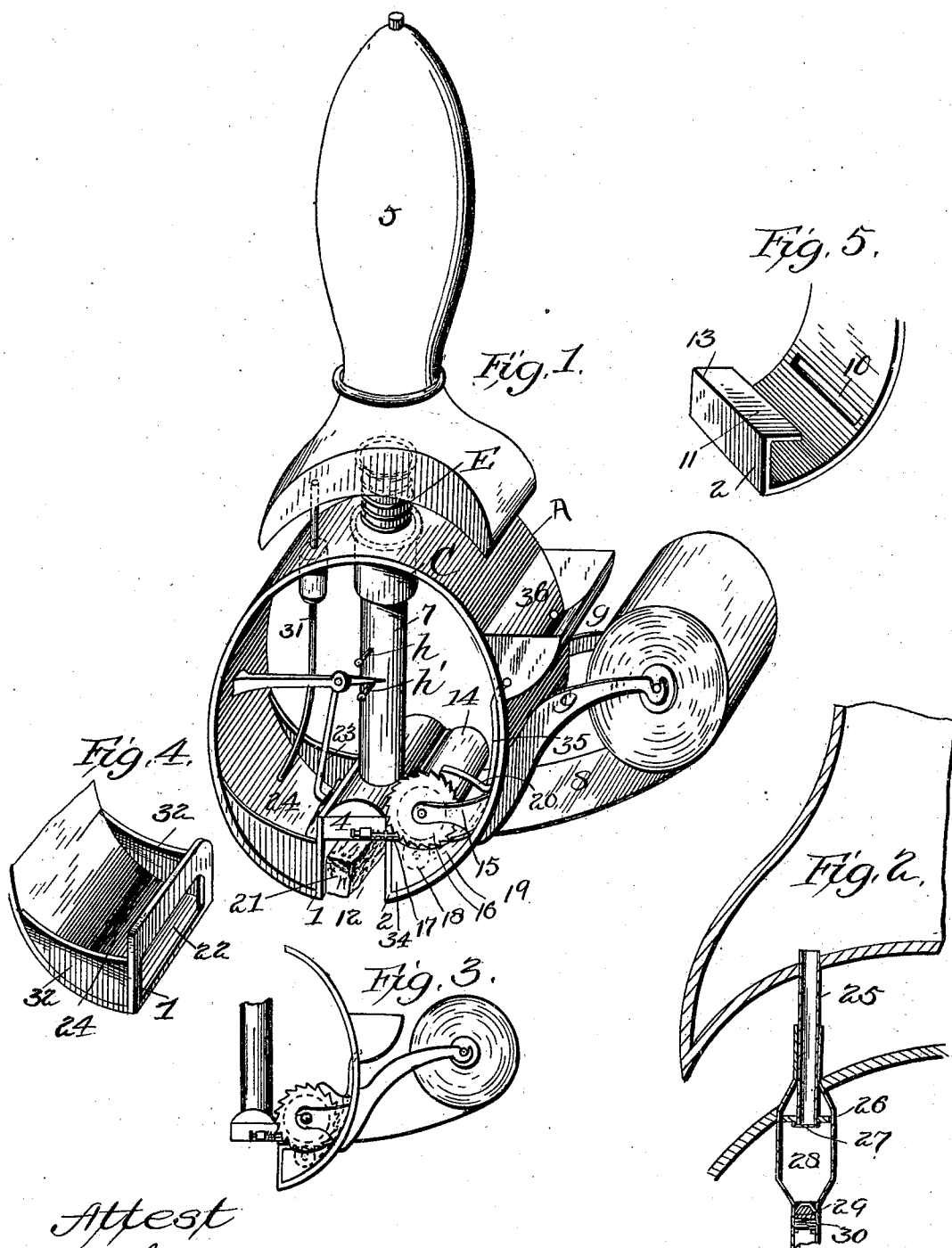


(No Model.)

J. C. LODOR.
LABELING OR MAILING MACHINE.

No. 502,045.

Patented July 25, 1893.



Attest
Mar. F. Allen.
Wm. J. Hall

Inventor
J. C. Lodor
by *Wm. J. Hall*
ATTY

UNITED STATES PATENT OFFICE.

