

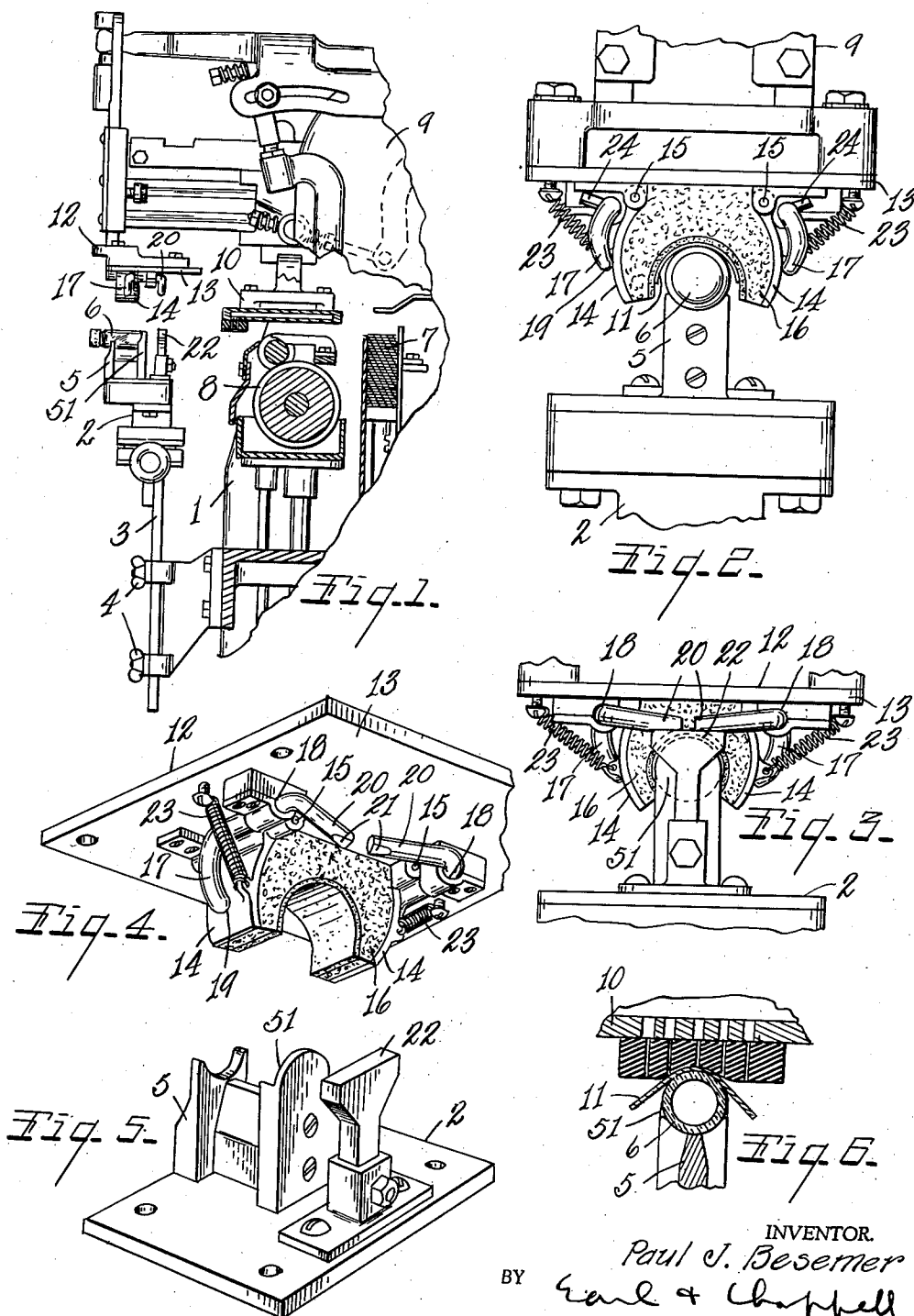
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BOTTLE LABELING MACHINE

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BOTTLE LABELING MACHINE

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2 Claims. (Cl. 216—55)

This invention relates to improvements in bottle labeling machines.

This invention relates to label applying means adapted to apply labels of paper or the like to bottles or the like. It has for its objects:

First, to provide a new and improved apparatus of the class described.

Second, to provide such an apparatus which is particularly adapted to apply labels to small bottles even though the labels are of a length to extend more than half way around the circumference of the bottle and is adapted to exert side pressure on the bottle even at points past the middle of the bottle.

Third, to provide such an apparatus with positive means for exerting side pressure on the label and bottle.

Fourth, to provide such an apparatus which is simple in construction and operation and which can be made inexpensively.

Other objects and advantages pertaining to details and economies of construction and operation will appear from the description to follow. The invention is defined in the claims. A preferred embodiment of the invention is illustrated in the accompanying drawing, in which:

Fig. 1 is a side view partly in section showing a labeling machine embodying my invention.

