Nov. 7, 1961 J. J. BURCZ 3,007,619

DISPENSER FOR PRESSURE SENSITIVE TAPE

Filed Nov. 7, 1958

FIG. 2

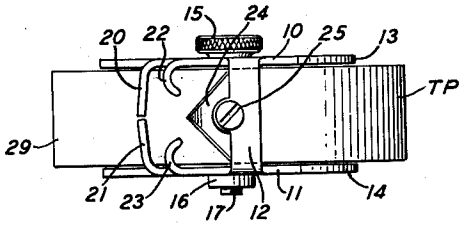


FIG. 3

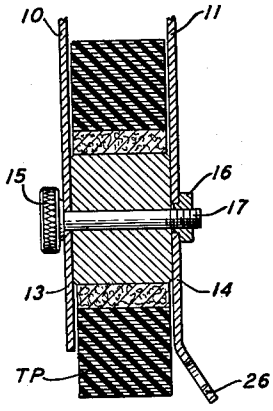


FIG. 1

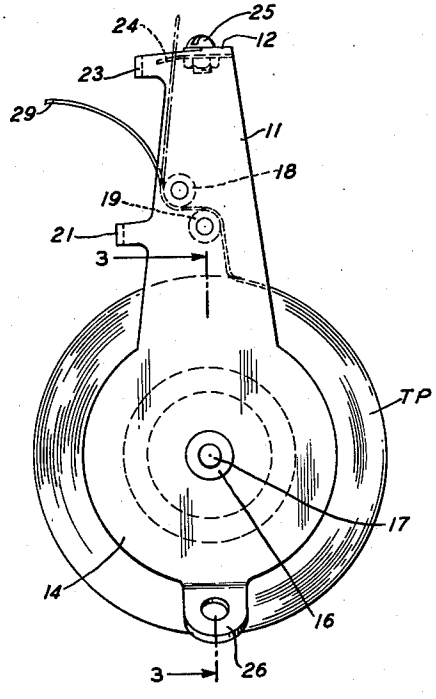
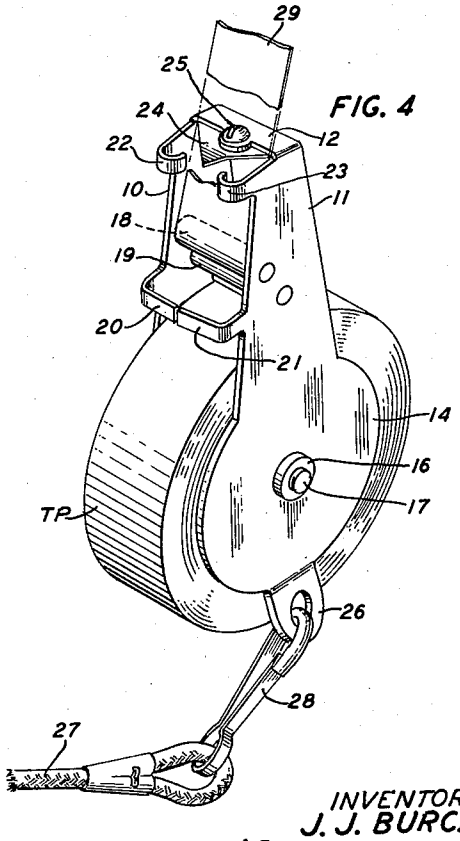


FIG. 4



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3,007,619

DISPENSER FOR PRESSURE SENSITIVE TAPE

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3 Claims. (Cl. 225—19)

This invention relates to tape dispensers and more particularly to a combined holder and dispenser for use with rolls of tough, pressure-sensitive tape including those known in the trade as plastic electricians' tape.

An object of the present invention is the provision of a holder for rolls of pressure-sensitive tape which facilitates the removal of the tape from the stored roll and the severing thereof.

Another object of the invention is the provision of a holder and dispenser for rolls of pressure-sensitive plastic tape wherein the free end of the tape is maintained out of contact with the stored roll and is readily available for dispensing.

A further object of the invention is the provision of a holder and dispenser for pressure-sensitive tape, of the plastic type, wherein a novel type of severing means is provided to readily sever the tape when the required amount has been pulled from the roll.

Pressure-sensitive tapes, of many types, have found a wide field of usefulness today both in the commercial field and around the average home.

It is with one of these popular types of tapes that this invention is primarily concerned, namely, a tough plastic tape known as electricians' tape. While this tape is commonly known as electricians' tape, its use is by no means restricted to electricians since it has many fields of application both in industry and by the average home owner. One of the outstanding characteristics of this type of tape is the tenacity with which it adheres to itself when wrapped around to embrace a joint or the like. Since this tape has a strong affinity for itself, it is somewhat difficult to remove it from the roll and due to its toughness it cannot readily be severed by a quick snap or tear as is possible with other types of tape, but must be severed with a sharp instrument.

Having knowledge of the various types of holders and dispensers available for pressure-sensitive tapes and realizing that they are not suitable for tough plastic tape, I have devised a structure which not only facilitates the removal of the tape from the roll, but provides a means for readily severing the tape with a minimum amount of effort. The severing means which forms part of this invention is an integral part of the dispenser and is so constructed that no hazard is presented to the user either during the dispensing of the tape or when the dispenser is not in use.

In the preferred embodiment of my invention, the structure comprises essentially a pair of longitudinally extending spaced apart parallel side members joined together to provide a substantially inverted U-shaped structure. The free ends of the frame terminate in flat disc-like opposed surfaces and have spaced therebetween a member for rotatably supporting a roll of tape.

Located adjacent the return bend portions of the frame, or bridge, which joins the side members, are suitable guide rollers between which the tape passes as it is drawn from the roll.

