T. LUND.

COMPRESSING MACHINE.

APPLICATION FILED APR. 7, 1909.

959,869.

Patented May 31, 1910.

3 SHEETS—SHEET 1.

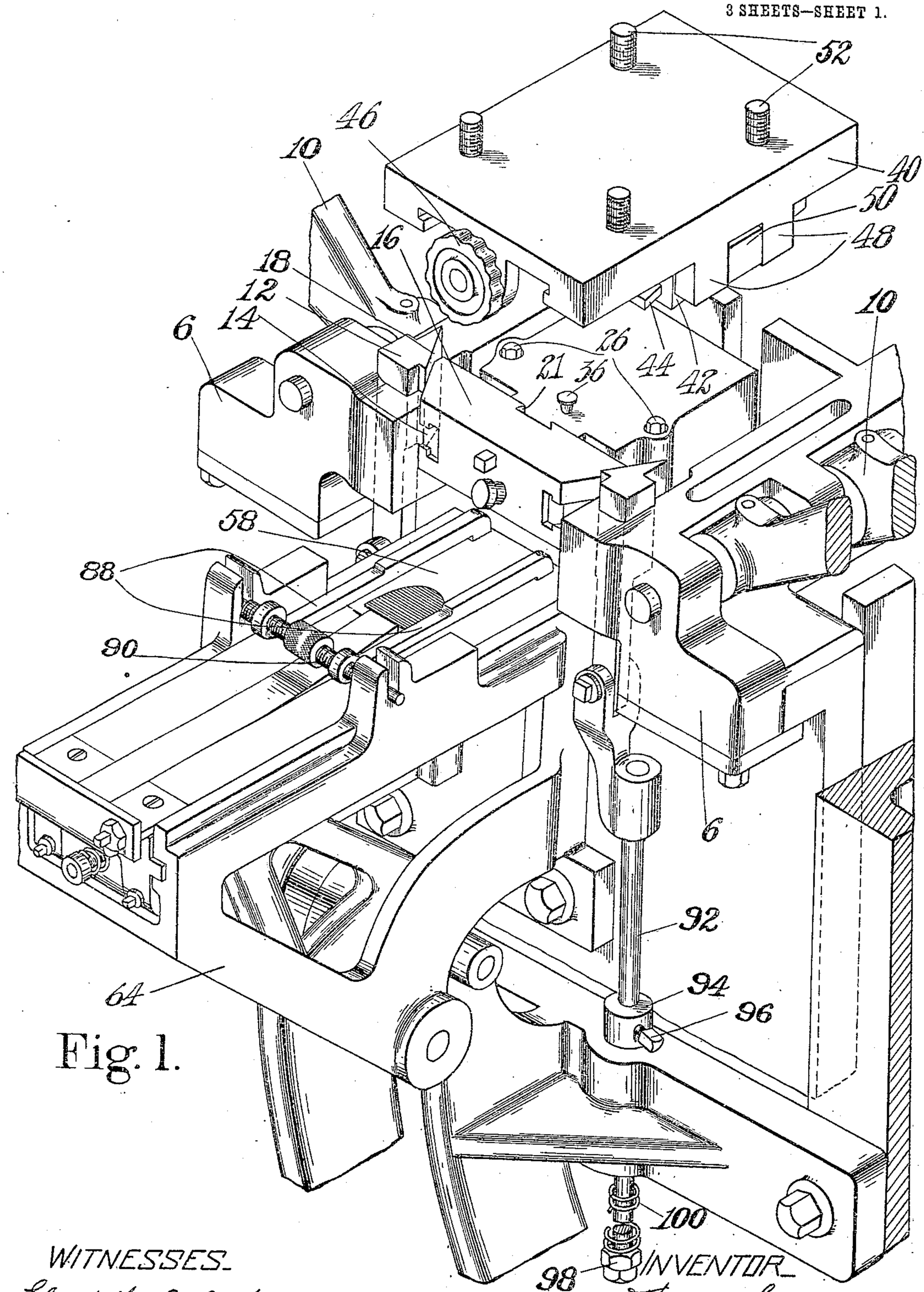

Fig. 1.

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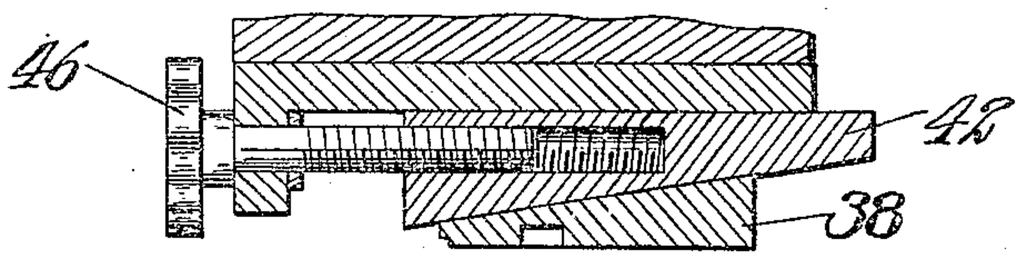

