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2,490,939

MOISTENING DEVICE FOR TAPE-DISPENSING MECHANISMS

Filed July 23, 1946

2 Sheets-Sheet 1

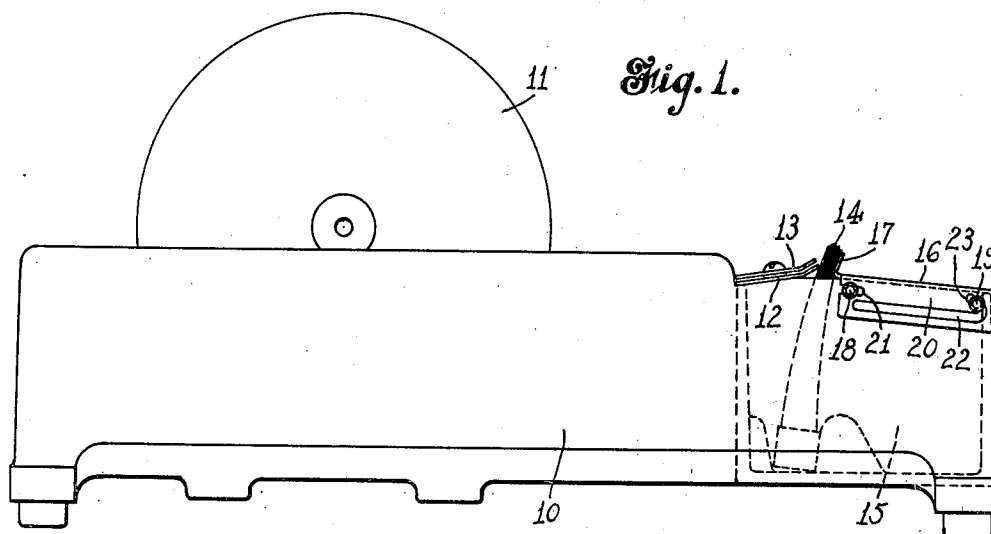


Fig. 2.

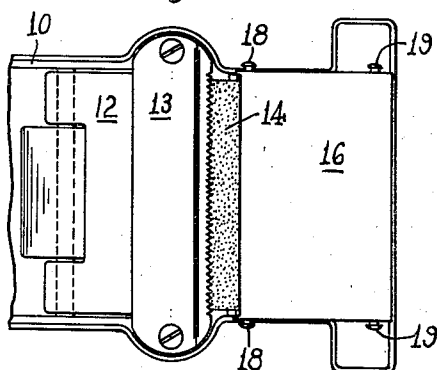


Fig. 3.

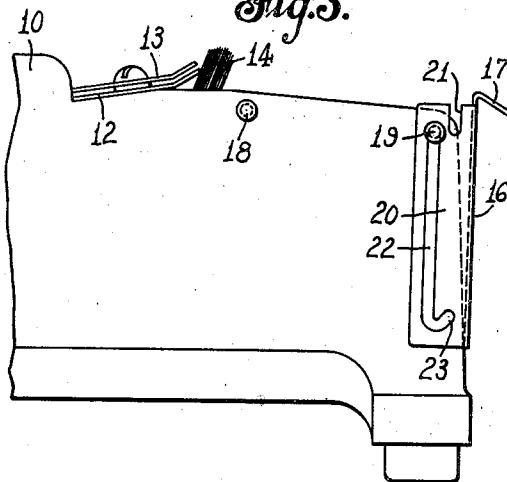
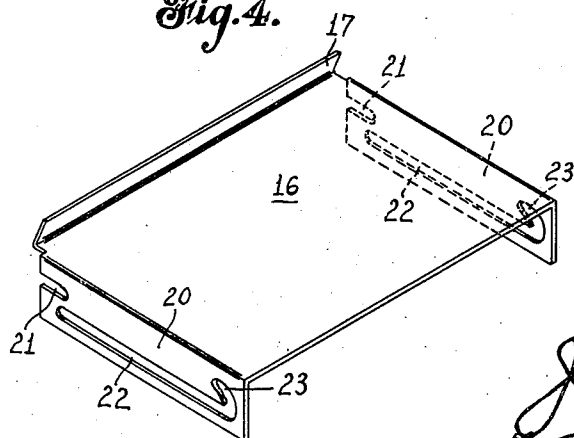


Fig. 4.



