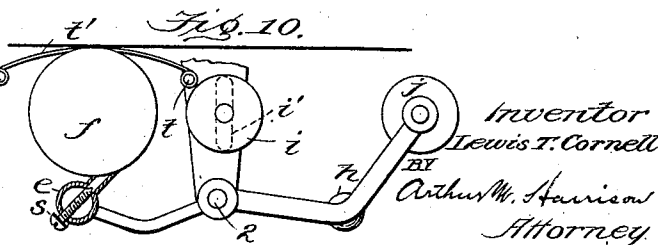
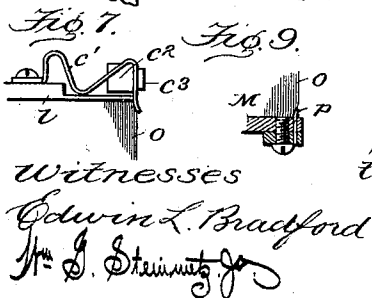
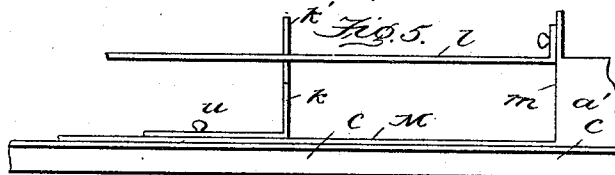
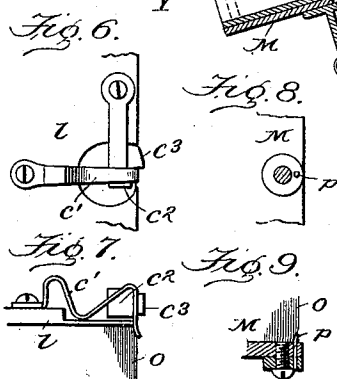
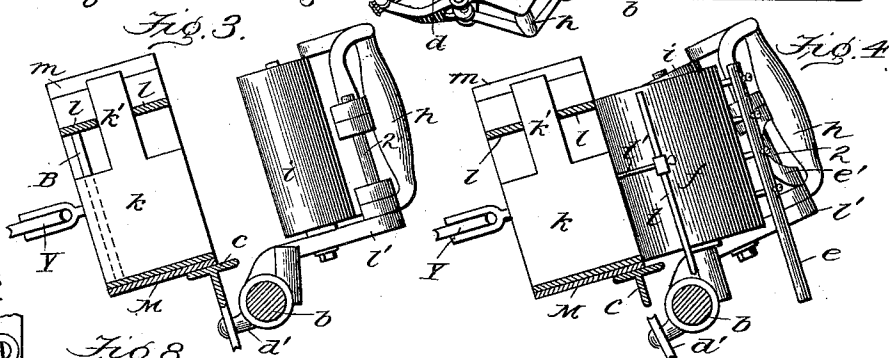
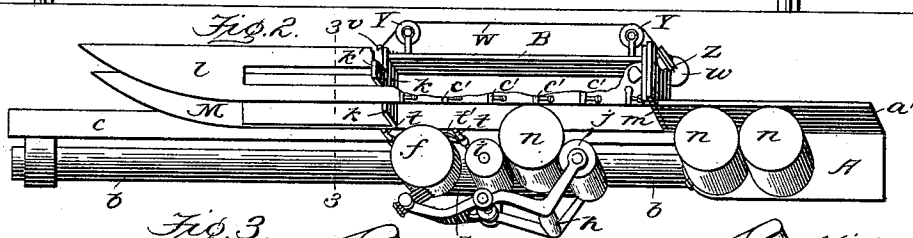
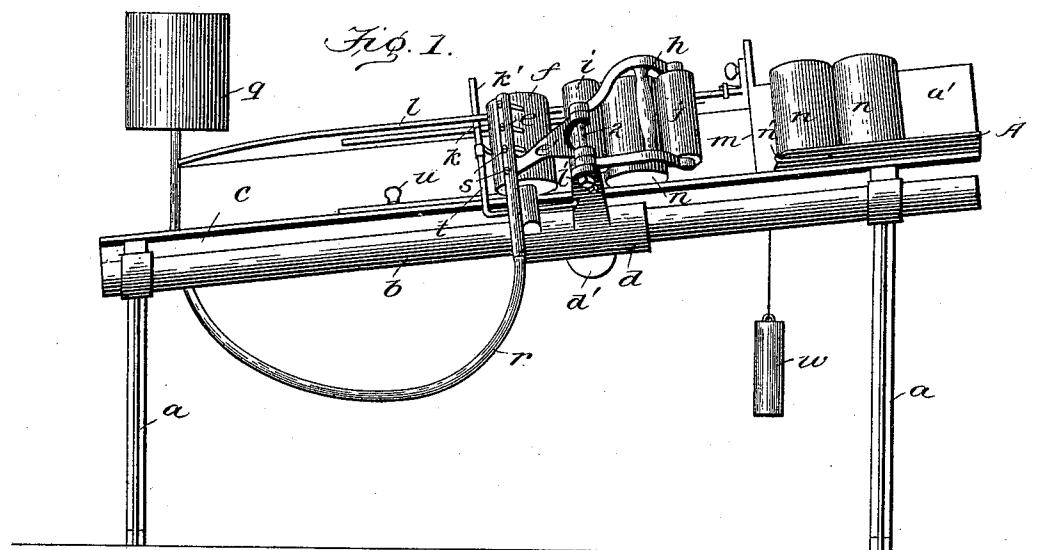


