

Jan 6, 1931.

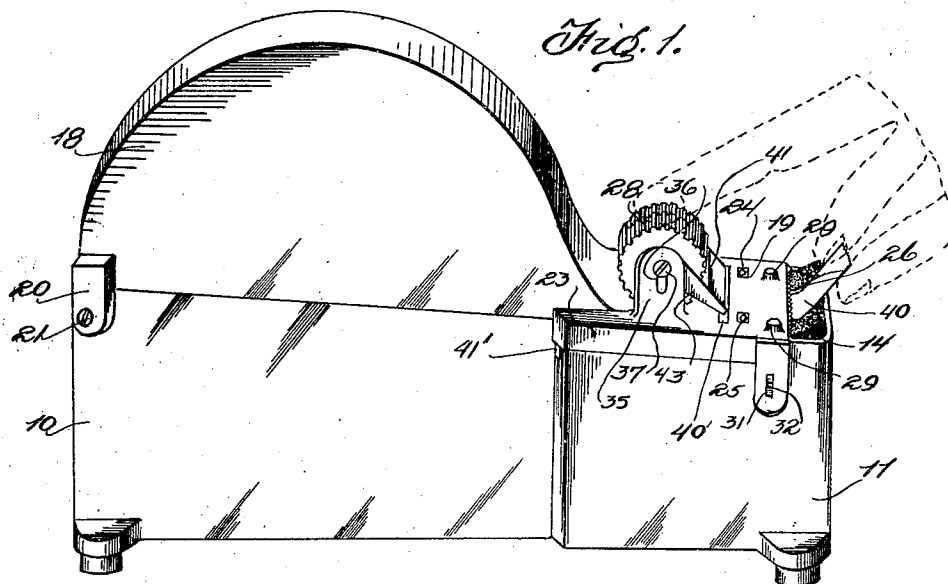
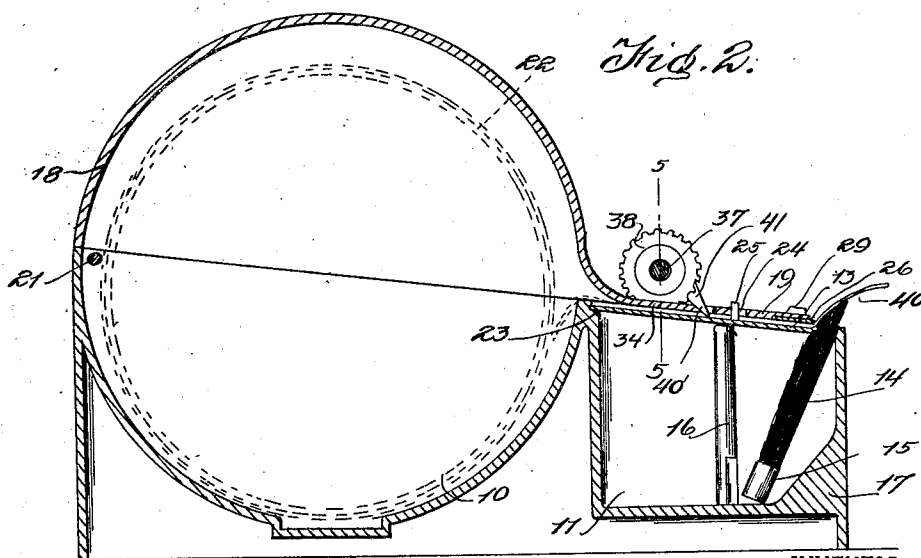
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1,787,882

GUMMED TAPE SERVING MACHINE

Filed Oct. 23, 1928

4 Sheets-Sheet 1



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GUMMED TAPE SERVING MACHINE

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4 Sheets-Sheet 2

Fig. 3.

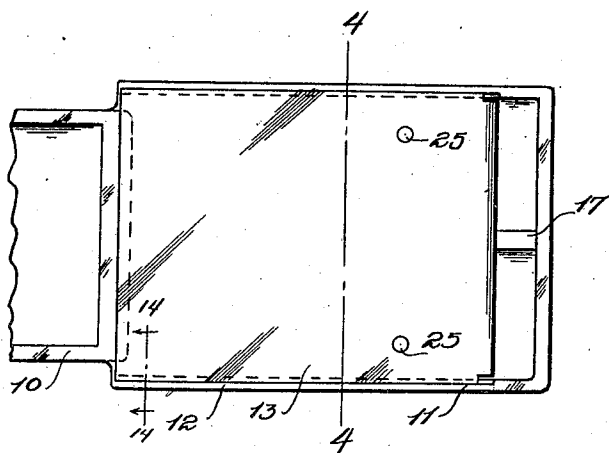


Fig. 5.

