

Feb. 1, 1944.

W. W. PRUE

2,340,614

MACHINE FOR OPERATING UPON SHOES

Filed Feb. 11, 1943

3 Sheets-Sheet 1

Fig. 1

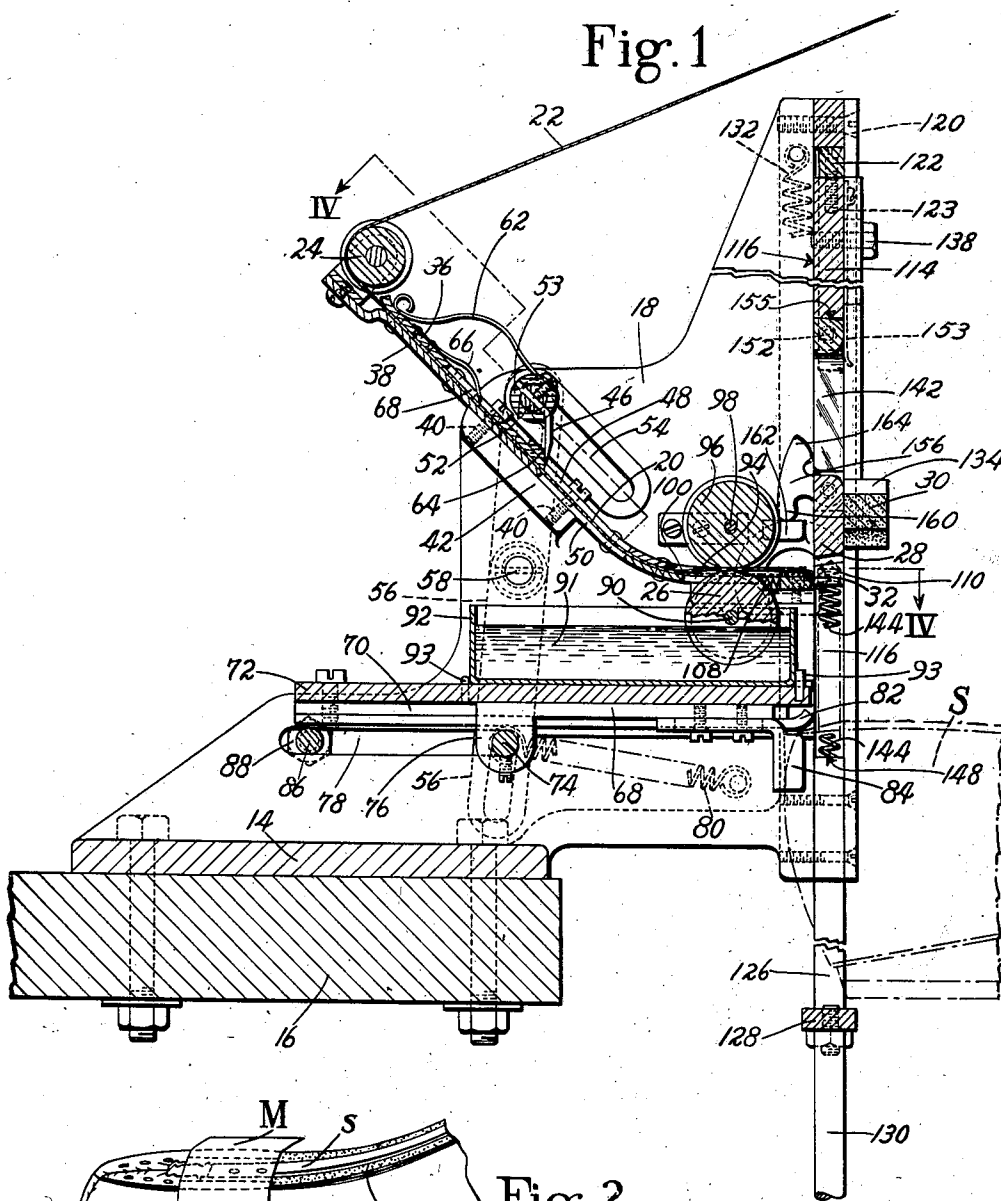
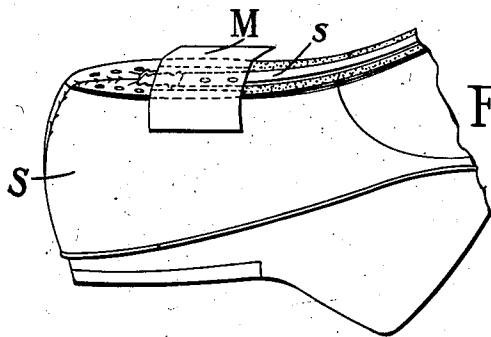


