Nov. 9, 1943. D. L. GORBATENKO 2,333,924

TAPE DISPENSER

Filed Jan. 21, 1941

Fig. 1.

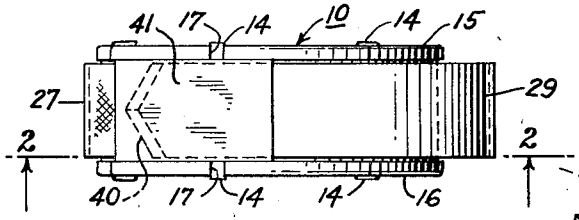


Fig. 2.

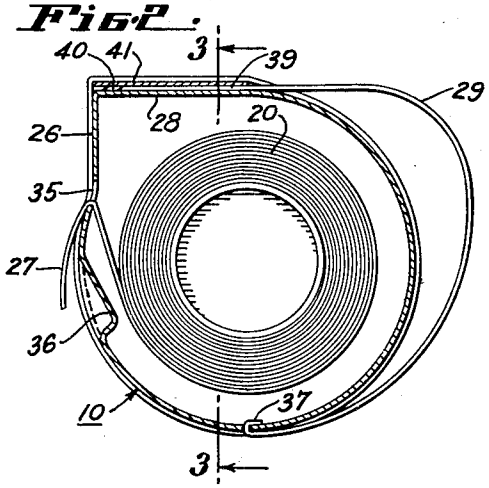


Fig. 3.

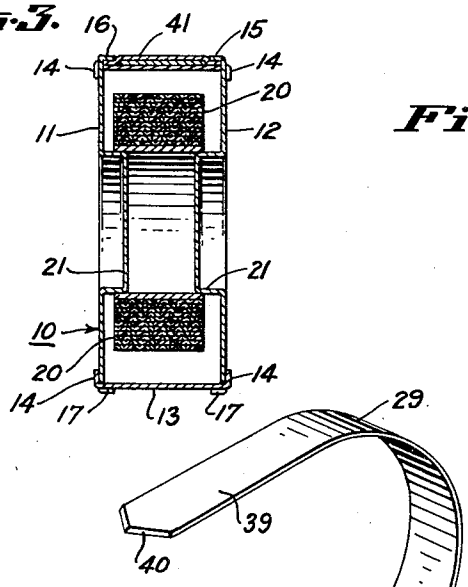


Fig. 4.

Fig. 5.

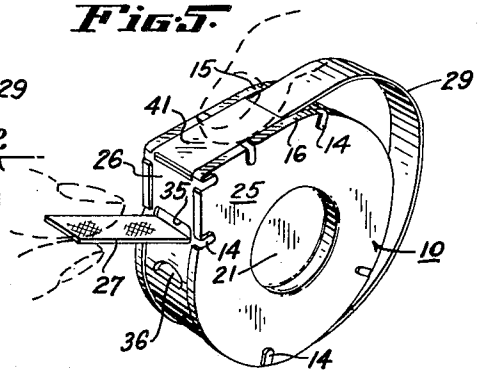


Fig. 6.

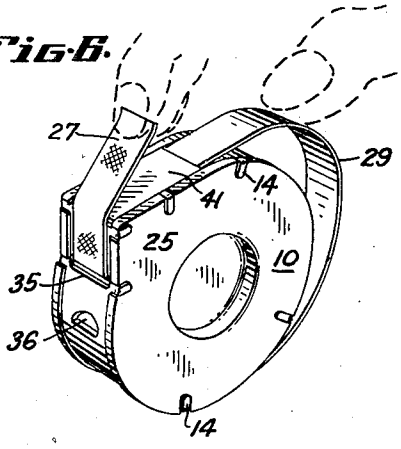
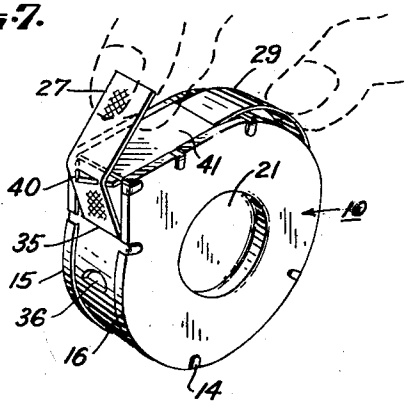


Fig. 7.