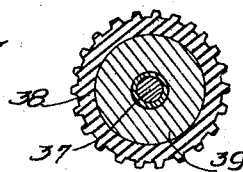


Fig. 6.

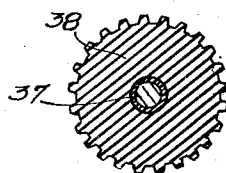


Fig. 4.

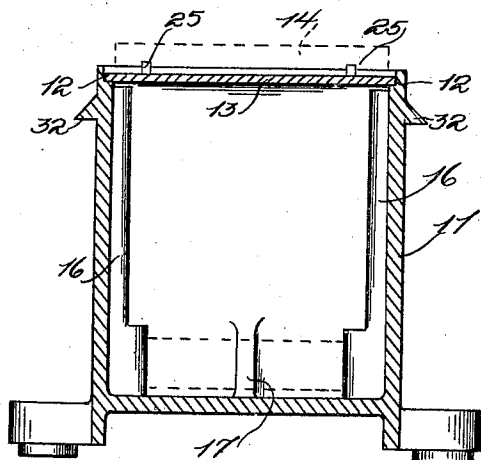


Fig. 7.

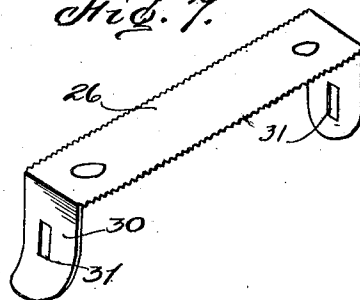
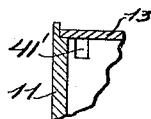


Fig 14.



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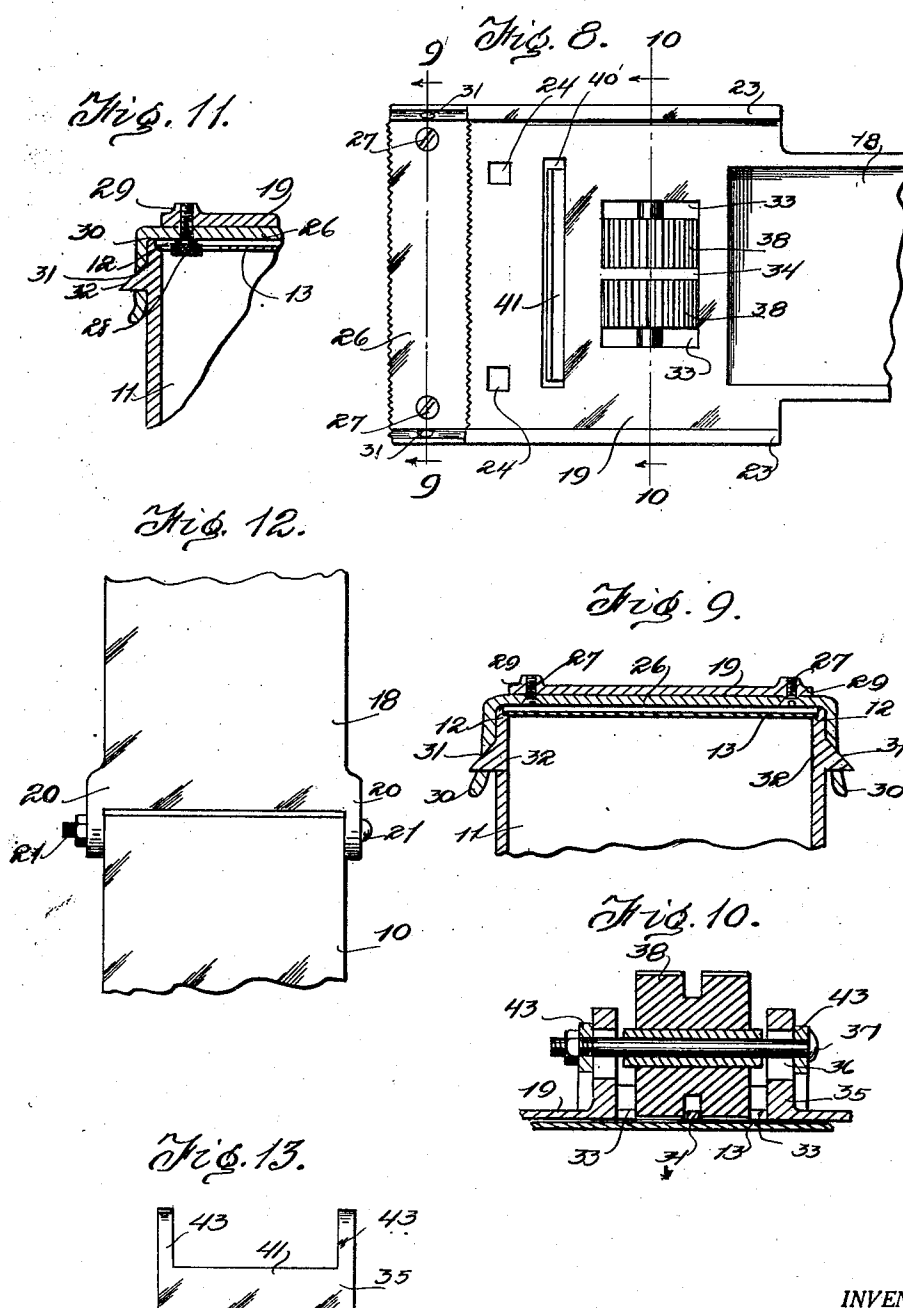
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GUMMED TAPE SERVING MACHINE

