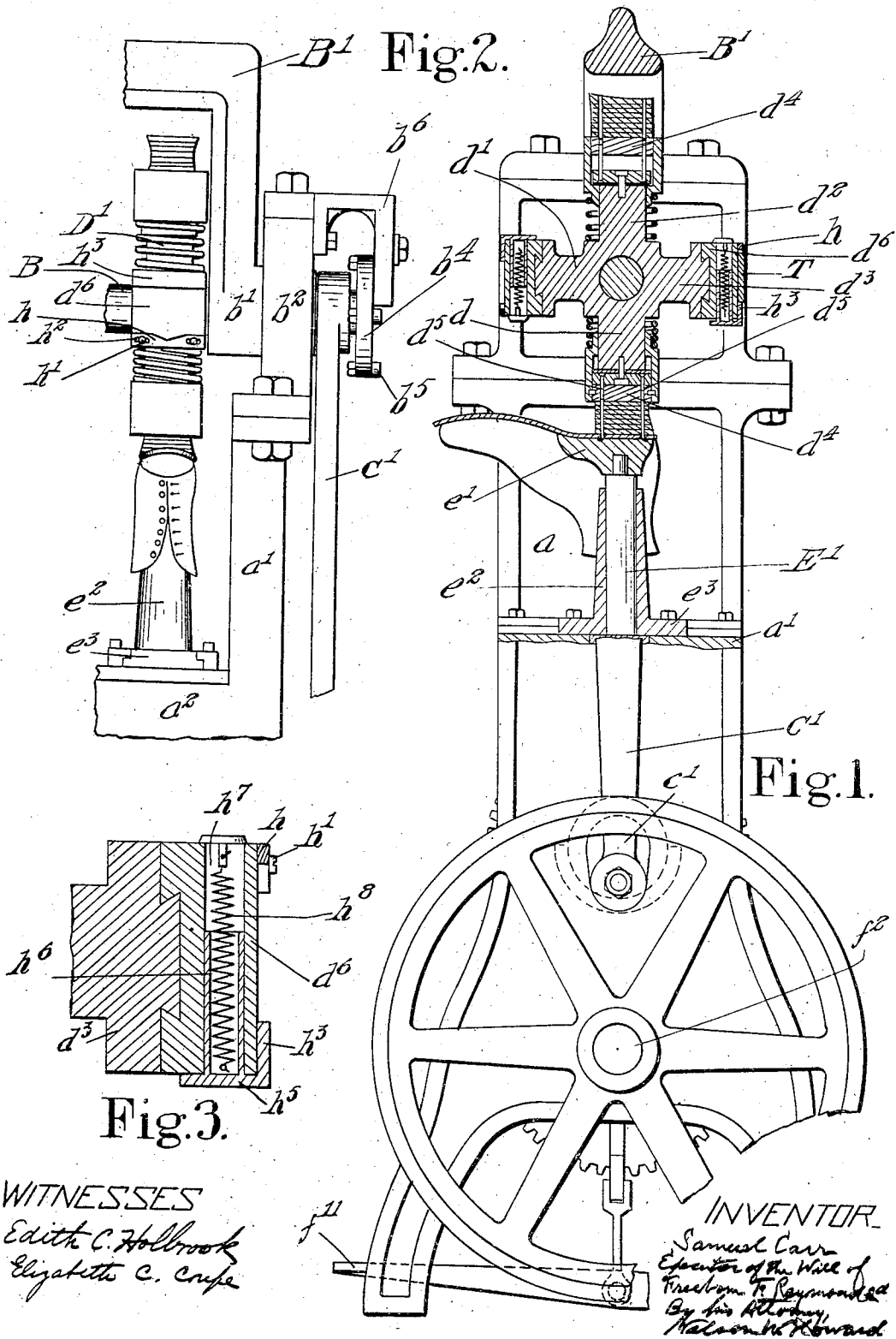


F. F. RAYMOND, 2D, DEC'D.
S. CARR, EXECUTOR.
BLANK HOLDER FOR HEELING MACHINES.
APPLICATION FILED JULY 18, 1910.

1,054,032.

Patented Feb. 25, 1913.



