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2,310,522

SINGLE ROLL TAPE DISPENSER

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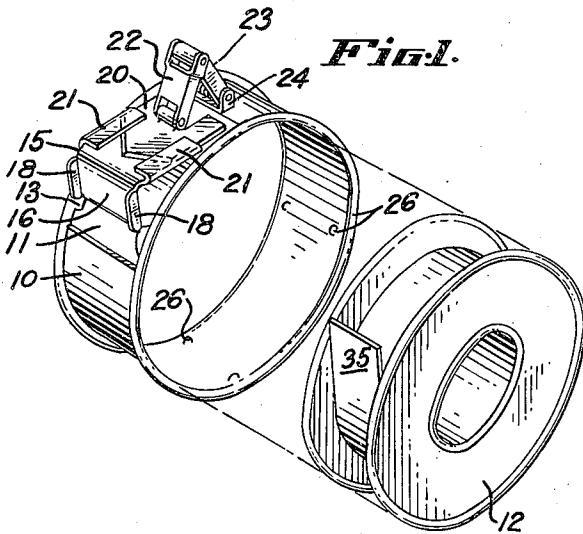


Fig. 1.

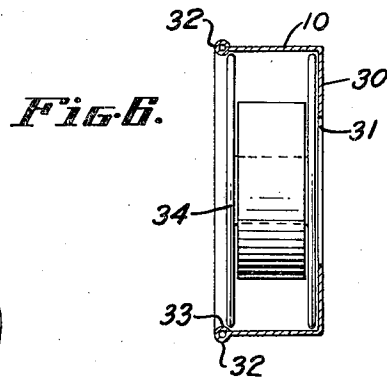


Fig. 6.

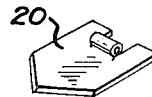


Fig. 5.

Fig. 2.

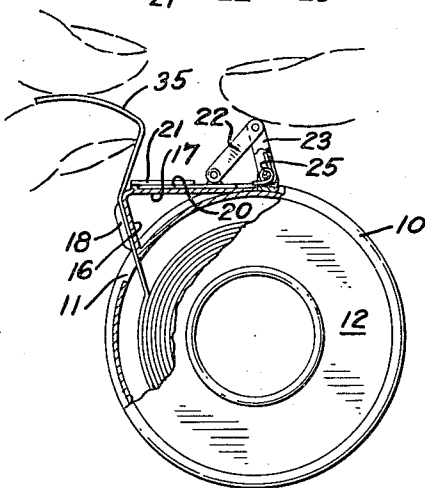
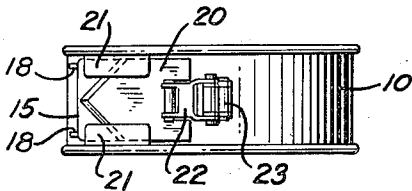


Fig. 3.

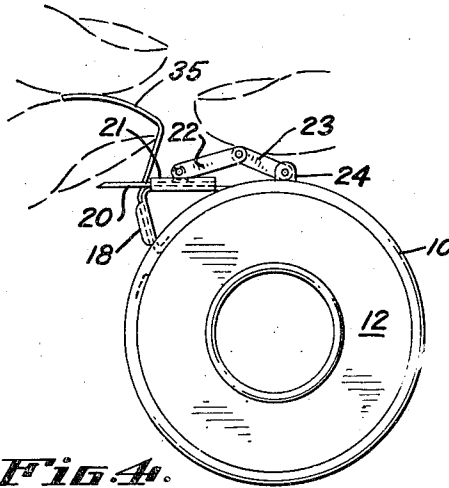


Fig. 4.

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SINGLE ROLL TAPE DISPENSER

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4 Claims. (Cl. 164—84.5)

This invention relates to tape dispensers and has for one of its principal objects the provision of a tape dispenser which includes a finger actuated cutting means for severing desired lengths of the tape as fed from a supply roll.

Other objects of the invention include the provision of a device of the character above described which is simple to operate; which will not get out of order; which is extremely inexpensive to manufacture, and which may be conveniently carried.

