No. 692,492. Patented Feb. 4, 1902.

# J. A. TURNEY.

## LABELING MACHINE.

(Application filed Aug. 23, 1900.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.

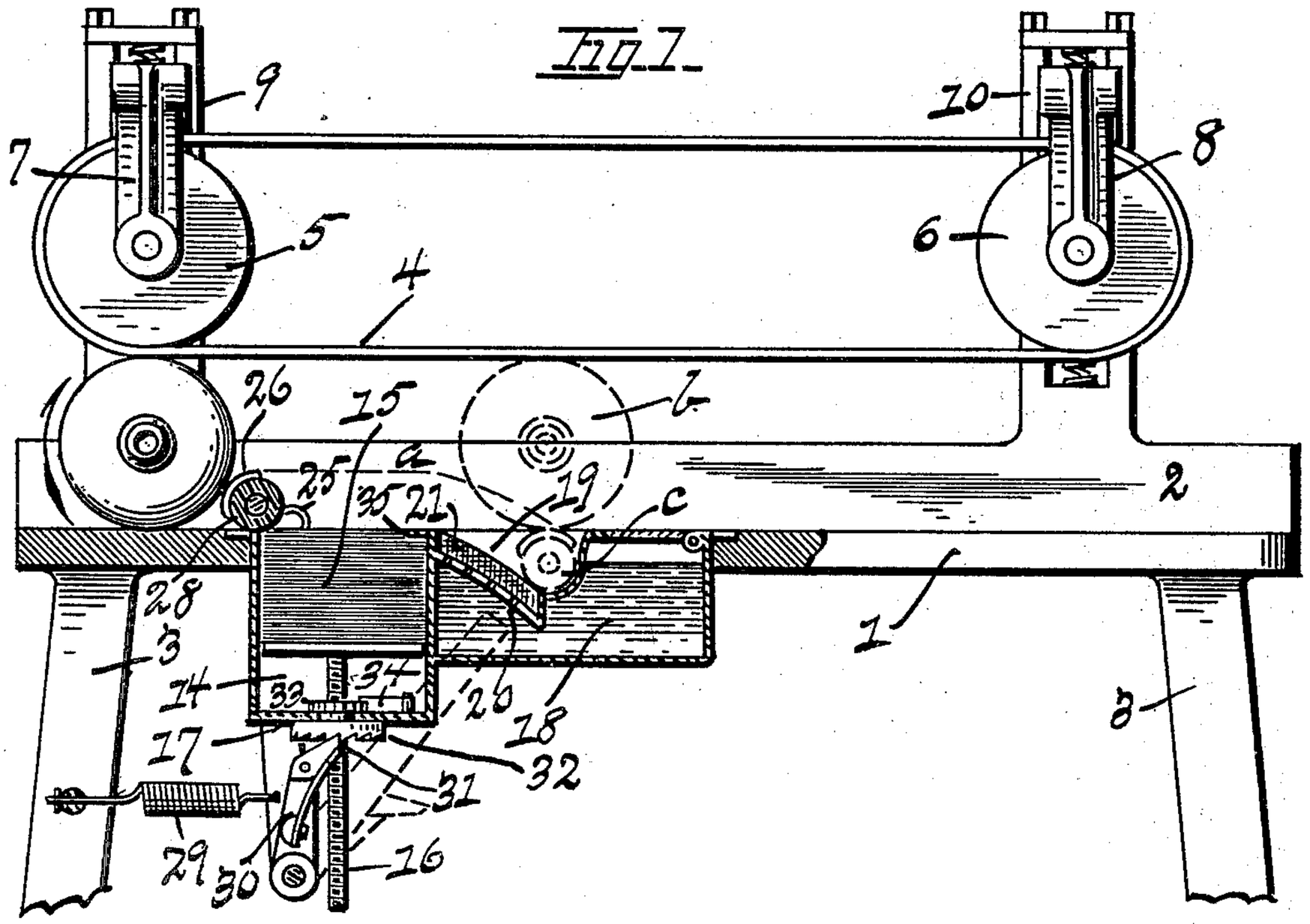
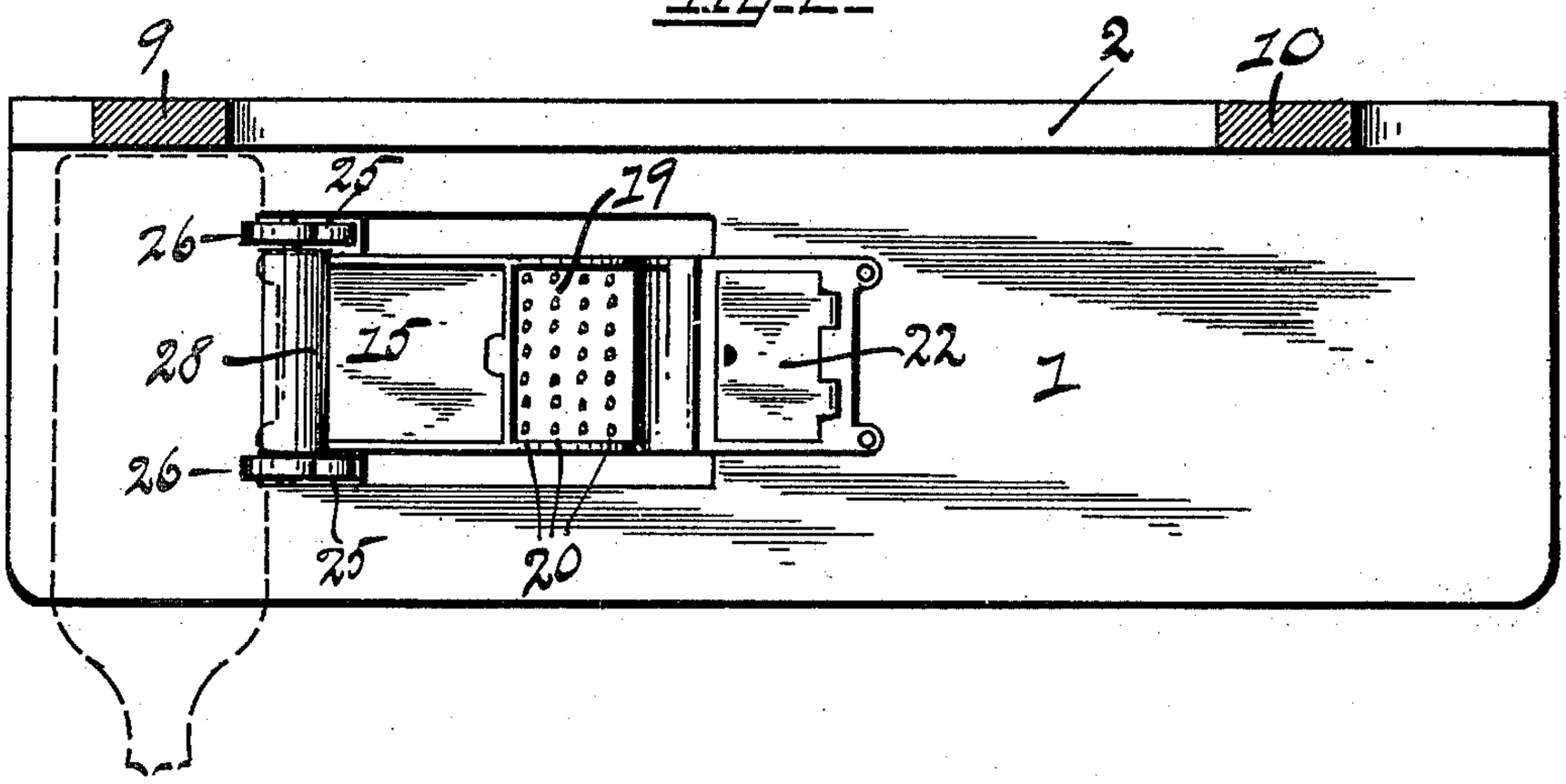



