Sept. 15, 1942. F. X. MONTBACH 2,295,679

DISPENSING DEVICE

Filed June 21, 1940

Fig.1.

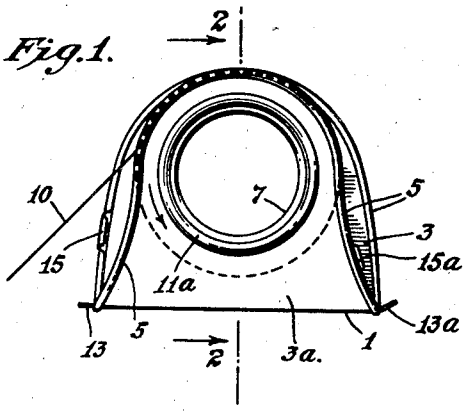


Fig.2.

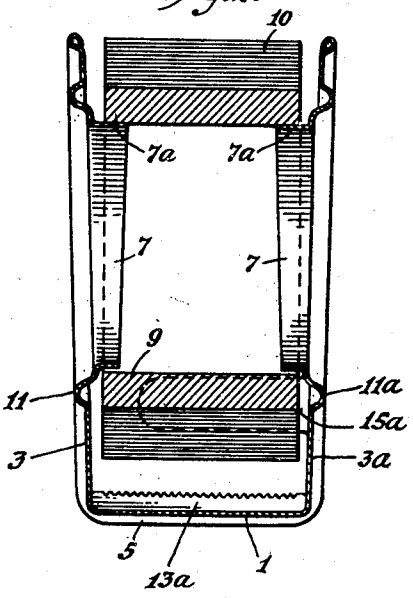


Fig.3.

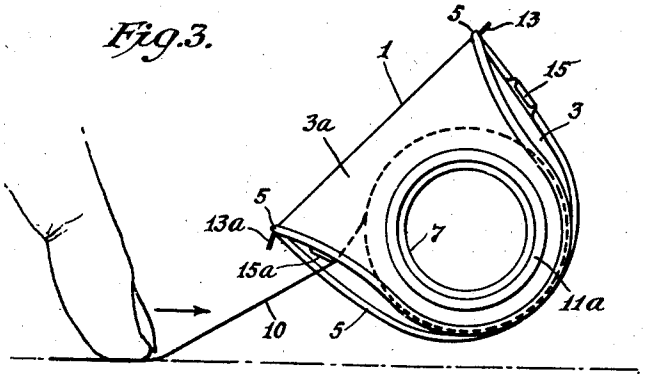


Fig.4.

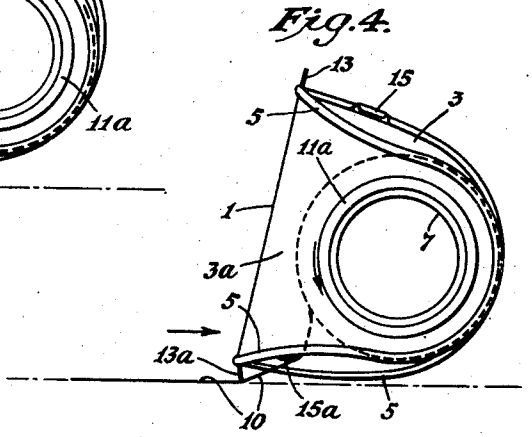
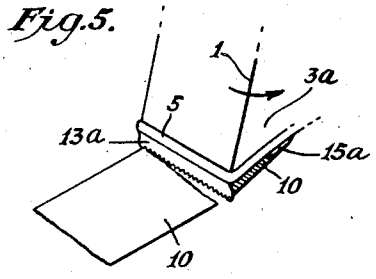


Fig.5.



INVENTOR

Francis X. Montbach

BY

George K. Louch

ATTORNEY

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UNITED STATES PATENT OFFICE

2,295,679

DISPENSING DEVICE

Francis X. Montbach, Highland Park, N. J., assignor to Industrial Tape Corporation, New Brunswick, N. J., a corporation of New Jersey

Application June 21, 1940, Serial No. 341,614

4 Claims. (Cl. 242—55.5)

This invention relates to a tape supporting and dispensing device particularly suitable for holding and facilitating the dispensing of rolls of pressure sensitive adhesive tape.