There has been a long felt need for some simplified means of dispensing and cutting adhesive and other tapes in desired lengths as they are fed from the conventional supply rolls. This is particularly true in connection with adhesive tapes, tapes of the pressure sensitive types, and with the well-known electricians' friction tape. In the past it has been the practice to buy the articles in rolls or spools, from which desired lengths are pulled or unwound, and to utilize some separate severing means, such as a scissors or a penknife to cut therefrom the portion desired. Some have even resorted to the practice of tearing the tape with the fingers. However, these practices do not make for convenience nor facilitate the use of the article and therefore it is within the purview of this invention to provide a tape dispenser having the above-stated characteristics which is within the financial reach of all users of this material.

These and other objects of the invention are accomplished through the provision of a band, into which the conventional tape reels or spools are adapted to be snapped, the said band having a peripheral slot through which the tape is fed, and a thumb actuated cutting means in juxtaposition to the peripheral slot in the band, whereby desired lengths of the tape may be severed in an extremely simple and understandable operation.

Other objects of the invention will become more apparent as this specification proceeds and the particular novelty of the invention will be pointed out in the appended claims.

In the drawing forming a part hereof:

Fig. 1 is a dismantled perspective of the tape dispenser and a conventional tape reel,

Fig. 2 is a top plan view of the tape dispenser,

Fig. 3 is a side elevation of the device, partly broken away, and diagrammatically illustrating an operation preliminary to severing the desired length of tape,

Fig. 4 is a second side elevation diagrammat-

ically illustrating the second and final step in the tape severing operation,

Fig. 5 is a perspective view of the blade utilized in the illustrated preferred form of the invention, and

Fig. 6 is a modification of the band illustrated in Fig. 1.

The band or cover 10 is formed of a single strip of material, such as sheet metal or the like, joined at its ends in any conventional manner, and having rims at its edges formed by crimping the metal upon itself. It will be appreciated, of course, that the band 10 may be formed of any material other than metal, inasmuch as the substance from which it is fabricated contributes nothing in the way of novelty.

A transversely extending slot 11 is provided in the band, through which the tape is pulled from a conventional supply roll or reel 12. The slot 11 extends from rim to rim for convenient threading of the tape therethrough and has a reduced portion 13, corresponding more nearly to the width of the tape, to aid in centering the latter for the cutting operation.

Projecting from the band 10 there is provided a triangular shaped member 15, the leg 16 of which is attached to the band 10 in juxtaposition to the reduced portion 13 of slot 11, and the other leg 17, of which is secured to the band 10 at a point remote from the slot 11.

The leg 16 serves as a surface over which the tape is drawn for the cutting operation and in this connection it will be noticed that a pair of outwardly turned ears 18 at its edges are adapted to guide the tape and center it for the action of the cutting means.

A sharpened blade 20 is slidably retained on the surface of the leg 17 by the inwardly turned guide members 21. The blade 20 is rendered movable from inoperative to operative positions by the provision of the links 22 and 23, the former being pivotally connected at its ends to the blade 20 and to the link 23, and the latter being pivotally connected to the band 10 by the bracket 24. A spring 25 in the connection of link 23 to bracket 24, normally urges the link 23 into an upstanding position and, through the above described connection, the blade 20 is drawn into its inoperative position (see Figs. 1 and 3).

The conventional spool of tape 12, illustrated in Fig. 1, is of the type wherein the roll of tape is free to be turned when the spool itself is retained against rotation. This is accomplished by winding the tape on a sleeve loosely disposed on the spool (not shown). When the subject-

matter of this invention is applied to a structure of this type, the spool is retained within the band 10 by providing a plurality of nubs 26 within the band in spaced relation to the edges to frictionally engage the edges of the spool 12 (see Fig. 1).

In other cases it will be found that the spool itself must be turned to unwind the tape therefrom. When applied to spools of this type, the band of this invention takes the alternate form shown in Fig. 6.

Here the band 10 is provided with a partially closed side 30, having an axial aperture 31 therein. The opposite edge of the band is crimped upon itself to provide an external flange or rim 32 and is additionally provided with an internal flange 33 of slightly less diameter than that of the spool 34. Thus, it will be noted that the spool 34 is adapted to be inserted within the band 10, its peripheral edges being snapped past the internal flange 33 by which it is locked within the band against lateral displacement. The spool 34 is then free to rotate within the band 10 as the tape is fed therefrom.

