

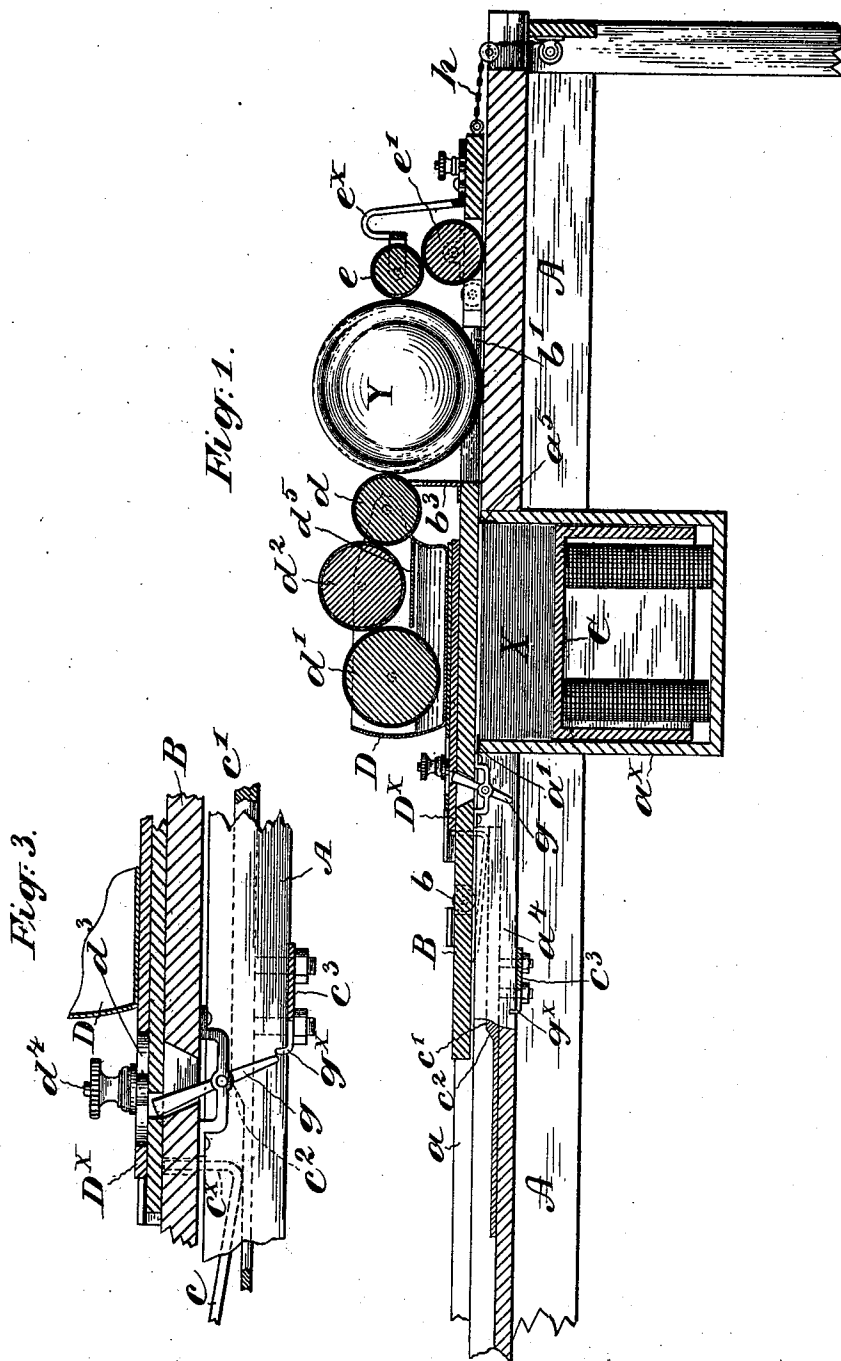
(No Model.)

2 Sheets—Sheet 1.

C. CAMPINI.
BOTTLE LABELING MACHINE.

No. 507,673.

Patented Oct. 31, 1893.