(No Model.)

L. T. CORNELL.
CAN LABELING MACHINE.

No. 582,993:

Patented May 18, 1897.



Inventor
Lewis T. Cornell
By *W. Harrison*
Attorney

UNITED STATES PATENT OFFICE.

LEWIS T. CORNELL, OF CHICAGO, ILLINOIS, ASSIGNOR TO TULLY C. ESTEE,
OF SAME PLACE.

CAN-LABELING MACHINE.

SPECIFICATION forming part of Letters Patent No. 582,993, dated May 18, 1897.

Application filed November 18, 1895. Serial No. 569,306. (No model.)

To all whom it may concern:

Be it known that I, LEWIS T. CORNELL, a citizen of the United States, residing in the city of Chicago, in the State of Illinois, have
5 invented certain new and useful Improvements in Can-Labeling Machines; and I do hereby declare that the following is a full, clear, and exact description, as represented in the following specification and the accompa-
10 nying drawings, forming a part of the same.

This invention relates to machines for labeling cans, and has for its object the production of a hand-operated machine which shall be simple and easily operated and of comparatively small cost.

In carrying out my invention I provide a label-receptacle having means for supporting a supply of labels on their lower edges in position to have their backs or blank sides successively exposed and a carrier which is movable back and forth across the open side of the label-receptacle, said carrier being provided with means for applying paste to the
20 exposed label when moving in one direction and with means for grasping a can and rotating it against and over the pasted label on the return movement.

In the embodiment of my invention which I have chosen to illustrate in the accompanying drawings, Figure 1 represents a side elevation of the complete machine. Fig. 2 represents a plan view of the same, omitting the paste-supply tank and tube. Fig. 3 represents a section on line 3 3 of Fig. 2, omitting the paste-roller and showing the inclination of the carrier when a can is being moved. Fig. 4 represents a similar section, but showing the paste-roller and the carrier being inclined as when paste is being applied to a label. Fig. 5 represents a detail elevation of the label receptacle or box. Figs. 6 and 7 represent detail views in plan and section, respectively, of one of the spring-catches at the top of the label-box to prevent the labels from being pushed out by their follower. Figs. 8 and 9 represent detail views in plan and section, respectively, of one of the catches or needle-points at the base of the label-box to coact with the spring-catches. Fig. 10 represents a detail plan view illustrating the operation of the carrier.

Similar reference-characters indicate the

same parts throughout the several views of the drawings.

The legs *a*, which support the machine, are of different heights, so that the guide-bar *b* and the rail *c*, which are supported by said legs, will be inclined from the horizontal, as indicated in Fig. 1. The rail *c*, as shown in Figs. 3 and 4, is T-shaped in cross-section, and the bar *b* is round, so that the sleeve *d*, which is free to slide thereon, may also rock on said bar, the sleeve being provided with an arm having a roller *d'*, adapted to ride along the lower edge of the T-rail *c*.

The label-box is supported on the top of the rail, and consists of a base-plate *M*, a fixed upright *m*, a top *l*, which is supported by and is vertically adjustable on the upright *m* by means of a slot-and-bolt connection and an adjustable end or wall *k*, said end piece *k* having a base-flange provided with a slot through which a clamp-screw *u* passes into the plate *M*. The end piece *k* is also provided with a vertical extension *k'*, which passes up through a slot in the top plate *l*. This arrangement permits of a certain amount of adjustment of the capacity of the label-box to accommodate different sizes of labels.

A follower *B* (see Fig. 2) is provided with two arms having pulleys *Y Y*, over which and a pulley *Z* a cord *W* passes, one end of said cord being fixed to hook *v* and the other provided with a weight *w*. The follower is adapted to press the labels in the box forward, the said labels being placed on edge therein and with their backs toward the front of the machine.

At intervals along the front edge of the box-top *l* are spring-catches *c'*, (see Figs. 6 and 7,) each of which extends over the wedge-shaped end *c²* of a pivoted arm having a projection *c³* at one end, and at intervals along the front edge of the base-plate of the box are small fixed points *p*, (see Figs. 8 and 9,) the object of the catches *c'* and points *p* being to prevent the labels *o* from being pushed forward out of the box.