In operation the device forming the subject-matter hereof is used as follows:

The free end of the tape 35 having been first threaded through the slot 11, the spool 12 or the spool 34, whichever the case may be, is then snapped into position within the band and retained, in the manner described, against lateral displacement. As illustrated in Fig. 3, the free end of the tape 35 is grasped between an index finger and the thumb (shown in dotted lines) and drawn upwardly over the surface of the leg 16 and between the ears 11 and then held taut for the cutting operation. Being thus held, the tape 35 is next severed by the blade 20 as downward pressure is exerted on the connection of links 22 and 23, against the urge of the spring 25. As illustrated in Fig. 4, this causes the blade 20 to be driven through the tape, severing a desired length thereof. When released spring 25 returns the blade 20 to its inoperative position.

It is important to note that by providing a cutting mechanism positioned at a point remote from the slot 11, there will always remain a free end of the tape 35 outside of the band 10 which can be grasped for withdrawal of additional quantities. This is a distinct advantage over a device where the free end of the tape must be rethreaded or where some additional operation must be carried out to advance the free end of the tape to a position where it may be so grasped.

It will be apparent that the subject-matter of this application and particularly the device illustrated in Figs. 1 to 4, inclusive, may take many different forms than those shown without departing from the spirit of the invention. For example, instead of applying the triangular shaped support elements formed by the legs 16 and 17, to a solid band 10, it may be by some thought desirable to stamp the whole of the band element and knife support from a single piece of sheet material and then form it in such a way that the element formed by the legs 16 and 17 will be integral with the band itself rather than an addition thereto. Additionally, it may be by some thought desirable to simplify the linkage formed by the elements 22 and 23 to reduce the costs of manufacture. For instance, it is within the purview of this invention that any conventional connection between a link

22 and the blade 20 may be substituted for that shown. Moreover, it is within the spirit of this invention that some may prefer to eliminate the spring 25 in preference for a link 23 made of spring metal. Additionally, this invention contemplates the use of any well-known means of supporting and retaining supply rolls of tape within the band. These, however, are regarded as mere matters of choice and therefore the form of the invention shown is to be regarded as illustrative only.

The invention claimed is:

1. In a tape dispenser, a band adapted to receive a supply roll of tape and having a slot therein through which the free end of the tape may be fed from the supply roll, a triangular shaped projection on the band, said projection having one leg thereof secured to the band in juxtaposition to said slot and over which the tape is adapted to be pulled as fed from the supply roll, and tape severing means on the other leg of the projection movable from inoperative to operative positions to sever the tape at the apex of the triangular projection.

2. In a tape dispenser, a band adapted to receive a supply roll of tape and having a slot therein through which the free end of the tape may be fed from the supply roll, a triangular shaped projection on the band, said projection having a leg thereof secured to the band in juxtaposition to said slot and over which the tape is adapted to be pulled as fed from the supply roll, tape guiding means on said leg, tape severing means on the other leg of said projection movable from inoperative to operative positions to sever the tape at the apex of the triangular projection, means for actuating the tape severing means, and yieldable means normally urging the tape severing means into its inoperative position.

3. In a tape dispenser, a band adapted to receive a supply roll of tape and having a slot therein through which the free end of the tape may be fed from the supply roll, a triangular shaped projection on the band, said projection having a leg thereof secured to the band in juxtaposition to said slot and over which the tape is adapted to be pulled as fed from the supply roll, outwardly projecting tape guiding ears on opposite sides of said leg, tape severing means on the other leg of said projection movable from inoperative to operative positions to sever the tape at the apex of the triangular projection, means for actuating the tape severing means, and yieldable means normally urging the tape severing means into its inoperative position.

4. In a tape dispenser, a band adapted to receive a supply roll of tape and having a slot therein through which the free end of the tape may be fed from the supply roll, a triangular shaped projection on the band, said projection having one leg thereof secured to the band in juxtaposition to said slot and over which the tape is adapted to be pulled as fed from the supply roll, tape severing means on the other leg of the projection movable from inoperative to operative positions to sever the tape at the apex of the triangular projection, said slot being reduced in width in juxtaposition to the connection of the first named leg of said triangular shaped projection to said band.

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