Aug. 1, 1950 L. M. HENNING 2,517,485

TAPE HOLDING AND CUTTING DEVICE

Filed April 14, 1947 2 Sheets-Sheet 1

Fig. 1.

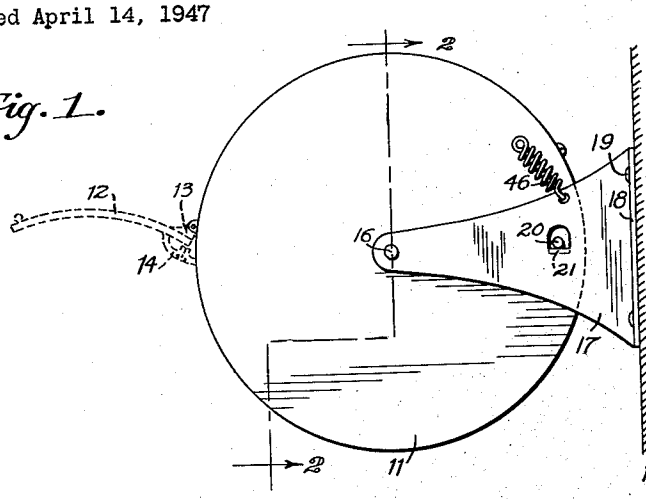


Fig. 4.

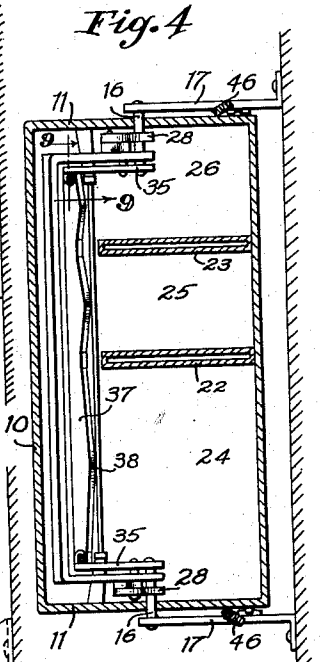


Fig. 3.

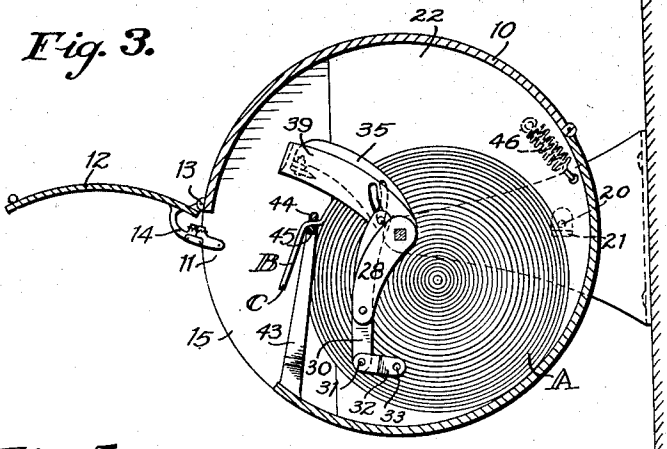


Fig. 5.

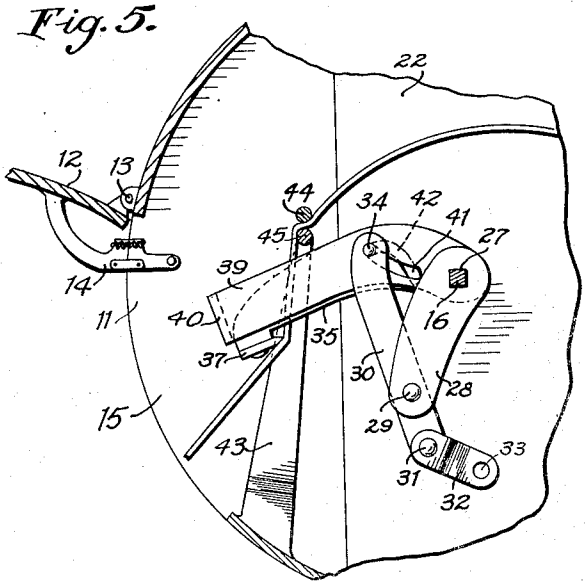
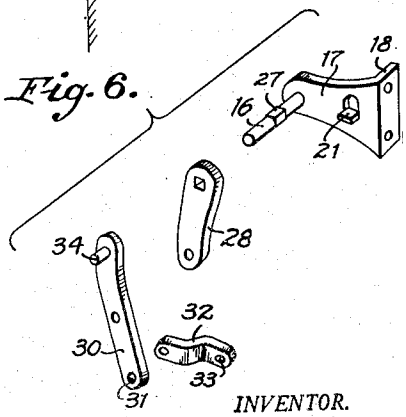


Fig. 6.



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Fig. 2.