Filed Oct. 23, 1928

4 Sheets-Sheet 3



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1,787,882

GUMMED TAPE SERVING MACHINE

Filed Oct. 23, 1928

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Fig. 15.

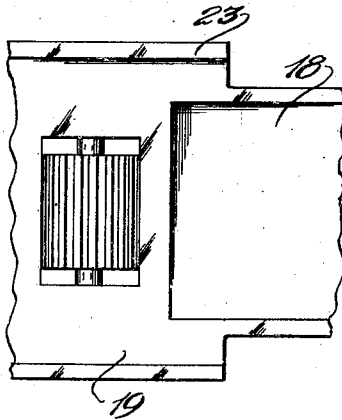


Fig. 16.

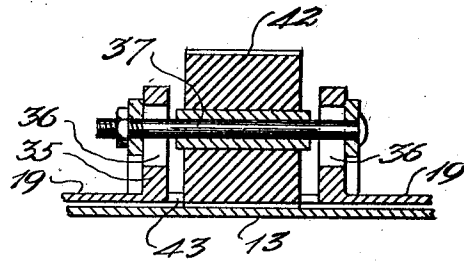
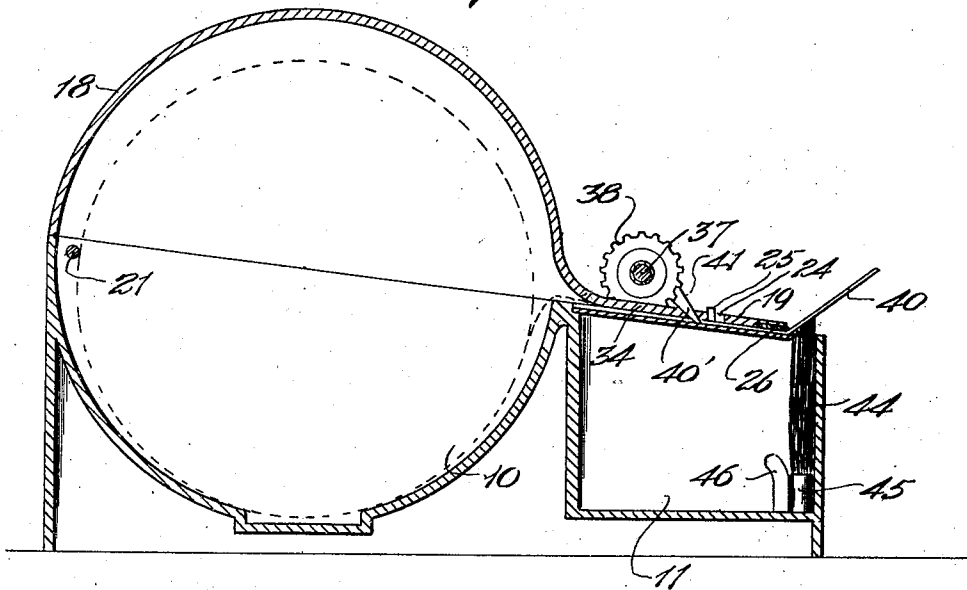


Fig. 17.



