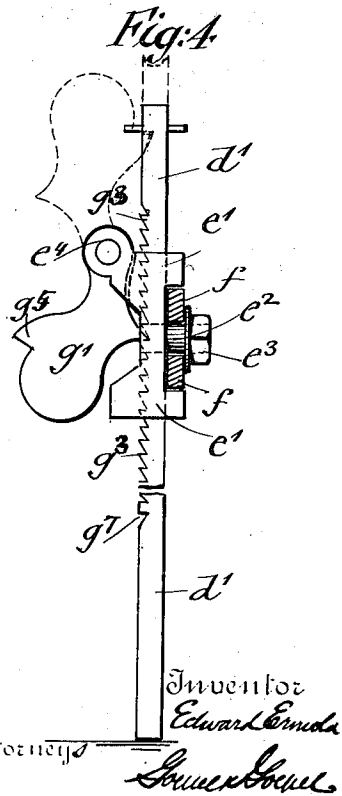
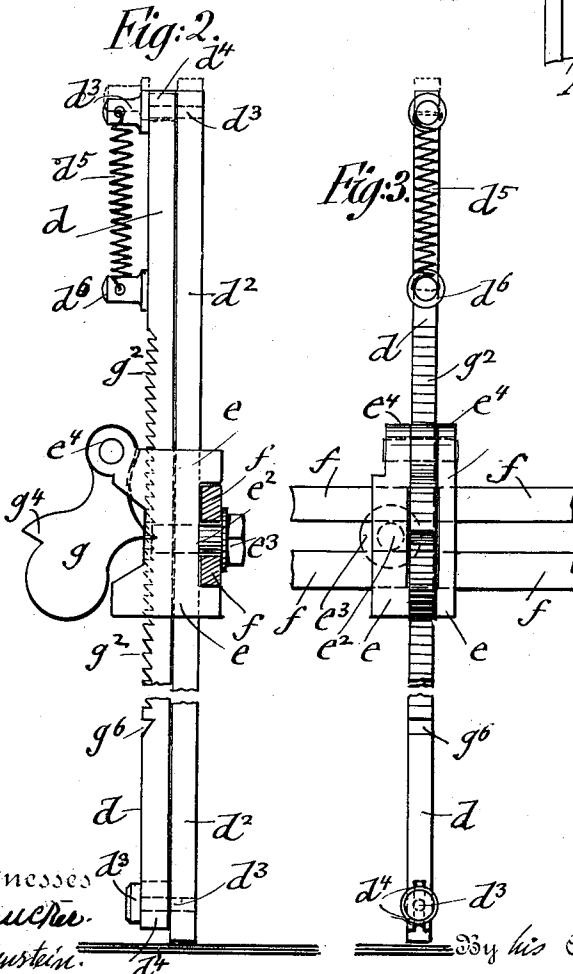
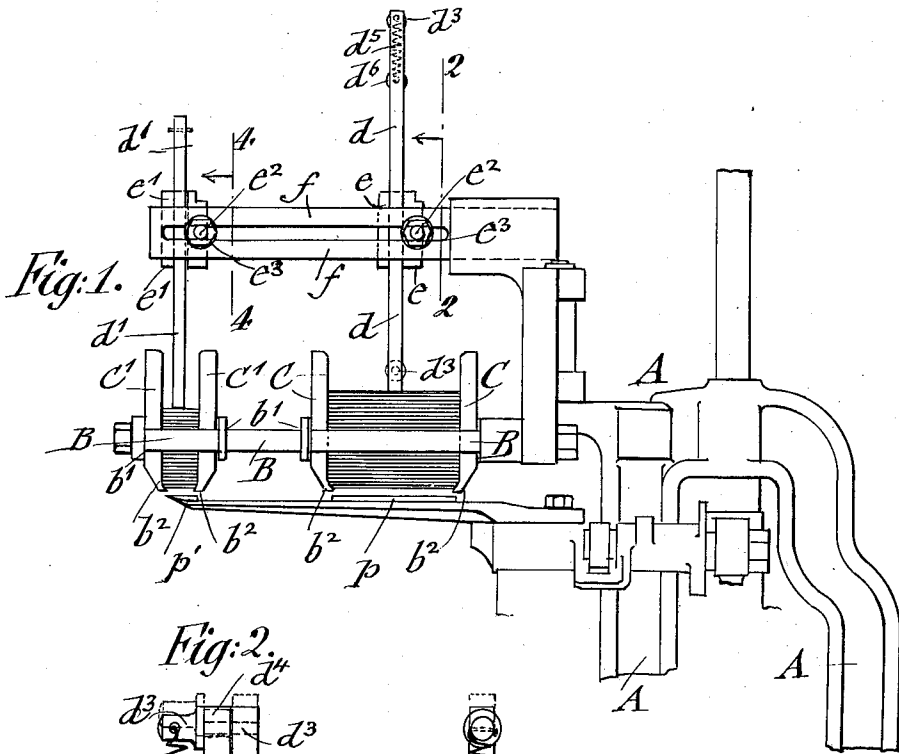


E. ERMOLD.
 LABEL SUPPLY MECHANISM FOR BOTTLE LABELING MACHINES.
 APPLICATION FILED AUG. 7, 1909.

950,259.