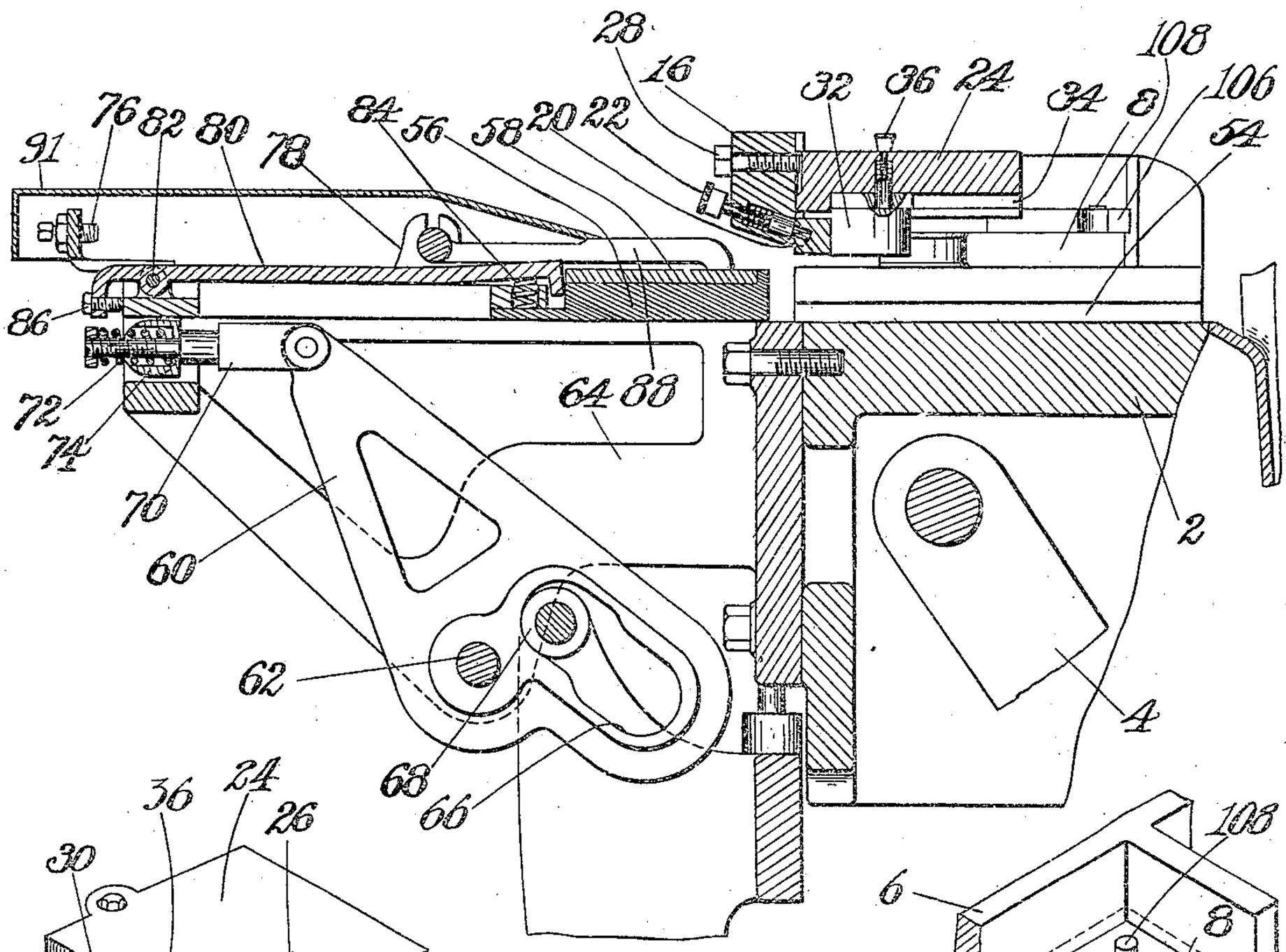

Fig. 2.

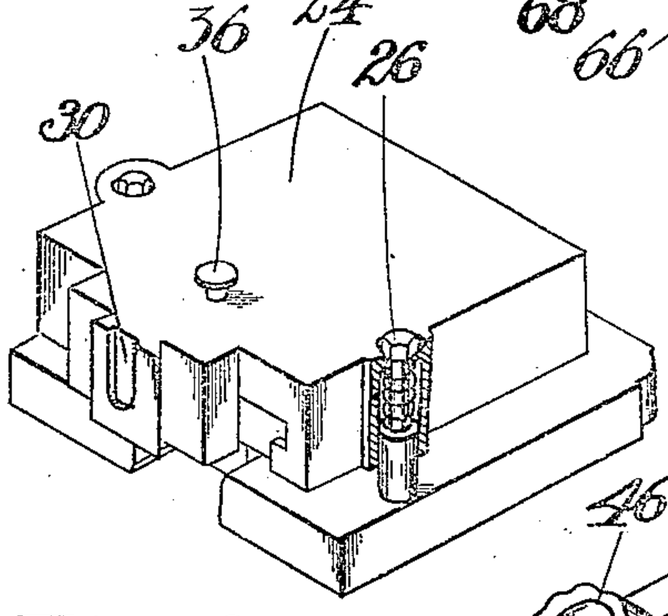

Fig. 3.

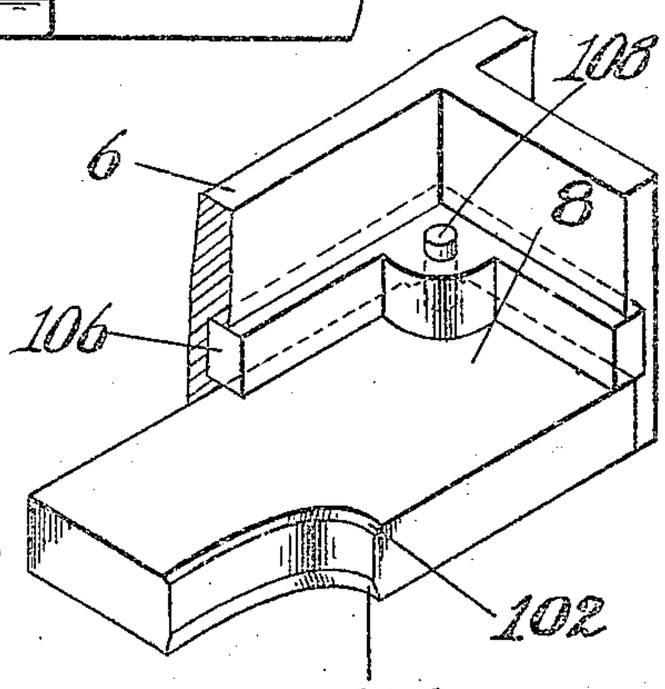

Fig. 4.

