

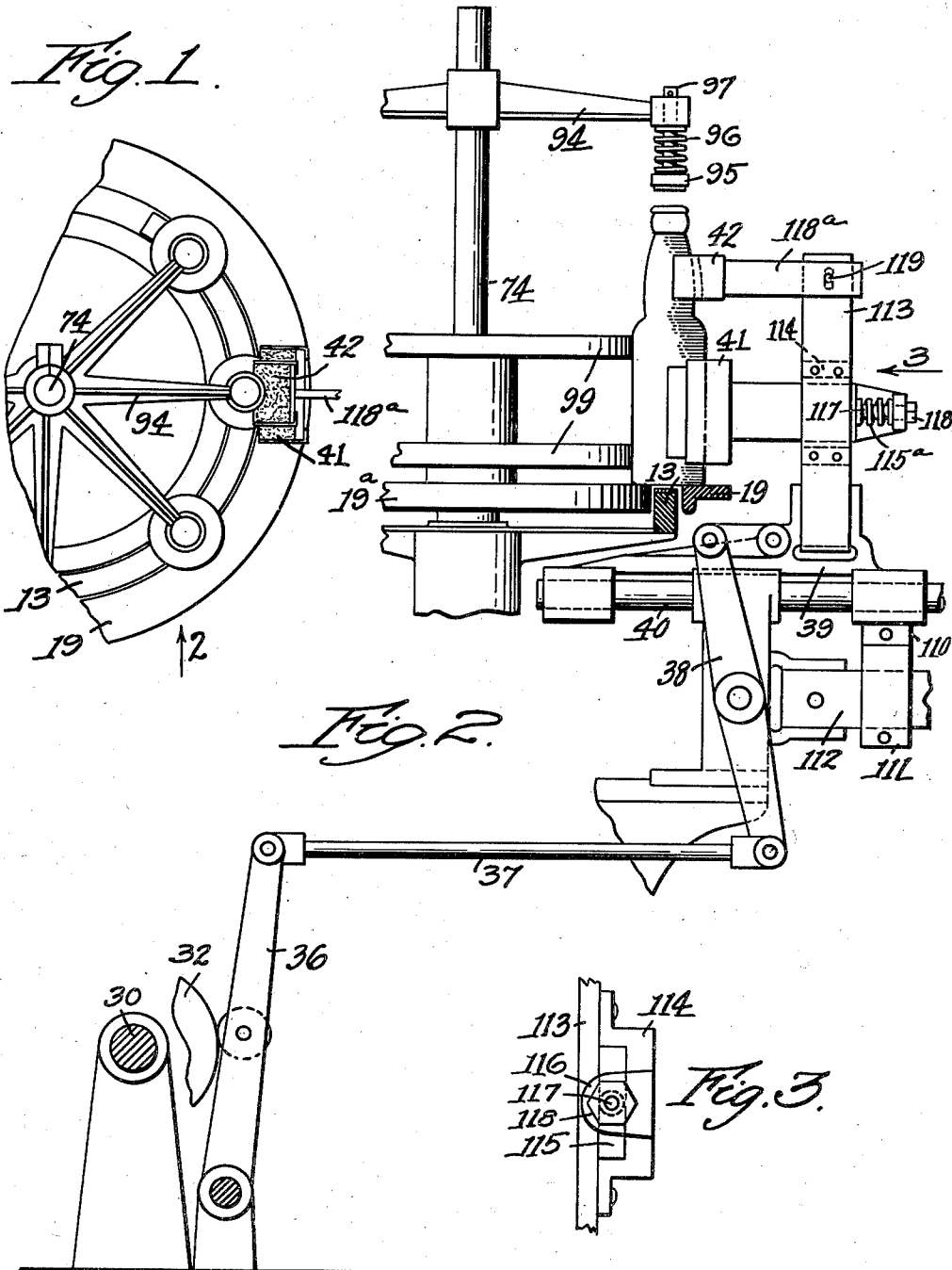
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LABEL PRESSING DEVICE

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LABEL PRESSING DEVICE

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9 Claims. (Cl. 216—59)

This is a division of my pending application for patent on a Labeling machine filed August 11, 1936, Serial No. 95,371.

The principal objects of this invention are to provide simple and practicable means for pressure application without any motion of the wipers along the surfaces of the bottles while they are being wiped and to provide a straight line, reciprocable pressure wiper.

Other objects and advantages of the invention will appear hereinafter.

Reference is to be had to the accompanying drawing, in which

Fig. 1 is a plan of a preferred embodiment of this invention;

Fig. 2 is a front view thereof looking in the direction of the arrow 2 in Fig. 1, and

Fig. 3 is an end view of a feature thereof, looking in the direction of the arrow 3 in Fig. 2.

The machine is provided with the usual features. The rotary bottle carrier 13 and the bottle supports 19 and 19^a operate to rotate the bottles intermittently.

The power for this part of the machine is delivered through a driven shaft 30 on which is a cam 32. The cam 32 reciprocates two pressure wipers 41 and 42, one for the body label and another for the neck label.