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2,333,924

TAPE DISPENSER

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Application January 21, 1941, Serial No. 375,190

5 Claims. (Cl. 164—47)

This application is a continuation in part of application Serial No. 245,100, filed December 12, 1938, by this applicant and Albert L. Allgoewer, and my application Serial No. 298,020, filed October 5, 1939.

This invention relates to devices for dispensing tapes of various kinds such as surgical tape, pressure sensitive tapes and, in fact, any sort of strip material.

One of the principal objects of this invention is to provide a pocket sized case for a roll of strip material wherein the case carries a thumb actuated flexible knife or cutting element which may be employed to sever desired lengths of the strip material as it is fed from the roll.

Also included among the objects of the present invention is the provision of a device of the general character described which is extremely inexpensive to manufacture; which will not get out of order; which is convenient to use, and which employs a manually operated strip material cutting means.

In general terms, the objects of this invention are attained by providing a case adapted to contain a roll of strip material and having a flexible knife disposed exteriorly of the case with suitable guide means for the blade.

Other objects of this invention will become apparent as this specification proceeds.

In the drawing, wherein a preferred embodiment of the invention is shown:

Figure 1 is a top plan view of a tape dispenser embodying my invention,

Fig. 2 is a vertical section through the device taken along the line 2—2 of Fig. 1,

Fig. 3 is a vertical section taken along the line 3—3 of Fig. 2,

Fig. 4 is a perspective view of the flexible knife,

Figs. 5, 6 and 7 are perspective views of the tape dispenser progressively showing the operations incident to dispensing and cutting desired lengths of strip material.

The drawing illustrates a preferred embodiment of my invention wherein a case 10 is comprised of a pair of identical side plates 11 and 12, and a strip 13 disposed transversely of the peripheral edges of the said side plates and holding them in spaced relation.

While I have shown conventional bendable tabs or ears 14, integral with the strip 13, as a means of holding the parts of the case 10 together, it will be appreciated that there are other known ways of doing this. For example, the practice of making cans and other containers may be resorted to wherein a machine is employed to crimp the abutting edges of strip 13 and side plates 11 and 12. The device illustrated has been designed as an article of the "throw away" class, which is to say that the case may be factory loaded with a roll of strip material and when the supply is exhausted the container is tossed away. If preferred, however, the device may be constructed to permit reloading with rolls of the strip material and still be within the purview of this invention. For instance, it would involve a mere matter of mechanical skill to adapt side plate 12 for a snap or frictional engagement only with the abutting edge of strip 13, in which case the case 10 could be used time and again.

The detail of construction of the case 10 in the embodiment shown in the drawings involves the bending of the peripheral edges of the side plates 11 and 12 inwardly to form flanges 15 and 16 to overlie the edges of the strip 13. Slots 17 are then cut in the flanges 15 and 16 to accommodate the bendable tabs 14.

In order to rotatably support a roll 20 of strip material I provide the side plates 11 and 12 with the inwardly projecting coaxially aligned hubs 21, formed by pressing a well in each of the said plates (see Fig. 3).

A shoulder 25 formed integrally with side plates 11 and 12 and strip 13 projects from the circumferential edge of the case 10 and has one surface 26 over which the free end 27 of the strip material is drawn in the cutting operation and another surface 28 over which a flexible knife blade 29 is adapted to be moved in severing a desired length of strip material 27. It will be noted from Figs. 1, 2 and 5 to 7, inclusive that to permit the dispensing of the strip 27 from the supply roll 20 there is provided a slot 35 in the case 10 extending through the strip 13. The slot 35 is disposed transversely of the peripheral edge of the case 10 and is located at the point from which surface 26 projects. As in the case of surgical and pressure sensitive tapes a free end will sag and adhere to any surface with which it contacts. I have provided a depression 36 in strip 13 immediately below slot 35 to facilitate the raising of the free end 27 of such tapes for the next succeeding dispensing operation.

It will be noted from Fig. 4 that the knife 29 consists in a length of spring metal such as steel or any other metal having the required degree of flexibility. The blade 29 is attached to the case 10 by having one end bent backwardly upon itself to form a hook 37 which is inserted

in a slit 38 in strip 13 on the edge of the case 10 opposite the shoulder 25.