JAMES C. LODOR, OF WILMINGTON, NORTH CAROLINA.

LABELING OR MAILING MACHINE.

SPECIFICATION forming part of Letters Patent No. 502,045, dated July 25, 1893.

Application filed November 20, 1891. Serial No. 412,586. (No model.)

To all whom it may concern:

Be it known that I, JAMES C. LODOR, of Wilmington, in the county of New Hanover and State of North Carolina, have invented certain new and useful Improvements in Labeling or Mailing Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

It is the object of my invention to provide a simple and effective device for applying labels which will be capable of severing the labels from a strip, and applying them to the desired surface or article.

I desire to provide a machine which may be used with a strip which has been previously coated with gum, or may be used with an uncoated strip and be capable of applying the gum and then severing and applying the label thus severed to the surface or article.

In the accompanying drawings, Figure 1 is a perspective view of the entire device, with the roll of labels in place. Fig. 2 is a detail sectional view of the device for applying the proper quantity of moisture. Fig. 3 is a detail view of the mucilage applying device and Figs. 4 and 5 are detailed perspective views of the lower left hand and right hand portions of the frame.

In the drawings A, is the frame composed of the curved plate having its ends turned up at 1, 2, to form an intermediate space 12, for the plunger 4 to work in when moved vertically by means of a handle 5, to which it is connected by stem 7, passing through a hollow boss C, at the upper part of the frame. A spring E, surrounds the stem above the plate and presses the under side of the handle to keep the same and plunger normally in an elevated position. The labels are printed upon a long strip 8, supported in the form of a roll in brackets 9 projecting from the frame. The end of the strip is passed through an opening 10, Fig. 5, of the frame and across the ledge 11, formed by bending horizontally the upturned end 2, of the frame. It is intended that the strip shall be given a regular step by step movement and that each movement will be sufficient to project a label across the plunger space 12, so that as the

plunger descends its edge will act in conjunction with the edge 13, of the ledge 11, and thus act to shear off the projecting part of the strip, which as before stated constitutes the label. This step by step action is given by a feed roller 14, journaled in arms 15, of the frame, which roller carries a ratchet wheel 16 at its end adapted to be engaged by a spring sliding pawl 17, carried on the end of the plunger so that as the plunger in its upward movement gets to the position shown in Fig. 1 the pawl will engage the ratchet wheel and in the continued upward movement of the plunger the feed roller will be turned causing the paper strip to be fed forward one step between itself and the lower pressure or gum roller 18, journaled in the sides 19, of the lower mucilage box, hereinafter referred to. It will be noticed that the pawl does not engage the ratchet until the plunger has reached a point slightly above the plane of the ledge 11, so that the plunger space is then free to receive the end of the paper strip and by reason of the sliding spring arrangement of the pawl the contact between the same and the ratchet wheel will be maintained sufficiently long to feed the required amount of the strip. On the downward movement of the plunger the ratchet and feed rollers are held by a detent pawl 20, against backward movement, while the sliding pawl 17, merely slips back over the teeth, and as the plunger passes the ledge 11, its edge will shear off the label from the strip and force it down through the space 12, upon the surface to which the label is to be applied. The pawl and ratchet may be arranged in any suitable manner to accomplish the result but I prefer to have the ratchet project slightly beyond the side of the frame and to arrange the pawl on the end face of the plunger so as to be out of the way of the frame and also that the parts may engage when they have assumed the position shown in Fig. 1.

When a strip is used having a gummed back it is only necessary to provide some means for moistening the surface to which the label is to be applied and in order to do this automatically I have provided a movable sponge 21, arranged to be projected through an opening 22, in the upturned end 1 of the frame, the said sponge being carried on a bell crank le-