Fig. 2



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3 Sheets-Sheet 2

Fig. 3

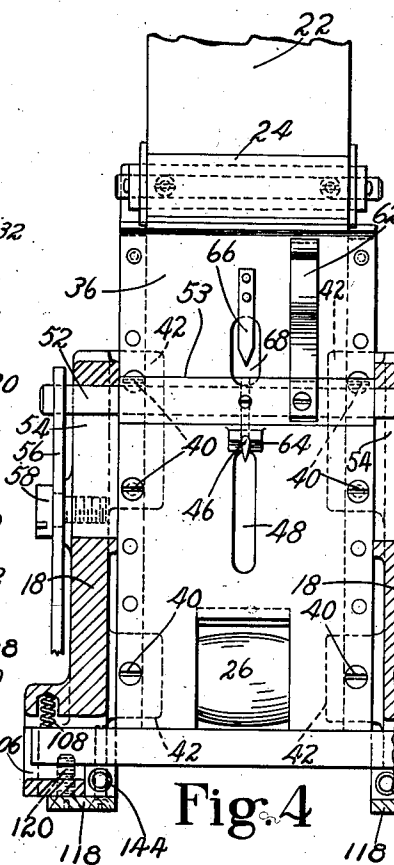
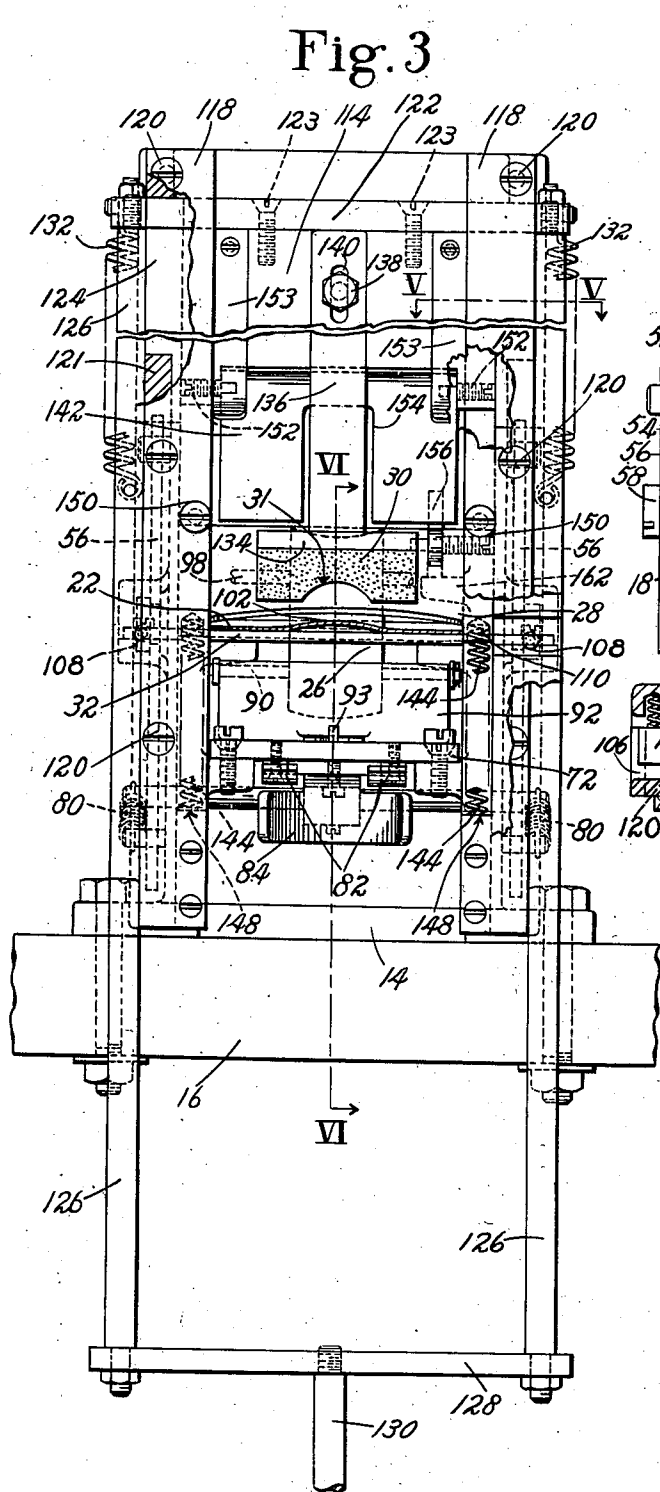
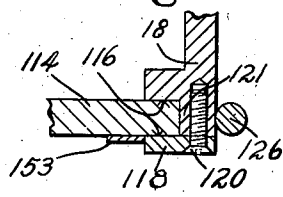