Witnesses:
Peter A. Ross
Herbert Blossom

Inventor:
Carlo Campini
by Henry Connelley
his Attorney

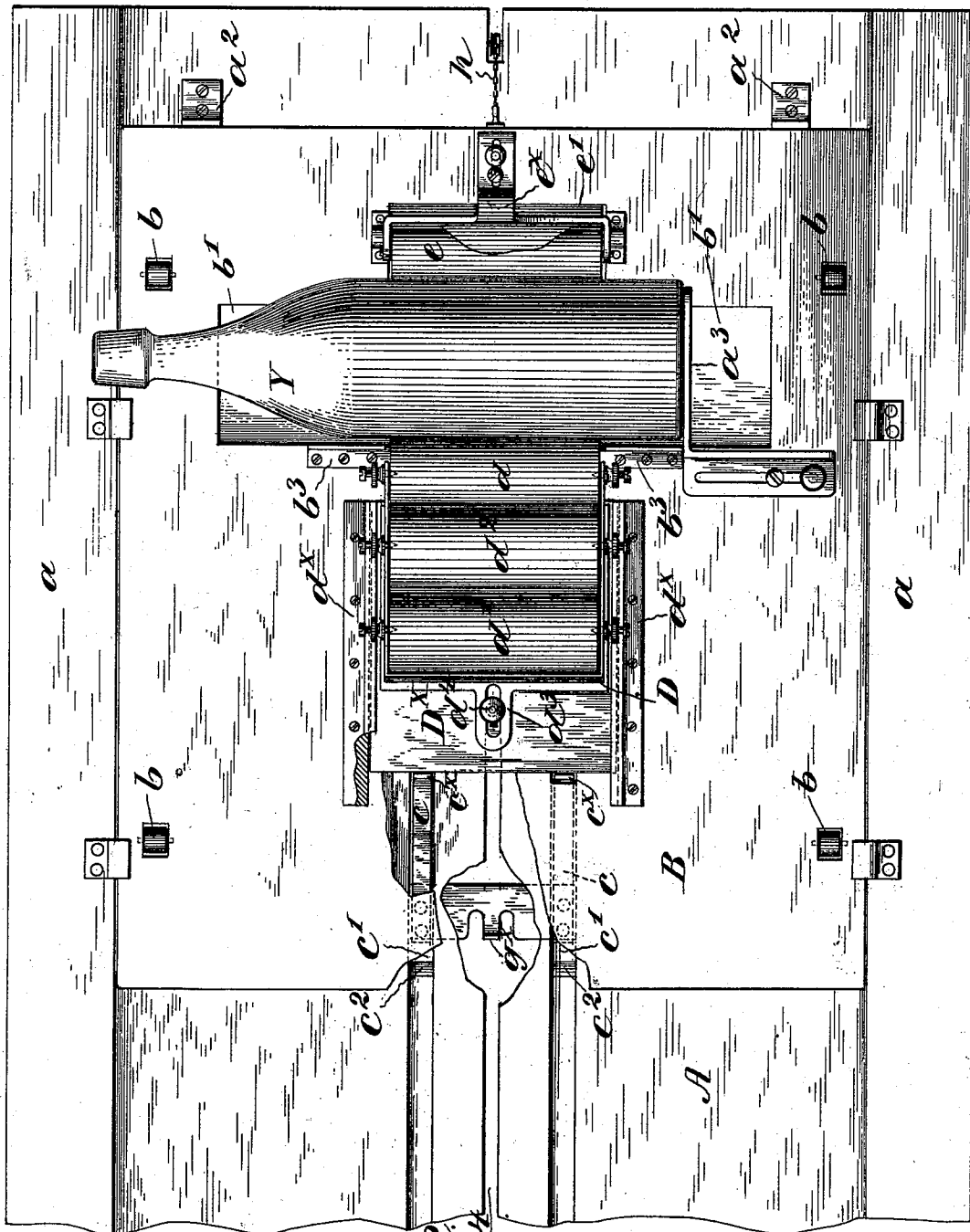
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Witnesses:
Peter A. Ross
Hubert Lofgren

Fig. 2.

Inventor

by Carlo Campione
Henry Coumes.
his Attorney.

UNITED STATES PATENT OFFICE.

CARLO CAMPINI, OF NEW YORK, N. Y.

BOTTLE-LABELING MACHINE.

SPECIFICATION forming part of Letters Patent No. 507,673, dated October 31, 1893.

Application filed December 13, 1892. Serial No. 455,018. (No model.)

To all whom it may concern:

Be it known that I, CARLO CAMPINI, a subject of the King of Italy, residing in the city, county, and State of New York, have invented certain new and useful Improvements in Labeling-Machines, of which the following is a specification.