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Fig. 5.

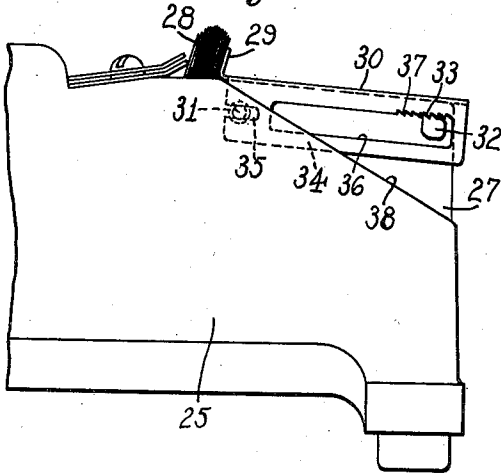


Fig. 7.

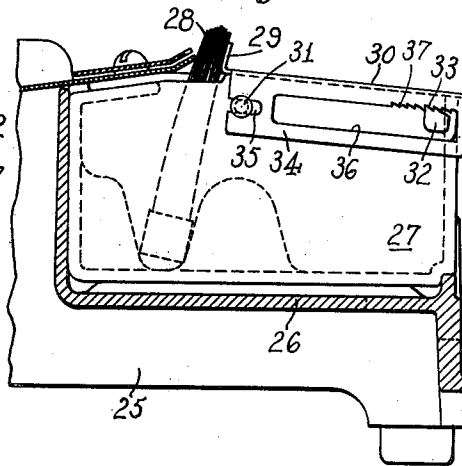


Fig. 6.

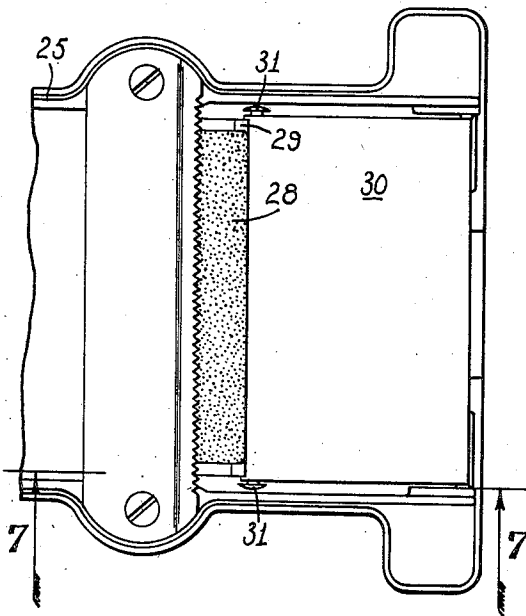
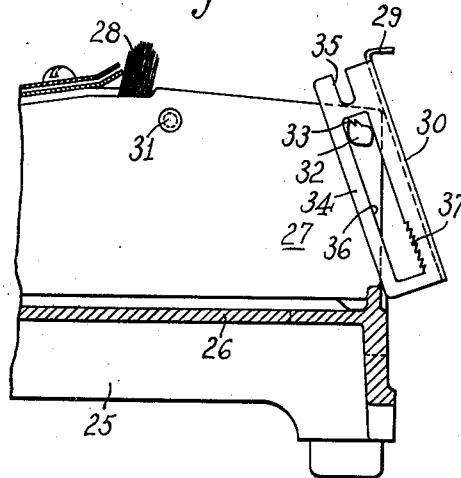


Fig. 8.



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UNITED STATES PATENT OFFICE

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MOISTENING DEVICE FOR TAPE-DISPENSING MECHANISMS

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This invention relates to moistening devices for tape-dispensing machines, and more particularly to a device wherein a strip of gummed tape is designed to be passed over a brush or other moistening element immersed in a tank of water, so that the gummed side of the tape will be properly moistened for application to a package or parcel.

Such devices ordinarily comprise a frame of some kind for holding a roll of tape and a receptacle either formed integrally with the frame or detachably mounted therein for holding a supply of a moistening fluid, such as water. A brush or other moistening element is mounted in the tank so that it is immersed in the water and the latter carried to the tip ends of the bristles by capillary attraction. The tape is drawn or fed through suitable guide means over the end of the brush or moistening element so that its gummed side will contact therewith.

Usually the tank or receptacle for the moistening liquid is provided with a cover, and this cover usually engages one side of the brush to support the same in proper position, it being necessary to remove the cover in order to refill the receptacle.