Fig. 4

Fig. 5



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3 Sheets-Sheet 3

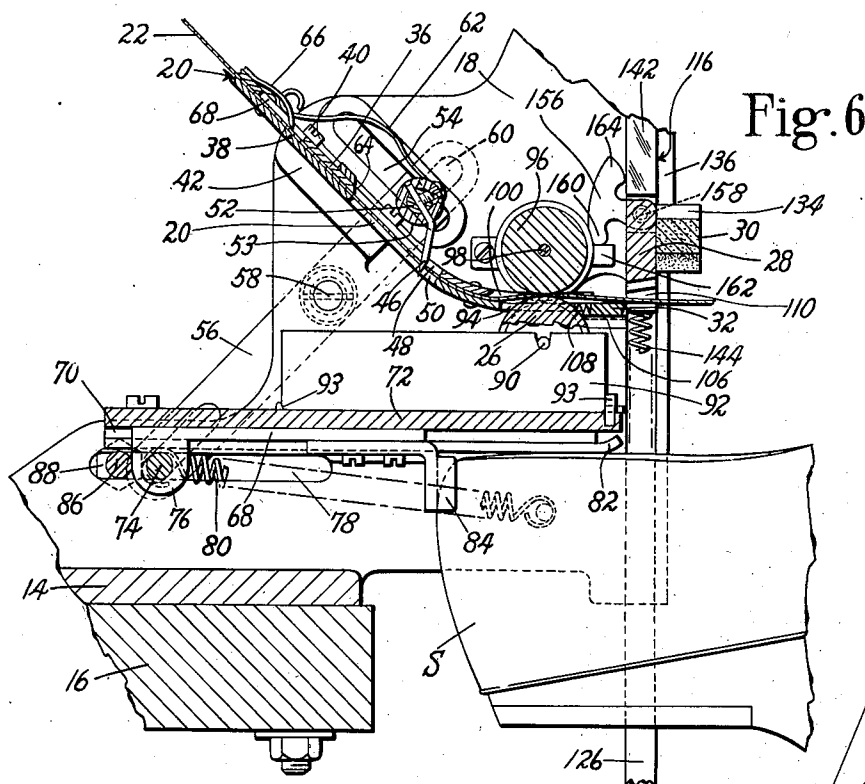


Fig. 6

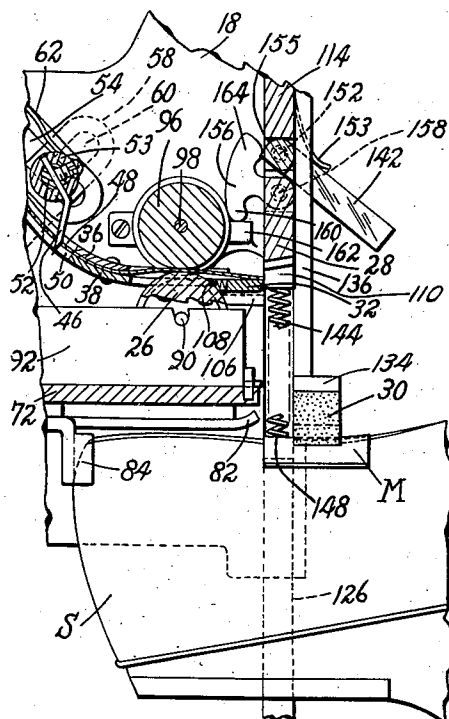


Fig. 8

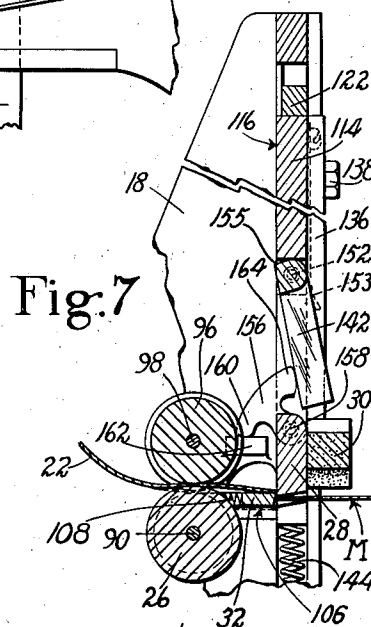


Fig. 7

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2,340,614

MACHINE FOR OPERATING UPON SHOES

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Application February 11, 1943, Serial No. 475,467

18 Claims. (Cl. 12—51)

This invention relates to machines for operating upon shoes and is therein illustrated as embodied in a machine for applying masking pieces to the heel-seat portions of shoes.

In the manufacture of shoes having wood heels, after an outsole has been attached to a shoe it is customary to perform a heel-seat-fitting operation upon the outsole to prepare the shoe bottom for the reception of the heel. This operation is usually performed by means of a heel-seat-fitting machine and, in order to facilitate the operation of the machine on the work, it is desirable that the portion of the outsole which is to be operated upon, i. e., the portion which extends rearwardly of the heel breast line, shall be left unattached to the shoe bottom. When the outsole is attached by means of cement or other adhesive, however, it is difficult to control the operation of applying the cement and attaching the sole so as to determine exactly where the cement bond is to terminate and frequently it is caused to extend rearwardly of the heel breast line. In such instances, the efficient operation of the heel-seat-fitting machine is interfered with and as a result the fitting operation may be improperly performed.

In order to insure that the adhesive bond between the outsole and the shoe bottom shall not extend into the area to be operated upon by the heel-seat-fitting machine, it is the present practice in some shoe factories to lay a small piece of paper by hand upon the heel-seat portion of the lasted shoe before the outsole is attached and temporarily to secure the piece in place by means of adhesive or otherwise so that it will serve to cover or mask the heel-seat portion and thus to insure that, in the subsequent outsole-attaching operation, the outsole will not become stuck to the heel-seat portion of the shoe. This hand operation, however, is not entirely satisfactory since it is difficult for the operator to locate the paper accurately with respect to the breast line of the shoe bottom. Moreover, the hand operation requires considerable time and, if adhesive is used for securing the masking piece in place, the adhesive is liable to become smeared upon the sides of the upper so that subsequent cleaning operations become necessary to remove the surplus cement from the shoe.

The object of the present invention is to provide a machine for applying a masking piece to the heel-seat portion of the bottom of a lasted shoe for the purpose of protecting it from the sole-attaching cement.

The invention will now be described with ref-

erence to the accompanying drawings, in which

Fig. 1 is a view in longitudinal, vertical section of the machine;

Fig. 2 is a perspective view of the back part of a lasted shoe to the bottom of which a heel-seat masking piece has been applied by means of the machine;

Fig. 3 is a front elevational view of the machine, portions thereof having been broken away to disclose more clearly certain details of construction;

Fig. 4 is a sectional view of the machine taken along the line IV—IV of Fig. 1;

Fig. 5 is a detailed view in section on the line V—V of Fig. 3;

Fig. 6 is a sectional view taken along the line VI—VI of Fig. 3;

Fig. 7 is a view in longitudinal vertical section of a portion of the machine showing certain of the operative parts in the positions they occupy just after a masking piece has been severed from the supply strip; and

Fig. 8 is a view in longitudinal, vertical section of a portion of the machine showing the positions of the various operating parts when the masking piece is being applied to the shoe.