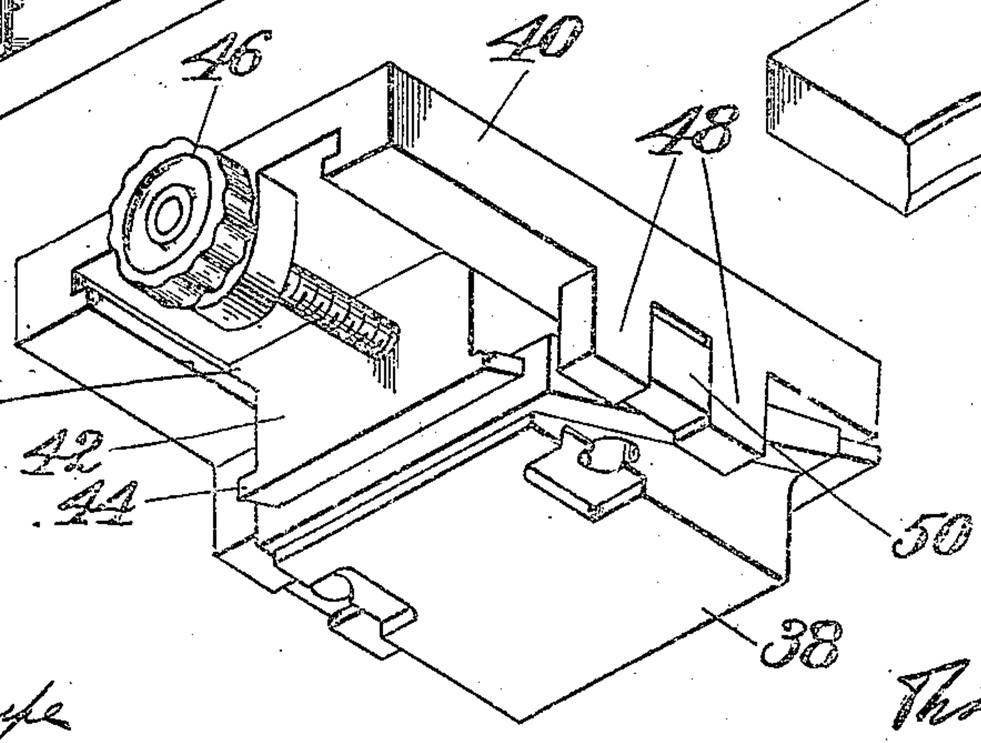

Fig. 5.

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3 SHEETS—SHEET 3.