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UNITED STATES PATENT OFFICE

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GUMMED-TAPE-SERVING MACHINE

Application filed October 23, 1928. Serial No. 314,488.

This invention relates to gummed tape serving machines and the present application is a continuation in part of my prior application on package sealing machines filed January 23, 1928 and bearing the Serial No. 248,931.

One important object of the invention is to provide an improved and simple construction of such machines embodying a compartment for containing a paper roll, a service compartment and a moistening device.

A second important object of the invention is to provide an improved swinging cover and lock for such cover in machines of this class.

A third important object of the invention is to provide an improved form of tape severing blade for such machines.

A fourth important object of the invention is to provide an improved roller feed for forcing the tape from the machine.

A fifth important object of the invention is to provide an improved means for freeing the tape in case it becomes stuck to the guide plate of the machine.

A sixth important object of the invention is to provide an improved arrangement of feed roll and anti-retracting pawl for such machines.

A seventh important object is to provide improved means for preventing the doubling and buckling of the tape being fed from the machine.

An eighth important object of the invention is to provide an improved arrangement of moistener in such machines.

With the above and other objects in view, as will be presently apparent, the invention consists in general of certain novel features of construction and combinations of parts hereinafter fully described, illustrated in the accompanying drawings and specifically claimed.

In the accompanying drawings like characters of reference indicate like parts in the several views, and:—

Figure 1 is a perspective view of the improved machine.

Fig. 2 is a longitudinal vertical section on the median plane of the machine.

Figure 3 is a top plan view of the front part of the machine with the cover raised.

Figure 4 is a section on the line 4—4 of Figure 3.

Figure 5 is a transverse section through one form of one of the twin feed rollers used herewith.

Figure 6 is a view similar to Figure 5 but showing modified form of roller.

Figure 7 is a perspective view of the double edged knife and latch plate used in this invention.

Figure 8 is a bottom plan view of the front portion of the cover.

Figure 9 is a section on the line 9—9 of Figure 8.

Figure 10 is an enlarged detail section on the line 10—10 of Figure 8.

Figure 11 is an enlarged detail section on the line 9—9 of Figure 8 but showing a modified form of the means for attaching a knife to the cover.

Figure 12 is a partial rear view showing the hinge for the cover.

Figure 13 is a view showing the pawl for stopping retraction of the tape.

Figure 14 is a section on the line 14—14 of Figure 3.

Figure 15 is a bottom view similar to Figure 8 of a modified form of paper guide plate and feed roll.

Figure 16 is a section similar to Figure 10 of said modified form.

Figure 17 is a section similar to Figure 2 but showing a modified form of brush arrangement.

In the present embodiment of the invention there is provided a body having a hollow semi-cylindrical rear portion 10, forming the lower half of the paper roll compartment, and having a wider forward portion forming a hollow rectangular water well 11. The top edges of the side walls of the well 11 slant downwardly towards the front and at the inner angle of each top edge there is provided a rabbet 12 which receives the side edges of a guide or bearing plate 13 which edges are notched at their forward corners so that the edges are somewhat shorter than the rabbets and the plate thus has a slight forward

and backward motion. This well is preferably termed the service compartment of the device as it is here that the tape is treated to make it adhere and here it is cut or torn off. It is here to be noted that the plate 13 does not fully cover the well 11 as the front edge of this plate is spaced from the front wall of the well. The purpose of this is to permit the upward projection, as in Fig. 2, of the end of a brush 14 having a heavy band or binding 15 which holds the band portion of the brush submerged and prevents any tendency to float around. Side ribs 16 project opposite each other inwardly from the side wall of the well and prevent too great rearward movement of the brush back. Also a diagonal guide rib 17 at the center of the front wall is positioned to engage the back 15 and guide it rearwardly into contact with the ribs 16 so that the brush is caused to assume an inclined position, slanting upwardly and forwardly from the back to the tips of the bristles.