Positioned on the bridge portion of the frame, at the top thereof, is a knife blade which is triangular in configuration and which is provided with suitable guard members which are integral with the side members of the frame. Thus, as the tape is drawn from the roll, it passes between the two guide rollers and is pulled upward against the triangular blade between the spaced apart ears thereby severing the tape and permitting the free end of the tape on the roll to be maintained in a position out of contact with the roll.

The invention will be more clearly understood from the following detailed description when read in connection with the accompanying drawing, in which:

FIG. 1 is a side elevational view of the device of my invention with the tape extending therefrom shown in dot and dash lines and shows the position that the tape assumes as it is forced against the cutting blade;

FIG. 2 is a top plan view of FIG. 1 and illustrates in detail the shape and position of the cutting blade;

FIG. 3 is a fragmentary sectional view taken on line 3—3 of FIG. 1; and

FIG. 4 is a perspective view of the device shown in FIG. 1 and illustrates the manner in which the tape leaves the roll, is forced between the guard members and against the cutting blade.

As shown in the various figures and with particular reference to FIGS. 1, 2 and 4, the device of my invention comprises a body member of inverted U-shaped configuration, preferably fabricated from metal, having oppositely disposed spaced apart parallel legs **10** and **11** extending from a substantially flat bridge portion **12**. The legs **10** and **11** are preferably flat, have a tapered configuration and terminate in flat, enlarged disc-shaped portions **13** and **14**.

Centrally disposed with respect to the disc portions **13** and **14** and secured thereto by means of the knurled screw **15** and the nut **16** is a removable axle member **17**. Rotatably mounted on the axle member **17** and confined between the disc portions **13** and **14**, is the roll of pressure-sensitive tape TP.

Journaled between the legs **10** and **11** as shown in FIGS. 1 and 4 and in spaced relation with each other and with the roll of tape TP, are the guide rollers **18** and **19**. Located in alignment with the roller **19** and integral with the legs **10** and **11** are the extending ear portions **20** and **21**. These ears bridge the two legs and serve as a guard means for preventing the free end of the tape TP from coming into contact with the roll of tape during the removal of the tape from the roll, and the subsequent severing operation.

Located on the bridge portion **12** and protected by a second guard means which comprises the arcuate-shaped integral ears **22** and **23**, is the cutting blade **24**. This cutting blade **24** is triangular in configuration, has a slight downward bend at its point and is secured to the bridge portion **12** by means of the screw **25**. The cutting edges of the blade **24** are at an angle of approximately 45 degrees with respect to the perpendicular and are sharply ground to provide a keen cutting edge.

As shown in FIG. 4 an extending apertured ear **26** is provided for the securing of a suitable lanyard **27** thereto by means of the snap hook **28**.

In dispensing tape from my improved device, the end **29** of the tape TP, which has been initially threaded between the rollers **18** and **19**, is pulled outwardly over the guide ears **20** and **21** to the desired length. The exposed length of tape is then drawn upward, forced between the ears **22** and **23**, against the blade **24**. Continued tension on the tape causes the end of the blade **24** to puncture the tape and due to the novel configuration of the blade **24**, two cuts are made, each cut starting at the puncture and continuing to the outer edge of the tape thereby readily severing the tape with little effort on the part of the user.

Due to the novel structure of the device of this invention, the free end of the tape on the roll is maintained out of contact with itself and is readily available for fur-

ther dispensing. The novel structure of the knife 24, together with the novel structure of the guide ears 22 and 23, provides a means for safely and efficiently severing the tough plastic tape intended for use with this device.

It is understood that various changes and modifications may be made therein without departing from the spirit and scope of the invention.

What is claimed is:

1. A dispenser for pressure-sensitive tape comprising in combination, a roll of tape, a frame for confining said tape roll, said frame including a pair of spaced apart members defining parallel leg portions, a bridge joining said leg portions together and extending at right angles thereto, a knife blade mounted on said bridge between said legs in juxtaposition with respect to said tape roll, inwardly curving guard means comprising a pair of spaced apart oppositely disposed integral ears extending from said legs in alignment with said knife blade, the distance between said ears being less than the width of said knife blade and said tape to prevent the displacement of said tape and maintain it in alignment with said knife blade, and means spanning the free ends of said legs for rotatably supporting said tape roll.

2. A dispenser for pressure-sensitive tape comprising in combination, a roll of tape, a frame for confining said tape roll, said frame including a pair of spaced apart members defining parallel leg portions, a bridge joining said leg portions together and extending at right angles thereto, a knife blade mounted on said bridge between said legs in juxtaposition with respect to said tape roll, guard means comprising a pair of spaced apart oppositely disposed integral ears extending from said legs in alignment with said knife blade, the distance between said ears being less than the width of said knife blade and said tape to prevent the displacement of said tape and maintain it in alignment with said knife blade, a second guard means on said leg portions between said knife blade and said tape roll, and means spanning the free ends of said legs for rotatably supporting said tape roll.

3. A holder and dispenser for pressure-sensitive tape comprising a substantially U-shaped frame member, a triangular-shaped knife blade positioned adjacent the return bend portions of said frame, guard means comprising spaced apart oppositely disposed inwardly projecting ear members, in alignment with said knife blade for protecting the edge thereof, the distance between said ears being less than the width of said knife blade and said tape, and means below said knife blade, in juxtaposition with respect thereto, for confining the roll of tape positioned on an axial member located between the free ends of said tape.

References Cited in the file of this patent

UNITED STATES PATENTS

1,298,501	Hawkes	Mar. 25, 1919
1,837,180	Bennett et al.	Dec. 15, 1931
2,333,924	Gorbatenko	Nov. 9, 1943
2,777,594	Krueger	Jan. 15, 1957