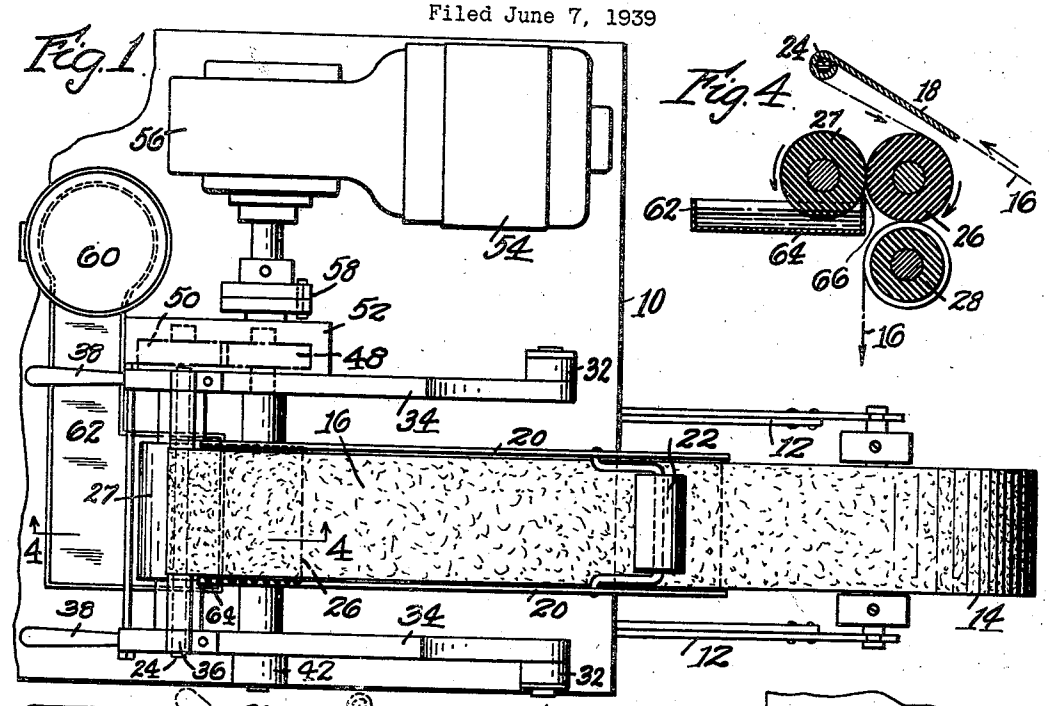
Aug. 27, 1940. H. F. CORSON 2,212,824

APPLYING DEVICE

Filed June 7, 1939



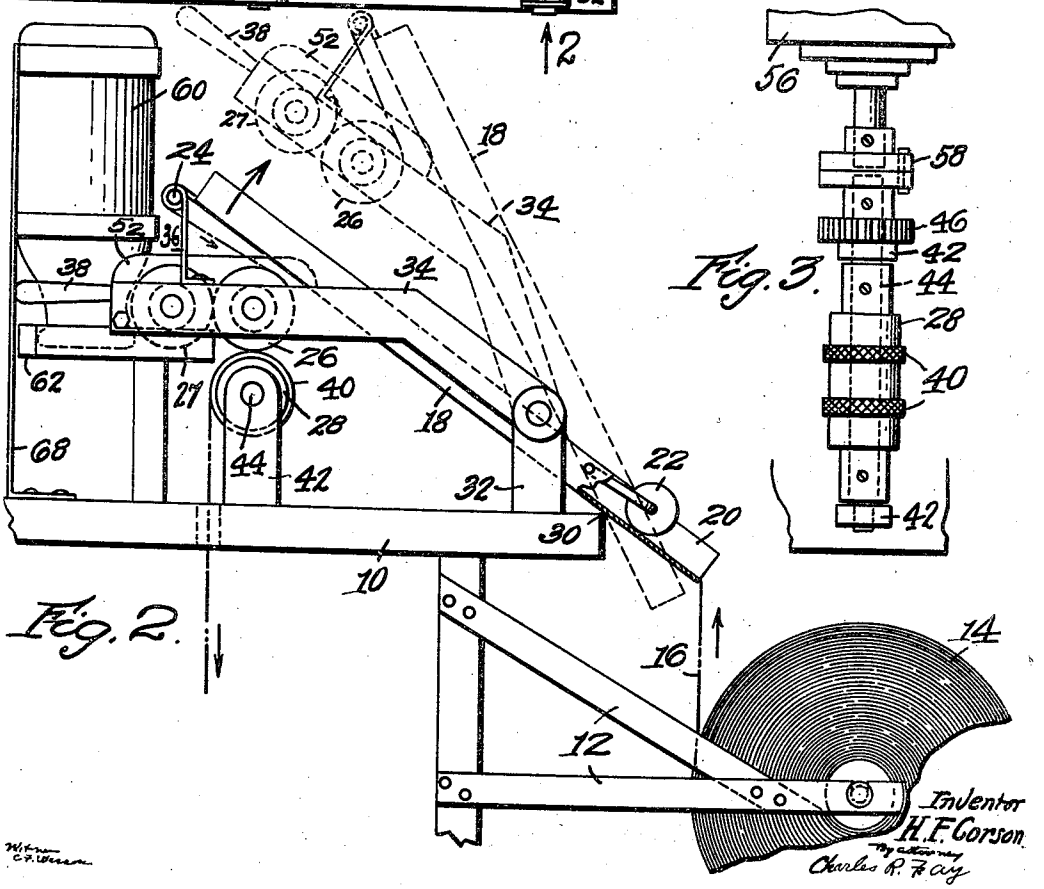


Fig. 2.

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APPLYING DEVICE

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6 Claims. (Cl. 91—50)

The subject matter of this invention relates to a device for applying cement, glue, or any material desired, to a moving web of cloth, paper or analogous material, principally to provide an adhesive coated strip for application to various objects, such as leather composition, etc., in the manufacture of footwear.

The objects of the invention include the provision of a simplified apparatus for applying a substance to a moving web; the provision of a guide for the web, power driven rolls for feeding the web from a supply source along the guide, and then guiding the web about certain of the driven rolls, another driven roll serving to conduct the substance from a reservoir to apply it to the web; the provision of a movable web-guiding platform, with which are associated certain of the rolls including the applying roll, so that these rolls may be moved readily from operative position to leave the whole machine open for adjustment or other purpose; the provision of a device which will advance the art of cement, paste, etc. applying particularly for, but not limited to, the manufacture of footwear.

Other objects and advantages of the invention will appear hereinafter.

Reference may be had to the accompanying drawing, in which

Fig. 1 is a plan view of the device;

Fig. 2 is a side elevation of the device as seen in the direction of the arrow 2 in Fig. 1;

Fig. 3 is a detail view of one of the rolls and its driving connection to a power source; and

Fig. 4 is a sectional view taken on the line 4—4 of Fig. 1.