Fig. 2.

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## LABELING MACHINE.

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(No Model.) 2 Sheets—Sheet 2.

Fig. 3.

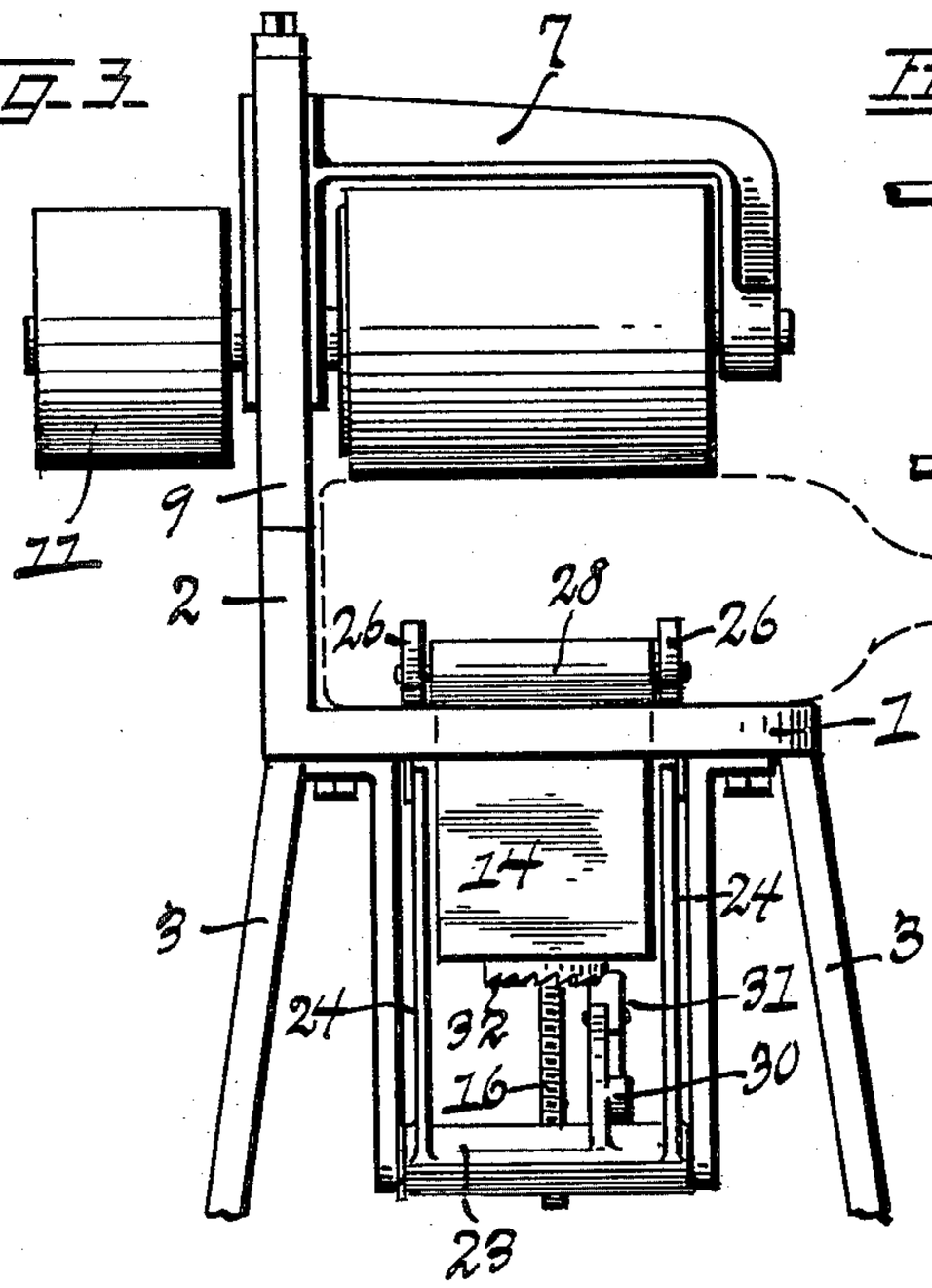
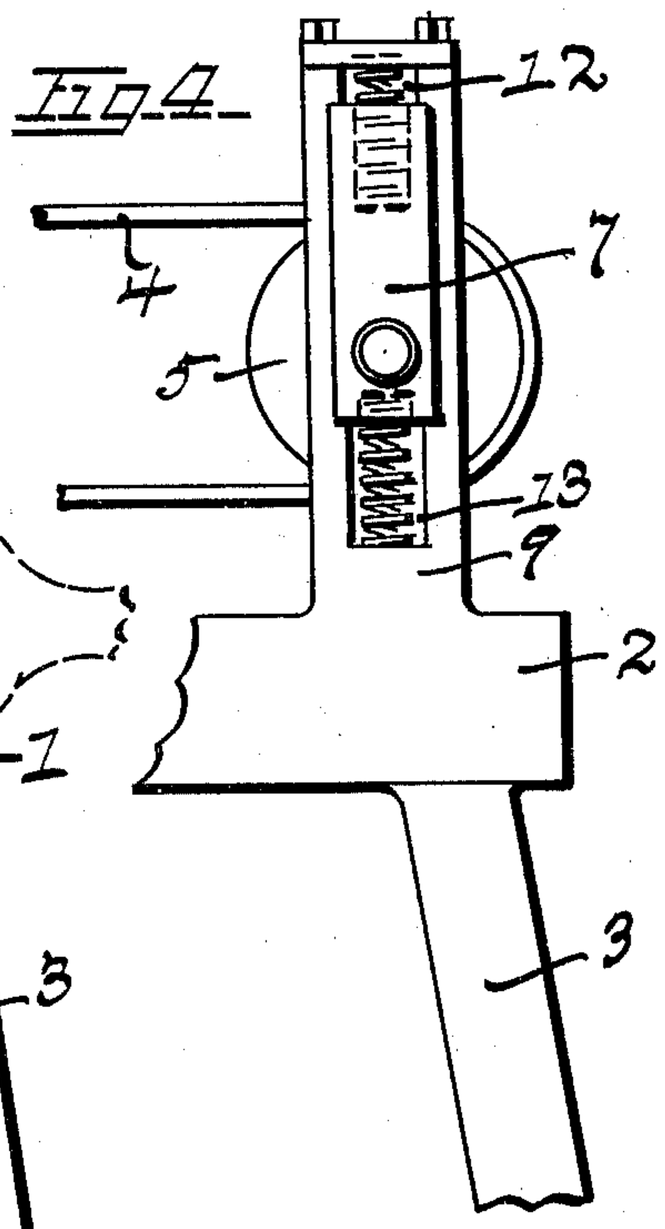