ver 23, the short arm of which projects between two pins h' , h' , set in the stem 7. The arrangement is such that in the upward movement the pin h' , will operate the bell crank lever 23, to force the sponge 21, out of its box 24, and across the space 12, so that it will move over the surface to which the label is to be applied and thus moisten the same, and in the downward movement of the plunger the pin h , will operate the bell crank lever reversely and thus retract the sponge into the box 24, and leave the space 12, entirely free for the fall of the plunger and the application of the label. The pins are arranged at a distance apart sufficient to secure slight lost motion of the stem before operating the bell crank lever in either direction so as to provide for an initial and a final movement of the plungers without operating the sponge; that is to say it is not necessary to operate the sponge until the plunger in its upward movement has nearly reached the point shown in Fig. 1, and consequently the first part of the upward movement of the stem need have no effect upon the bell crank lever, and on the downward movement of the plunger it is not necessary to operate the sponge after it has been withdrawn into its box and the final movement of the plunger is taking place and I therefore make provision for lost movement as above described. In order to supply a small quantity of moisture to the sponge box I make the handle hollow for containing water and provide a hollow stem 25, connected rigidly thereto, and having a piston 26, and a flap valve 27, moving in a cylinder 28, which has also a check valve 29, pressed normally upward to close against its seat by a spring 30. From the cylinder a spout 31, projects downwardly preferably curving to one side with its lower end in the box 24, which box is made up of the main part of the frame, the upturned end 1, and the sides 32. As the plunger is lifted the valve 27, under the pressure of the water above it opens and lets a small quantity, a drop or two, of water into the cylinder; the valve 29, remaining closed. As the plunger is forced down, the handle carries the stem 25, and the piston 26, with it and the pressure thus generated through the water in the cylinder 28, is sufficient to overcome the pressure of the spring 30, and the small quantity of water in the cylinder is thus forced through the spout 31, into the sponge box 24, and on the subsequent rise of the plunger and handle a few more drops are let into the cylinder 28, for the next action. It will be understood that the cylinder is quite small and feeds at each movement only enough water for the next action. The sponge fills the opening 22, completely and acts as a stopper against the escape of any moisture or water in the box 24, except what is gathered upon the sponge and distributed thereby over the surface for receiving the label.

In cases where the label strip has not been

previously coated with gum I have made provision for applying this mucilage on the passage of the strip toward the plunger, and in order to do this it is only necessary to provide sides 34, between the upturned end 2, and the main part of the frame so as to receive and hold mucilage or other sticky material. To this receptacle tubes 35 lead from a box 36, supported by the upper part of the frame and adapted to hold the sticky material. The lower ends of these tubes are turned adjacent to the surface of the lower pressure roll 18, so that the mucilage discharges directly against said roll, the lower part of which also moves in the bath of mucilage and from this arrangement it will be clear, that as a strip passes between the two rolls the sticky material will be applied thereto on its under side.

What I claim is—

1. In a labeling machine the frame work having a plunger space, the plunger adapted to move therein, the paper feeding roll the sponge for applying moisture to the receiving surface, the handle for operating the plunger, said handle being hollow to contain water, and the means operated by the handle for supplying water to the sponge, substantially as described.

2. In combination in a labeling machine, the frame work having a plunger space, the plunger arranged to move therein, the paper feeding mechanism, operated by the plunger, the movable sponge, the means for supplying moisture thereto and the connection from the said sponge to the plunger stem to be operated thereby, substantially as described.

3. In combination, the frame work having a plunger space the feeding mechanism for the paper strip, the handle for operating the plunger, said handle being hollow to receive water and a cylinder and piston, the latter operated by the handle for feeding the moisture therefrom, substantially as described.

4. In combination, the frame work formed of a plate curved as shown and having its free ends turned up to form a plunger space the sponge box comprising one of said upturned ends, the feeding mechanism arranged adjacent to the other upturned end, the plunger arranged to move in the plunger space, the sponge movably arranged in the sponge box, the connections therefrom to the plunger stem to be operated thereby and the automatic means for supplying moisture to the sponge box, substantially as described.

5. In combination the frame, having a plunger space, the plunger movable therein, the feed roll for feeding the strip, the mucilage box containing one of said rolls, the upper mucilage receptacle supported on the frame and the tubes leading from said receptacle to the lower mucilage box, substantially as described.

6. In combination, the frame consisting of a plate having its lower ends turned up to

provide a plunger space, a guide-way at the upper middle portion of said plate, a plunger stem movable therein, having a plunger at its lower end, a handle for operating the plunger and strip feeding mechanism, carried by the frame substantially as described.

5 In testimony whereof I have signed this

specification in the presence of two subscribing witnesses.

JAMES C. LODOR.

Witnesses:

JNO. D. TAYLOR,

ED WILSON MANNING.