Patented Feb. 22, 1910.



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LABEL-SUPPLY MECHANISM FOR BOTTLE-LABELING MACHINES.

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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 Label-Supply Mechanisms for Bottle-Labeling Machines, of which the following is a specification.

This invention relates to improvements in bottle-labeling machines by which a regular and uniform supply of labels to the pickers is secured, and more especially to an improved label-supply mechanism for the bottle-labeling machine for which Letters Patent No. 923,501 were granted to me on June 1, 1909. In the patent referred to a horizontal presser-bar was used for pressing on the tops of both piles of the labels in two label-receptacles, one for the body-labels and the other for the neck-labels. This supply mechanism worked very satisfactorily when the piles of labels in the receptacles were of equal height, but when in working the bottle-labeling machine one pile or the other in said receptacles gradually became of different height, then an unequal pressure on the piles of labels resulted, so that sometimes more than one label was delivered to the pickers at the lower end of one or the other receptacle.

The object of this invention is to overcome this objectionable feature and to improve the label-supply mechanism in such a manner that each receptacle delivers its labels to its corresponding pickers independently of the delivery of the labels by the other receptacle, whether the piles of labels in the label receptacles are of uniform height or not; and for this purpose the invention consists of a label-supply mechanism in which an upright presser-bar is arranged for each pile of labels in the label-receptacles, which presser-bars are guided independently of each other in separate holders guided on a stationary horizontal slotted guide-bar, said holders being provided with pivoted and weighted pawls that engage ratchet-teeth of the upright presser-bars, the presser-bar for the body-labels being provided with recesses at its upper and lower end for guiding an auxiliary presser-bar provided with guide-studs at its upper and lower ends and connected with the presser-bar by an equalizing spring, so that each pile of labels receives an independent pressure

from its respective presser-bar, regardless of the quantity of labels in the respective receptacles.

The invention consists further of certain details of construction and combinations of parts by which the upright presser-bars for the piles of body and neck labels can be adjusted relatively to each other and retained in raised position for replacing a new supply of labels in the label-receptacles, as will be fully described hereinafter and finally pointed out in the claims.

In the accompanying drawings, Figure 1 represents a side-elevation of my improved label-supply mechanism for bottle-labeling machines, Fig. 2 is a vertical transverse section on line 2, 2, Fig. 1, drawn on a larger scale and showing the presser-bar and auxiliary presser-bar for the pile of labels in the body-label receptacle, Fig. 3 is an elevation of the main and auxiliary presser-bars, shown from the opposite side from that shown in Fig. 1, and Fig. 4 is a vertical transverse section on line 4, 4, Fig. 1, showing the presser-bar for the pile of neck-labels, also drawn on a larger scale.

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

Referring to the drawings, A represents the upper portion of the frame of a bottle-labeling machine, B the supporting bars for the label-receptacles C C¹ of which two are arranged—a larger one C for receiving the pile of body-labels and a smaller one C¹ for receiving the pile of neck-labels. The label-receptacles C C¹ are composed of the parallel bars B and a number of upright fingers b² that are supported on cross-bars b¹ which are supported on the bars B. The finger-supporting cross-bars b¹ are made adjustable on the horizontal bars B so as to permit the adjustment of the label receptacles for different sizes of labels, both for the bodies and necks of the bottles. The lower ends of the upright fingers b² are provided with inwardly-projecting lips on which the piles of labels, which are placed in the receptacles, are supported. The fingers permit the free entry of the pickers p, p¹ when they arrive in their position below the label-receptacles so as to form contact with and take up the lowermost labels and remove them from the superposed pile of labels by the downward motion of the pickers. The piles of labels in the receptacle C, C¹ are pressed downward by means of separate up-

right presser-bars d , d^1 , one resting on the top of each pile of labels, said presser-bars being guided independently of each other in holders e , e^1 that are supported on a horizontal and longitudinally slotted guide-bar f , which is supported at the upper part of the supporting frame of the label-receptacles, parallel with but centrally to the receptacle-supporting bars B. The holders e , e^1 are provided with side-recesses for being supported and guided on the bar f , and are provided with clamping bolts e^2 and nuts e^3 by which the holders can be rigidly secured to the slotted guide-bar f after the upright presser-bars are placed in proper position at the center of each pile of labels.