The blade may be anchored on the case 10 in other and known methods, such as by rivets. The opposite end of the blade 29 is flattened as at 39 for movement over the surface 28 on shoulder 25 in its movement from operative to inoperative positions and the extreme edge is sharpened to a wedge point as at 40. The flattened portion 39 of the blade is guided over the surface 28 of shoulder 25 by means of the plate 41 retained by the flanges 15 and 16 on the side plates 12 and 11, respectively.

Fig. 2 shows that the blade 29 is spaced apart from case 10 for a considerable portion of its length, thus providing a bulge pressure upon which will cause the cutting edge to be moved through the guide means to cut the tape. While the knife blade is shown in Fig. 4 as being preformed to produce the bulge shown in Fig. 2, this is not wholly necessary since a perfectly flat strip of metal having the required degree of resiliency will accomplish the same result when attached to the case and inserted in the guide means.

The operation of the device is progressively illustrated in Figs. 5 to 7, inclusive. The free end of the tape 27 protrudes from the slot 35. The cutting edge 40 of the blade 29 normally lies under plate 41 in its inoperative position. The free end 27 of the strip material is pulled upwardly to overlie the surface 26 and by the latter held in a position perpendicular to the surface 28 over which the cutting edge 40 of the blade 29 is adapted to travel. The protruding portion of the flexible blade 29 is then pressed inwardly toward the overlying peripheral edge of the case 10 which causes the cutting edge 40 to be moved over surface 28 under the guide plate 41 and through the tape 27.

I am aware of the fact that other tape dispensers have been devised, but it is believed that the device disclosed and claimed herein is a marked improvement in that it meets a long felt need for some simplified means of dispensing and cutting strip material. I am aware of the fact that in the past it has been the practice to buy tape or strip material in rolls or spools from which desired lengths are pulled or unwound and to utilize some separate severing means as scissors or a penknife to cut therefrom the length desired. Some persons have frequently resorted to tearing the tape with the fingers. However, these practices do not make for convenience nor facilitate the use of strip materials of the class described.

It is believed that this invention overcomes many objections to the prior art structures and will be found highly acceptable for the intended purpose.

One of the principal advantages of my invention resides in the fact that the use of a strip of flexible metal as the cutting means materially reduces the cost of manufacture while raising the efficiency of devices of this class.

The invention claimed is:

1. A strip material dispenser comprising, a case, means within the case for supporting for rotation a roll of strip material, a slot in the case through which the strip material may be fed, a guide on the case, a flexible knife blade disposed in circumferential relation to the case having one end attached to said case, the other end of said knife blade being slidably received by said guide, the knife blade being so preformed that when it is in its inoperative position a considerable portion of its length is spaced apart from the edge of the case.

2. A strip material dispenser comprising, a case, means within the case for supporting for rotation a roll of strip material, a slot in the case through which the strip material may be fed, a guide on the case, a knife blade formed of spring metal disposed in circumferential relation to the case and anchored at one end to the same, the free end of said blade being slidably received by said guide, said knife blade being so preformed that when it is in its inoperative position a considerable portion of its length is spaced apart from the edge of said case.

3. A strip material dispenser comprising, a case, means within the case for supporting for rotation a roll of strip material, a slot in the case through which the strip material may be fed, a guide on the case, a knife blade formed of spring metal disposed in circumferential relation to the case anchored at one end to the same, the free end of the blade being sharpened and slidably received by said guide, said blade being so preformed that when it is in its inoperaitve position a considerable portion of its length is spaced apart from the edge of said case.

4. A strip material dispenser comprising, a case, means carried by the case for supporting therein for rotation a roll of strip material, a slot in the case through which the strip material may be fed, a strip of resilient material disposed in circumferential reltaion to the case and connected adjacent one of its ends to the same, the free end of the resilient strip being sharpened, and means for retaining the resilient strip so that a portion of its length intermediate its ends is in spaced relation to the case.

5. A strip material dispenser comprising, a case, means carried by the case for supporting therein for rotation a roll of strip material, a slot in the case through which the strip material may be fed, a strip of resilient material disposed in circumferential relation to the case and connected adjacent one of its ends to the same, the free end of the resilient strip being sharpened, guide means on the case through which the cutting edge of the resilient strip may be moved to sever desired lengths of the tape as the latter is fed through the slot in the case, and means normally retaining the resilient strip so that a portion of its length intermediate its ends is in spaced relation to the case.

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