

L. J. BAZZONI,
INKING MACHINE.
APPLICATION FILED MAR. 16, 1916.

1,285,902.

Patented Nov. 26, 1918.

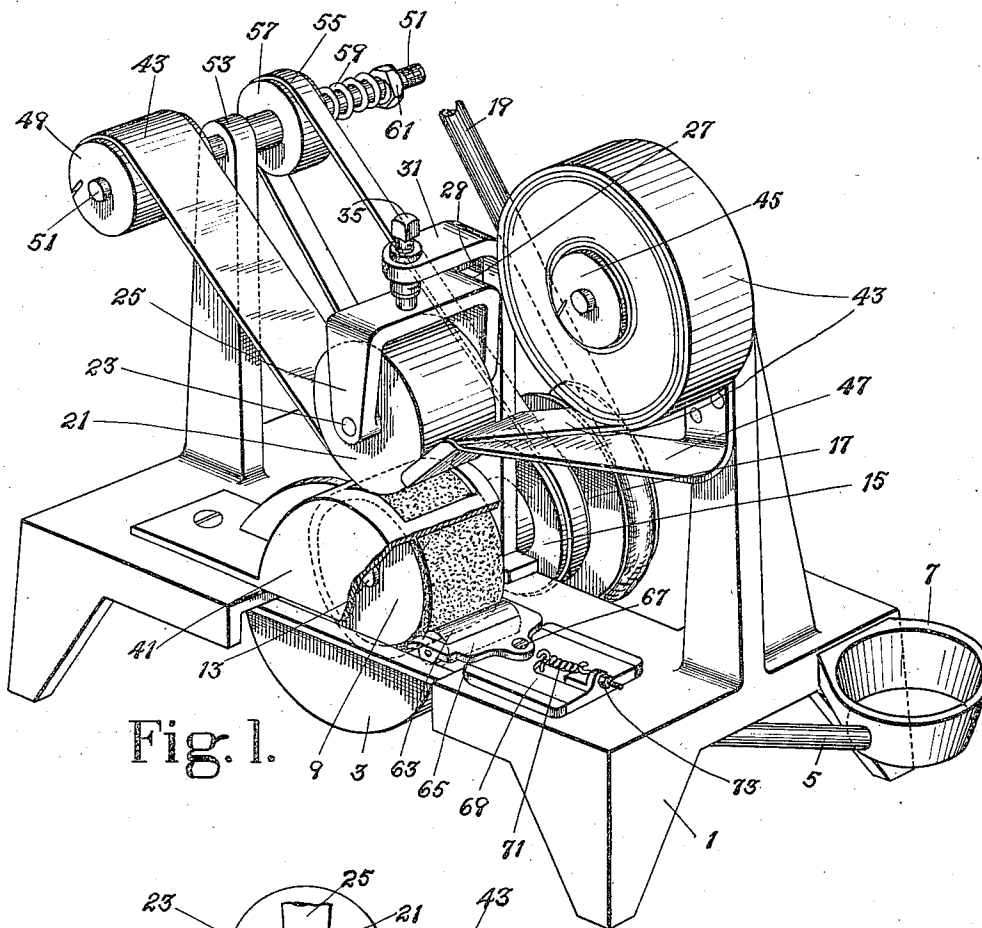


Fig. 1.

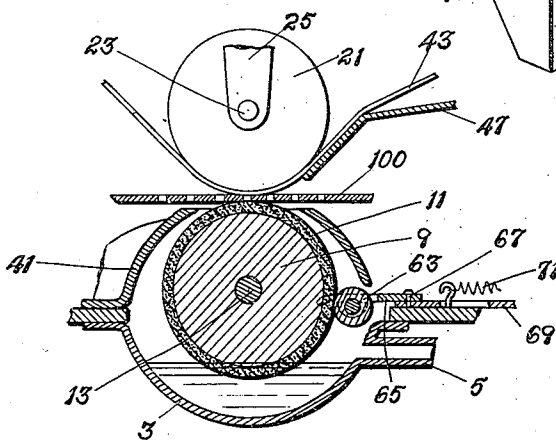


Fig. 2.

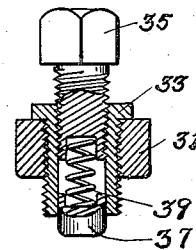


Fig. 3.

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INKING-MACHINE.

1,285,902.

Specification of Letters Patent.

Patented Nov. 26, 1918.

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To all whom it may concern:

Be it known that I, LEWIS J. BAZZONI, a citizen of the United States, residing at Swampscott, in the county of Essex and State of Massachusetts, have invented certain Improvements in Inking-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 machines for use in the manufacture of boots and shoes, and is herein illustrated in connection with a machine for applying coloring matter, referred to in the trade as "ink", to the edges of pieces of upper leather and to the edges or walls of perforations in pieces of upper leather which are to be used in the manufacture of boots and shoes. For convenience the invention will be described in connection with the application of ink to certain parts of shoe tips.

It is customary to form along that edge of a shoe tip which is to be stitched to the vamp a row of ornamental perforations. Since leather is commonly colored by a dye which does not thoroughly permeate it, the walls of these perforations are of a different color from the display side of the leather. For example, in a tip which is black on the display side, the walls of the perforation are often light colored. It has been customary heretofore to dip the perforated margin of the top in a dye of the color of the display side of the leather and then to wipe off from said display side the surplus dye.

Again, although in the higher priced shoes the edge of the tip along which it is stitched to the vamp is commonly folded to present a finished appearance, in the cheaper grades of shoes this folding operation is not carried out. The tip, therefore, has a raw edge which should be dyed to match the display side of the leather. The same dipping and wiping operations, which have been referred to above in connection with the perforations, have been employed to color this raw edge.