It very often occurs that, when the cover is removed for this purpose, it is mislaid or lost and occasions considerable inconvenience and delay in finding the lost cover or securing another as it is necessary to have the cover in place to secure proper moistening by the brush when the cover serves as a support for the brush.

One object of the present invention is to overcome the disadvantages referred to above and provide a cover for the receptacle of a tape-dispensing machine which may be readily moved to an out-of-the-way position to permit refilling of the receptacle or re-adjustment of the brush, and, at the same time, the cover will remain connected to the device so it will not be lost.

A still further object of the invention is to provide a cover for the receptacle of a tape-dispensing machine, which cover will be permanently connected with the receptacle and, at the same time, movably connected therewith, so that it may be readily moved to uncover the receptacle for any desired purpose.

A still further object of the invention is to provide a cover for the receptacle of a tape-dispensing machine, which cover will be movably connected with the receptacle so that it may be retracted to an out-of-the-way position, and, at the same time, will be adjustably mounted so that it may be moved to adjusted position rela-

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tively to the moistening element and retained in this position during the operation of the machine.

To these and other ends the invention consists in the novel features and combinations of parts to be hereinafter described and claimed.

In the accompanying drawings:

Fig. 1 is a side elevational view of a tape-dispensing machine embodying my invention;

Fig. 2 is a top plan view of the front end of the machine;

Fig. 3 is a side elevational view of the front portion of the machine with the cover shown in an out-of-the-way position;

Fig. 4 is a perspective view of the cover detached from the machine;

Fig. 5 is a side elevational view of the front portion of a tape-dispensing machine showing a modified form of my invention;

Fig. 6 is a top plan view thereof;

Fig. 7 is a sectional view on line 1—1 of Fig. 6; and

Fig. 8 is a view similar to Fig. 7, but showing the cover in another position.

To illustrate one embodiment of my invention, I have shown a tape-dispensing machine comprising a frame or body 10 designed to rotatably support a supply roll of tape 11 in any suitable manner well-known to those skilled in the art. Upon the frame is mounted a guide plate or table 12, and disposed above this plate and in spaced relation thereto is a tear-off blade 13, so that the tape issues from the machine between the members 12 and 13.

A moistening element, such as the brush 14, is illustrated as supported in a receptacle 15 for the moistening liquid, such as water. In this instance, the receptacle is formed integrally with the body of the machine, although it may be separately formed if desired.

This receptacle is open at the top and is adapted to be covered by the cover member 16, shown in Fig. 4. This cover member may be provided at its forward edge with a lip 17 turned upwardly and preferably slightly rearwardly therefrom, which lip bears against the brush 14 and presses it against the plate 12.

As previously stated, it is desirable to be able to remove the cover from the receptacle and, at the same time, prevent the cover from becoming mislaid or lost. For this purpose, the walls of the frame or body at the front end thereof, which are also the walls of the receptacle 15, may be provided with pins 18 and 19 designed to cooperate with slots formed in parts of the

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cover as will be presently described to secure the cover detachably in place.

At each side of the cover 16 is a depending flange 20 which may be formed integrally with the cover, each of these flanges being provided with a slot 21 opening through its rear end to receive the pin 18 and with a slot 22 having closed ends to receive the pin 19. As will be apparent from Figs. 1 to 3, the slot 22 comprises an elongated body portion substantially parallel with the lower edge of the flange 20 and an upwardly and rearwardly turned end portion 23. It will also be apparent that the slots 22 are closed at both ends, so that the cover will always remain in engagement with the pins 19.

In the closed position of the cover, the parts are in the position shown in Fig. 1, wherein the pin 18 is received in the open-ended slot 21, and the pin 19 is disposed within the rearwardly bent rear end 23 of the slot 22. The lip 17 will press forwardly against the brush 14, and this pressure will tend to hold the cover in place as the latter must be moved toward the brush to a slight extent in order to effect registration of the pin 19 with the elongated body portion of the slot 22.

When it is desired to remove the cover from the receptacle, the cover is raised and moved toward the brush to a slight extent until the pin 19 lies in the elongated slot 22. The cover can then be moved rearwardly and permitted to drop pivotally about the pin 19 to the position shown in Fig. 3, where it will be in an out-of-the-way position so far as the receptacle is concerned and yet will still be attached to the receptacle so that it cannot be mislaid or lost.