WITNESSES
Edith C. Holbrook
Elizabeth C. Cruse

INVENTOR
Samuel Carr
Executor of the Will of
Frederic F. Raymond
By his Attorney,
Malcolm Howard

UNITED STATES PATENT OFFICE.

FREEBORN F. RAYMOND, 2D, DECEASED, LATE OF NEWTON, MASSACHUSETTS, BY
SAMUEL CARR, EXECUTOR, ASSIGNOR TO UNITED SHOE MACHINERY COMPANY,
OF PATERSON, NEW JERSEY, A CORPORATION OF NEW JERSEY.

BLANK-HOLDER FOR HEELING-MACHINES.

1.054,032.

Specification of Letters Patent.

Patented Feb. 25, 1913.

Original application filed February 20, 1892, Serial No. 422,320. Divided and this application filed July 18, 1910. Serial No. 572,487.

To all whom it may concern:

Be it known that FREEBORN F. RAYMOND, 2d, late of Newton, in the county of Middlesex and State of Massachusetts, deceased, 5
invented certain Improvements in Blank-Holders for Heeling-Machines, of which the following description, in connection with the accompanying drawings, is a specification, like reference characters on the 10
drawings indicating like parts in the several figures.

The present invention relates to heel attaching machines and more particularly to the blank holding and carrying devices for 15
such machines.

In United States Letters Patent No. 1,009,710, granted November 21, 1911, upon application Serial No. 422,320, filed February 20, 1892, of which the present application is a division, there is disclosed a heel 20
attaching machine comprising a shoe support and a rotatable and reciprocatory turret having heel nailing and top lift spanking devices. In that machine the top lift 25
carrying and spanking device is mounted for pivotal movement from a vertical receiving position in the rear of a shoe on the support to a horizontal spanking position in alinement with the heel previously attached. 30

It is an object of the present invention to provide a top lift holder or carrier which may be advantageously employed in heeling machines which operate in this manner, although the improved top lift carrier herein 35
disclosed is not limited in its use to this particular type of machine but may have general application.

A further object of the invention is to provide an improved top lift holder and carrier of such construction that top lifts may be readily placed therein and firmly held by the carrier and transferred into 40
attaching position without displacement, regardless of varying thickness or dimensions.

It is of particular importance that a top lift should be presented to the shoe in accurate alinement transversely thereof as the top lift is commonly used as a gage for

subsequent trimming operations on the heel 50
and a slight inaccuracy in contour transversely of the shoe would be conspicuous in the finished article. It is also important for similar reasons that the top lift should be presented in the proper angular relation. 55

With these conditions in view, an important feature of the invention consists in the provision of blank clamping members comprising a breast gage arranged for yielding 60
movement toward and from a back gage, the latter being capable of transverse adjustment. Such construction not only permits accurate transverse positioning of the top lift but also, on account of the pressure of 65
the breast gage, tends to center the lift if the latter is inserted in an incorrect angular position.

Important advantages incident to the employment of a longitudinally yielding breast 70
gage in combination with a longitudinally fixed back gage are that the top lift will be accurately located with respect to the rear end of the heel and that it will be moved automatically rearwardly in the 75
holder into engagement with the back gage regardless of its position when inserted by the operator.

In operating heeling machines it is desirable to locate the rear curved surface of 80
a blank accurately with respect to the corresponding part of the heel seat or heel and permit variations in the length of the blank to be taken care of at the breast-edge, from 85
which surplus stock is removed in a subsequent breasting operation. If the rear end of the top lift is not located accurately the inaccuracy is transferred in a magnified and conspicuous form to the finished heel.

Other advantages of the improved blank 90
holder and carrier will be best understood and appreciated from the following description, together with the accompanying drawings, in which,—

Figure 1 is a view in side elevation, partly 95
in section, of a machine disclosed in said pending application; Fig. 2 is a fragmentary front elevation; Fig. 3 is an enlarged

sectional view of the top lift carrier in receiving position.

