Jan. 9, 1951 D. MARINSKY 2,537,147

TAPE DISPENSER

Filed Nov. 16, 1945

Fig. 1.

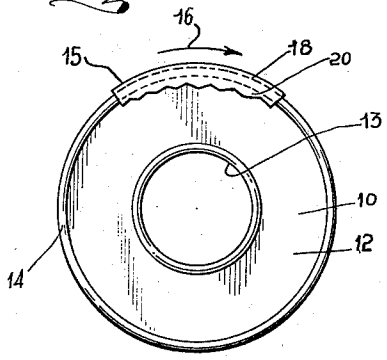


Fig. 2.

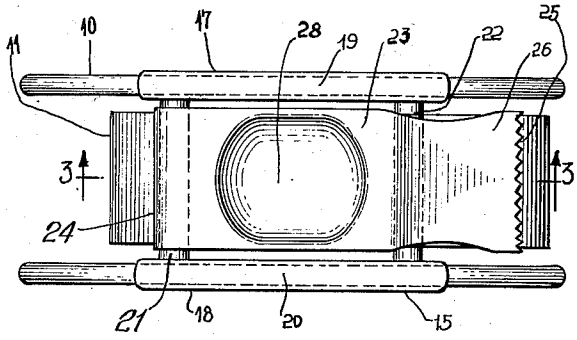
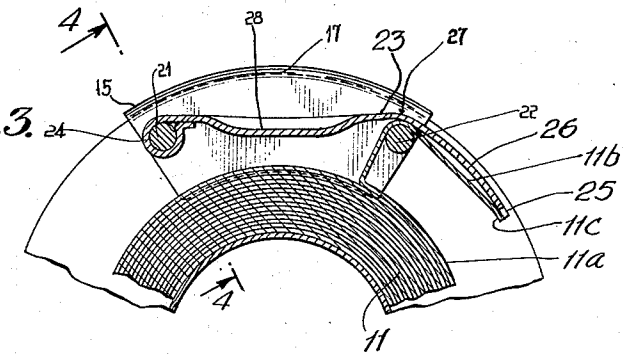


Fig. 3.



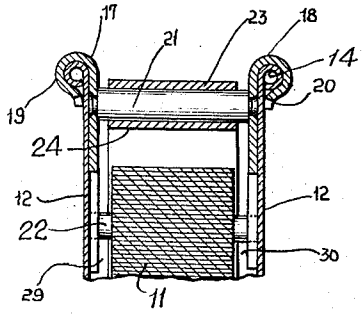


Fig. 4.

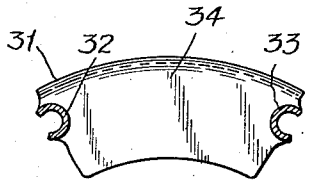


Fig. 5.

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TAPE DISPENSER

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6 Claims. (Cl. 164—84.5)

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This invention relates to devices for dispensing or removing tape from a roll. More particularly, the invention deals with an attachment adapted for mounting on a tape spool or a spool like supporting body in such manner as to permit circumferential movement of the attachment about the periphery of the spool in the operation of withdrawing the tape from the spool and in providing on the attachment a pivoted cutter and tape holder for severing a withdrawn portion of tape, and for holding the severed end of the tape roll in position to be readily grasped by the fingers of a hand in the operation of removing a further length of the tape. 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 side view of a conventional adhesive tape spool showing my attachment arranged thereon.

Fig. 2 is a plan view of the structure shown in Fig. 1.

Fig. 3 is a partial section on the line 3—3 of Fig. 2.

Fig. 4 is a partial section on the line 4—4 of Fig. 3; and

Fig. 5 is a view similar to Fig. 3, showing only the frame of the device and showing a modification.

My invention is adapted for use in the removal of adhesive tapes, other gummed tapes or ribbons, such as Scotch, that is pressure sensitive tape and the like, as well as any other type and kind of ribbon like or tape like material mounted on spools. Many products of the kind under consideration are now sold on spools, one of such products being the well known adhesive tape. Where products do not now come disposed on spools of the general type and kind under consideration, a suitable spool body will be provided therefor.

In showing one adaptation of my invention, I have illustrated at 10 a standard type of spool, such as used for adhesive tape 11. The spool comprises side ring like plates 12 joined and spaced by a tubular hub portion 13. The peripheries of the ring like plates have outwardly and inwardly turned beaded edges 14, upon which my tape holding and cutting attachment 15 is slidably mounted so as to move circumferentially of

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the peripheral portion of the spool in the direction of the arrow 16, note Fig. 1.