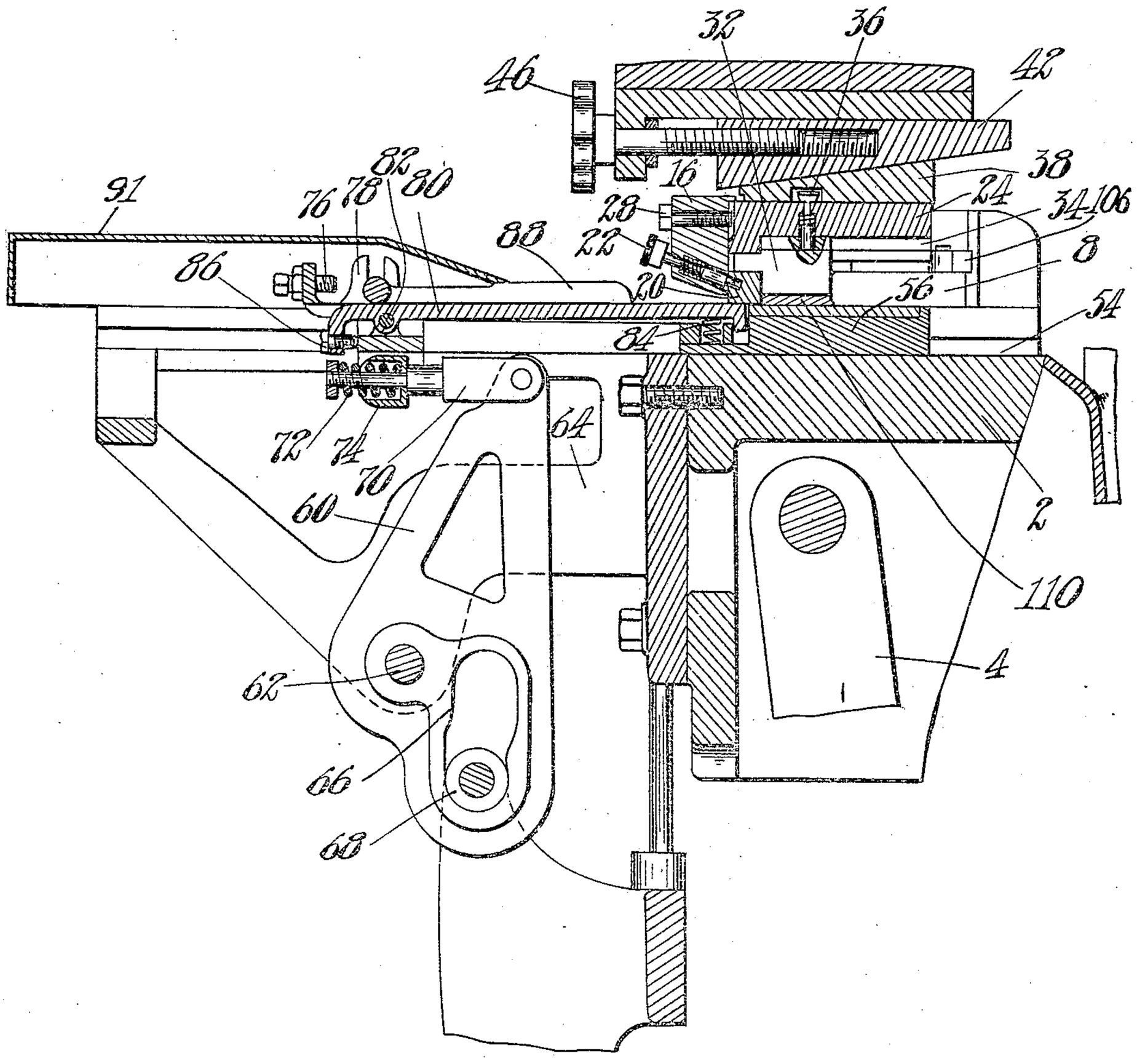

Fig. 6.

Fig. 7.

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UNITED STATES PATENT OFFICE.

THOMAS LUND, OF BEVERLY, MASSACHUSETTS, ASSIGNOR TO UNITED SHOE MACHINERY COMPANY, OF PATERSON, NEW JERSEY, A CORPORATION OF NEW JERSEY.

COMPRESSING-MACHINE.

959,869. Specification of Letters Patent. **Patented May 31, 1910.**

Application filed April 7, 1909. Serial No. 488,426.

To all whom it may concern:

Be it known that I, THOMAS LUND, a citizen of the United States, residing at Beverly, in the county of Essex and State of Massachusetts, have invented certain Improvements in Compressing-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 compressing machines and is shown embodied in a machine for compressing top lifts. It will be apparent, however, from the following description that the invention in all of its features is not limited to embodiment in a machine for compressing this particular form of blank.

In compressing top lifts, it is desirable that the operation be so performed that the flat face which is to be brought in contact with the heel shall be free from projections at its edges which would prevent close contact between these parts in the attaching operation.

An important object of the present invention is to provide a compressing machine by which heel lifts may be compressed without the formation of projections such as would interfere with the proper attachment of the lifts to heels.

To this end an important feature of the invention consists in the combination with means for molding the peripheral surface of a heel blank of a member for molding one face of the blank arranged with its surface overlapping said means. With this arrangement, if a fin is formed at the junction of the peripheral surface of a top lift with said face, it will not project outwardly from said face normally thereto but will extend in a plane parallel to the face and will thus not interfere with bringing the top lift into close contact with the face of the heel.

It will be understood that by the term "peripheral surface" employed herein it is meant to include those surfaces upon a heel-blank which extend in the direction of its height. The remaining surfaces which, in the case of a top lift, are flat will be referred to herein as the faces of the blank.

A further object of the invention is to provide a compressing machine wherein a heel-blank may be placed in operative relation to the dies with accuracy. It is also an object of the invention to provide a compressing machine wherein a compressed blank may be quickly and accurately discharged from the machine.

To these ends an important feature of the invention consists in a machine for compressing heel-blanks so constructed and arranged that a blank to be compressed is carried into operative relation to the dies upon a member which forms the bottom of the mold cavity. According to this feature, a blank to be compressed is moved into position between the side dies which mold the sides of the blank in a single horizontal movement in the plane of the side dies. In order to permit the insertion of the blank in this way, a breast die for molding the breast of a blank is arranged to be moved vertically relatively to the side dies to allow the passage of the blank beneath it. After the blank has been moved beyond the inner face of the breast die the breast die is lowered relatively to the side dies into operative relation thereto. After the compression of a blank, the member forming the bottom of the mold cavity is withdrawn, allowing the compressed blank to fall by gravity into a chamber beneath the dies from which it is ejected in the next advance of said member.

In the particular construction herein described, the member forming the bottom of the mold cavity, hereinafter called a bed-plate, and the dies which mold the peripheral surface of a blank are mounted upon a vertically reciprocating head. The movement of the bed-plate and said dies is automatically effected by the movement of the head. In the present construction, a device for molding the top surface of a blank, hereinafter termed a presser, is also mounted upon the vertically moving head. The presser is yieldingly supported upon the head in a position permitting the free entrance of a blank into the mold cavity. A stationary abutment upon the machine is provided in position to be engaged by the presser in the rise of the head to force the presser upon the blank and subject it to vertical pressure.

The dies herein shown and described are formed to produce a top lift of the particular contour of that covered by U. S. Letters Patent 890,434, granted June 9, 1908, to

B. F. Mayo. In the top lift disclosed in this patent the edge of the lift along the sides and curved end is in part normal to the tread face of the lift and in part has an angular relation thereto. It is desirable that the straight portion or that portion normal to the tread face shall be of approximately the same width regardless of the thickness of the top lift. On this account where compressed top lifts vary in thickness, the beveled portion of the lifts or that portion which is oblique to the tread face is allowed to vary in width. The side dies herein shown and described are so formed that they may be used with blanks of different thicknesses. To this end said dies are provided with beveled portions of different widths at different points to be used with blanks of different thicknesses. In the arrangement shown, the side dies are so constructed that they may be used either side up, and at top and bottom they are provided with beveled portions of different widths.