Referring to the drawings, the illustrated machine comprises a base 14 which, as shown, is bolted to a bench 16. Rising from the base 14 and offset forwardly with respect thereto are two upright frame members 18, 18 which are spaced horizontally to receive between them an inclined guideway 20 for a strip of paper 22 which leads from a supply roll (not shown) over a guide roll 24 and downwardly through the guideway 20. The strip 22 is led by the guideway 20 over an adhesive applying roll 26 and forwardly into the position shown in Fig. 6 beneath a movable shear blade 28 and a movable presser or plunger 30. The movable shear blade 28 cooperates with a fixed shear blade 32 to sever a piece M (Figs. 2 and 7) from the leading end of the strip 22 and to apply the severed piece to the bottom of a lasted shoe S to serve as a mask during the performance of a subsequent operation in the manufacture of the shoe. The guideway 20 is formed between spaced upper and lower plates 36 and 38, respectively, which are secured by screws 40 (Figs. 1 and 4) to lugs 42 on the inner sides of the frame members 18. The strip 22 is fed forwardly through the guideway 20 to advance its leading end into the position shown in Fig. 6 by means of a reciprocatory feed finger 46 having a needle-like lower end adapted to puncture the strip to secure feeding engagement there-

with, the finger 46 being movable for this purpose through slots 48 and 50 in the plates 36 and 38, respectively. The feed finger 46 is carried by a horizontal shaft 52 the opposite end portions of which are mounted for rocking and sliding movements in inclined slots 54 in the frame members 18. A sleeve 53 is secured to the shaft 52, the opposite ends of the sleeve engaging the inner sides of the frame members 18 to prevent longitudinal displacement of the shaft. The shaft 52 is supported and moved back and forth in the slots 54 by means of two levers 56 which are pivoted at 58 to the frame members 18, the upper portions of the levers being slotted at 60 to receive the ends of the shaft. A light leaf spring 62, secured at its forward end to the shaft 52 and disposed with its rear extremity bearing upon the upper side of the plate 36, tends to rotate the shaft 52 in a direction to hold the finger 46 in feeding engagement with the strip, as shown in Fig. 6. Upon the backward or non-feeding stroke of the feed finger 46 the spring 62 yields to enable the finger to be withdrawn from the perforation made by it in the strip 22 and to slide idly rearward over the surface of the strip into the position shown in Fig. 1 where it engages a cam face 64 (Fig. 4) on the plate 36 which holds the point of the feed finger elevated somewhat above the surface of the strip in the intervals between successive feed movements of the latter. During these intervals and during the backward movements of the feed finger the strip 22 is held against accidental backward movement in the guideway 20 by means of a light spring detent 66 the free end of which extends through a slot 68 in the plate 36.

In order that the feed finger 46 shall be reciprocated to impart successive feed movements to the strip 22, the lower end of the lever 56 is connected with a slide 68 (Figs. 1 and 6) mounted in horizontal guideways 70 beneath a table 72 which is located between and is secured to the frame members 18. The connections between the lever 56 and the slide 68 comprise a horizontal rod 74 carried by ears 76 depending from the slide 68, the rod extending through slots 78 in the frame members 18. Two springs 80, each secured at one end to the rod 74 and at the opposite end to the frame members 18, tend to hold the rod against the front ends of the slots 78 to determine the rearward positions of the feed finger 46. The slide 68 is moved backwardly to cause a feed movement to be imparted to the finger 46 by the shoe which is to be operated upon, the operator supporting the shoe and moving it rearwardly in engagement with the slide in the act of presenting the shoe to the machine. The shoe S is held bottom uppermost in the hands of the operator and is initially presented in the position indicated by dotted lines in Fig. 1. As indicated, the bottom of the back part of the shoe engages beneath the upturned front edge portions of two gage plates 82 (Figs. 1 and 3) secured to the lower side of the table 72 with the upper portion of the back part of the shoe upper bearing against a depending abutment or back gage 84 on the slide 68. The operator then pushes the shoe rearwardly, thereby causing its bottom surface to slide past the gage plates 82 until it occupies the position shown in Fig. 6. This movement of the shoe moves the slide 68 rearwardly and rocks the lever 56 in a direction to impart a forward feeding stroke to the feed finger 46. The slide 68 is moved backwardly against the pull of the springs 80 until the ears

76 on the slide engage a stop rod 86 which determines the length of the feeding stroke of the feed finger and also the rearward position of the back gage 84, in which position the back gage functions to locate the shoe lengthwise in position to receive the masking piece which is to be cut from the strip 22. The opposite ends of the stop rod 86 extend outwardly through the slots 78 and the rod is adjustably secured in place by means of nuts 88 on the ends of the rod which are tightened against the outer sides of the frame members 18. By loosening the nuts 88 and shifting the position of the stop rod 86 in the slots 78 the extent of the movement imparted to the back gage 84 and the slide 68 by the shoe may be adjusted to vary the operative position of the back gage in accordance with the size of a particular shoe to be operated upon. Inasmuch as the feed finger is operatively connected with the slide 68 the shifting of the position of the stop rod 86 will also cause the length of stroke of the feed finger 46 to be correspondingly and simultaneously adjusted to vary the position of the leading edge of the strip 22 at the end of the feed movement of the strip. As a result of such an adjustment of both the operative position of the back gage 84 and the position of the leading edge of the strip the shoe and the leading end portion of the strip will be relatively so positioned in accordance with the size of the shoe so that when the shear blades and the presser have operated to cut a piece from the strip and apply it to the shoe the piece will be located upon the heel-seat portion of the shoe bottom with its forward edge in line with the heel breast line of the shoe, that is to say, with the line where the breast edge of the heel will be located when the heel is subsequently applied to the shoe.

