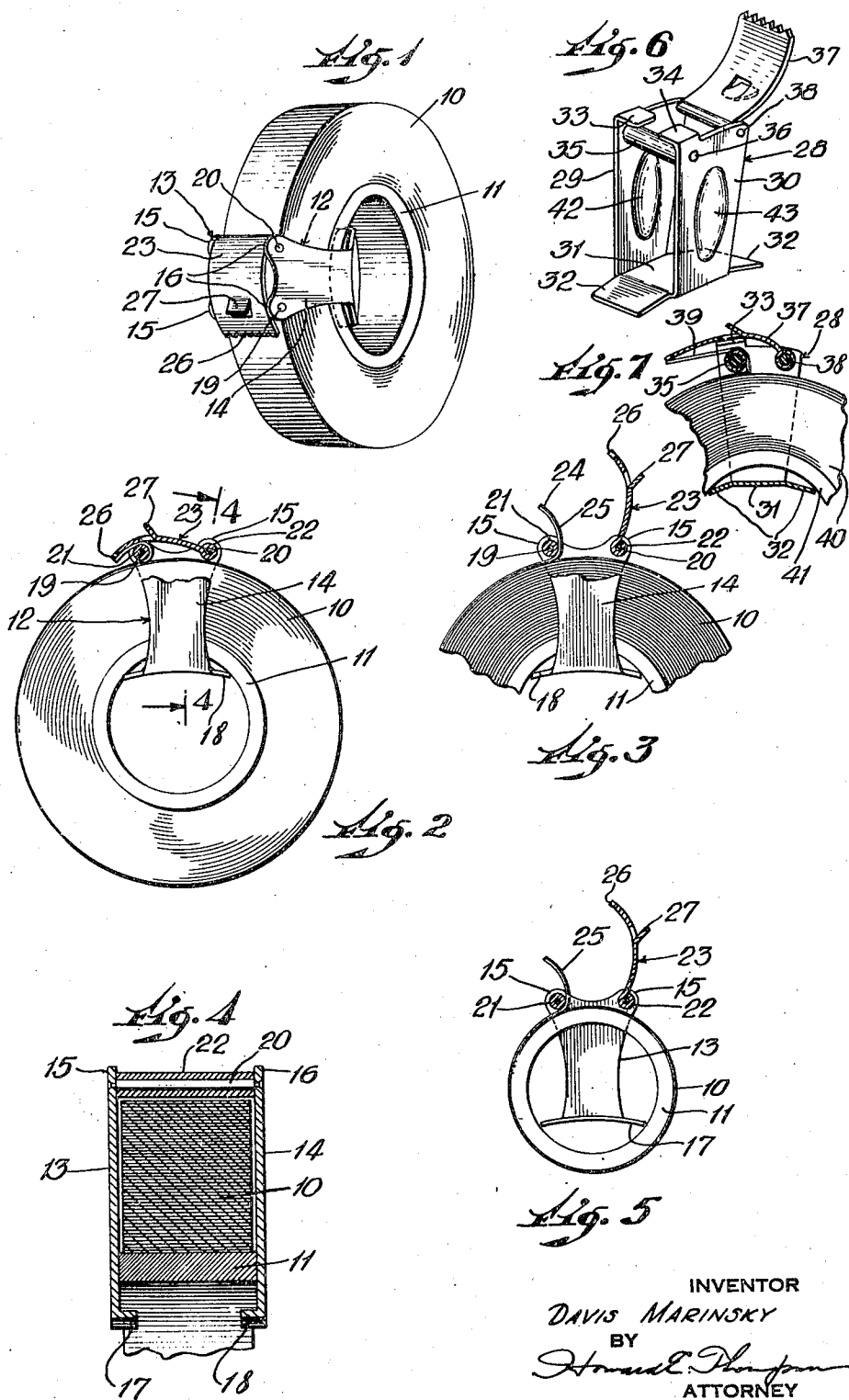


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TAPE DISPENSER

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TAPE DISPENSER

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1 This invention relates to devices for mounting upon a spool of tape or ribbonlike material of any type or kind to control removal of predetermined tape lengths whenever desired. More particularly, the invention deals with an attachment adapted for detachable mounting upon a spool and having means for guiding the attachment in circumferential movement on the spool in the operation of removing tape therefrom, and further having means for severing the tape and for engaging a tape end to retain the attachment against shifting movement on the spool. The novel features of the invention will be best understood from the following description when taken together with the accompanying drawing, in which certain embodiments of the invention are disclosed, and in which the separate parts are designated by suitable reference characters in each of the views, and in which:

Fig. 1 is a perspective view of a spool showing one of my improved devices thereon.