Fig. 4.



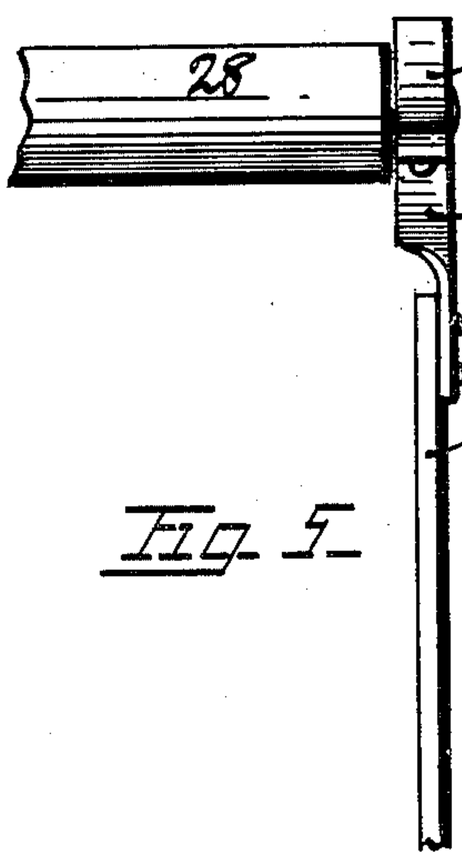




Fig. 5.