The adhesive applying roll 26 is arranged to dip into a supply of liquid adhesive 91 in a tank 92 which rests between positioning pins 93 on the table 72. The roll 26 projects through a notch 94 in the plate 38 so as to engage the lower side of the strip 22 and it is fixed upon a shaft 99 which is journaled in bearings in the sides of the tank 92. To insure that the applying roll 26 will be rotated as the strip 22 is fed forwardly so that the roll will function to convey adhesive from the tank 92 to the strip, an idle roll 96 is mounted above the roll 26. The idle roll 96 is fixed upon a shaft 98 which is journaled in bearings in the frame members 18 and the lower portion of the roll 96 extends through an opening 100 in the plate 36 into engagement with the upper side of the strip 22 to hold the strip in contact with the applying roll 26. As shown in Figs. 3 and 4, the rolls 26 and 96 are shorter than the width of the strip 22 and consequently the roll 26 will apply the adhesive to the central portion only of the strip so that the masking piece 32 will be coated with adhesive only in its central portion, i. e., the portion which is to overlie the bottom of the shoe, and the opposite end portions of the masking piece (which are to extend outwardly somewhat beyond the sides of the shoe, as shown in Fig. 2) will be left uncoated. Also, as shown, the periphery of the roll 26 is slightly convex axially of the roll while the periphery of the roll 96 is correspondingly concave axially of the roll. This construction causes the adhesive coated central portion of the strip 22 to be bulged or bowed upwardly, as indicated at 102 in Fig. 3, so that it will clear the fixed shear blade 32 and thereby insure that the adhe-

sive will not stick the strip to the blade so as to interfere with the feed of the strip.

It may be desired to employ a strip 22 which has a dried coating of adhesive thereon and in such a case the tank 32 will contain water or solvent instead of adhesive and the water or solvent will be applied by the roll to the precoated side of the strip to moisten the coating and thereby render it effective to secure the piece cut from the strip to the bottom of the shoe.

While the shoe is held by the operator in the position shown in Fig. 6 the movable shear blade 28 is depressed to cooperate with the stationary blade 32 to cut a masking piece from the leading end of the strip 22 and the presser pad 30 is operated to move the masking piece downwardly and press it against the bottom of the shoe thereby causing the piece to be attached to the shoe by means of the adhesive on the piece. The fixed shear blade 32 is positioned just in front of the forward end of the plate 38 so that the strip 22 will pass over the fixed blade as it is being fed beneath the movable blade 28. To insure that the shear blades 28 and 32 will cooperate to make a clean cut, the fixed blade 32 is mounted in horizontal guideways 106 in the frame members 18 and is backed up by springs 108, which press it forwardly and hold it yieldingly against two lugs 110 that depend from the blade 28 at opposite ends of the cutting edge of the latter, as shown in Fig. 3.

The presser 30 is mounted upon a crosshead 114 that is movable in vertical guideways 116 formed between the front edges of the frame members 18 and the rear faces of gibs 118 which are secured by screws 120 to ribs 121 on the frame members, the inner sides of the ribs 121 engaging the opposite ends of the crosshead to prevent endwise displacement of the latter. Fastened by screws 123 to the top of the crosshead 114 is a crossbar 122 the opposite ends of which project through lateral slots 124 in the ribs 121 and are secured to the upper ends of links 126, the lower ends of which are connected by a crossbar 128. The crossbar 128 (Fig. 3) is connected by a rod 130 with a foot treadle (not shown) which may be operated to depress the crosshead 114. Springs 132, 132 connected at their upper ends to the crossbar 122 and at their lower ends to the frame members 18 serve to return the crosshead 114 to its normal elevated position when the treadle is released. This normal position of the crosshead is determined by engagement of the crossbar 122 with the upper ends of the slots 124 in the ribs 121. The lower position of the crosshead is determined by engagement of the crossbar 122 with the lower ends of the slots 124.

The presser or plunger 30 consists of a pad of rubber or other yielding material secured to a rigid support 134 formed at the lower end of a plate 136 the upper end of which is rigidly secured by means of a screw 138 to the crosshead 114. The screw 138 extends through a vertical slot 140 in the supporting plate 136, the slot permitting vertical adjustment of the presser. The presser pad is centrally notched or recessed at its lower side, as indicated at 31 in Fig. 3, so that it will apply pressure only in localities at opposite sides of the central median zone of the shoe bottom. This will insure that if the shank stiffener 5 of the shoe projects to any substantial extent above the overlapped margins of the upper, as indicated in Fig. 2, it will not interfere with the adhesive attachment of the masking piece to

the shoe. As shown in Fig. 3, the strip 22 is wide enough so that the opposite end portions of the masking piece cut therefrom will extend beyond the shoe bottom at opposite sides of the shoe, as indicated in Fig. 2, to facilitate the removal of the masking piece from the shoe after it has served its purpose.