Extending to the right of the end *m* of the box is a wall *a'* and a shelf or ledge *A*, on which the cans to be labeled are placed, as shown at *n*, the round sides of the cans resting against the wall *a'*. To prevent the cans from sliding lengthwise of the inclined shelf

A, a hooked spring n' is secured as shown, said spring being sufficiently weak to yield when a can is moved forcibly against and over it, as hereinafter described.

5 The means for applying paste to the back of the exposed label and for then taking and rolling a can over it will now be described. Mounted to rotate on a spindle projecting up from the sleeve d is the paste-roller f , which is preferably covered with plush or other suitable elastic material. Secured to said sleeve is an arm l' , having an upright spindle 2, on which is pivoted an arm e' of the tubular paste-feeder e , which has a series of lateral 10 tubes or nipples extending toward the roller f , each nipple having a screw-valve s . To the lower end of the tubular paste-feeder e is connected one end of a flexible pipe r , the other end of which is connected with the paste-tank g , which may be set in any convenient location sufficiently elevated to insure that the paste will flow to the feeder as needed.

Owing to the pivoted connection of the paste-feeder, as described, it will naturally swing toward the roller f , and yet it can be swung around and away from said roller when the machine is not in use.

Mounted on a spindle rising from the arm l' of the sleeve d is a roller i , and another 30 roller j is mounted on a spindle carried at the end of a pivoted arm which is provided with a handle h , said arm being pivoted on the spindle 2, above mentioned. Between these rollers i and j a can is caused to traverse 35 along and over the label, as presently described.

Two small uprights or pins tt are carried by the sleeve on opposite sides of the paste-roller f , and a small thin spring t' is connected 40 at its ends to said pins, the middle portion of the spring being bowed, as shown in Figs. 2 and 10, and adapted to lightly press against the exposed label as the paste-roller passes over it, so as to prevent said label from being 45 ruffled or wrapped around said roller.

The operation is as follows: Paste of the proper consistency is placed in the tank g , from which it flows through the tube r and the feeder e and its nipples onto the roller 50 f , the flow being regulated as desired by the valves s . The labels are placed in the label-box with their backs toward the open front thereof and are pressed toward the catches c' and points p by the follower B. 55 The cans to be labeled are placed on the shelf A by an attendant, as required, and owing to the endwise inclination of the shelf they slide toward the detent-spring n' . It will be observed by reference to Figs. 3 and 4 that 60 the entire structure of the machine above the bar b has a lateral inclination toward the left, which is the rear of the machine in use. This not only insures the cans resting against the wall a' , but also aids the operator in preserving the proper contact of the paste-roller and the cans with the labels when moved there- 65 over, as will now be described.

By grasping the handle h the operator swings the roller j outward and causes the slide to move to the right, and at the same 70 time uses sufficient lifting force to cause the slide to oscillate to insure a deposit of paste from the roller f onto the back of the exposed label in the box. When the slide has been moved sufficiently to the right, the roller 75 j is caused to engage with the right-hand side of the first can on the shelf and then the slide is moved to the left, the spring n' yielding and the can rotating over the label and between the rollers i and j . 80

It will be noticed that the base-plate M is so mounted on the rail c that a narrow ledge is formed, on which the bottom of the can rests and moves, the periphery of the can at top and bottom rolling, respectively, against the 85 edges of the top plate l and base-plate M. The lower or left-hand ends of the said two plates are rounded or beveled rearwardly to permit a labeled can to escape from between the rollers i and j at the end of the labeling 90 operation.

When the can first reaches the pasted label, it picks up the free end thereof, and then successively presses against the projections 95 c^3 to cause the wedges c^2 to elevate and release the spring-catches c' . The points p being small and sharp readily cut their way through the lower edge of the label as it is wrapped around the can, the small slits thus formed being imperceptible when the label is 100 applied to the can.

The rollers i and j not only serve as carriers for the can, but also to press or roll the label smoothly onto the can as it is wrapped 105 thereon and during the traverse of the can between the end of the label-box and the discharge end of the machine.

Referring to Figs. 3 and 4, it will be seen that the angle of the axis of the roller i relatively to the sleeve d is slightly different from 110 that of the paste-roller f , the former being inclined more toward the track formed by the edges of plates l and M. This is for the following reason: The cans to be labeled are of a uniform diameter and the parts of the ma- 115 chine are so proportioned that when a can is between the rollers i and j and the track it will insure the retention of the sleeve in the angular position indicated in Fig. 3. This is when the can is being rolled over the pasted 120 label, and the paste-roller is thus prevented from making contact with a label except when no can is between the said rollers i and j . Therefore if desired to more firmly press a label onto a can it can be rolled back and 125 forth several times on the track and no paste will be applied to the exposed label in the box, and consequently a second label cannot be picked up by the can.

