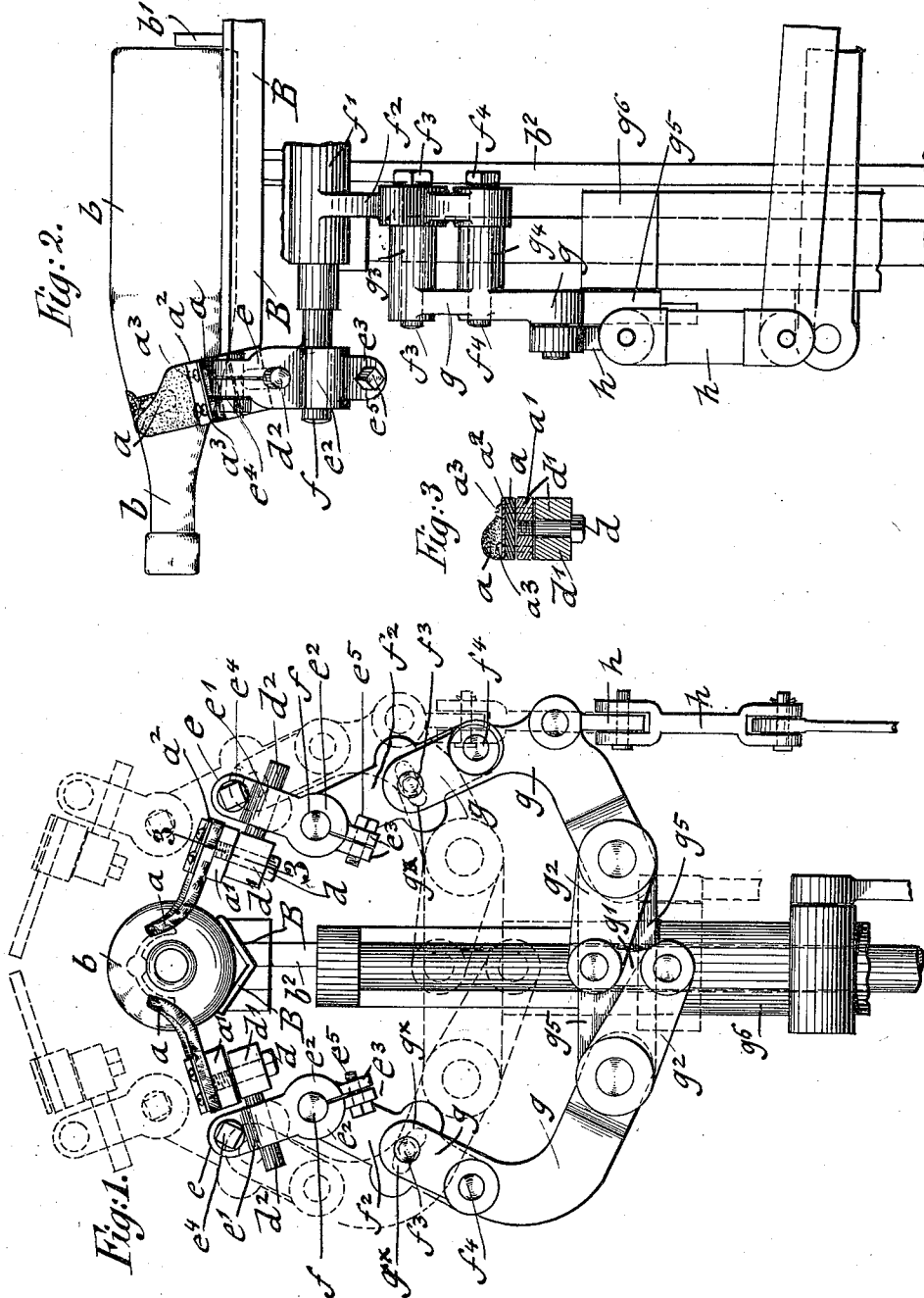


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WIPER MECHANISM FOR BOTTLE LABELING MACHINES.
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WIPER MECHANISM FOR BOTTLE-LABELING MACHINES.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, EDWARD ERMOLD, a citizen of the United States of America, residing in New York, in the borough of Manhattan, county and State of New York, have invented certain new and useful Improvements in Wiper Mechanisms for Bottle-Labeling Machines, of which the following is a specification.

This invention relates to an improved wiper-mechanism for the neck-labels of bottles, and more especially to an improved wiper-mechanism which is to be used in connection with the bottle-labeling machine for which Letters Patent No. 923,501 were granted to me on June 1, 1909, the wiper-mechanism being adapted for accurate adjustment relatively to the shape and size of the bottle-neck and the location of the neck-label thereon, so that the neck-labels can be applied to any kind of bottle in a convenient manner; and for this purpose the invention consists of neck-wipers and of means for adjusting the same to any desired position relatively to the neck of the bottle and the position and size of the label, said means permitting the adjustment of the neck-label wipers in inward and outward and forward and backward direction; and the invention consists further of certain details of construction of the wiper adjusting-mechanism which will be fully described hereinafter and finally pointed out in the claims.

In the accompanying drawings, Figure 1 represents a front-elevation showing my improved wiper-mechanism for the neck-labels of bottle-labeling machines. Fig. 2 is a side-elevation of Fig. 1, and Fig. 3 is a detail vertical transverse section on line 3, 3, Fig. 1.

Similar letters of reference indicate corresponding parts throughout the several views.