The construction and arrangement of the parts in the present machine is such that the mold cavity flares downwardly, the blanks being compressed in the machine with their tread faces uppermost. The presser which engages the tread face of a blank has contact in the compressing operation with the straight portion of the walls of the side dies above the beveled portion at the bottom of said dies. With this arrangement it is not necessary that the movement of the presser toward the bed-plate shall, under all circumstances, be to a certain limit and the present machine is accordingly provided with means for varying the limit of movement of the presser toward the bed-plate. This feature is of advantage in securing the application to a blank of the desired amount of pressure.

Other features of the invention, the advantages of which will be hereinafter mentioned or which will be apparent to one skilled in the art will be hereinafter described and referred to in the appended claims.

In the drawings,—Figure 1 is a view in perspective of the more important parts of a machine constituting one embodiment of the present invention; Fig. 2 is a vertical sectional view of the parts shown in Fig. 1, taken upon a plane extending centrally of the mold cavity; Fig. 3 is a view in perspective of the side dies and the presser carrying block mounted thereupon; Fig. 4 is a view in perspective of a side die; Fig. 5 is a view in perspective of a stationary abutment with which the presser carrying block has engagement in the operation of the machine; Fig. 6 is a view similar to Fig. 2, illustrating a different position of the parts wherein the mold is closed upon a heel-blank; and Fig. 7 is a perspective view of a compressed top lift.

Referring to the drawings, the reference numeral 2 indicates a vertically moving head to which a reciprocatory movement is imparted by suitable mechanism, such as is shown for example in United States Letters Patent, 776,875, Dec. 6, 1904. The reference numeral 4 indicates the upper member of the toggle of said patent which imparts vertical movement to the head 2. Mounted upon the upper side of the head 2 are slides 6 upon which are mounted side dies 8. The slides 6 are moved horizontally toward and from each other upon the head 2 by links 10 pivotally connected to said slides and also pivoted to the frame of the machine, as in the machine shown in the Letters Patent referred to. Within each of the slides 6 at its inner edge and adjacent the forward end thereof is mounted a vertical slide 12. Each vertical slide 12 has a horizontal member 14 of T shape in cross-section formed integrally therewith, having engagement with a groove of corresponding shape in the side of a breast die carrying block 16. As will appear from Fig. 1 the members 14 extend obliquely from the front toward the sides of the machine. Each of the vertical slides 12 is provided with an oblique surface 18 having engagement with an end of the block 16 of corresponding obliquity. It will be seen from Fig. 1 that in the approaching movement of the side die slides 6 the breast die carrying block 16 will be forced toward the rear of the machine by the inclined surfaces 18. This movement of the block 16 is permitted by the connection between said block and the vertical slides 12 upon which the block is mounted.

Upon the rear side of the block 16 at its lower edge is mounted a breast die 20, having a dovetail entering a vertical groove 21 in said block. The breast die is held in position upon the block 16 by a spring-pressed pin 22 mounted in the block 16 and entering a socket in the breast die. As shown the rear or acting surface of the breast die is vertical and of flat contour as indicated in Fig. 2.

Above the side dies 8 is arranged a presser carrying block 24 in which are mounted yielding pins 26, the lower ends of which bear upon the upper surface of the side dies 8 as shown in Fig. 3, thus sustaining said block yieldingly. The forward end of the presser carrying block 24 is connected with the breast die carrying block 16 by a dovetail entering the groove 21 as will appear from Figs. 1, 2 and 3. A screw 28 mounted in the breast die carrying block 16 enters a groove 30 in the forward face of the presser carrying block 24 and limits upward movement of the presser carrying block 24 relatively to the breast die carrying block 16.

A presser 32 is supported upon the lower side of the presser carrying block 24 and as shown in Fig. 2 is provided with flanges upon opposite sides entering grooves 34 formed in the lower part of the block 24. The presser 32 is placed in position upon its supporting block 24 by sliding it in the grooves 34 from the rear of said block. A spring-pressed locking pin 36 is mounted upon the presser carrying block 24 in position to enter a socket in the presser in the operative position of the latter and retain said presser from rearward movement in the grooves 34.

Above the movable head 2 is arranged an abutment 38 in stationary position upon the frame of the machine. In the rise of the head 2 the presser carrying block 24 engages the abutment 38 and is forced toward the bottom of the mold cavity. The abutment 38 is supported upon a base 40 and is arranged for vertical adjustment upon said base. To secure its vertical adjustment there is provided a wedge 42, the upper side of which is provided with flanges 43 engaging horizontal grooves in the base 40 and the lower side of which is provided with inclined flanges 44 engaging similarly inclined grooves in the abutment 38. To insure that the abutment 38 will at all times have the same position with reference to the front and rear of the machine, the base 40 is provided with depending lugs 48 between which lies a shoulder 50 extending laterally from the abutment 38. As will be seen from Fig. 5 this maintains the abutment 38 in a predetermined position relatively to the front and rear of the base 40. The base 40 may be secured upon the frame of the machine in any suitable way, as by means of the screws 52, shown in Fig. 1.

Mounted upon the head 2 for sliding movement in grooves 54 longitudinally of the mold cavity is a bed-plate 56. The bed-plate 56 carries a face plate 58 which, in the operative position of the bed-plate, forms the bottom of the mold cavity.