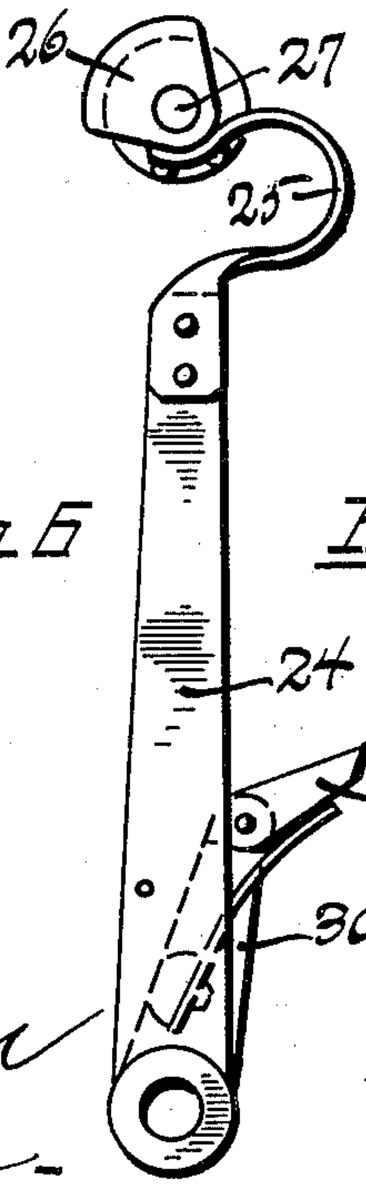



Fig. 6.

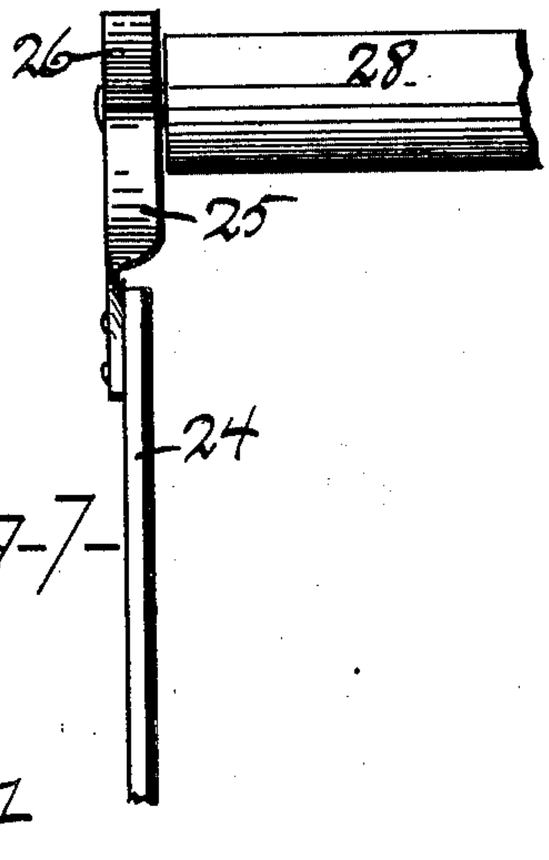



Fig. 7.

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# UNITED STATES PATENT OFFICE.

JAMES A. TURNEY, OF TOLEDO, OHIO.

## LABELING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 692,492, dated February 4, 1902.

Application filed August 23, 1900. Serial No. 27,778. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES A. TURNEY, of Toledo, county of Lucas, and State of Ohio, have invented certain new and useful Improvements in Labeling-Machines; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the characters of reference marked thereon, which form part of this specification.

My invention has reference to a labeling-machine, and has for its object to provide a machine for labeling bottles, tin cans, &c., which shall be effective in operation, simple in construction, and which requires for its operation a minimum utilization of power.

In carrying out my invention I employ the novel arrangement and the parts and combination of parts hereinafter shown, described, and claimed.

In the drawings, Figure 1 is a side elevation of my invention, some of the parts thereof being shown in section. Fig. 2 is a top plan view showing the table, the paste-roller, the label-receptacle, the perforated pocket for the paste-pad, and the paste-receptacle. Fig. 3 is an end elevation of my machine. Fig. 4 is a rear elevation of one of the bracket standards. Figs. 5, 6, and 7 are front, side, and rear views, respectively, showing the preferred means employed to mount the paste-roller upon the roller-frame.

Referring to the parts, the frame of the machine comprises an elongated table 1, formed along the rear thereof with an upwardly-extending portion 2 to guide the bottles as they are rolled along the table. The frame is suitably supported upon standards 3.