There is no objection to the application of coloring matter or ink to the flesh side of the tip since it is concealed in the finished shoe, but it is desirable to remove from the

grain or display side all traces of ink or else to prevent the ink from reaching said last-named side. One feature of the present invention comprises an ink applying member having an operative face of soft, yielding, bibulous material, a presser for forcing a piece of stock into said face, and means located between said presser and stock for preventing said presser from receiving any ink which may be forced up through perforations in said stock or up past an edge of said stock. In the illustrative machine the presser is in the form of a roll, and the preventing means is a strip of paper which runs beneath and in contact with the presser roll. With this construction any surplus ink, which might otherwise be forced upon the presser roll and by it transferred to the display side of the next piece of stock put through the machine, is received on the paper strip and moved with said strip out of possible contact with the next piece of stock.

This and other features of the invention, including certain details of construction and combinations of parts will be described in connection with an illustrative machine and pointed out in the appended claims.

Referring now to the accompanying drawings,—

Figure 1 is a perspective of a machine in which the present invention is embodied;

Fig. 2 is a detail section showing a perforated tip being fed through the machine;

Fig. 3 is a detail, partly in section, of the yielding means for applying pressure to the presser roll.

Carried by the base 1 is a receptacle 3 which may be filled through a pipe 5, the outer end of which is connected with a wide mouthed member 7 into which the ink may readily be poured. An applying roll 9 having a layer of felt 11 or other yielding bibulous material on its periphery is fast to one end of a shaft 13 to the other end of which are fast two pulleys 15 and 17, the last-named pulley being connected by a belt 19 with a suitable source of power. A presser in the form of a roll 21 is rotatably mounted on a shaft 23 carried between the arms of a yoke 25 the inner arm of which is provided with a slide 27 which fits in a vertical groove 29 in a stationary bracket 31. In order to force the presser roll 21 toward the

applying roll 9, a hollow nut 33 threaded through an overhanging arm of the bracket 31, is internally threaded at its upper portion to receive a screw 35, the lower portion being smooth to receive a plunger 37 between which and the end of the screw 35 is a coiled spring 39. The tendency of this spring is to force the presser roll into contact with a portion of the periphery of the applying roll 9 which is exposed by reason of an opening in a guard 41.

In order to prevent the presser roll from coming into contact with the applying roll 9 a strip of paper 43 runs from an idle spool 45 down over a guide 47, beneath the presser roll 21 and up to a driven spool 49 which is fast to a spindle 51. This spindle, which is rotatably mounted in a bearing in a standard 53, is driven frictionally by a belt 55, said belt running around the pulley 15 and around a pulley 57. The pulley 57 is loose on a reduced portion of the shaft 51 and is held against a shoulder on said shaft by a coiled spring 59 the tension of which may be varied by a nut 61. A tensioning device of any suitable type (not shown) may be employed in connection with the idle spool 45, if desired.

It is desirable that the proper amount of ink shall be presented to the stock by the applying roll 9; and to this end a regulating roll 63 is carried by a yoke 65 which is pivoted at 67 to a slide 69 said slide being urged continually toward the applying roll 9 by a spring 71 the tension of which may be varied by turning a nut 73. With this construction the regulating roll will exert an approximately uniform pressure to remove the surplus ink from the felt cover of the roll 9.

In the operation of the machine the roll 9 is rotated and the paper strip 43 is slowly wound up on the spool 49. The operator presents the tips or other pieces of stock one by one to the machine whereupon these pieces are carried through by the rotating applying roll. In Fig. 2 a perforated tip 100 is shown passing through the machine. The felt cover 11 of the applying roll is saturated with ink, and as the tip passes between the presser roll and the applying roll the effect of the pressure is to press the tip more or less into the spongy covering of the roll 9 and to squeeze the ink from said cover and force it up into the perforations to color the walls thereof, the paper strip 43 preventing the ink from reaching the upper or display surface of the tip. The effect is

practically the same when it is desired to apply ink to the raw edge of a piece of leather, the piece being forced more or less into the saturated yielding cover 11. A certain amount of ink is applied to the under side of the strip 43 but the movement of the strip prevents this ink from being transferred to the upper surface of the next piece of stock. After the strip has been wound up on the spool 49 the positions of the spools may be reversed and the strip wound up again; and this process may be repeated several times before the strip is used up.

The method of coloring the walls of perforations in pieces of stock and the edges of such pieces is not herein claimed but forms the subject matter of co-pending application Serial No. 199,658, filed November 1, 1917.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:—

1. A machine for operating upon pieces of perforated stock, having, in combination, a spongy member, means for supplying ink to said member, means for pressing the stock into the spongy member sufficiently to coat the walls of the perforations with ink, and means for protecting the pressing means from the ink which is squeezed through the perforations.

2. A machine adapted to operate upon pieces of leather, having, in combination, a receptacle for coloring matter, an applying roll arranged to receive coloring matter from the receptacle and having a spongy operative face, means for rotating said applying roll, a pressing roll having a rigid operative face, an idle spool located at one side of the pressing and applying rolls, a driven spool located on the other side of the rolls, and a coil of paper wound about the idle spool and having its free end passing between the rolls and fastened to the driven spool.

3. A machine of the class described having, in combination, a reservoir for ink, an applying roll having a spongy, operative peripheral portion arranged to receive ink from said reservoir, and means for regulating the amount of ink carried into operative position, said last-named means comprising a regulating roll, a pivoted member by which said roll is carried, and yielding means for urging said member toward said applying roll.

In testimony whereof I have signed my name to this specification.

LEWIS J. BAZZONI.