Fig. 2 is a side view of the structure shown in Fig. 1, with part of the construction broken away and in section.

Fig. 3 is a view similar to Fig. 2, showing parts in a different position.

Fig. 4 is a section on the line 4-4 of Fig. 2.

Fig. 5 is a view similar to Figs. 2 and 3, showing the spool tape substantially consumed.

Fig. 6 is a perspective view of a modified form of device, detached, with the cutter and holder member in open position; and

Fig. 7 is a sectional view through the device of Fig. 6, showing the same applied to the tape spool, only part of which is shown.

The present application constitutes a continuation in part of the structure disclosed in my prior application Ser. No. 629,082, filed November 16, 1945.

My invention is applicable for use on tape or ribbon like merchandise of any type or kind in control of removal of predetermined lengths of tape. The invention deals primarily with a dispensing attachment or device for use on gummed tapes, such for example as bandage tapes, Scotch tape, insulation tape, gummed paper, and so forth. The invention is also applicable for use in dispensing ribbon of any type or kind.

In Fig. 1 of the drawing, I have shown at 10 a roll of tape having a tubular spool 11. At 12 is shown one of my improved attachments or dispensing devices. The device 12 comprises two similar side plates 13 and 14, substantially of the form shown at the right of Fig. 1, that is to say, the upper or outer ends of the plates have later-

2 ally extending bearing portions 15 and 16 respectively. The inner ends of the plates have inwardly turned retainer flanges 17 and 18, which fit within the spool 11 and are of a greater length than the adjacent portions of the plates. The length of the flanges 17 and 18 is such as to at all times retain the attachment against displacement from the spool, allowing for complete dispensing of the tape thereon. For example as illustrated in Fig. 4 of the drawing.

The plates 13 and 14 are joined by rivet pins 19 and 20. On the pin 19 is mounted a roller 21, and on the pin 20 is mounted a cylindrical end 22 of a tape cutter and holder member 23. The member 23 is substantially of the section shown in Fig. 2 of the drawing, and is of sufficient length to extend beyond the roller 21 in engaging a tape end 24 or the inner adhesive surface 25 thereof to hold the member 23 on the tape end, as well as to retain the device 12 against shifting movement on the spool of tape. The free end of the member 23 has a bevelled saw-tooth cutter edge 26 to sever the tape with the member 23 held in the position shown in Fig. 1 of the drawing.

Stamped out from the member 23 is an outwardly extending tongue portion or lip 27, which serves to position a finger of the hand upon the member in applying pressure thereto in the tearing operation of the tape, and also provides a means for lifting the member 23 in swinging the same into the raised position, Fig. 2, thus disengaging the same from the tape end 24, leaving said end free for grasping by the fingers of a hand.

In the use of the device, and with parts in the position shown in Fig. 2, it will be apparent that by pulling on the tape end 24, a length of tape can be drawn from the spool 10, in which operation, the device 12 travels circumferentially of the spool to the extent of the tape length withdrawn. In other words, if the tape length withdrawn is greater than the circumference of the tape, at that time, then the device 12 will have travelled around the spool more than one revolution. The device 12 continues to travel around the spool until all of the tape has been consumed.

After drawing a desired length of the tape from the spool, operator moves member 23 downwardly in the position shown in Fig. 1, to hold the tape upon the roller 21, and with pressure applied to the member 23, by one end, the tape is then drawn backwardly in the direction of the pivot end 22 of the member 23 to tear or sever the tape at the cutter edge 26. The device 12 will then be retained in this position on the spool by engage-

ment of the member 23 with the adhesive surface 25 of the tape end 24.