In the drawing the numeral 10 denotes a table or supporting frame upon which the entire apparatus is mounted. From a convenient part of the table 10 there is a bracket 12 extended to rotatably mount a roll of duck cloth 14. Obviously, however, any material which lends itself to web feeding may be processed instead of duck cloth. The web 16 is taken off the roll 14 and delivered to an elongated inclined platform 18 provided with web-guiding flanges 20. The web is held against the platform by a pivoted weighted roll 22, and is conducted up the inclined platform between the flanges 20 over the end of the platform which is bent over, down and part way around a shaft or rod 24, which is thus mounted on the end of the platform. The web then passes below this shaft 24 and over and part way around a metal roll 26; this roll being rotatably mounted on an element to be described below. Passing partially about the roll 26 the web is transferred to pass over a roll 28, thence vertically downwardly through a hole in the table 10 to the floor, whence it is drawn by the operator, to be pasted over a shoe sole, or to whatever the web is to be applied.

As clearly shown in Fig. 2, the inclined platform 18 is swingingly mounted to pivot about an edge of the table 10, as indicated at 30. Adjacent the edge 30 there are provided two spaced supports 32 extending up a short distance from the surface of the table 10. These supports provide a journal for pivoted roll-carrying arms 34, forming a frame, which extends from the journals upwardly and then forwardly, as shown in Fig. 2. Adjacent the end of the frame opposite to its journals there are mounted the brackets 36 which in turn support the shaft or rod 24 in connection with the platform 18. Adjacent the brackets 36, the arms 34 have journaled therebetween the two rolls 26 and 27 in fixed and substantially contacting relation to each other, and the extreme forward ends of the arms 34 carry handles 38. Since the rod 24 is mounted on the platform 18 and on the frame 34, 34, it is clear that if the frame is swung upwardly about its journals on supports 32, the platform must also swing upwardly about its pivot point 30. This action is clearly illustrated in Fig. 2, therein it is shown that the platform 18 also moves somewhat away from the rolls 26 and 27 because of the relative spacing of the pivot points of the platform 18 and arms 34.