The movable shear blade 28 is mounted independently of the crosshead 114 in the vertical guideways 116 in which the crosshead 114 is mounted and the blade is adapted to be moved downwardly in unison with the crosshead to cooperate with the fixed blade 32 by means of a knock-off bar 142 which is interposed between the crosshead and the shear blade 28, the arrangement being such that after the strip has been cut by the shear blades the knock-off bar will be displaced from its operative position thereby releasing the blade 28 to the action of two springs 144 which then act to raise the blade to its normal inoperative position while the crosshead continues to move downwardly to enable the presser 30 to perform its operation. The lower ends of the springs 144 bear against abutments 148 on the gibs 118 while the upper ends of the springs are seated in sockets in the lugs 110 on the blade 28. Stop screws 150 carried by the gibs 118 are adapted to engage the upper edge of the blade 28 to limit its upward movement under the influence of the springs 144.

The knock-off bar 142 is pivoted at 152 (Figs. 6 to 8) to the lower portion of the crosshead 114 so that the knockoff bar can swing forwardly to displace its lower end from operative engagement with the shear blade 28 and the knockoff bar is notched, as indicated at 154 in Fig. 3, to permit it to swing forwardly past the supporting plate 136 which carries the presser 30. Leaf springs 153 carried by the crosshead and bearing against the knock-off bar 142 tend to hold the latter in its normal position of operative engagement with the movable shear blade 28, this position of the bar 142 being determined by the engagement of a shoulder 155 on the bar with the lower face of the crosshead. The knock-off bar 142 is swung forwardly to disengage it from the blade 28 by means of a dog 156 pivoted at 158 to the blade 28 and having a tail 160 resting upon a lug 162 on one of the frame members 18 and a head 164 for engagement with the lower rear face of the knock-off bar 142. As the crosshead moves downwardly the dog 156 is rocked in a clockwise direction, as viewed in Figs. 6 to 8, the knock-off bar remaining in operative engagement with the blade 28, however, until the blade has cooperated with the fixed blade 32 to cut the strip. Immediately after the strip has been cut, the knock-off bar 142 releases the blade 28 to the action of the springs 144 which return the blade to the position shown in Fig. 7, this position being determined by means of the stop pins 150. During the upward movement of the blade 28 the knock-off bar 142 is swung still further in a forward direction, as indicated in Fig. 8, to avoid interference with the blade. During this time the presser 30 continues to move downwardly and functions to carry the masking piece which has been cut from the strip 22 into engagement with the bottom of the shoe and to press it firmly against the shoe thereby causing it to become secured to the latter by means of the adhesive coating on the masking piece. The foot treadle is then released, allowing the crosshead 114 and the presser 30 to rise and the springs to return the knock-off bar 142 to its normal undisplaced

position wherein it is ready to operate upon the next depression of the crosshead to lower the movable blade 28.

The masking piece should be applied to the shoe so that the forward edge of the piece will be located at the front extremity of the heel-seat portion of the shoe bottom or, in other words, so that it will coincide with the line where the breast edge of the heel of the shoe is to be located. This is because it is desirable to have the outsole firmly secured to the shoe by means of the attaching cement as far rearwardly as the heel breast line and to insure that there shall be no cement bond between the outsole and the shoe bottom rearwardly of that line. It will be seen that the applied position of the masking piece is determined by two factors, viz., the length of the feed movement of the strip 22 (which determines the location of the edge at the leading end of the strip when that portion of the strip has been fed into position for the severing of the masking piece therefrom) and the extent of backward movement of the back gage 84 (which determines the lengthwise location of the shoe relatively to the presser 30 when the latter is being lowered to apply the masking piece to the shoe). The length of strip feed and the extent of movement of the back gage are capable of being varied in accordance with the size of the shoe to be operated upon by adjustment of the stop rod 86 in the slot 73. This stop rod limits the rearward movement of the slide 68 which carries the back gage 84 and, through the lever 56, limits the forward or feed movement of the feed finger 46, and adjustment of the stop rod thus simultaneously varies the extent of feed movement of the strip and that of the rearward movement of the shoe after the shoe has been presented to the machine. The arrangement is such that the increase in the length of feed stroke to properly position the strip 22 for the cutting of a masking piece for a large size shoe is substantially less than would be required if the operative position of the back gage 86 were not simultaneously adjusted to position the large shoe further toward the rear of the machine than a small shoe would be positioned. This arrangement therefore results in a substantial saving of strip material.

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

1. In a machine for operating on shoes, in combination, means for supporting a strip and guiding it for lengthwise feeding movement, means for feeding the strip to advance its leading end into position to be operated upon, means for positioning a shoe with respect to said operating position, and means for severing a piece from the leading end of the strip and applying said piece to the shoe to serve as a mask in the performance of a subsequent operation on the shoe.

2. In a machine for operating on shoes, in combination, means for supporting a strip and guiding it for lengthwise feeding movement, a feed device for feeding the strip to advance its leading end into position to be operated upon, a movable shoe positioning gage adapted to be moved into operative position by a shoe as the latter is being presented to the machine by the operator, connections between said gage and said feed device for operating the latter, and means for severing a piece from the leading end of the strip and applying said piece to the shoe positioned by said gage.