The machine frame comprises two vertical side portions a , a' , and a cross table a^2 which is formed integral with the side pieces. The turret of the machine is mounted upon a transverse shaft B, journaled in boxes b' , mounted for reciprocation in the guides b^2 , attached to the upper end of the sides of the frame. The boxes b' are connected by a transverse bar B' which, with the turret, constitutes the cross head of the machine. The ends of the shaft B extend through the boxes and are engaged by the upper ends of the connecting rods C', which connect the shaft with the cranks c' of the crank shaft. At one end of the shaft B is a disk b^4 which carries cam rolls b^5 , these cam rolls being arranged to travel in cam tracks in a stationary cam plate b^6 . The cam plate is provided with suitable switches which cooperate with the rollers and cam tracks in such a manner as to cause the automatic rotation of the turret to present successively in operative position the various instrumentalities carried by the turret.

The turret is shown as provided with four arms d , d' , d^2 , d^3 , of which the arms d , d^2 , carry a yielding mounted perforated nail templet d^4 adapted to carry a loaded heel blank into attaching position, and drivers d^5 arranged similarly to those described in said Patent No. 1,009,710. The arms d , d^3 , are provided with spanker plates or blocks d^6 , and top lift clamping members are carried by each of the spanker blocks.

The cross bed a^2 supports a jack comprising a spindle E', a work support e' mounted thereon and a sleeve e^2 for supporting the spindle. The sleeve e^2 projects upwardly from a base plate e^3 which is guided for sliding movement by ways formed on the cross bed a^2 in order to facilitate the operations of supplying and removing a shoe from the jack. The shaft f^2 journaled in the side pieces of the frame is provided with a suitable driving pulley and is connected through suitable gearing with the crank shaft. A treadle f^1 and clutch mechanism (not shown) are provided for controlling the operation of the machine. Preferably, this mechanism may be arranged to stop the machine with the cross head in its highest position and to prevent its descent until it is desired to start the machine.

All of the parts above described may be similar to those disclosed in said Patent No. 1,009,710 to which reference may be had for further details of construction.

A top lift spanker block or plate d^6 is rigidly connected by a dove-tail joint with each of the arms d' , d^3 and is provided with a longitudinally extending recess or bore h^2 . The top lift clamping members, which, with

the plate d^6 constitute the top lift carrier, comprise a breast gage and a back gage mounted on the face of the plate d^6 . In its receiving position the top lift carrier occupies a vertical position above and at the rear of the shoe on the work support. A carrier in this position is shown on the right of Fig. 1, the top lift T having been inserted.

The breast gage comprises a straight breast engaging portion h^3 , which extends transversely across the lower portion of the surface of the spanker plate and is yieldingly held against downward displacement. To this end it may be formed as an angular piece with the portion h^5 extending over the bottom edge of the plate d^6 , the carrier being in vertical receiving position, and having a tubular projection or sleeve h^6 slidably received in the recess h^7 . A spring h^8 attached to the inside of the sleeve and to a cap which closes the upper end of the recess acts to draw the breast gage longitudinally of the spanker plate, its movement being limited positively in an upward direction by the engagement of the portion h^5 with the edge of the spanker plate. The sleeve h^6 guides the breast gage, holding it in contact with the surface of the spanker plate and preventing twisting. The back gage is mounted at the other end of the spanker plate and comprises a plate h having a concave or V-shaped recess to fit the curved end of a top lift. The plate h is capable of transverse adjustment on the spanker plate d^6 and to this end may be provided with slots h^2 through which project screws or studs h' from the spanker plate. The back gage may be adjusted transversely on the studs h' to position a blank properly on the spanker plate.

A blank may be inserted in the carrier by pressing its breast edge downwardly against the breast gage h^3 , displacing the gage against the tension of the spring h^8 enough to permit the rounded end of the blank to be slipped into the recess of the back gage. When this is done the blank will be clamped against the surface of the spanker plate between the two gages and it will be securely held in such position while the carrier is moved in a vertical arc, longitudinally of the shoe, from receiving position into horizontal spanking position over the previously attached shoe. The spanking operation is then effected by a downward movement of the cross head which forces the top lift on the ends of the nails left projecting from the heel. The subsequent upward movement of the cross head draws the carrier off the attached top lift.

It will be seen that the improved carrier herein disclosed may be very conveniently supplied with blanks since, in its receiving position, it occupies a vertical position in

which it may be readily seen and is within reach of an attendant standing at the rear of the machine. The act of inserting a blank is also effected easily and naturally by depressing the breast gage as above explained. Moreover, if a blank is inserted in an incorrect angular position the pressure of the breast gage on one corner or the other will act to center the blank, turning it into the proper position as soon as it is released by the attendant. It will also be seen that each blank is positioned with its rear curved surface in a predetermined position, differences in length being taken care of by the yielding movement of the breast gage.