It is a purpose of this invention to provide an improved hand tape holder and dispenser that is small, attractive in appearance, economical to manufacture, and simple and adequate in operation.

Other objects and advantages will be apparent from the following description of one practical embodiment of this invention, particularly when considered in connection with drawing in which:

Figure 1 is a side elevation of a tape holder and dispenser constructed in accordance with this invention and illustrating the use of the holder as a dispenser of cut lengths of tape prior to application of the tape;

Figure 2 is an enlarged vertical section taken along line 2—2 of Figure 1, and illustrates construction and tape supporting means;

Figure 3 is a side elevation illustrating the first stage of utilizing the holder as a tape dispenser in dispensing and severing a cut length of tape after application of the tape;

Figure 4 is a side elevation of a dispenser illustrating the second stage or step in dispensing and severing a cut length of tape after application of the tape; and

Figure 5 is a fragmentary perspective illustrating cutting of the tape after it has been applied.

Referring more particularly to the figures and drawing it will be apparent that a tape holder and dispenser made in accordance with this invention can be stamped out from a single flat blank of sheet metal and then formed into shape in subsequent operations. The dispenser when completely formed has a uni-planar base 1 from which extend opposed parallel side walls 3 and 3a spaced by the base 1. The spacing of the side walls will depend upon the width of the base and will correspond to the width of tape to be carried. Side 3 is convex in contour and somewhat larger than side 3a, which has two reduced or concave portions for purposes later to appear. The entire blank is beaded as at 5 to provide rigidity to the dispenser and to prevent marring of the roll of tape as it is placed in the holder.

Each side portion is struck inwardly at its center to provide an inwardly projecting tubular core or roll support 7 of proper diameter to fit within the core or spool 9 upon which the tape 10 to be dispensed is wound. Due to the tendency of the sides to diverge, i. e., spread outwardly at their free ends, the cores 7 are made deeper as at 7a at the upper or free ends (Fig. 2) of the side walls, i. e., they project further inwardly from these portions than they do at the bottoms where they are nearer the base. By this means the edges of the two opposed supporting cores never separate beyond relatively parallel positions, even though the sides of the dispenser may become somewhat spread in use. In this manner an adequate support is maintained for rotatably supporting the roll of tape 10 at all times. To provide further rigidity, the sides 3 and 3a are formed with strengthening bosses or ribs 11 and 11a respectively surrounding the cores 7.

To facilitate cutting of the tape by a single dispenser both before and after application of the tape to the desired surface, serrated or toothed cutting blades 13 and 13a are formed on the opposite ends of the base 1. Blade 13, which is particularly adapted for use before the tape 10 is applied, is co-planar with the base, whereas the blade 13a upon the opposite end of the base and more particularly designed for cutting the tape 10 after it has been applied is formed at an angle with respect to the plane of the base to facilitate cutting the tape at the desired point where it is applied to a surface.

To further facilitate handling and dispensing of the tape, a guide bar 15 is provided which projects inwardly from one edge of side wall 3 adjacent to the base and terminates short of side 3a. The other side wall 3a is reduced in size, i. e., it is recessed or concaved in contour opposite this guide bar so as to permit insertion of a finger between the bar and the end of the base and under the tape resting upon the guide bar to facilitate grasping of the tape and withdrawal thereof from the roll. This guide bar also serves as an anchorage point for the end of the tape projecting from the roll after a length of tape has been cut.

The other side wall 3a is also provided with a guiding bar 15a at a point adjacent the other end of the base to prevent the tape from engaging the blade 15a when the tape is being withdrawn and applied before being cut.

The manner in which the dispensing unit may be utilized is believed to be apparent from the foregoing description, but will be briefly summarized as follows:

The tape is first assembled in the dispenser so that when the tape is unwound the adhesive side will be down when the dispenser is held base down and the tape is pulled in the direction of

the bar 15 and blade 13, and also when the dispenser is held base up and the tape pulled in the direction of bar 15a and blade 13a.