The attachment is contained substantially within the boundaries of the spool 10, except for slight encirclement of the beaded edges 14. The attachment comprises a frame composed of two similar side plates 17 and 18 which fit upon inner surfaces of the ring plates 12, and their outer ends are curled or beaded around the beads 14, as seen at 19 and 20, note Fig. 4. The curled or beaded portions 19 and 20 may be defined as channels on the plates 17 and 18, and these channels snugly but freely slide upon the beads 14 in the circumferential movement of the attachment 15 around the periphery of the spool. The plates 17 and 18 are joined and spaced by two pin members 21 and 22 which are riveted or otherwise secured to the plates 17 and 18. The pin 21 forms a pivot or hinge mounting for a tape holding and cutter member 23. This member is in the form of an elongated plate, one end of which is fashioned to form a cylindrical pivot or hinge 24 upon the pin 21. The other end portion is fashioned to form a sharp tooth like cutter edge 25. The end portion 26 of the member 23 having the cutter edge 25 is normally disposed in more or less parallel relationship to the periphery of the spool when in closed position, as seen in Fig. 3. However inwardly of the end 26, the member is offset inwardly to a slight extent to form a rounded portion 27 adapted to rest upon the pin 22. The member 23 also has a fingerpiece depression 28 between the pins 21 and 22 to receive a finger of the hand in firmly supporting the member 23 upon the pin 22 in tearing off an extended end of the tape 11 at the cutter edge 25.

In Fig. 3 of the drawing, the member 23 is shown in its normal operative position in full lines. When the end of the tape 11 is being drawn from the spool the member 23 is thrown back on hinge pin 21. In withdrawing the tape from the spool, the outer surface 11*a* of the tape slides over the pin 22 and when the desired amount of tape has been withdrawn, the member 23 is moved back into its full line position, at which time, the portion 26 will seat upon the other or adhesive surface 11*b* of the tape. A finger of the hand is then applied to the member 23 to support the same firmly upon the pin 22 and the part of the tape extending beyond the cutter edge 25 is turned off at said edge. This leaves a protruding end portion 11*c* on the tape beneath and temporarily adhered to the end 26 of the member 23. It will thus be seen that when it is desired to remove another length of the tape, a

finger of the hand is placed beneath the end 11c of the tape and the end 26 of the member 23, and both are raised, the member 23 detached from the end 11c of the tape, after which the tape is pulled by hand. In this operation, the attachment 15 slides or travels along the periphery of the spool in the direction of the arrow 16. The spool 10 is supported between the fingers of a hand in this operation.

It will also be apparent that the adhesion would be between the end 11c of the tape, and the end 26 of the member 23 serves to support this member in its normal or closed position, in which position it is maintained entirely within the circumferential boundaries of the spool.

In Fig. 3 of the drawing, the attachment is shown on a spool from which part of the tape has been removed. The pins 21 and 22 will substantially define the full capacity of tape upon the spool, but at all times, a clearance will be provided between the outer portion of the tape and the end 11c and end portion 26 of the member 23 to facilitate lifting of the member by a finger of the hand. It might also be pointed out that as the member 23 is raised at its pivot 21, the tape end 11c automatically is displaced from the end 26. It will also be noted that while the attachment serves to hold and support the end 11c for accessible removal, this end in engaging the end portion 26 of the member 23 also retains the attachment in a fixed position on the spool against movement in either direction. In this sense, the member 23, in combination with the tape end forms a locking or latching means for retaining the attachment against shifting upon the spool. However, the minute the latch is raised on its hinge, and the tape withdrawn from the spool, the tape in engaging the pin 22 will operate to freely feed the attachment, as previously described.

It will be noted upon consideration of Fig. 4 of the drawing that the roll of tape 11 has its side edges spaced from the ring walls 12, as seen at 29 and 30 to avoid frictional engagement therewith. These spaces facilitate positioning of the plates 17 and 18 upon inner surfaces of the rings 12, and while this spacing is exaggerated in the present illustration, this exaggeration is for sake of clarity.

In Fig. 5 of the drawing is shown a modified form of frame 31 which differs from the frame 15, simply in forming pivot and bearing portions 32 and 33 respectively, integral with the side plates, one of which is shown at 34, these plates being similar in all other respects to the plates 17 and 18. In other words, instead of employing independent pins, such as 21 and 22, which are riveted into the plates 17 and 18, a single sheet of material is fashioned to form the plates including the pivot portion 32 equivalent to the pin 21, and a bearing portion 33 equivalent to the bearing pin 22. The portions 32 and 33 will be fashioned to the desired cross sectional contour to provide the required supports for a cutter and tape holder, similar to the holder 23.