In Figs. 6 and 7, I have shown an attachment 28, which differs from the device or attachment 12, in that the side plates 29 and 30 thereof are integrally joined in a cross head plate 31, having oppositely directed extensions 32 beyond the side edges of the plates 29 and 30.

With the construction shown in Figs. 6 and 7, the upper ends of the plates 29 and 30 have at one side thereof inwardly directed tape supporting flanges 33 and 34 disposed over a roller 35, mounted on a rivet pin 36. With this construction, the tape holding and cutter member 37 is pivoted on another rivet pin 38 at the opposite side of the plates 29 and 30. The member 37 is similar to the member 23, and for this reason, no further detailed description is given. The member 37 is adapted to rest upon the flanges 33 and 34, when in its closed position, as shown in Fig. 7, and these flanges engage the tape 39 in movement of the member 37 into open position to aid in stripping the tape from the end of the member 37 and also to support the tape in an outwardly extending position to enable the same to be readily grasped by the finger of a hand. While in Fig. 7 of the drawing the tape 39 is shown as arranged beneath the flanges 33, 34, in some uses, it may be passed over these flanges and supported thereon by the member 37. In this connection, it will be understood that, in either use, the tape 39, with its adhesive side upwardly, is held by the member 37, as is indicated in Fig. 7 of the drawing.

In Fig. 7, 40 represents a spool of tape, and it will appear that the plate 31, including the extending ends 32, are disposed within the core 41 of the spool, the same as the flanges 17 and 18.

With the construction shown in Figs. 6 and 7, the attachment or device 28 becomes a permanent attachment to the spool, the rivet pins 36 and 38 being applied in assembling the device on the spool. This device is of economic construction and for this reason, can be discarded when the tape of the spool is consumed.

Considering Fig. 6 of the drawing, it will appear that the plates 29 and 30 have outwardly pressed elliptical finger grip portions 42 and 43, which are engaged by two fingers of the hand in the operation of pulling the tape from the spool. In other words, the device or attachment remains stationary, and the spool itself then moves through the device as the tape is drawn from the spool.

Where the device is used in conjunction with tape or ribbon like products which do not include adhesive properties, the member 23 may be constructed to fit snugly within the bearing portions 15 and 16 to retain the member 23 against accidental displacement when in the closed position, shown in Fig. 1.

It will be understood that in attaching the device 12 to the spool, the flanged ends of the plates are sprung laterally to pass the flanges over the sides of the spool until the flanges reach the opening of the core, at which time, the flanges will snap into the core, assuming a position substantially similar to that shown in Fig. 3. It will, of course, be apparent that the length of the plates will be made to suit different diameters of spools and the spacing of the plates will vary on tape widths of different sizes. The present illustration of the invention is on a comparatively narrow tape. Tapes of

the kind under consideration, come in varying widths and particularly adhesive tapes used for medical purposes.

The attachment is in the form of a U-shaped frame defined by the side plates and the pins or rods joining and spacing outer ends of the plates, the inner ends of the plates of the frame having means, for example, the inwardly extending flanges 17 and 18 for retaining the frame against displacement from the spool, while at the same time, providing for the circumferential movement of the frame on the spool.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A dispensing device of the character described, said device comprising a pair of plates having inturned flanges at one end, a pair of pins joining the other end of the plates at side portions thereof, a tape cutter and holder member pivotally supported on one of said pins and adapted to bear on the other of said pins, and said member having at its free edge a cutter.

2. A dispensing device of the character described, said device comprising a pair of plates having inturned flanges at one end, a pair of pins joining the other end of the plates at side portions thereof, a tape cutter and holder member pivotally supported on one of said pins and adapted to bear on the other of said pins, said member having at its free edge a cutter, and said member having an outwardly extending lip forming a fingerpiece facilitating movement of said member in one direction.

3. A dispensing device of the character described, said device comprising a pair of plates having inturned flanges at one end, a pair of pins joining the other end of the plates at side portions thereof, a tape cutter and holder member pivotally supported on one of said pins and adapted to bear on the other of said pins, said member having at its free edge a cutter, said member having an outwardly extending lip forming a fingerpiece facilitating movement of said member in one direction, and said member being of a width substantially equal to the distance between said plates.