Having now described the invention, what I claim as new and desire to secure by Letters Patent of the United States is:—

1. In a heel-attaching machine the combination of the block d^o with the laterally adjustable back gage h mounted upon the face of the block d^o , as and for the purposes described.

2. A blank holder for heel attaching machines, comprising a spanker plate mounted for pivotal movement from a vertical blank-receiving position to a horizontal spanking position and blank engaging members mounted on said spanking plate including a back gage capable of transverse adjustment relatively to the path of movement of the blank holder.

3. A top lift holder for a heeling machine having a shoe support, said top lift holder being movable into spanking position longitudinally of a shoe on said support and comprising a spanker plate, a breast gage mounted thereon for yielding movement longitudinally thereof and a back gage mounted thereon and being capable of transverse adjustment.

4. A top lift holder for a heeling machine having a shoe support, said top lift holder being movable into spanking position longitudinally of a shoe on said support, and comprising a spanker plate, a back gage mounted thereon and capable of transverse adjustment, a breast gage also mounted on said spanker plate, and means to yieldingly press said breast gage toward said back gage.

5. A blank holder for heeling machines, comprising a spanker plate having a longitudinally extending recess, a breast gage having a sleeve slidably received in said recess, and a breast engaging portion overlying the surface of said spanker plate, a spring in said sleeve, and a back gage on said spanker plate oppositely disposed with respect to the breast gage and adjustable transversely of the spanker plate.

6. A blank holder for heeling machines, comprising a plate movable from a vertical blank-receiving position to a horizontal at-

taching position, a yielding breast gage extending across the lower portion of the surface of said plate when the latter is in receiving position and a back gage located on the upper portion of the surface of said plate and adjustable transversely thereof.

7. A blank holder for heeling machines, comprising a plate movable from a vertical blank-receiving position to a horizontal attaching position, a breast gage extending across the lower portion of the surface of said plate and yieldingly movable in a vertical direction when the latter is in receiving position and a back gage mounted on said plate and operative in different lateral positions thereon.

8. A blank holder for heeling machines, comprising a plate movable from a vertical blank-receiving position to a horizontal attaching position, a movable breast gage extending across the surface of said plate, a stop limiting the upward movement of the breast gage when the plate is in vertical receiving position, yielding means permitting a downward movement of the breast gage for the reception of a blank, and a cooperating back gage.

9. A blank holder for heeling machines, comprising a plate, a yielding breast gage and a back gage carried by said plate, said holder having a vertical blank receiving position in which said breast gage may be displaced downwardly to permit the insertion of a blank between it and the back gage.

10. A blank holder for heeling machines, comprising a plate, a movable breast gage constructed and arranged to engage the breast edge of a blank presented in different positions transversely of the plate and a back gage oppositely disposed with respect to the breast gage and operative in different lateral positions on said plate.

11. A blank holder for heeling machines, comprising a plate, a movable breast gage constructed and arranged to engage the breast edge of a blank presented in different positions transversely of the plate, a back gage arranged on said plate and capable of transverse adjustment and means permitting relative separation of said gages for the insertion of a blank.

12. A blank holder for heeling machines, comprising a plate, a breast gage mounted adjacent to one edge thereof and movable longitudinally of the plate and a back gage mounted adjacent to the other edge of the plate and adjustable transversely thereof.

13. A blank holder for heeling machines, comprising a movable gage carrying member and oppositely disposed gages carried thereby, one of said gages comprising a breast engaging member movable longitudinally of a blank and the other comprising a member having divergent edges which en-

gage the curved end of a blank, said latter member having provision whereby the position of the divergent blank engaging edges may be adjusted transversely.

- 5 14. A blank holder for heeling machines, having in combination, a breast gage and a cooperating back gage capable of adjustment transversely of a blank in the holder. In testimony whereof I have signed my

name to this specification in the presence of 10 two subscribing witnesses.

SAMUEL CARR,
Executor of the will of Freeborn F. Raymond, 2d.

Witnesses:

EDMUND K. ARNOLD,
J. NEWTON COLE.

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