In replacing the cover upon the receptacle, it is moved pivotally about the pin 19 and then moved forwardly until the pin 18 is received in the slot 21 and the pin 19 is in position to enter the slot 23. The rear end of the cover is then moved downwardly to a slight extent, thus moving the pin 19 into the slot 23 and restoring the parts to the position shown in Fig. 1.

The engagement of the pin 18 in the slot 21 holds the front end portion of the cover securely in position and prevents this portion of the cover being raised by the operation of drawing tape from the machine.

In Figs. 5 to 7 of the drawings, I have shown a slightly modified form of my invention wherein the cover may, in its operative position, be adjusted relatively to the brush so as to exert more or less pressure thereon in order to control the capillary action as desired, or to provide adjustment for varying thicknesses of brushes. Also, in this form of my invention, the receptacle is shown as separately formed and detachably disposed in the main frame of the machine, although it will be understood that this form of cover plate may also be employed with a receptacle formed integrally with the frame of the machine.

The frame or body of the device is shown at 25 and is provided with a seat 26 upon which may rest a separately formed receptacle 27. Within this receptacle is seated a brush 28 against which bears the upwardly and rearwardly bent lip 29 of the cover plate 30. The receptacle is provided upon the outer face of each side wall thereof with a pin 31 and a lug 32 having teeth or detents 33 upon the upper surface thereof.

The cover plate 30 is provided at each edge with a downwardly depending flange 34, each flange being provided with a relatively short slot 35 opening through the rear edge thereof and adapted to receive the pin 31 and with an elongated slot 36 in which the lug 32 is adapted to be received.

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gated slot 36 in which the lug 32 is adapted to be received.

At the upper front portion of the slot 36 are provided a plurality of teeth or serrations 37 designed to engage with the teeth 33 of the lug 32 so as to hold the cover plate in adjusted positions upon the receptacle. It will be obvious that it is only necessary to raise the front end of the cover plate slightly, thus disengaging the teeth 37 from the teeth 33, and the cover plate may be moved to a new position to adjust the lip 29 with respect to the brush 28. After such adjustment, the teeth 37 may be re-engaged with the teeth 33 and the cover plate will be securely held in adjusted position.

When it is desired to remove the cover plate from the receptacle, the front end thereof is raised slightly to disengage the teeth 37 from the teeth 33, and the cover plate is moved rearwardly, thus disengaging the pin 31 from the slot 35. It will be noted that the lug 32 is of such size that it will move freely through the slot 26 and, when it reaches the rear end of this slot, the cover may be dropped downwardly in the position shown in Fig. 8 of the drawings, where the receptacle will be completely uncovered, but the cover will still be attached to the receptacle by the lugs 32.

At the front end of the frame 25, the walls of the machine may be cut back to some extent, as shown at 38, in order to provide more room, if necessary, for the projecting lugs 32 and also to render the front part of the cover accessible for manipulation.

While I have shown and described some preferred embodiments of my invention, it will be understood that it is not to be limited to all of the details shown, but is capable of modification and variation within the spirit of the invention and within the scope of the claims.

What I claim is:

1. In a tape-dispensing machine, a frame, a receptacle carried thereby, a moistening element disposed in the receptacle and projecting therefrom, a cover for the receptacle at the delivery side of the moistening element, and means for slidably connecting said cover to the receptacle whereby it may be moved from closed to open position while remaining attached to the receptacle, said means comprising downwardly projecting flanges on the side edges of the cover and elements on the receptacle walls in engagement with said flanges.

2. In a tape-dispensing machine, a frame, a receptacle carried thereby, a moistening element disposed in the receptacle and projecting therefrom, a cover for the receptacle at the delivery side of the moistening element, means for slidably connecting said cover to the receptacle whereby it may be moved from closed to open position while remaining attached to the receptacle, said means comprising downwardly projecting flanges on the side edges of the cover and elements on the receptacle walls in engagement with said flanges, and means to hold said cover against the moistening element when the cover is in closed position.

3. In a tape-dispensing machine, a frame, a receptacle carried thereby, a moistening element disposed in the receptacle and projecting therefrom, a cover for the receptacle at the delivery side of the moistening element, means for slidably connecting said cover to the receptacle whereby it may be moved from closed to open

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position while remaining attached to the receptacle, said means comprising downwardly projecting flanges on the side edges of the cover and elements on the receptacle walls in engagement with said flanges, said cover having a part to engage against the moistening element, and means to hold said cover in closed position with said part in engagement with the moistening element.