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

1. The combination with a tape spool comprising side walls, within which a roll of tape is arranged and housed, said walls having circumferential beaded outer edges, of a tape cutter attachment mounted for circumferential movement on the walls of the spool in withdrawing tape from the spool, said attachment comprising a frame having circumferentially elongated side plates arranged upon and contacting an appreciable portion of the inner surfaces of said walls, outer ends of the plates having outwardly curled edges enveloping the beaded edges of said side walls, pins joining and spacing the plates within said side walls, a cutter pivotally mounted on one of said pins for severing a withdrawn end portion of the tape leaving a severed end, and said cutter having an end portion protruding beyond the other pin and arranged within the boundaries of the spool walls and adapted to support the severed tape end to render the same accessible for engagement by the fingers of a hand.

2. A tape cutter attachment of the class described, comprising a frame including a pair of side plates joined and spaced only by a pair of pin-like members spaced longitudinally on said plates and extending therebetween, said plates having at outer curved edges outwardly and inwardly curved channel forming portions for slidably engaging spaced supports while retaining the plates against displacement from the supports, a cutter device pivoted to one of said members and having an end portion adapted to bear upon the other of said members, said device having an end portion extending longitudinally beyond the second named member and one end of the frame to support a severed tape end, and a cutter edge at the end of said extending portion for severing a tape drawn thereover.

3. The combination with a spool of tape having side walls with beaded peripheral edges, of an attachment comprising a pair of curved elongated plates joined and spaced at their end portions by pin members, said plates having channelled outer edges engaging the beaded edges of the spool to retain the attachment against displacement from the spool and for movement of the attachment circumferentially of the spool, an elongated cutter blade arranged between said plates and pivoted to one of said members and extending over and adapted to bear on the other member with the cutter edge portion of the device extending beyond the second named member to form a fingerpiece, the tape from the spool being adapted to pass over the second named member with the sticky surface of the tape arranged upwardly whereby in severing a withdrawn portion of the tape the severed end will be supported on and by said fingerpiece, and the attachment for the most part being disposed within the side walls of the spool.

4. The combination with a spool of tape having side walls with beaded peripheral edges, of an attachment comprising a pair of curved elongated plates joined and spaced at their end portions by pin members, said plates having channelled outer edges engaging the beaded edges of the spool to retain the attachment against displacement from the spool and for movement of the attachment circumferentially of the spool, an elongated cutter blade arranged between said plates and pivoted to one of said members and extending over and adapted to bear on the other member with the cutter edge portion of the device extending beyond the second named member to form a fingerpiece, the tape from the spool being adapted to pass over the second named member with the sticky surface of the tape arranged upwardly whereby in severing a withdrawn portion of the tape the severed end will be supported on and by said fingerpiece, the attachment for the most part being disposed within the side walls of the spool,

and said cutter device having a fingerpiece depression intermediate said members.

5. A cutter attachment for spools on which tapelike strands are wound, said spool having side ring members with circumferential beaded outer edges, said attachment comprising a frame composed of two similar side plates joined and spaced by members at end portions of the plates, one longitudinal edge of each plate having curved channelled portions slidably engaging said beaded edges of the spool, an elongated cutter device arranged within and between said plates, means swingably supporting one end of the cutter device on one of said members, the other end portion of the cutter device protruding beyond the other of said members and said frame and terminating in a cutter edge, said last named end portion forming beyond the second named member a fingerpiece facilitating swinging movement of the device, said device adjacent said protruding end portion being adapted to rest upon the second named member, and the undersurface of said protruding end portion forming a support for a severed tape end.

6. A cutter attachment for spools on which tapelike strands are wound, said spool having side ring members with circumferential beaded outer edges, said attachment comprising a frame composed of two similar side plates, joined and spaced by members at end portions of the plates, one longitudinal edge of each plate having curved channelled portions slidably engaging said beaded edges of the spool, an elongated cutter device arranged within and between said plates, means

swingably supporting one end of the cutter device on one of said members, the other end portion of the cutter device protruding beyond the other of said members and said frame and terminating in a cutter edge, said last named end portion forming beyond the second named member a fingerpiece facilitating swinging movement of the device, said device adjacent said protruding end portion being adapted to rest upon the second named member, the undersurface of said protruding end portion forming a support for a severed tape end, and said device having a rounded depression intermediate said members.

DAVIS MARINSKY.

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