3. In a machine for operating on shoes, in combination, means for supporting a strip and guiding it for lengthwise feeding movement, means for feeding the strip to advance its leading end into position to be operated upon, means engageable with a lasted shoe presented bottom uppermost to the machine for positioning the shoe heightwise with its bottom face below the level of the leading end of said strip, a gage for positioning the shoe lengthwise with its heel-seat portion beneath the leading end of the strip, means for severing a piece from the leading end of said strip, and means for engaging said piece just after it has been severed and applying it to the heel-seat portion of the shoe bottom to serve as a mask for a manufacturing operation subsequently to be performed upon the shoe.

4. In a machine for operating on shoes, in combination, means for supporting a strip and guiding it for lengthwise feeding movement, a feed member for feeding the strip to advance its leading end into position to be operated upon, devices for severing a piece from the leading end of the strip and applying said piece to a shoe presented to the machine by the operator, a gage adapted to be engaged and moved by the shoe as the shoe is being presented to the machine, connections between said movable gage and said feed member for operating the latter to feed said strip, and means for arresting the movement of the gage to position the shoe relatively to said device and to determine the length of feed of the strip.

5. In a machine for operating on shoes, in combination, means for supporting a strip and guiding it while it is being fed in a lengthwise direction, mechanism for feeding the strip to advance its leading end into position to be operated upon, said mechanism including a member adapted to be engaged by a shoe being presented to the machine and moved by the shoe to effect the feed of the strip, adjustable means for limiting the movement of said member thereby to determine the length of the feed movement of the strip and locate the shoe in position to be operated upon, and means for severing a piece from the leading end of the strip and applying said piece to the shoe to serve as a mask for an operation subsequently to be performed upon the shoe.

6. In a machine for operating on shoes, in combination, a strip supporting guideway, a feed finger for feeding a strip along said guideway, a gage arranged to be engaged by the back part of a shoe being presented bottom uppermost to the machine by the operator and to be moved by the shoe from an initial position to a final position wherein it serves to locate the shoe lengthwise in the machine, a rockshaft mounted for sliding movements lengthwise of said guideway, connections between said gage and said rockshaft for reciprocating said feed finger, means for rocking said shaft in one direction as it is being moved forwardly to effect feeding engagement of the feed finger with the strip, said means permitting said shaft to rock in the opposite direction as it is being moved away from said roll to release said feed finger from feeding engagement with the strip, and means for severing a piece from the leading end of the strip and applying it to the shoe to serve as a masking piece.

7. In a machine for operating on shoes, in combination, means for supporting a strip and guiding it while it is being fed in a lengthwise di-

rection, a reciprocable feed finger movable forwardly to advance the leading end of the strip into position to be operated upon, a shoe positioning gage adapted to be moved backwardly from an initial into an operative position by a shoe being presented to the machine, means for moving said gage forwardly, connections between said gage and said feed finger for moving said feed finger forwardly when said gage is moved backwardly and moving said feed finger backwardly when said gage is moved forwardly, and means for severing a piece from the leading end of said strip and applying said piece to a shoe positioned by said gage.

8. In a machine for applying masking pieces to shoes, in combination, means for supporting a strip and guiding it for lengthwise feeding movement, shear blades arranged to cooperate to cut a piece from the leading end of said strip, a presser for applying said piece to the heel-seat portion of a shoe supported bottom uppermost by the operator, means for engaging the bottom of the shoe and locating the shoe heightwise in a position beneath said presser, a movable back gage adapted to be engaged by the rear of the shoe as the shoe is being presented to the machine and moved by the shoe from an initial position to an operative position for locating the shoe lengthwise with respect to said shear blades and said presser, means for returning said back gage to said initial position, a reciprocatory feed device for feeding said strip to advance its forward portion past said shear blades and position its leading edge in line with the heel breast line of the shoe, and connections between said back gage and said feed device for reciprocating the latter in timed relation to the movements of said back gage.

9. In a machine for applying masking pieces to shoes, in combination, means for supporting a strip and guiding it for lengthwise feeding movements, shear blades arranged to cooperate to cut a piece from the leading end of said strip, a presser for applying said piece to the heel-seat portion of a shoe supported bottom uppermost by the operator, means for engaging the bottom of the shoe and locating the shoe heightwise in a position beneath said presser, a movable back gage adapted to be engaged by the rear of the shoe as the shoe is being presented to the machine and moved by the shoe from an initial position to an operative position for locating the shoe lengthwise with respect to said shear blades and said presser, means for returning said back gage to said initial position, a reciprocatory feed device for feeding said strip to advance its forward portion past said shear blades and position its leading edge in line with the heel breast line of the shoe, connections between said back gage and said feed device for reciprocating the latter in timed relation to the movements of said back gage, and means for adjusting the extent of the movement of said back gage and correspondingly adjusting the length of stroke of said feed device thereby to adapt the machine for operation upon shoes of different sizes.

10. In a machine for operating on shoes, in combination, a strip supporting guideway, a feed device for feeding a strip forwardly along said guideway, means for applying adhesive to said strip as it is being fed, a fixed shear blade across which the leading end portion of said strip is advanced by said feed device, a movable shear blade for cooperating with said fixed blade to

sever a piece from said strip, a gage for positioning a shoe in the machine, said gage being movable into operative position by movement of the shoe as the shoe is being presented to the machine, connections between said gage and said feed device for operating the latter to feed the strip, a presser for pressing said piece against the shoe to cause it to become adhesively attached to the shoe, and operator-controlled means for operating said movable shear blade and said presser.