As shown in Fig. 1, the face plate 58 is provided with a corrugated portion to corrugate the inner part of the lower surface of the top lift being compressed. Movement is imparted to the bed-plate 56 by a cam lever 60 which is pivoted at 62 upon a bracket 64 extending forwardly from the head 2, which bracket supports the bed-plate in the forward position of the latter. The cam lever 60 is provided with a cam slot 66 of the shape shown in Fig. 2, this slot being entered by a cam roll 68 journaled on a fixed pivot upon the frame of the machine. The cam lever 60 is connected to the bed plate by a link 70 which has yielding engagement, through a spring 72, with a rotatable member 74 secured to the bed-plate. It will be seen that in the upward movement of the head 2 the upper end of the cam lever 60 will be swung to the right in Fig. 2 by the cam roll 68 and the bed-plate will be advanced toward the rear of the machine into operative position. The movement of the bed-plate toward the rear of the machine is limited by an adjustable set screw 76 engaging a stop surface 78 formed upon the bracket 64. As will be apparent from Fig. 2, the spring 72 permits variation in the limit of rearward movement of the bed-plate, although the actuating mechanism for said bed-plate has a stroke which is fixed in amount.

Upon the upper surface of the bed-plate is arranged a finger 80 the forward end of which constitutes a gage for the breast edge of the top lift. As shown, the finger 80 is pivoted at 82 upon the bed-plate and is supported at its front end by a spring 84 which coöperates with a screw 86 in the rear end of the finger to maintain the finger normally in the position shown in Fig. 2. As will appear from this figure, the screw 86 limits upward movement of the front end of the finger by engagement with the rear end of the bed-plate. By adjusting the screw 86 the normal position of the finger 80 may be varied.

Supported above the bed-plate upon the bracket 64 are gages 88 which rest loosely at their front ends upon the upper surface of the bed-plate and at their rear ends are supported upon a screw 90, arranged above the bed-plate and journaled in the bracket 64. The gages 88 have threaded engagement with the screw 90 and opposite end portions of said screw are oppositely threaded so that by turning the screw the gages are adjusted equally in opposite directions. The gages 88 form a guideway for the top lift and prevent its displacement laterally of the bed-plate in the movement of the bed-plate toward its operative position. A cover 91 is supported upon the bracket 64 in position to cover the moving parts upon the front end of said bracket.

The vertical slides 12 upon which is mounted the breast die carrying block 16 are connected at their lower ends to rods 92 which enter vertical guideways in the fixed frame of the machine. Each rod 92 is provided with a collar 94 adjustable longitudinally of the rod and held in fixed position by a set screw 96. The lower end of each rod is provided with an adjustable nut 98 between which and a portion of the frame of the machine is arranged a spring 100 coiled about the rod 92. As will be apparent from Fig. 1, in the rise of the head 2 each rod 92 is pressed downwardly by its spring 100 and the breast die carrying block 16 is thus lowered upon the head 2. In the descent of the head 2 the collars 94 upon the rods 92 come into engagement with the fixed

frame of the machine and arrest downward movement of said rods, thus raising the breast die carrying block 16 upon the head 2.

By referring to Fig. 4, it will be seen that the side die 8 shown therein is provided with two beveled surfaces 102 and 104, the latter of which is of greater width than the former. The two side dies 8 are of identical construction and are so connected to the slides 6 that they may be inverted in position and interchanged with each other in order that either of the surfaces 102 and 104 may be used in compressing a blank.

Each side die 8 has engagement upon two sides with the walls of its slide 6. Rigidly secured upon the slide 6 above the side die is an angular member 106. A removable pin 108 extends through the member 106 and into a bore extending through a side die at one corner. It will be seen that by removing the pin 108 a side die 8 may be disconnected from its slide 6, and may then be connected to the opposite slide in an inverted position.

In the operation of the machine shown, it will be observed that at the lowermost position of the head 2 the breast die 20 is in the raised position upon said head illustrated in Fig. 2. A lift 110 to be compressed having been placed upon the bed-plate 56 with its breast edge against the flat end of the finger 80, in the forward movement of the bed-plate the lift will be advanced beneath the breast die and beneath the presser 32 into position between the side dies 8. In the greater portion of its forward movement it is guided by the gages 88. The movement of the bed-plate toward the rear of the machine occurs during the first part of the upward movement of the head. At the same time the breast die 20 is lowered upon the head through the action of the springs 100. The movement of these parts is so timed that the top lift passes beyond the inner face of the breast die before the latter descends to the level of the upper face of the lift. The cam slot 66 in the cam lever 60 is so formed, as indicated in Figs. 2 and 6, that immediately after the bed-plate reaches the limit of its movement toward the rear of the machine it is retracted a slight amount. One advantage of this feature is that such compression of the spring 72 as occurs in the movement of the bed-plate toward the rear of the machine is relieved before the bed-plate is given its final position. The position of the latter is thus positively controlled. It will be observed that the presser 32 is in close relation to the upper face of the lift as it is moved between the side dies.

In the upward movement of the head the side dies 8 are moved together and simultaneously with such movement the breast die is moved toward the rear of the machine. The side dies and breast die thus subject the blank to lateral pressure. After these dies have closed upon the blank, the further rise of the head brings the presser carrying block 24 into contact with the abutment 38, forcing the presser toward the bed-plate and subjecting the blank to vertical pressure. The presser in its movement toward the bed-plate has contact with the straight portion of the side dies above the bevel at the bottom of said dies. The presser moves to a point short of the junction of the straight portion and the beveled portion of said dies, thus leaving the edge of the blank adjacent to the tread surface normal to said tread surface.

In the descent of the head, the presser 32 is raised from contact with the blank by means of the spring-pressed pins 26 and the side dies and breast die release the compressed blank. In the further descent of the head the bed-plate is moved toward the front of the machine and the compressed blank falls by gravity into the chamber in which said bed-plate is received. The blank remains in this chamber until the next movement of the bed-plate toward the rear of the machine when it is pushed by the bed-plate from the chamber into a suitably arranged discharge trough.