My invention relates to the class of machines adapted for applying labels to round bodied articles, such as cans and bottles, and is especially well adapted to apply labels to bottles and the like with cylindrical bodies where the label does not completely embrace or encircle the body of the bottle. In its operation the machine applies paste, or other adhesive substance, to the surface of the bottle, or other article, to the exact extent that will be covered by the label, and then applies the label to this paste-covered surface.

The invention will be fully described hereinafter and its novel features carefully defined in the claims.

In the accompanying drawings, which serve to illustrate the invention—Figure 1 is a longitudinal vertical mid-section of a machine embodying the same, and Fig. 2, is a plan of the machine. Fig. 3 is a detached sectional view on a larger scale than the principal figures. This view illustrates a feature of the operation which will be hereinafter described.

A represents a supporting frame or table of any kind, on the top of which is mounted a reciprocating carriage, B. This carriage will be, by preference, a simple, plain bed, provided with rollers, *b*, which roll on the table when the carriage moves to and fro. The carriage plays between guides, *a*, *a*, seen in Fig. 2. In the table bed is an opening at which is fixed, below the bed, a guide, *a*^x, in which is arranged a spring-supported follower, C, bearing the pile of labels, X. The follower keeps the topmost label of the pile pressed upward against a narrow stop, *a*¹, arranged at the front margin of the opening in the table and at about the level of the upper surface of the table-bed.

When the carriage B, is in its normal position, as seen in the principal figures: that is, at the right-hand end of the machine as herein shown, it rests against a stop or stops, *a*², on the table. The carriage is raised slightly above the level of the table bed by its rollers,

and has in it an aperture, *b*¹, wherein the bottle lies when placed on the machine. In the principal views a bottle, Y, is seen in position, resting on the table. On the table is fixed, adjustably, a guide-stop, *a*³, against which the bottom of the bottle is placed.

D is a paste-fountain, mounted on the carriage B, and provided with a paste applying roller *d*, a fountain roller, *d*¹, and a distributing roller, *d*². The fountain is secured to a base-plate, D^x, and preferably in such a manner that it may be adjusted; this is effected, as herein shown, by means of a slotted lug, *d*³, on the fountain, and a screw-stud and nut, *d*⁴, on the base-plate, as clearly shown. The base-plate D^x is mounted to slide in guides, *d*^x, fixed on the carriage.

When the fountain D is in its normal position, as seen in the drawings, it is held against sliding forward (to the left in the drawings) on the carriage by two springs, *c*, *c*, of which the upwardly bent ends *c*^x, take in front of the base-plate D^x. The manner in which these springs operate will be hereinafter described.

The normal position of the fountain D, is such that when a bottle or other round-bodied article, as Y, is placed in position transversely of the table, as shown in the drawings, it will be embraced, front and rear, respectively, by the paste-applying roller *d* and an adjustable bearing roller, *e*, mounted rotatively in a somewhat spring-like or yielding bracket, *e*^x, secured adjustably on the carriage. These rollers, *d* and *e*, should be situated at about the level of the bottle-axis, but this is not absolutely essential. Below the roller *e*, and preferably in contact therewith, is a driving roller, *e*¹, which is mounted rotatively in the carriage and rests and rolls on the bed of the table A.

So far as described the operation is as follows: When the operator has placed a bottle in the position seen in the drawings, he rolls the bottle forward (to the left in the drawings) on the table, and the peripheral contact of the bottle with the roller *d* causes the carriage B to move with the bottle. The contact of the bottle with the roller *d* also rotates the latter and causes it to apply paste to the surface of the bottle. The proportions of the parts are such that as the bottle rolls for-