At the opposite sides and upper ends of the holders e , e^1 are arranged perforated ears e^4 to which are pivoted weighted pawls g , g^1 which engage ratchet-teeth g^2 , g^3 on the presser-bars, said teeth being so arranged that their upper horizontal faces are engaged by the pawls while their inclined faces pass over the points of the pawls as the piles of labels in the label-receptacles are gradually diminished, but that the presser-bars are firmly held in position against pressure exerted in upward direction by the pickers on the lower ends of the poles. The presser-bars slide in downward direction by their own weight as the piles of labels are diminished, but are held against pressure in the opposite direction by the weighted pawls g , g^1 . When the piles of labels in the receptacles are exhausted, the weighted pawls are swung on their pivots in upwardly-inverted position, and the presser-bars raised until projections g^4 , g^5 on the pawls engage recesses g^6 , g^7 in the presser-bars d , d^1 for the body and neck-labels, so that the presser-bars are supported in raised positions and permit new piles of labels to be supplied to each receptacle independently of the other. When the presser-bars d , d^1 are in raised position they are not in the way for supplying new labels to the receptacles. Each receptacle feeds its own labels independently of the other by the independently-operating presser-bars.

Alongside of the upright presser-bar d for the pile of body-labels is guided an auxiliary presser-bar d^2 by means of headed guide-pins d^3 at its upper and lower ends that are guided in recesses d^4 at the upper and lower ends of the presser-bar d . The upper guide-pin d^3 is connected by a helical spring d^5 with a stud-pin d^6 on the presser-bar d . The lower end of the auxiliary presser-bar d^2 rests on the top of the pile of body-labels and takes up the vibrations and shocks to which the body-label receptacle is exposed when the pickers arrive below the same. The larger body-labels are subjected to a greater degree of vibrations and shocks than the smaller neck-labels. These vibra-

tions are neutralized by the spring-connection of the auxiliary presser-bar with the main presser-bar, so that a regular feed of the body-labels independently of the neck-labels is securely established.

By the arrangement of independent presser-bars, one for each label-receptacle, a uniform supply of labels is secured to the pickers independently of the height of the piles of labels in the label-receptacles and the shocks imparted to the same, the feed of the labels in one label-receptacle being independent of the feed of the labels in the other receptacle.

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

1. In a label-supply mechanism for bottle-labeling machines, the combination of a label-receptacle provided with means for supporting a pile of labels, supporting bars for said label receptacle, a horizontal bar above the label-receptacle and having a longitudinal guide-slot therein, a holder supported on said bar, a vertically-sliding presser-bar guided in said holder and provided with teeth, means passing through said holder and said guide-slot for adjusting the holder on the slotted bar, and a weighted pawl pivoted to said holder and adapted to engage the teeth of the presser-bar.

2. In a label-supply mechanism for bottle-labeling machines, the combination, with a label holding receptacle provided with means for supporting a pile of labels, of a horizontal supporting bar extending above the label-receptacle, a holder on the same, a vertically-sliding presser-bar guided in said holder and provided with upwardly-inclined teeth and a recess below said teeth, having its walls inclined oppositely from the faces of the teeth and a weighted pawl pivoted to said holder and provided with two projections one for engaging the teeth of the presser-bar and the other for engaging said recess and supporting the presser-bar in raised position.

3. In a label-supply mechanism for bottle-labeling machines, the combination, with the label-holding receptacle provided with means for supporting a pile of labels in the same, a horizontal supporting bar above the label receptacle, a presser-bar provided with teeth at its side, an auxiliary presser-bar, guided along the toothed presser-bar, a holder on said supporting bar for guiding both the toothed and auxiliary presser-bars, means for adjusting the holder on said bar, a weighted pawl pivoted to said holder and adapted to engage the teeth of the presser-bar, and a tension-spring interposed between the toothed and auxiliary presser-bars.

4. In a label-supply mechanism for bottle-label machines, the combination, with a pair of label receptacles for supporting a

pile of labels, a lower bar for relatively adjustably supporting said labels, an upper horizontal bar extending above said receptacles and provided with a longitudinal slot, 5 holders independently slidable on said upper horizontal bar, vertically slidable toothed presser-bars guided one in each of said holders, bolts passing through said slot and said holders for adjustably clamping the holders 10 on said horizontal bar, and weighted pawls

pivoted one to each holder and adapted to engage the teeth of the presser-bars.

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.