The roll 28 is provided with a plurality of spaced knurled ribs 40, and is journaled in supports 42 on the table 10, through shaft 44 to which the roll 28 is fixed. On the shaft 44 there is also fixed a spur gear 46 which meshes with and drives the corresponding gear 48 fixed to the shaft of roll 26, when the arms 34 and platform 18 are in their lowermost, i. e., operating position. When the arms 34 and platform 18 are raised, the gears 46 and 48, of course, are separated, and the roll 26 does not rotate. The gear 48 is constantly in mesh with gear 50, fixed to the shaft of roll 27 and drives the same, when meshed with gear 46. The gears 48 and 50 are housed in a casing 52 secured to the adjacent arm 34.

The roll 28 and gear 46 are driven by the motor 54 through a reduction gear in housing 56, both motor and reduction gear being mounted on the table 10. Between the reduction gear and the gear 46 there is a break-pin connection 58 to disconnect the motor in case of accident.

The cement, paste, or other substance to be applied to the web 16 is contained in a known

type of reservoir 60, and flows through a channel 62, which has an offset portion 64, into which the roll 27, extends when in operating position, as shown in Fig. 4. At the end of the offset portion 64 next to the roll 27, the channel is provided with an upwardly extending element 66 which bears against the surface of the roll 27 and scrapes the same to spread the cement, paste, etc. evenly. This edge 66 may be inclined to the bottom of the channel 62, or beveled, or merely vertical, as shown. The cement or paste reservoir 60 is supported on the table 10 by a bracket 68.

In the operation of the device, the roll of duck cloth or other material is placed in proper position on the bracket 12, and the web 16 is conducted up the inclined platform 18, down about the rolls, 26, 28, thence down to the floor, as previously explained. The cement, paste, or other substance flows at a constant rate to the offset channel portion 64, where it is picked up by the roll 27, scraped and evenly spread thereon by the element 66, and transferred to the contacting roll 26. As the cloth or other material passes around the roll 26, it is covered on one side with the substance, as is clear. Although the web is covered with the substance, some of the latter is absorbed by the cloth so that a fixed coating is not necessarily formed.

The table 10, reservoir 60, channel 62 and roll 28 are stationary, but the arms 34, together with the rolls 26, 27, may be raised about the journals in supports 32 upwardly to dotted line position, as shown in Fig. 2, and this leaves the whole machine open for adjustment or any changes the operator may wish to make.

Having thus described my invention and the advantages thereof, I do not wish to be limited to the details herein disclosed, otherwise than as set forth in the claims, but what I claim is:

1. In a device of the class described, a platform for guiding a web mounted to rest on and slide over a support, a frame pivoted on the support and carrying a web-guiding roll at its free end, the platform and frame being pivotally connected adjacent the roll, whereby the platform is swung upon pivoting of the frame.

2. In a device of the class described, a driving shaft, a gear and a roll on the shaft, a pivoted frame having a shaft journaled therein, a second gear and a second roll on the latter shaft, the gears meshing and the rolls being in surface contact in one position only of the pivoted frame, a reservoir having a side wall, a third roll on said frame and having a gear constantly meshing with said second gear, and said second and third rolls being in constant contact, said third roll and said second roll being on opposite sides of said wall when the frame is in said one position.

3. In a device of the class described, a driving shaft, a gear and a roll on the shaft, a pivoted frame having a shaft journaled therein, a second gear and a second roll on the latter shaft, the gears meshing and the rolls being in surface contact in one position only of the pivoted frame, a third roll, journaled on the pivoted frame, in surface contact with the second roll, a third gear for driving the third roll, in constant mesh with the gear for the second roll, whereby the driving shaft drives all three rolls in one position of the frame, and in another position thereof, only the first roll is driven, and a fixed reservoir located so as to receive said third roll only when the pivoted frame is in said one position.

4. In a device of the class described, a support, a frame pivoted to said support and carrying a web-guiding roll, a web-guiding platform pivoted at one end to said frame and having its other end slidably resting on said support whereby said platform is swung upon pivoting of the frame.

5. In a device of the class described, a support having an edge, a bracket extending laterally below said edge and adapted to carry a web, a frame pivoted on said support adjacent said edge and carrying a web-guiding roll, a web-guiding platform pivoted to said frame adjacent said web-guiding roll and having a portion freely slidable on said edge, said web extending from said bracket over the platform and about said web-guiding roll.

6. In a device of the class described, a support, a frame pivoted on said support and having a web-guiding roll mounted thereon in contact with an applying roll, a reservoir to receive said applying roll when said frame is in one position, a web-guiding platform pivoted to said frame adjacent said web-guiding roll and adapted to guide a web to said web-guiding roll, whereby said frame and its rolls and the platform may be swung away from said reservoir to free said guiding roll therefrom.

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