The bottle to which the neck-label is to be applied is supported on a horizontal bottle-rest B, which is provided with a transverse stop b^1 at its inner end against which the bottom of the bottle is placed. The bottle-rest B is made of V-shaped cross-section in the usual manner. It is supported on a stationary upright rod b^2 at the front-part of the machine. The body-label wipers are not shown in the drawings, but are constructed in any approved manner preferably as described in the patent heretofore referred to. The neck-label wipers a are made

in the shape shown in Figs. 1 and 2. They are intended for wiping short labels around the necks of bottles so as to extend partly around the circumference of the same. The wipers a are made of square shape at their butt-ends and tapering toward and rounded off at their tip ends, and attached to a wiper-holder a^1 by means of washers a^2 and fastening screws a^3 . The holder a^1 is secured by means of a headed screw d which is screwed into the holder, to a perforated eye d^1 having a shank d^2 extending at right angles therefrom. The shank d^2 is supported at the upper end of a clamp which is slitted at its upper end so as to form two straps e^1 having semi-circular recesses which embrace the shank d^2 and circular lower portions e^2 split at the lower end, and having ears e^3 at right angles to the straps e^1 . The upper ends of the straps e^1 are connected by screw-bolts e^4 and the ears by transverse screw-bolts e^5 . The straps e^1 and clamping screw e^4 permit the adjustment of the shank of the wiper-holder closer to or farther away from the neck of the bottle, also in axial adjustment by slightly turning the shank d^2 on the axis according to the inclination required by the neck-label when applying it to a bottle with tapering neck.

The lower split end-portion e^2 of each clamp e is applied to a horizontal pivot-rod f of the body-label wipers and clamped thereto by the perforated ears e^3 and the screw e^5 passing through said ears, as shown in Figs. 1 and 2. The pivot-rod f is supported in a sleeve f^1 provided with a shank f^2 , which is connected by two clamping screw-bolts f^3 f^4 with the upper end of a bell crank-lever g having sockets g^3 g^4 for said clamping bolts so as to adjust the shank f^2 of the sleeve f on the lower bolt f^4 , which acts as a pivot, and then clamp the shank by the screw-bolt f^3 in position after it has been adjusted. The upper arm of each elbow-lever g is provided with a short arc-shaped slot g^x for giving a certain play for the adjustment of the shank f^3 of the lower screw-bolt f^4 which acts as a pivot for the same. At the angle or apex, one of the elbow-levers g is pivotally connected with the lever-mechanism h by which the neck-label wipers are operated, the lower arms of the elbow-levers g being connected with each other by means of pivot-links g^2 , g^1 so that both neck label wiper mechanisms are simultaneously operated. The lower arms of the

elbow-levers are also pivoted to a cross-piece g^5 which is arranged at the upper end of a sleeve g^6 that is raised and lowered on a stationary guide-rod g^7 by an actuating lever operated from the cam-shaft of the machine, as is more fully described in the Letters Patent referred to, so that the entire body and neck label wiper mechanism is raised and spread open for passing at both sides of the bottle without interfering with the same, as shown in dotted lines in Fig. 1. During the downward motion of the neck-label wiper mechanism, the wipers approach each other, engage the neck-label that is transferred to the neck of the bottle by the pickers and press the label on the bottle-neck and wipe it in position on the same.

As the neck-label wipers and their supporting devices are capable of several independent adjustments, the neck-label wipers can be accurately adjusted to the shape of the bottle, location of the neck-label, and motion of the wipers over the same. These adjustments are the adjustment of the label-holders closer to or away from the bottle-neck, the axial adjustment of the label-holders so as to bring the wipers into proper inclination for the tapering neck of the bottle, the forward and backward adjustment of the wiper-supports on the horizontal rods, and the higher or lower adjustment of the wiper-supports by means of the pivot-screw and clamping screw on the bell crank-levers. By the adjustments of these parts any required adjustment of the neck-label wipers relatively to the bottle-neck can be made, and thereby the bottle-labeling machine used for wiping neck-labels on any size and shape of bottle in a straight or slanting position around the bottle-necks.

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

1. In a wiper mechanism for bottle-label-

ing machines, the combination of a pair of elastic neck-label wipers, holders for the same, means for adjusting the holders relatively toward or away from the bottle and rotatably on their own axes, and additional means for adjusting the wiper-holders longitudinally of the bottle.

2. In a wiper mechanism for bottle-labeling machines, the combination of a pair of elastic neck-label wipers, holders for the same, means for adjusting the holders relatively toward or away from the bottle and rotatably on their own axes, and additional means for adjusting the holders longitudinally of the bottle and toward and away from the same.

3. In a wiper mechanism for bottle-labeling machines, the combination of a pair of elastic neck-label wipers, holders for the same, means for adjusting the holders relatively toward or away from the bottles and rotatably on their own axes, and means for adjusting said means longitudinally of the bottle and rotatably on their axes.

4. In a neck-label wiper mechanism for bottle-labeling machines, the combination of a pair of elastic wipers, holders for the same, said holders having shanks extending at right angles thereto, a split clamping device for supporting said shanks, a horizontal pivot-rod, means for applying said split clamp to said pivot-rod, a supporting sleeve for said pivot rod, means for imparting a vertical reciprocating motion to said sleeve, and means for imparting a laterally-reciprocating motion to the same.

In testimony, that I claim the foregoing as my invention, I have signed my name in presence of two subscribing witnesses.

EDWARD ERMOLD.

Witnesses:

PAUL GOEPEL,
SEYMOUR DRUCKER.