It will be observed that in the use of the present machine if a fin is formed at the junction of the peripheral surface of a lift with the lower face of the lift it will lie in a plane parallel to said face and will not project outwardly from said face. This will be the case regardless of the amount of wear which the parts of the mold may receive. It will be understood that the presence of a fin extending outwardly from the opposite face of the lift is not particularly objectionable, as it does not interfere with the attachment of a lift and will be subsequently removed in the heel trimming or heel securing operations. The presence of a fin projecting outwardly from the inner face of a top lift in such a direction as to prevent close contact of the lift with the face of the heel in the attaching operation produces several injurious results; for example, it causes a crack to come into view after the trimming and scouring operations and it may also prevent a top lift from being attached evenly, causing the lift to lie in a non-parallel relation to the face of the heel.

It will be seen that in the present machine the top lift after being placed by the operator upon the feed slide is moved into operative relation to the dies by a single movement. In this respect the machine is simpler in construction and operation than machines wherein a feed slide places a lift upon the top of a vertically movable presser plate forming the bottom of the mold cavity and in which the presser plate thereafter de-

scends to carry the top lift into operative position in the mold cavity.

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

1. A machine for applying pressure to top lifts, having in combination, means for molding the peripheral surface of a lift, means for molding the outer or grain side of the lift and means having a plane face for molding the flesh side of the lift, said latter face being formed to overlap the edge of the lift.

2. In a machine for compressing heel-lifts, means for molding the peripheral surface of a lift formed to provide a downwardly flaring portion at the bottom of the mold cavity and constituting a mold having its greatest dimension at its bottom and a member constructed to form the bottom of said cavity and apply pressure to the flesh side of the lift engaged by it and arranged for movement into an inoperative position wherein the lift may be discharged downwardly from the cavity, said member having a plane acting face formed to overlap said means in the operative position of the member.

3. In a machine for compressing heel-blanks, dies for molding the peripheral surface of a blank, said dies beveled at one margin of their acting surface to provide an outwardly flaring portion and having a straight portion on the inner side of and joining the beveled portion, a member arranged to close the mold cavity on the side adjacent to said beveled portion and having its face in the plane of the outer edge of the bevel and a presser arranged for movement between said dies in contact with said straight portion toward said member to a point short of the junction of the straight portion and the beveled portion.

4. In a machine for compressing heel-blanks, dies for molding the peripheral surface of a blank, beveled at one margin of their acting surface to provide an outwardly flaring portion and having a straight portion at the inner side of and joining the beveled portion, a member arranged to close the mold cavity on the side adjacent to said beveled portion and having its face in the plane of the outer edge of the bevel, a presser arranged for movement between said dies in contact with said straight portion toward said member to a point short of the junction of the straight portion and the beveled portion, and means for moving relatively said member and said presser to subject a blank to vertical pressure constructed for adjustment to vary the limit of movement of the presser toward said member.

5. In a machine of the class described, a head arranged for reciprocatory movement, side dies and a breast die mounted upon said head and arranged to subject a blank to lateral pressure, means for inserting the blank between said dies by movement in the plane of said dies, and means for moving one of said dies out of the path of the blank and out of the plane of the remaining dies to permit the insertion of the blank and for returning said die to operative relation to the remaining dies after the passage of the blank beyond its inner surface.

6. In a machine of the class described, the combination with a movable head, side dies and a breast die mounted on said head, and means for forcing said dies simultaneously against the edges of a blank, of means other than the breast die for inserting a blank between the dies by movement longitudinal of the die cavity in the direction of the rear thereof, and means for moving the breast die out of the path of the blank before its entrance into the die cavity and for returning said breast die to operative relation to the side dies after the insertion of the blank.

7. In a machine of the class described, the combination with a movable head, side dies and a breast die mounted on said head, and means for forcing said dies simultaneously against the edges of a blank, of means for inserting a blank between the dies by movement longitudinal of the die cavity in the direction of the rear thereof, and means for raising the breast die to permit the passage of a blank beneath it and for returning said die to the plane of the side dies after the entrance of the blank into the die cavity.

8. In a machine of the class described, the combination with side dies and a breast die arranged to subject a blank to lateral pressure, of a bed-plate constructed to form the bottom of the die cavity and arranged for movement longitudinal of said cavity from a blank receiving position at a point removed from said dies to an operative position wherein it forms the bottom of the die cavity, means upon the bed-plate arranged to have engagement with the blank to insure its movement with the bed-plate into position to be acted upon by said dies and means for moving the breast die out of the path of the blank and for returning said breast die to operative relation to the side dies after the passage of the blank beyond the inner surface of said breast die.

9. In a machine of the class described, a head arranged for vertical movement, side dies mounted upon said head and constructed to subject the sides of the blank to pressure, a presser mounted upon said head and constructed for engagement with the top surface of the blank, a bed-plate carried by the head and constructed to form the bottom of the die cavity and a breast die for engaging the breast of the blank arranged for movement relatively to the head to per-

mit the insertion of the blank from the breast end of the die cavity and arranged to be returned to operative relation to said head prior to the closing of the side dies upon the blank.

10. A machine for compressing heel lifts, having in combination, a head arranged for reciprocatory movement, means upon said head for automatically subjecting a blank to lateral pressure by engagement with opposite sides thereof and means carried by the head arranged to engage top and bottom of the blank for subjecting the blank to vertical pressure during the movement of the head.

11. In a machine of the class described, a die formed with a surface shaped longitudinally to fit the curved side of a heel lift and provided with beveled portions of different widths at different points intermediate its top and bottom to be used with blanks of different thicknesses.