On a rod 74 is a head 94 which is provided with spokes carrying caps 95 one for each bottle on the bottle support 13. Each is held down by a spring 96 and guided by a short rod 97. Therefore, the moving downwardly of the rod 74 will move down these caps on the bottles and force the bottles down firmly on the carrier 13 under spring pressure. This is done by any suitable means properly timed. On the other hand, when the rod 74 is raised, the carrier 13 and head 94 will be raised to lift the bottles. The bottles are then carried by the carrier 13. There are two discs 99 which engage the bottles and help hold them in position while under the pressure of the wiping operation.

The cam 32 operates through a roller on a lever 36 to reciprocate a rod 37 and through a lever 38, reciprocates a pressure wiper frame 39, sliding on a rod 40. To keep the frame 39 from swinging, it is provided with a downward projection 110 which has a member 111 spaced at the center from the projection 110 to receive a stationary guide 112. This is located below the frame 39. This frame also carries an upwardly extending arm 113 which also carries a plate 114 on the back to provide a space for receiving a support and guide 115 for the pressure wiper 41.

This support is provided with a spring 115^a held by a projection 116, rod 117 and nut 118 to apply a little pressure back of this wiper. The neck wiper 42 is carried by an arm 118^a adjustably connected with the plate 113 by a pin 119 and slot. The neck wiper is normally held back from the bottle neck, as shown, so as not to engage the neck before the bottle is clamped between the wiper 41 and discs 99. As the slide 39 moves forward the spring 115^a yields and the neck wiper 42 engages the neck after the bottle is held in stationary position. On the reverse motion the neck wiper leaves the bottle neck before the body wiper 41 leaves the bottle.

The clamping down of the bottles by caps 95 and the raising of the rotary bottle carrier so that the bottles will come to the right place for labeling and be held firmly in position has been described.

The pressure wiping is an important feature because it permits of the application of the labels to the bottle without any motion of the wiper along the surface of the labels. A bottle which has been operated upon by the pressure wiper is then moved forward by the rotation of its support. The labeling machine is provided with discs which engage the bottles to back them up while they are being labeled by the pressure method, thus avoiding considerable mechanism.

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 labeling machine, the combination of a vertical rod, caps carried by said rod for pressing down on the tops of articles to be labeled, a disc shaped body constituting a guide plate, an intermittently movable article carrier, and a pressure labeling device in a position to engage the label on an article to be labeled when it is held against said guide plate.

2. In a labeling machine, the combination of a vertical rod, caps carried by said rod for pressing down on the tops of articles to be labeled, two spaced discs for backing up the articles to be labeled, an article carrier, a pressure labeling device in a position to engage an article to be labeled when it is held against said discs, an operating shaft, a cam on the operating shaft, and means operated by said cam for moving the pressure labeling device under pressure up against the article to be labeled.

3. In a labeling device, the combination of a support for a bottle to be labeled, with a fixed guide rod, a slide on said rod, a lever, a cam

for oscillating said lever, a rod pivotally connected with the lever to be operated thereby, a second lever connected to be operated by the rod, means for connecting the second lever with the slide, an

5 upwardly extending arm on the slide, a body label presser yieldingly carried by said arm, a neck label presser carried by said arm, and means for guiding the arm to move in a straight line.

4. In a labeling device, the combination of a support for a bottle to be labeled, with a fixed guide rod, a slide on said rod, means for reciprocating said slide, an upwardly extending arm on the slide, a body label presser yieldingly carried by said arm, a neck label presser carried by said arm, and means for guiding the arm to move in a

15 straight line.
5. In a labeling device, the combination of a support for a bottle to be labeled, with a fixed guide rod, a slide on said rod, a lever, a cam for oscillating said lever, a rod pivotally connected with the lever to be operated thereby, a second lever connected to be operated by the rod, means for connecting the second lever with the slide, an upwardly extending arm on the slide, and a

20 body label presser yieldingly carried by said arm.
6. In a labeling device, the combination of a support for a bottle to be labeled, with a fixed guide rod, a slide on said rod, a lever, a cam for oscillating said lever, a rod pivotally connected with the lever to be operated thereby, a second lever connected to be operated by the rod, means for connecting the second lever with the slide, an upwardly extending arm on the slide, a body label presser yieldingly carried by said arm, a neck

35 label presser carried by said arm normally out

of contact with the bottle neck, whereby it will engage said neck when the spring yields, and means for guiding the arm to move in a straight line.

7. In a labeling device, the combination of a support for a bottle to be labeled, with a fixed guide rod, a slide on said rod, means for operating the slide, an upwardly extending arm on the slide, a body label presser yieldingly carried by said arm, a neck label presser carried by said arm, normally out of contact with the bottle neck, whereby it will engage said neck when the spring yields, and means for guiding the arm to move in a straight line.

8. In a labeling machine, the combination with a carrier for advancing the articles to be labeled, means for moving the article support one step, means for pressing labels on the article, rigid means for supporting the article at the back while the pressing means is operating, a neck label wiper, and means for moving the neck label wiper into contact with the bottle neck after the label pressing means has engaged the bottle and away from it before.

9. In a labeling machine, the combination of a disc shaped body constituting a guide plate, an article carrier, a pressure body labeling device in a position to engage the label on an article to be labeled when it is held against said guide plate to back it up, a neck label pressing wiper, and means for yieldingly pressing the neck label wiper against the neck of the article after the body labeling device has pressed the article against the disc shaped body.

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