In order to adapt the machine to cans of 130 different sizes, the spindle of the roller i is mounted so that it can be adjusted in a slot i' , formed in the arm l' of the sleeve. (See Fig. 10.)

Having now described my invention, what I claim is—

1. A can-labeling machine comprising in its construction a label-receptacle having means for supporting a supply of labels edgewise, and a carrier which is movable back and forth across the open side of the label-receptacle, said carrier being provided with means for applying paste uniformly to the exposed label when moving in one direction, and with means for grasping a can and rotating it while on end against and over the pasted label on the return movement.

2. A can-labeling machine comprising in its construction a label-receptacle having means for supporting a supply of labels edgewise, and a carrier mounted to slide and to oscillate in a direction transverse to the line of its sliding movement, said carrier being provided with means for applying paste to the exposed label when moving in one direction, and with means for grasping a can and rotating it against and over the pasted label on the return movement.

3. In a can-labeling machine, the combination with a label-receptacle having means for supporting a supply of labels edgewise, of a carrier mounted to slide past the label-receptacle, and having a paste-roller, and an arm pivoted to said carrier and having a roller and a handle by means of which said roller may be engaged with a can, said arm being adapted to swing freely so that it may be manipulated by the operator.

4. In a can-labeling machine, the combination with a runway or track inclined from end to end and also inclined laterally to support cans endwise but tilted to one side, of a carrier provided with a paste-roller and means for supplying paste uniformly thereto and with means for grasping a can to rotate it over said track while in endwise-tilted position.

5. In a can-labeling machine, the combination with the label-box, of a series of spring-catches *c'* and pivoted arms having wedges *c''* extending under the said catches and arranged along the upper edge of the label-box, and a carrier adapted to roll a can in successive contact with the said wedges *c''* to release the catches, substantially as described.

6. In a can-labeling machine, the combination with the label-box having an open side and an adjustable top, of a series of stationary thin holding-points *p* along the lower edge of the open side, and the spring-catches *c'* secured along the edge of the adjustable top, each of said catches *c'* having a pivoted arm provided with a wedge-shaped end extending under it, substantially as and for the purpose set forth.

7. In a can-labeling machine, the combination with the label-box, of a slide or carrier

having a paste-roller, a tube provided with a series of valved nipples adapted to feed paste to the roller, and a flexible pipe connecting said tube with a source of supply.

8. In a can-labeling machine, the combination with the label-box and the slide or carrier having paste-roller *f*, of the spring *t'* adapted to slide over the labels between them and the paste-roller.

9. In a can-labeling machine, the combination with the endwise and laterally inclined runway or track, of the guide-bar *b*, the sleeve *d* fitted to slide and oscillate on said bar, and the paste-roller *f* carried by said sleeve.

10. In a can-labeling machine, the combination with the endwise and laterally inclined runway or track, of the guide-bar *b*, the sleeve *d* fitted to slide and oscillate on said bar, the paste-roller *f*, and the pivoted arm carried by said sleeve and having the handle *h* and the roller *j*.

11. In a can-labeling machine, the combination with the endwise and laterally inclined runway or track, of the guide-bar *b*, the sleeve *d* fitted to slide and oscillate on said bar, the paste-roller *f* and roller *i* carried by said sleeve, and the arm having roller *j* and handle *h* and pivotally connected with said sleeve.

12. In a can-labeling machine, the combination with the endwise and laterally inclined runway or track, of the label-box having a series of sharp retaining-points at its lower edge and series of spring-catches along the other edge, each of said spring-catches having an inclined under surface, a pivoted arm being provided with a wedge-shaped end under the said inclined surface and the carrier provided with means for grasping a can and rolling it along over said points and catches, substantially as described.

13. In a can-labeling machine, the combination with the endwise and laterally inclined runway or track, of the T-rail *c*, the guide-bar *b*, the sleeve *d* having an arm provided with a roller adapted to engage the lower edge of the rail *c*, the paste-roller *f* carried by said sleeve, and a can-guiding roller mounted on said sleeve at an angle differing from that of the paste-roller.

14. In a can-labeling machine, the combination with the endwise and laterally inclined runway or track, of the T-rail *c*, the guide-bar *b*, the sleeve *d* having an arm provided with a roller adapted to engage the lower edge of the rail *c*, the paste-roller *f* carried by said sleeve, the adjustable roller *i*, and the arm pivoted to said sleeve and having the handle *h* and roller *j*.

LEWIS T. CORNELL.

Witnesses:

M. E. TALBOT,
FRANK RICKO.