11. In a machine for operating on shoes, in combination, means for supporting a strip with one surface facing downwardly and guiding the strip for lengthwise feeding movement, means for applying adhesive to the downwardly facing surface of said strip while the strip is being fed, means for locating a shoe supported by the operator beneath said strip and in position to receive said piece, and means for cutting a piece from the leading end of the strip and for pressing the adhesive-coated surface of the piece against the shoe.

12. In a machine for operating on shoes, in combination, means for supporting a strip and guiding it for lengthwise feeding movement, means for applying adhesive to the strip as it is being fed, a cutting device for severing a piece from the leading end of said strip, means for locating a shoe presented bottom uppermost to the machine with the heel-seat portion of the shoe bottom in position to receive said piece, a presser for applying said piece to the shoe bottom, said presser being constructed and arranged to apply pressure only in localities at opposite sides of the central median zone of the shoe bottom, and means for operating said cutting device and said presser.

13. In a machine for operating on shoes, in combination, means for supporting a strip and guiding it for lengthwise feeding movement, means for feeding the strip to advance its leading end beyond said supporting and guiding means, a fixed shear blade beneath the leading end portion of the strip, a movable shear blade for cooperating with the stationary blade to sever a piece from the strip, and an adhesive applying roll for coating one side of the leading end portion of the strip with adhesive as the strip is being fed, said roll having a transversely concave periphery for imparting a transversely concave contour to the coated side of the strip to provide clearance between said side and said stationary shear blade so that the coating on the strip will not engage the shear blade.

14. In a machine for operating on shoes, in combination, a strip supporting guideway, means for feeding a strip through said guideway, a fixed shear blade adjacent to the front end of said guideway, a movable shear blade for cooperating with said fixed blade to sever a piece from the leading end of said strip, an adhesive applying roll at one side of said strip for applying adhesive to the strip as the strip is being fed, and an idle roll at the opposite side of said strip for pressing said strip against said applying roll, said rolls having complementary transversely curved peripheries for imparting a transverse curvature to said strip as it is being coated.

15. In a machine for applying masking pieces to shoes, in combination, a strip guideway, means for feeding a strip through the guideway to advance its leading end beyond the forward extremity of the guideway, a movable knife for cutting a masking piece from the leading end of

said strip, means for locating a shoe beneath said guideway in position to receive said masking piece, a crosshead mounted for up-and-down movements above said guideway, a plunger carried by and movable in unison with said crosshead for applying the masking piece to the shoe, means for actuating said crosshead, connections between said crosshead and said knife for operating said knife to cut off said piece, and means for breaking said operative connections between said knife and said crosshead after said piece has been cut off but before it has been applied to the shoe and for restoring said operative connections during the upward movement of the crosshead.

16. In a machine for applying masking pieces to shoes, in combination, a strip guideway, means for feeding a strip through the guideway to advance its leading end beyond the forward extremity of the guideway, a movable knife for cutting a masking piece from the leading end of said strip, means for locating a shoe beneath said guideway in position to receive said masking piece, a crosshead mounted for up-and-down movements above said guideway, means for actuating said crosshead, a plunger carried by and movable in unison with said crosshead for applying the masking piece to the shoe, a knock-off bar carried by said crosshead for transmitting downward movement of the crosshead to the knife to actuate the knife to cut off the masking piece, means for displacing said knock-off bar from operative relation to the knife during downward movement of the crosshead before said masking piece is applied to the shoe, and means for raising the knife and replacing said bar during the upward movement of the crosshead.

17. In a machine for operating on shoes, in combination, a fixed shear blade, means for feeding a strip to advance its leading end portion across said shear blade, a crosshead movable toward and from said fixed shear blade, a movable shear blade guided for movement beneath and in the path of said crosshead for cooperating with the fixed shear blade to sever a piece from the leading end portion of said strip for use as a

masking piece, a knock-off bar between the crosshead and the movable shear blade for transmitting downward movement of the crosshead to said blade, a presser secured to said crosshead for movement in unison therewith, means for positioning a shoe beneath said presser to receive said piece, means for lowering said crosshead to cause said shear blades to cooperate and said presser to apply said piece to the shoe, means for displacing said knock-off bar during said movement of the crosshead to prevent further downward movement of said movable shear blade after said piece has been severed from said strip, means for raising the crosshead, and means for returning the knock-off bar and the movable shear blade to normal positions.

18. In a machine for operating on shoes, in combination, a fixed shear blade, means for feeding a strip to advance its leading end portion across said shear blade, a movable shear blade guided for movement beneath and in the path of movement of said crosshead for cooperating with the fixed shear blade to sever a piece from the leading end portion of said strip for use as a masking piece, a knock-off bar pivoted to said crosshead and normally positioned in engagement with said movable blade for transmitting downward movement of said head to said blade, a presser carried by said crosshead, means for locating a shoe beneath said presser in position to receive said piece, means for lowering said crosshead to cause said shear blades to cooperate and said presser to apply said piece to the shoe, a dog pivoted to said movable blade and engageable with said knock-off bar, a fixed abutment in engagement with said dog and arranged to rock the dog upon downward movement of said crosshead and to rock said knock-off bar in a direction to disengage it from said blade, a spring for raising said blade after disengagement of the latter from said bar, means for raising said crosshead, and means for rocking said knock-off bar in a direction to restore it into operative engagement with said blade during the upward movement of said crosshead.

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