The top or cover consists of a rear hollow semi-cylindrical portion 18 forming the upper half of the paper roll compartment, and a flat forward portion 19 covering the plate 13. From the rear of the part 18 at each side thereof hinge lugs 20 project downwardly and rest against the sides of the part 10 to which they are pivotally secured by the bolt 21 so that the cover may swing up on these screws to permit the insertion of a roll 22 of gummed tape in its compartment. The plate 19 is provided with depending lateral flanges 23 which terminate short of the front edge of the part 19 for purposes to be set forth and which engage the side walls of the well 11 to hold the front of the cover against lateral movement. Also the part 19 is provided with slots 24 to receive pins 25 projecting upwardly from the plate 13 and thus assisting in maintaining the proper position of the parts as well as limiting the forward and backward movement of the plate 13.

Across the plate or part 19 on its under forward portion extends the cutter blade or severing blade 26 which preferably has both edges serrated as shown in order that the blade may be turned end for end to present a new serrated edge when the first edge becomes worn or dull. The forward serrated edge of the blade projects slightly in front of the front edge of the part 19 for proper action on the tape in tearing off the required length and this blade is held in position by flat head screws 27 as in Fig. 9, or by head thumb screws 28 as in Fig. 11, the forward corners of the plate 13 being cut away to provide space for the screw heads in the latter instance. To provide for the better holding of the screws the part 19 has upwardly extending bosses 29 into which these screws engage. The ends 30 of the blade 26 are extended downwardly to lie alongside of

the side walls of the well 11 and are provided with openings 31 engaging over pins or lugs 32 projecting outwardly from these side walls, the lower ends of the tabs 30 being curved away from the walls to permit these tabs to spring and ride over the pins 32 upon closing the device. Obviously the blade 26 and its ends or tabs is made of spring steel.

In the plate or part 19 there is provided a pair of slots 33 separated from each other by a longitudinally extending bar 34 and projecting upwardly at each side of this pair of slots is a bearing lug 35, these lugs having aligned vertically elongated slots 36 formed therein for the reception of a bolt or shaft 37. On this shaft is mounted a twin or double roller 38 the sections of which are so spaced that they may straddle the bar 34 and these sections may be moulded from solid elastic rubber as shown in Fig. 6, or may be formed on a core 39 as shown in Fig. 5. In all cases it is preferred that the rollers be corrugated or ribbed and these rollers drop through the slots 33 to rest on the tape 40 which is guided between the pins 24—25, so that placing the fingers on the tops of these rollers and pushing backwardly rotates the rollers to force the tape forwardly; the slots 36 permitting the rollers to be forced firmly against the tape. In this action, if the tape adheres to the guide plate 13, as sometimes happens in damp weather, the plate will move forward with the tape but will suddenly stop upon reaching the ends of the rabbets or the pins 25 reaching the forward ends of the slots 24. The jar resulting from this stopping of the plate is found efficient to break the adhesion of the tape and permits its free forward movement. Also the bar 34 prevents the tape doubling up and the doubled portion passing upwardly in front of the rollers as would be the case if the slots 33 were replaced by a single slot of the same lateral dimensions as the pair.

Just forward of the slots 33 is a transverse slot 40 which receives the lower edge of a forwardly inclined pawl blade 41 having arms 43 journaled on the shaft 37 either outside the lugs 35 as shown in Fig. 10 or between said lugs as shown in Fig. 1. This pawl blade prevents retraction of the tape by reverse movement of the rollers so that mischievous persons cannot force the tape back to render the machine inoperative until it is re-threaded nor can such action occur accidentally.

In operation the tabs 30 are released, the cover lifted and a roll of tape placed in the rear compartment. The end of the tape is then brought forward between the pins and the cover closed. Any projecting tape is now torn off. Whenever a length of tape is needed for use the rollers 38 are rotated as before set forth which causes the tape to pass for-

ward over the brush, the forward upturned edge of the plate 13 holding it firmly against the brush so that it is well moistened. The projecting end may now be grasped by the user and as much tape as is needed drawn out and torn off by aid of the serrated blade.

Notches 41' are formed in the sides of the rear wall of the water receptacle to provide for overflow and prevent the water, if it overflows, from running into the roll holding part of the machine.