4 is a continuous belt passing around pulleys 5 and 6, respectively, which are mounted in brackets 7 and 8, having a vertical movement in standards 9 and 10, extending upwardly at opposite ends of the table. The shaft upon which pulley 5 is mounted is extended to receive a pulley 11 for the attachment of a belt from a suitable source of power. As before stated, brackets 7 and 8 have a vertical movement in standards 9 and 10. Free movement thereof is, however, restricted by reason of the compression-springs 12 and 13, between which they are secured, as shown in Fig. 4. This arrangement insures contact of the belt 4 with the receptacle to be labeled should there be a variation in the size of the receptacle. Belt 4 may be made of any material suitable for the purpose, and I prefer to make the same of yielding material, such as rubber, having a suitable backing of canvas or similar fabric.

14 is the label-receptacle, box-like in formation, supported from and extending through the table and adapted to receive a plurality of labels 15. These labels rest upon a vertically-movable plate, the movement thereof being accomplished by a screw-threaded stem 16, passing through a centrally-perforated and screw-threaded ratchet-wheel revolubly mounted in the bottom plate 17 of the label-receptacle.

18 is a paste-receptacle adjoining the label-receptacle 14, having a depressed section formed with a pocket 19, through the lower walls of which are formed perforations 20. Pocket 19 is adapted to receive a pad 21, of felt or other suitable absorbent material. Paste is introduced into the paste-receptacle through an opening in the top thereof, the same being shown closed by a hinged cover 22.

23 is a roller-frame mounted between hangers extending downwardly from the lower side of the table. The same is formed with arms 24, which take a position on opposite sides of the label-receptacle. To the upper ends of the arms 24 are secured spring members 25, upon which are mounted contact-shoes 26, which are connected together by a spindle 27, upon which the paste-roller revolves. The springs 25 insure contact of the paste-roller with the paste-pad. As shown in the drawings, the paste-roller assumes normally a position immediately above the label-receptacle in contact with the uppermost label and is adapted to roll over the label-receptacle and also the paste-receptacle. The limit of the movement of the paste-roller is shown in full and dotted lines, Fig. 1, the normal position of the roller being that in full lines.

29 is a contractile spring, one end of which is attached to a stationary part of the frame

of the machine and the other to one of the arms 24 of the roller-frame to cause the roller to assume its normal position.

30 is a ratchet-arm integral with the roller-frame 23, having a ratchet 31 hinged thereto, which actuates the ratchet-wheel 32 when motion is imparted to the paste-roller frame. Ratchet-wheel 32 is revolubly mounted, as has hereinbefore been stated, in the bottom plate 17 of the label-receptacle and is formed with two sets of ratchet-teeth, those extending downwardly from the lower face actuated by the ratchet 31 and those at 33, a pawl 34 coöperating with the latter to prevent backward movement of the ratchet-wheel.

35 is a lip extending inwardly from the side of the label-receptacle to hold the labels in position and also to hold the labels from rising above the level of the table 1, since a number of labels when placed in the label-receptacle have a tendency to expand.

The operation of my machine is as follows: The receptacle to be labeled, which is shown as a bottle in the drawings, is introduced between the belt and the table, and being in contact with the continuous belt 4 is rolled along the table. The initial effect of this operation will be a contact of the bottle with the contact-shoes adjoining the paste-roller. This will cause the roller to move along the path indicated by the dotted line *a*, and at the same time the bottle will pick up the uppermost label, it having been pasted by a previous operation of the paste-roller. When the bottle has assumed the position *b* the roller will be in the position *c*. As soon as the bottle releases the roller the same will assume its normal position by reason of the spring 29. In passing to and on its return from the paste-receptacle the roller is brought into contact with the paste-pad 21, which is at all times saturated with paste from the paste-receptacle, the same passing through the perforations 20 in the lower wall of pocket 19. It is evident that the movement of the paste-roller frame will also operate the ratchet 31, which will cause the intermittent rotation of the ratchet-wheel 32, which actuates the movable plate in the label-receptacle through the screw-threaded stem 16 to gradually feed the labels upward. The bottle after passing the position *b* continues to roll along the table, and the label thereon is flattened and smoothed out, because of repeated contact with the table-top and the belt 4.