Fig. 2 is a view of the bottle holding and label pressing parts of said machine showing the relation of the parts at the beginning of the pressing operation.

Fig. 3 is a view of the parts shown in Fig. 2 but from the other end, showing the relation of the parts at the conclusion of the pressing operation.

Fig. 4 is a perspective view of the label pressing member.

Fig. 5 is a perspective view of the bottle holder.

Fig. 6 is a view partly in section of the means for placing the label on the bottle.

The label applying machine consists of a base 1 on which is mounted a bottle holder 2 which is adjustably supported on a sliding rod 3 provided with clamping nuts 4 for holding it in adjusted vertical position. The holder has a cradle 5 for holding the bottle 6 on its side and which is provided with a stop 51 to position the bottle which is placed in position for labeling by the operator. On the base is also mounted a label magazine 7 and a glue applicator 8, neither one of which forms any part of this invention and need not be described in detail.

The machine has a head 9 which carries a vacuum label picker 10 which picks labels from

the magazine 7 and holds them while glue is applied. This mechanism is no part of this invention and need not be described other than to point out that it places the labels, indicated at 11, on the bottle as shown in Fig. 6, then makes way for the label pressing member 12 which is likewise mounted on the head 9.

The label pressing member 12 consists of a base 13 on which hinged members 14 are hinged on parallel spaced axes 15. A resilient pad 16 of sponge rubber preferably overlies the base 13 between the hinged members 14 and also overlies the faces of the hinged members. This pad is adapted to engage and press the label on the bottle and when the bottle and label are in engagement with the pad, the hinged members are swung toward one another as shown in Fig. 3 to give side pressure on the bottle and label to firmly anchor the label in place. The hinged members are long enough so they extend past the middle of the bottle and embrace more than half of the circumference of the bottle so a label of a length greater than one half of the circumference of the bottle can be pressed to position, as shown in Figs. 2 and 3. Not only does the pad touch the bottle and label, but it is given a considerable pressure to assure adhesive connection between label and bottle.

The means for thus actuating the hinged members 14 consist of levers 17 each of which is pivoted at 18 on the label pressing member and is provided with a curved end 19 to engage the hinged member 14 and an end 20 provided with a cam follower portion 21 to engage a cam 22 on the bottle holder.

In operation, after the label is in place on the bottle the bottle holder 2 and the label pressing member 12 are moved toward one another. The pad 16 engages the label 11 as shown in Fig. 2 and when the pad 16 is engaging the bottle 6 and the label, the cam 22 engages the cam follower portions 21 of levers 20 to move them upwardly as shown in Fig. 3. The pad compresses and applies pressure to the label since the holder 2 is disposed to bring the bottle and label into contact with the pad between the axes of the hinged members 14. As the movement of the holder 2 and the label pressing member toward one another continues, the hinged members are swung toward one another, exerting side pressure on the label and bottle assuring adhesion of the label to the bottle. The hinged members reach beyond the center of the bottle and with their resilient padding exert a side pressure on the bottle clear to the ends of the

label, which is longer than half of the circumference of the bottle.

Springs 23 serve to retract the hinged members 14 on the reverse movement. Levers 17 have stops 24 thereon.

The terms and expressions which have been herein employed are used as terms of description and not of limitation, and there is no intention, in the use of such terms and expressions, of excluding any equivalents of the features shown and described, or portions thereof. It is recognized that various modifications are possible within the scope of the invention claimed.

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

1. In an apparatus of the class described, a label pressing member comprising a base, a pair of hinged members hinged on spaced parallel axes on said base, a resilient pad overlying said base between said hinged members and said hinged members, a lever in operative relationship to each hinged member to swing said member toward the other hinged member, a holder opposed to said label pressing member adapted to hold a bottle or the like to present its side to said pad intermediate said hinged members, means for moving said label pressing member and said holder toward one another, and cam means mounted with said holder to engage said 30

levers to swing said hinged members toward one another timed to engage said levers to thus swing said hinged members when a bottle or the like in said holder is contacting said pad to embrace the sides of said bottle and apply pressure to the sides thereof, said hinged members extending past the center of a bottle or the like in said holder.

2. In an apparatus of the class described, a label pressing member comprising a base, a pair of hinged members hinged on spaced parallel axes on said base, a resilient pad overlying said base between said hinged members and said hinged members, a lever in operative relationship to each hinged member to swing said member toward the other hinged member, a holder opposed to said label pressing member adapted to hold a bottle or the like to present its side to said pad intermediate said hinged members, means for moving said label pressing member and said holder toward one another, and cam means mounted with said holder to engage said levers to swing said hinged members toward one another timed to engage said levers to thus swing said hinged members when a bottle or the like in said holder is contacting said pad to embrace the sides of said bottle and apply pressure to the sides thereof.

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