4. A dispensing attachment for ribbon like strips, said attachment comprising a frame defined by side walls spaced and joined at one end by a cross plate, means comprising a pair of pin members joining and spacing the other end portions of the plates of said frame, a strip holding and cutter member pivotally mounted on one of the pins, the plates adjacent the other pin having inturned flange portions forming a seat upon which said member is adapted to rest when in operative position, and the strip passing over the second mentioned pin in dispensing the strip through the attachment.

5. A dispensing attachment for ribbon like strips, said attachment comprising a frame defined by side walls spaced and joined at one end by a cross plate, means comprising a pair of pin members joining and spacing the other end portions of the plates of said frame, a strip holding and cutter member pivotally mounted on one of the pins, the plates adjacent the other pin having inturned flange portions forming a seat upon which said member is adapted to rest when in operative position, the strip passing over the second mentioned pin in dispensing the strip through the attachment, and said last named pin having a roller thereon facilitating free movement of the strip in dispensing the same.

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6. A dispensing attachment for ribbon like strips, said attachment comprising a frame defined by side walls spaced and joined at one end by a cross plate, means comprising a pair of pin members joining and spacing the other end portions of the plates of said frame, a strip holding and cutter member pivotally mounted on one of the pins, the plates adjacent the other pin having inturned flange portions forming a seat upon which said member is adapted to rest when in operative position, the strip passing over the second mentioned pin in dispensing the strip through the attachment, and the inturned flanges of said plates forming means supporting the strip end in grasping position in movement of said member into inoperative position.

7. A dispensing attachment for ribbon like strips, said attachment comprising a frame defined by side walls spaced and joined at one end by a cross plate, means comprising a pair of pin members joining and spacing the other end portions of the plates of said frame, a strip holding and cutter member pivotally mounted on one of the pins, the plates adjacent the other pin having inturned flange portions forming a seat upon which said member is adapted to rest when in operative position, the strip passing over the second mentioned pin in dispensing the strip through the attachment, the inturned flanges of said plates forming means supporting a strip end in grasping position in movement of said member into inoperative position, and said plates having outwardly extending finger grip portions.

8. A dispensing attachment for ribbon like strips, said attachment comprising a frame defined by side walls spaced and joined at one end by a cross plate, means comprising a pair of pin members joining and spacing the other end portions of the plates of said frame, a strip holding and cutter member pivotally mounted on one of the pins, the plates adjacent the other pin having inturned flange portions forming a seat upon which said member is adapted to rest when in operative position, the strip passing over the second mentioned pin in dispensing the strip through the attachment, the inturned flanges of said plates forming means supporting a strip end in grasping position in movement of said member into inoperative position, said plates having outwardly extending finger grip portions, and the cross plate of said frame having flanges extending laterally beyond the limits of the side plates of the frame.

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9. A tape dispenser comprising a frame having side plates spaced at one end by an integral cross head and at the other end by a pair of pin members disposed at outer corner portions of the plates, a combined tape holding and cutter member swingably mounted on one of said pins, the plates adjacent the other pin having stops checking movement of said member in one direction in the frame, and said stops forming means supporting the tape in extended position in the frame in movement of said member into an inoperative position.

10. A tape dispenser comprising a frame having side plates spaced at one end by a pair of pin members disposed at corner portions of the plates, the other end of the plates of the frame having means for retaining the frame against displacement from a support, a tape cutter member swingably mounted on one of said pins, said cutter having a free cutter edge widely spaced with respect to the other pin and adjacent side of the upper portion of the frame when the member is in collapsed position on the frame, and means adjacent the second named pin for supporting a tape end when the device is in use.

11. A tape dispenser comprising a frame having side plates spaced at one end by a pair of pin members disposed at corner portions of the plates, the other end of the plates of the frame having means for retaining the frame against displacement from a support, a tape cutter member swingably mounted on one of said pins, said cutter having a free cutter edge widely spaced with respect to the other pin when the member is in collapsed position on the frame, and means adjacent the second named pin for supporting the cutter member in collapsed operative position.

DAVIS MARINSKY.

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