In the modification, shown in Figures 15 and 16 the parts are much like those illustrated in Figures 8 and 10 but in place of the sectional rollers 38 there is provided a roller 42 which is of the same shape and size from end to end and which extends through a slot 43 in the plate 19, this slot being without the dividing bar or stop bar 34.

In the modification shown in Figure 17 the parts are much like those shown in Figure 2 except that in place of an inclined brush 14 the brush 44 is arranged to stand straight up, its ferrule or back 45 fitting between the front of the casing 11 and a lug or stop 46 so that the brush is held vertically when in position. This brush, like the other, has an inclined or beveled top so arranged that the web 40 is pushed upwardly as it moves out and is thus in position to be grasped by the fore-finger and thumb of one hand of the operator.

There has thus been provided a simple and efficient device of the kind described and for the purpose specified.

It is obvious that minor changes may be made in the form and construction of the invention without departing from the material spirit thereof. It is not, therefore, desired to confine the invention to the exact form herein shown and described, but it is desired to include all such as properly come within the scope claimed.

Having thus described the invention, what is claimed as new, is:—

1. A package sealing machine comprising a compartment for containing a paper roll, adjustable means in said compartment for directing a strip of paper to a service compartment, a service compartment, and means associated with said service compartment for receiving a strip of paper from said roll and preparing the same for service consisting of a bearing plate mounted on said service compartment, a guide and cutting plate cooperating with said bearing plate and having a slot therein, and means carried by said guide and cutting plate adapted to project through said slot for feeding the paper forward.

2. A package sealing machine comprising a compartment for containing a paper roll, a service compartment, and means associated with said service compartment for receiving and guiding paper from said paper roll and preparing the same for service consisting

of a bearing plate mounted on said service compartment, a guide and cutting plate cooperating therewith and provided with a slot therein, and feeding means carried by said guide and cutting plate for feeding paper forward between said plates.

3. In a gummed tape serving machine, a tape passage having a lower and an upper plate, said upper plate having a pair of laterally spaced slots therein, bearing lugs at opposite sides of said pair of slots, a roller having spaced sections straddling the space between said slots and resting on the under plate, said roller being revolubly supported between said bearing lugs.

4. In a gummed tape serving machine, a tape passing having a lower and an upper plate, said upper plate having a pair of laterally spaced slots therein, bearing lugs at opposite sides of said pair of slots, a roller having spaced sections straddling the space between said slots and resting on the under plate, said lugs having vertically elongated slots, and a shaft passing through said slots and supporting said roller.

5. In a gummed tape serving machine, a tape passage having a lower and an upper plate, said upper plate having a pair of laterally spaced slots therein, bearing lugs at opposite sides of said pair of slots, a feeding roller supported in said lugs and projecting through the slots and means to support said lower plate for limited forward and backward movement beneath the upper plate.

6. In a gummed tape serving machine, a tape passage having a lower and an upper plate, said upper plate having a pair of laterally spaced slots therein, bearing lugs at opposite sides of said pair of slots, a roller having spaced sections straddling lugs having vertically elongated slots, and means to support said lower plate for limited forward and backward movement beneath the upper plate.

7. In a gummed tape serving machine, a tape passage having a lower and an upper plate, said upper plate having a pair of laterally spaced slots therein, bearing lugs at opposite sides of said pair of slots, a roller having spaced sections straddling the space between said slots, lugs having vertically elongated slots, said roller having journal portions mounted in said last mentioned slots, said upper plate having a transverse slot in front of said pair of slots, and a pawl supported on said shaft and having a tape engaging portion projecting through said transverse slot to engage tape passing between said plates.

8. In a gummed tape serving machine, a tape passage having a lower and an upper plate, said upper plate having a pair of laterally spaced slots therein, bearing lugs at opposite sides of said pair of slots, a roller having spaced sections straddling the space

between said slots, lugs having vertically elongated slots, said upper plate having a transverse slot in front of said pair of slots, and means to support said lower plate for limited forward and backward movement beneath the upper plate.

9. In a gummed tape serving machine, a tape passage having an upper and a lower plate, said upper plate being slotted, a feed roller above said upper plate for engagement by the operator's fingers and extending through said slot to engage tape passing between said plates to feed it forwardly, and means to support said roller to permit it to rotate and to move toward and from the lower plate.

In testimony whereof I affix my signature.
WILLIAM A. UTTZ, Sr.

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