It will be observed that the pasting mechanism is only in operation when bottles or other receptacles are fed into the machine, and owing to the fact that so little power is required to operate the belt 4 it is unnecessary to disconnect the machine from the source of power when the same is not in use.

From the foregoing description the simplicity of construction and improved operation of my invention must be apparent.

I wish it to be understood that in carrying out the principle upon which my invention operates I do not wish to be confined to the details shown, as they are but preferred means. Such changes in details as would suggest themselves to a skilled mechanic may be made without altering the essential principle upon which the working of my invention depends.

Although I have described the operation of my invention with reference to a bottle, it will be readily seen that the same may be utilized for labeling any receptacle of cylindrical contour—as, for instance, tin cans, such as are at present extensively used for canning purposes. For this purpose I consider my invention of great commercial value.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A labeling-machine, comprising a table having a label-receptacle located therein, an endless belt in proximity to the table-top, yieldingly-supported pulleys carrying said belt, a spring located beneath each pulley and a spring located above the same for exerting a yielding downward and forward pressure on both of said pulleys, and means for pasting the uppermost label contained in the label-receptacle, substantially as described.

2. A labeling-machine, comprising a table having a label-receptacle located beneath an opening therein, an endless belt arranged in proximity to the table, separate means for supporting the said belt at its ends from one side of the table only, means upon that side of the table for directing the articles to be labeled, means for forcing the belt downwardly upon said articles to roll the same along the table, and means for applying paste to the uppermost label in the label-receptacle, substantially as described.

3. A labeling-machine comprising a suitable table, standards at each end thereof on one side of the machine, brackets slidably engaging the same, means for cushioning the movements of said brackets, pulleys supported by said brackets, an endless belt carried by said pulleys, means for actuating one of said pulleys, and means supported by said table beneath said belt for labeling articles directed by the belt longitudinally of the table, substantially as described.

4. A labeling-machine, comprising a suitable table, a pair of vertical standards, at each end of said table and secured to one edge thereof, a bracket slidably mounted between each pair of said standards, each bracket being formed with an integral horizontal arm extending transversely of said table, and provided with a downwardly-extending arm, a pulley mounted between each of said brackets and its respective downwardly-extending arm and journaled therein, means for yieldingly supporting each of said brackets, a belt carried by said pulleys, adapted to direct the article to be labeled longitudinally of said table, and means supported by said table for applying a label to each article so directed, substantially as described.

5. In a labeling-machine, the combination with a table, provided with a label-receptacle and a paste-receptacle, and means for causing the article to be labeled to move across said table over the said receptacles, of brackets extending downwardly from said table, a roller-frame pivotally mounted upon said brackets, a pasting-roller carried by the upper end of said roller-frame, a spring for normally holding said paste-roller at one end of said label-receptacle, a plate within said label-receptacle and adapted to support the labels therein contained, a threaded stem secured to said plate and extending through the bottom of said receptacle, a ratchet-wheel revolubly mounted in the bottom of said label-receptable and provided with threads engaging those of the said threaded stem, a pawl carried by said roller-frame and adapted to engage said ratchet-wheel for advancing the same with the movement of said frame, whereby the label-supporting plate is advanced for a distance equal to the thickness of a label with each operation of said paste-roller, and means for preventing back movement of the said ratchet-wheel, substantially as described.

6. A labeling-machine, comprising a suitable table, and means for rolling articles to be labeled along the same, a label-applying device arranged beneath an opening in said table, comprising a label-receptacle, radially-swinging arms mounted below the table and carrying a pasting-roller the said roller being adapted to move in the arc of a circle, the paste-receptacle having a depressed portion in its cover extending down into the paste, means for permitting the paste to ooze through to the top of the said depressed portion, so as to engage the said roller when it is moved into said depression, the structure being such that the roller will apply the paste to a label and then will be moved into the depression in the cover of the paste-receptacle so as to be out of the way of the labeled article, and at the same time to receive a new charge of paste, substantially as described.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

JAMES A. TURNEY.

Witnesses:
CARL H. KELLER,
J. W. CORWIN.