ward, the margin of the paste-covered surface on the bottle will register with the nearer edge of the top label of the pile, and as the bottle rolls over the pile the label will adhere to the bottle and be smoothed down by the bearing roller e . In order to limit the contact of the paste applying roller d with the bottle to the extent required for the label, so that no more of the surface, measured roundwise of the bottle, will be coated with paste than will be covered by the label, means are employed for moving the fountain D forward on the carriage at the proper point in the forward movement of the carriage B, so as to withdraw the roller d from contact with the bottle. This mechanism I will now describe. The springs c have their ends c^x pressed upward, normally, by the bearing of the lower faces of the free end of the springs on metal tracks c' , set in grooves formed in the bed of the table A; and at a certain point in these tracks, there are descending points, or inclines c^2 , beyond which the surfaces of the tracks are lower. As the carriage B moves forward, when the free ends of the springs c reach the inclines c^2 , the springs are depressed by their own elasticity to an extent sufficient to free the base-plate of the fountain D. At this point the fountain is shifted or moved forward by an automatic shifting device which I will now describe. There is a longitudinal slot, a^4 , in the table-bed, and in this slot plays a lever, g , pivoted in a bracket secured to the under side of the carriage B. The upper end of this lever extends upward through a slot in the carriage and engages an aperture or socket in the base-plate D^x of the fountain. At the moment the spring stops c release the fountain, the lower extremity of the lever g , encounters a spring trip, g^x , on the table, swings the lever over, and thus causes its upper extremity to shift the fountain. In Fig. 1 the mechanisms last described are seen in their normal positions, while in Fig. 3 the same parts are seen in the position they occupy at the moment the shifting of the fountain has been effected. When the roller d is withdrawn from in front of the bottle the latter bears against a plate, b^3 , situated at the margin of the aperture b , below the roller d . When the label has been applied to the bottle, the latter is lifted off from the machine and the carriage B is returned to its former position. On its return, the lever g is again actuated by the trip g^x , but in a manner to shift the fountain D in the opposite direction, and when this has been effected the springs c ride up the inclines at c^2 , in the respective tracks c' , and the upturned ends of the same again take position in front of the base-plate D^x .

The carriage B may be returned to its normal position by a weight or spring connected to the carriage by a chain or cord, h .

The spring trip, g^x , will be, by preference, connected rigidly to the metal tracks c' , by means of a tie-plate c^3 , in order that the rela-

tive positions of the inclines c^2 , in the tracks, and the trip g^x , may remain unchanged.

To prevent the liquid adhesive material in the fountain D from spattering onto the rollers d and d^2 , the fountain is provided with a splash plate, d^5 .

A slight variation in the diameters of the bottles being labeled will be compensated by the yielding of the bracket e^x , in which the roller e is mounted; and this bracket may be adjusted on the carriage B if necessary.

The roller d will be, of course, of the same length as the labels to be pasted on the bottle, and the guide-stop a^3 will be so set as to apply the labels to the bottles at the desired distance from the bottoms thereof.

As the carriage B moves to and fro the roller e' will roll over the pile of labels and smooth them down; and to prevent the backward movement of the carriage from sliding back the top label, a strip, a^5 , arranged at the rear edge of the pile of labels and projecting slightly above the level of the table, will be provided.

Having thus described my invention, I claim—

1. In a labeling machine, the combination with a supporting table, a spring actuated follower arranged under the table-bed to support a pile of labels, a carriage mounted to move on said frame over the labels, and having an aperture in it to allow the bottle to rest and roll on the frame, a paste fountain, mounted on the carriage and provided with a fountain roller and paste applying roller, a bearing roller on the carriage behind the bottle, means for holding the paste applying roller in its normal position on the carriage during the operation of applying paste to the bottle, and means for moving the paste applying roller forward out of contact with the bottle at the proper time, substantially as and for the purposes set forth.

2. In a labeling machine, the combination with a supporting table having an aperture in its top or bed over the label-carrier, a follower arranged under the said aperture in the table to carry the pile of labels, a reciprocating carriage on said table having in it an aperture to allow the bottle to rest and roll on the table as the carriage is moved forward, means for keeping the labels on the follower pressed upward against a stop, a paste fountain mounted to move in guides longitudinally along the carriage and provided with a fountain roller and paste applying roller, a spring detent behind said carriage to hold it against movement while the paste roller is applying paste to the bottle, means set in the table for releasing the fountain at the proper time, means, actuated by the carriage when moving forward for shifting forward the paste fountain when the latter is released, whereby the paste applying roller is moved out of contact with the bottle, and a bearing roller on the carriage behind the bottle, substantially as set forth.

3. In a labeling machine, the combination
with the table, the label carrier, the carriage
B, mounted on the table and adapted to be
moved to and fro thereon, of the paste foun-
5 tain and its base-plate, mounted in guide-
ways on the carriage B, the springs c , on the
carriage, arranged to take behind the base-
plate of the fountain, the tracks, c' , on the
table under the springs c , said tracks being
10 furnished with inclines c^2 , the shifting lever
 g , mounted on the carriage B, and its upper

end engaging an aperture in the base-plate
of the fountain, and the trip g^x , arranged in
the path traversed by the lower extremity of
said shifting lever, substantially as set forth. 15

In witness whereof I have hereunto signed
my name in the presence of two subscribing
witnesses.

CARLO CAMPINI.

Witnesses:

HERBERT BLOSSOM,

PETER A. ROSS.