnesses
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UNITED STATES PATENT OFFICE.

HENRY W. WINTER, OF BOSTON, ASSIGNOR TO JAMES W. BROOKS, TRUSTEE, OF CAMBRIDGE, MASSACHUSETTS.

TOP-LIFT HOLDER FOR HEELING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 401,620, dated April 16, 1889.

Application filed September 18, 1888. Serial No. 285,717. (No model.)

To all whom it may concern:

Be it known that I, HENRY W. WINTER, of Boston, county of Suffolk, State of Massachusetts, have invented an Improvement in Top-Lift Holders or Carriers for Heeling-Machines, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

In the invention to be herein described the arms which hold and position the top lift are pivoted upon or with relation to a plate which is adapted to swing horizontally above the usual nail-box common to the so-called "McKay & Bigelow heeling-machine." The arms referred to, at their rear ends, are provided with teeth, which are engaged by rotatable toothed gears mounted upon a plate above the usual nail-box, one of the said gears being connected to a shaft provided with a handle or lever by which it may be turned, the said gears having co-operating with them a friction device by which to hold them, and through them the arms referred to, in any desired adjusted position, according to the size of the top lift being blinded upon the heel. The plate on which the top lift rests while being blinded upon the heel is provided with a latch, which engages the top of the nail-box while the plate carrying the latch is in position to have the top lift blinded upon the heel.

Figure 1 is a top or plan view of a top-lift holder or carrier embodying my invention. Fig. 2 is a side elevation thereof; Fig. 3, an under side view of the plate *a'* detached. Fig. 4 is a partial right-hand end elevation of the parts shown in Fig. 2, and Fig. 5 a view of the friction device or washer detached.

Let A represent the nail-box, and A' its top plate, provided in usual manner with holes (not shown) for the reception of the ends of the nails, but partially driven into the heel, all as common in United States Patent No. 166,795. To this plate A', I have pivoted by a pivot, *a*, a plate, *a'*, the pivot *a* in practice being surrounded by a spring, which normally acts to move the plate to throw it off from above the nail-box. The plate *a'* has a suitable screw or other stud, as 2, upon which is mounted loosely a toothed gear, *c*, which engages a toothed gear, *d*, secured to a short shaft extended up through the plate *a'*, where the said shaft is squared to receive upon it a handle or lever, 15, the said shaft between the plate *a'* and handle 15 being extended through a friction device, shown as a dished washer, 16, the handle being secured to the end of the shaft 3 by a suitable set-screw.

The friction exerted by the friction device described is sufficient to maintain the gears and handle 15 in the position in which they are left by the operator. These gears *c d* engage, respectively, the sector-like teeth 6 7 of the arms or levers *e f*, provided at their outer ends with rolls, as 8, which act against the outer edges of the top lift (shown by dotted lines in Fig. 1) and keep the breast end of the top lift pressed snugly against gages 10, shown as rolls mounted on studs 22, erected on the top-lift plate B, the reduced shank of which is extended backwardly through a space at the under side of the plate *a'*, the plates B and *a'* being connected together in adjusted position by means of set-screws 23, extended through slots 24 of the plate *a'*, the set-screws entering the plate B.

The rear end of the plate *a'* is provided with an ear, 14, which enters an annular groove in the head of a screw, 13, the threaded shank of the said screw entering a threaded nut, as 12, connected to the under side of the plate B, rotation of the screw 13 adjusting the plate B longitudinally with relation to the top of the nail-box.

The outer end of the top-lift plate B has pivoted directly upon it by a pin, 18, a latch, 19, acted upon by a spring, 20, which normally causes the latch to engage the edge of the plate A', to hold the plate B in position while the top lift is being blinded upon the heel.

It is desired that the arms *e f* remain in adjusted position, and this is effected by or through the friction device.

In operation the operator, by turning the handle 15 and actuating the gears *c d* in one or the other direction, is enabled to open or close the arms *e f*, according to the size of the top lift being used.

I do not herein broadly claim the arms moved by toothed gears in mesh with them, as that forms the subject-matter of claim in my application, Serial No. 285,718; nor do I broadly

claim clamps and arms having teeth and gears to engage the said teeth.

I do not herein claim sliding clamps actuated by gearing and adapted to clamp a top lift near its breast end, nor do I claim to be the first to move pivoted top-lift-holding arms positively for equal distances in opposite directions.

I claim—

1. The top-lift or swinging plate and plate a', and arms having teeth, and gears engaging the said teeth, combined with a friction device to retain the said arms in adjusted position, substantially as described.

2. The top-lift plate B, the plate a', nail-box, pivot a, and gears c d, and arms e f, combined with gages, as 10, on the plate B, to act against the breast of the heel, substantially as described.

3. The nail-box and the top-lift plate above it adapted to swing about a pivot, combined with the horizontally-arranged latch pivoted upon and movable with the plate B about the said pivot, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HENRY W. WINTER.

Witnesses:
G. W. GREGORY,
B. DEWAR.