12. In a machine of the class described, a die formed with a surface shaped longitudinally to fit the curved side of a heel lift provided with beveled portions at top and bottom of different widths and constructed to be inverted to permit either of said beveled portions to be employed in compressing a blank.

13. In a machine of the class described, the combination with dies formed to mold the edges of a heel-blank, of a presser formed to have engagement with the top face of the blank and arranged with its acting surface below the top surface of the dies at all times in the operation of the machine, said presser being vertically movable with said dies, and means constructed to form the bottom of the die cavity, one of said dies being arranged for movement out of operative relation to the remaining parts to permit the insertion of a blank in the die cavity.

14. In a machine of the class described, the combination with dies formed to mold the edges of a heel-blank, of a presser formed to have engagement with the top surface of the blank and arranged with its acting surface below the top surface of the dies at all times in the operation of the machine, said presser being vertically movable with said dies, and a bed-plate constructed to form the bottom of the die cavity and arranged for movement out of operative relation to the dies to permit the discharge of the blank downwardly from said cavity.

15. In a machine of the class described, the combination with side dies and a breast die arranged to subject a blank to lateral pressure, of a bed-plate constructed to form the bottom of the die cavity and arranged for movement longitudinally of said cavity, means for raising the breast die to permit the passage beneath it of a blank carried by the bed-plate and for returning the breast die to the plane of the side dies after the passage of the blank beyond its inner surface, and means for actuating the bed plate constructed to advance it to a point beyond its operative position and to retract it to operative position after the descent of the breast die behind the blank.

16. In a machine of the class described, a head arranged for vertical reciprocatory movement, side dies and a breast die carried by said head for subjecting the heel-blank to lateral pressure, and means for raising the breast die upon the head to permit the passage of a blank beneath it into position between the side dies and for returning the breast die into operative relation to the side dies after the insertion of a blank.

17. In a machine of the class described the combination with side dies and a breast die constructed to mold the edges of the blank, of a bed-plate arranged for sliding movement beneath and relative to said side dies and breast die for carrying a blank into position to be acted upon by said dies and constructed to form the bottom of the die cavity and a vertically yielding projection upon the bed-plate arranged to be engaged by the breast edge of the blank for maintaining the blank in a predetermined position upon the bed-plate.

18. In a machine of the class described, the combination with dies arranged to mold the edges of a heel blank, of a presser for molding the top surface of the blank supported upon said dies and arranged with its acting surface below the top surface of the dies at all times in the operation of the machine, and means constructed to form the bottom of the die cavity, one of said dies being arranged for movement out of operative relation to the remaining parts to permit the insertion of a blank in the die cavity by movement in the plane of the dies.

19. In a machine of the class described, the combination with side dies and a breast die formed to mold the edges of a heel blank, of a bed-plate constructed to form the bottom of the die cavity, a presser for engagement with the top surface of the blank sustained for vertically yielding movement upon the side dies, and means for moving relatively the presser and bed-plate to subject the blank to vertical pressure.

20. In a machine of the class described, the combination with side dies and a breast die arranged for simultaneous lateral movement to mold the peripheral surface of a blank, of a presser for molding one face of the blank arranged for lateral movement with the breast die and for vertical movement independent of the breast die and a member for molding the opposite face of the blank.

21. In a machine of the class described, the combination with dies for molding the peripheral surface of a heel blank, of a mem-

ber constructed to form the bottom of the die cavity and arranged for movement longitudinally of said cavity from a blank-receiving position at a point remote from said dies to an operative position wherein it forms the bottom of the die cavity, said member having a plane acting face formed to overlap said dies in the operative position of the member, means other than said dies for positioning a blank longitudinally upon said member and means for positioning said blank laterally upon the member.

22. In a machine of the class described, the combination with dies arranged to mold the entire peripheral surface of a heel-blank, of a member constructed to form the bottom of the die cavity arranged for movement longitudinally of said cavity from a blank receiving position to an operative position wherein it forms the bottom of the cavity, said member having a plane acting face formed to overlap said dies in the operative position of the member, means upon said member arranged to have engagement with the breast edge of the blank for positioning the blank longitudinally of said member and gages arranged to control the position of the blank laterally thereof in the movement of said member toward its operative position.

23. A machine for applying pressure to top lifts, having in combination, means for molding the peripheral surface of a lift constructed to impart to the lift a form tapering from the flesh side toward the grain side of the lift, means having a plane face for molding the grain side of the lift, and means having a plane face for molding the flesh side of the lift, said latter face being formed to extend outside of the edge of the lift in the plane of said flesh side whereby a fin formed at the junction of the peripheral surface of the lift with the flesh side extends in the plane of said flesh side.

24. A machine for applying pressure to top lifts, having in combination, means having a plane face for engaging the outer or grain side of a lift, means for engaging the edge of the lift, said edge engaging means being constructed to impart to the top lift a greater dimension on its flesh side than on its grain side, and means having a plane face for engaging the flesh side of the lift, said latter face being formed to overlap the edge of the lift.

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

THOMAS LUND.

Witnesses:

ALLAN H. BARROWS,

ELIZABETH C. COUPE.

Correction in Letters Patent No. 959,869.

It is hereby certified that in Letters Patent No. 959,869, granted May 31, 1910, upon the application of Thomas Lund, of Beverly, Massachusetts, for an improvement in "Compressing-Machines," an error appears in the printed specification requiring correction as follows: Page 4, line 109, the word "securing" should read *scouring;* and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 28th day of June, A. D., 1910.

[SEAL.]

C. C. BILLINGS,

Acting Commissioner of Patents.