In cutting off lengths of tape prior to application thereof, the dispenser is held bottom side down in one hand, usually the left hand, and the tape is grasped between the guide 15 and the cutter 13 by the thumb and forefinger of the other hand, usually the right hand. The desired length of tape is then pulled from the roll (to the left in Figure 1), care being taken not to drag the adhesive side of the tape, which side is down, over the guide 15. After a sufficient length of tape has been removed, the tape is caused to engage the teeth of the cutting blade 13. This action severs the desired length of tape and automatically anchors the tape on guide 15 and thereby holds it in readiness for a succeeding withdrawal and cut-off.

To cut off lengths of tape after it has been applied, the dispenser is held bottom side up, as shown in Figures 3 and 4, by one hand, usually the right hand. The tape is grasped as before but pulled from the side of the dispenser having guide bar 15a thereon, i. e., in the direction of the blade 13a, and is applied adhesive side down to the desired surface by pressing thereon with the index finger. The dispenser, then being held in the position of Figure 3, and the tape being held down on the surface by the index finger, is pulled parallel to the surface being covered until the desired area is covered. During this movement, the tape is applied to the surface by the fingers of the hand not holding the dispenser. After the desired surface is covered, the dispenser is lowered until the cutting blade 13a presses the tape upon the surface being covered, as shown in Fig. 4, and is twisted slightly, as shown in Figure 5, to cut the tape.

The cutting blade 13a used in severing the tape after it has been applied, being at an angle with respect to the base, permits direct application of the cutter to the surface to which the tape is being applied without obstructing the view and facilitates a ready cut-off at the exact point desired.

After severing, the loose end of the tape can be reanchored to guide 15, and the dispenser is then ready for reuse in either of the manners described.

Guide 15a acts as a leveller over which the back or nonadhesive side of the tape passes when it is being applied to the surface (Figure 3) thus preventing scuffing of the tape by the knife during application.

From the foregoing it will be apparent that there has been provided a very compact, neat appearing, combination holder and dispenser which may readily be manufactured from a single blank of sheet metal and which may be used not only as a convenient holder but also as a dispenser, adapted to cut tape either before or after application and without the necessity of reversing the roll of tape in the holder. The construction also permits ready assembly of spools of tape in the dispenser, there being no locks or latches involved.

Variations in the details of construction and other minor changes will be apparent to those skilled in the art without departing from the spirit and scope of the invention as defined in the appended claims.

I claim:

1. A stamped sheet metal roll supporting and dispensing device comprising a base and parallel sides extending integrally from said base, said sides being free at their outer ends for movement toward and from each other, means projecting inwardly from said sides adapted to fit within the core of a roll of tape for rotatably supporting a roll of tape therebetween, said supporting means projecting inwardly a greater distance at the free ends of said sides than at the base thereof to provide adequate support for said roll of tape upon spreading of said sides, and a cutting blade on said base.

2. A stamped sheet metal roll supporting and dispensing device comprising a base and integral parallel sides extending from said base, one of said sides being larger than the other, means projecting inwardly from said sides for rotatably supporting a roll of tape therebetween, a guide projecting inwardly from said larger side toward the smaller side and stopping short thereof, said smaller side being recessed at that portion opposite said guide to facilitate grasping the tape for withdrawal from said roll, and a cutting blade on said base.

3. A device for dispensing tape comprising a holder having spaced parallel members connected with each other at one edge, annular bearing members on the opposed faces of said spaced members for rotatably supporting a roll of tape in said holder, said bearing members having sections normally diverging outwardly relatively to each other and adjustable into approximate parallelism by spreading said spaced members apart to thereby facilitate the mounting of a roll of tape on said bearing members in said holder and the removal of an empty core therefrom.

4. A stamped sheet metal adhesive tape supporting and dispensing device comprising a substantially flat base portion and parallel sides extending integrally from said base portion, means projecting inwardly from said sides for rotatably engaging and supporting a roll of adhesive tape therebetween, and a cutting blade adjacent each end of said base, said base portion having a length greater than the diameter of said roll supporting means, one of said blades being positioned to contact the adhesive side of said tape and adapted to sever the tape before being applied and the other of said blades being positioned to contact the non-adhesive side of said tape without removing the roll of tape from said device and adapted to sever the tape after being applied.

FRANCIS X. MONTBACH.