4. In a tape-dispensing machine, a frame, a receptacle carried thereby, a moistening element disposed in the receptacle and projecting therefrom, a cover for the receptacle at the delivery side of the moistening element, said receptacle having outwardly projecting members on its side walls, said cover having downwardly depending flanges at its side edges, and said flanges having elongated, longitudinally extending openings to slidably engage said members.

5. In a tape-dispensing machine, a frame, a receptacle carried thereby, a moistening element disposed in the receptacle and projecting therefrom, a cover for the receptacle at the delivery side of the moistening element, said receptacle having a pair of outwardly projecting members on each of its side walls, said cover having a downwardly depending flange at each side edge, and each of said flanges having a longitudinally extending opening to slidably and rotatably receive the members on the adjacent side wall of the receptacle.

6. In a tape-dispensing machine, a frame, a receptacle carried thereby, a moistening element disposed in the receptacle and projecting therefrom, a cover for the receptacle, said receptacle having a pair of outwardly projecting members on each of its side walls, said cover having a downwardly depending flange at each side edge, and each of said flanges having an open-ended slot to receive one of said members and a closed longitudinally extending slot to slidably and rotatably receive the other member.

7. In a tape-dispensing machine, a frame, a receptacle carried thereby, a moistening element disposed in the receptacle and projecting therefrom, a cover for the receptacle, said receptacle having a pair of outwardly projecting members on each of its side walls, said cover having a downwardly depending flange at each side edge, each of said flanges having an open-ended slot to receive one of said members and a closed longitudinally extending slot to slidably and rotatably receive the other member, and said last-named slot having an elongated body portion and an end portion extended at an oblique angle to the body portion.

8. In a tape-dispensing machine, a frame, a receptacle carried thereby, a moistening element disposed in the receptacle and projecting therefrom, a cover for the receptacle, said receptacle having a pair of outwardly projecting members on each of its side walls, said cover having a downwardly depending flange at each side edge, each of said flanges having longitudinally extending openings to slidably receive the members on the adjacent side wall of the receptacle, one of said members having teeth thereon, and the edge of the corresponding slot in the cover having means engaging said teeth to hold the cover in adjusted closed position.

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9. In a tape-dispensing machine, a frame, a receptacle carried thereby, a moistening element disposed in the receptacle and projecting therefrom, a cover for the receptacle, said receptacle having a pair of outwardly projecting members on each of its side walls, said cover having a lip adjacent one edge thereof to engage the moistening element and a downwardly depending flange at each side edge, each of said flanges having an open-ended slot to receive one of said projecting members on the receptacle and a closed longitudinally extending slot to receive the other of the projecting members on the receptacle, and means adjacent one end of said closed slot to engage the member received therein and hold said cover in closed position with said lip bearing against the moistening element.

10. In a tape-dispensing machine, a frame, a receptacle carried thereby, a moistening element disposed in the receptacle and projecting therefrom, a cover for the receptacle, said receptacle having a pair of outwardly projecting members on each of its side walls, said cover having a lip adjacent one edge thereof to engage the moistening element and a downwardly depending flange at each side edge, each of said flanges having an open-ended slot to receive one of said projecting members on the receptacle and a closed longitudinally extending slot to receive the other of the projecting members on the receptacle, whereby said cover may be moved forwardly away from the receptacle and then swung pivotally about the member received in said closed slot, and interengaging means on said last-named member and the forward portion of the closed slot to hold said cover in closed position.

11. In a tape-dispensing machine, a frame, a receptacle carried thereby, a moistening element disposed in the receptacle and projecting therefrom, a cover for the receptacle, said receptacle having a pair of outwardly projecting members on each of its side walls, said cover having a lip adjacent one edge thereof to engage the moistening element and a downwardly depending flange at each side edge, each of said flanges having an open-ended slot to receive one of said projecting members on the receptacle and a closed longitudinally extending slot to receive the other of the projecting members on the receptacle, whereby said cover may be moved forwardly away from the receptacle and then swung pivotally about the member received in said closed slot, and interengaging means on said last-named member and the forward portion of the closed slot to adjustably hold said cover in closed position.

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