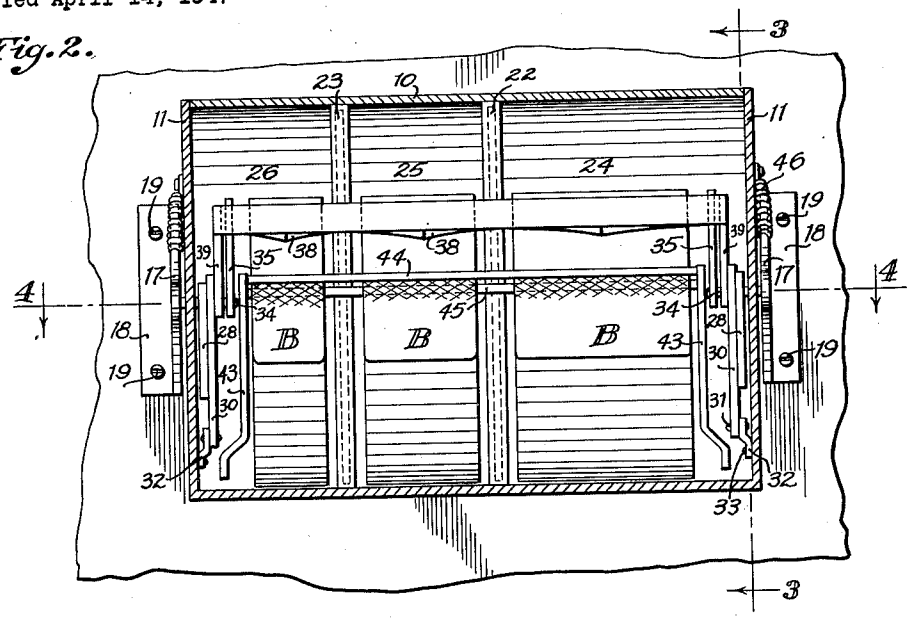


Fig. 7.

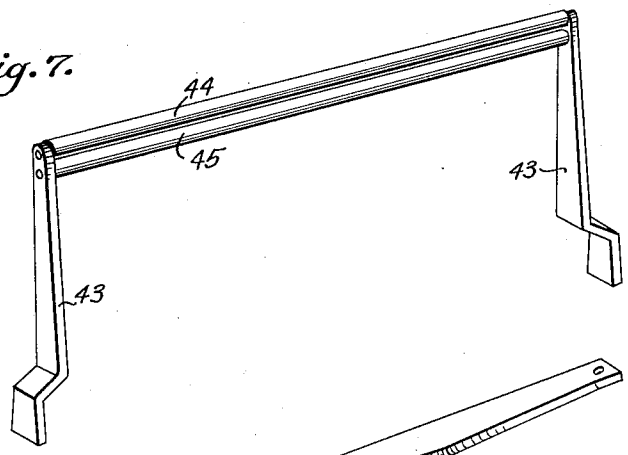


Fig. 8.

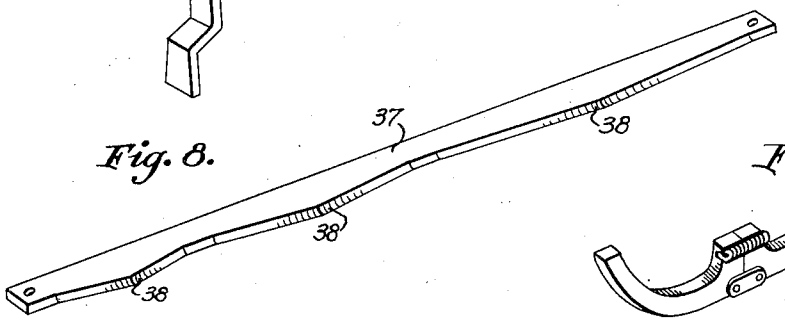
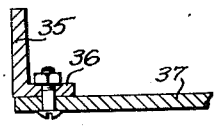


Fig. 10.

Fig. 9.



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TAPE HOLDING AND CUTTING DEVICE

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Application April 14, 1947, Serial No. 741,337

6 Claims. (Cl. 242—55.4)

1

The invention relates to tape holding and cutting devices, and its general object is to provide a device that includes a casing for housing several rolls or spools of adhesive tape or the like of various widths, the tape being removable from any one of the rolls and cut in strips of any desired lengths, in an easy and expeditious manner.

Another object of the invention is to provide a tape holding and cutting device in which the cutting means thereof is automatic in its action, that is, when the desired length of tape is removed from the roll, a slight jerk on the length removed will render the cutting means active and cause the same to sever the tape, with the result it is possible for the user to remove a strip from the roll, with one hand, while the other hand is being used for holding a bandage or for another purpose.

A further object of the invention is the provision of a device of this character, wherein the mechanism for holding the tape and the cutting of the same is confined within a casing, so that it cannot collect dirt or dust, while the rolls of tape will be protected from the weather elements.

A still further object of the invention is the provision of a device of this character, wherein a free portion of the tape can be readily and easily grasped, when it is desired to remove a length thereof from a roll within the casing of the device.

A still further object of the invention is the provision of a device of this character, wherein the cutting means is guarded against any possibility of the user cutting or injuring the hands, during the process of removing and cutting the tape.

A still further object of the invention is the provision of a device of this character, which is simple in construction, thoroughly reliable and efficient in operation, strong, durable, susceptible of being hung from a support, readily and easily operated, and inexpensive to manufacture and install.

With these and other objects in view, the invention consists in the features of construction, combination and arrangement of parts as will be hereinafter more fully described, illustrated in the accompanying drawings, which disclose the preferred embodiment of the invention and pointed out in the claims hereunto appended.

In the accompanying drawings:

Figure 1 is an end elevation of the device constructed in accordance with the invention, the door by dotted lines being shown in an open position.

2

Figure 2 is a sectional view taken on the line 2—2 of Figure 1 looking in the direction of the arrows.

Figure 3 is a sectional view taken on the line 3—3 of Figure 2 looking in the direction of the arrows.

Figure 4 is a sectional view taken on the line 4—4 of Figure 2 looking in the direction of the arrows.

Figure 5 is a fragmentary sectional view similar to Figure 3 showing the cutting mechanism in a cutting position.

Figure 6 is an exploded perspective view of cooperating parts of the cutting mechanism.

Figure 7 is a perspective view of the tape rack of the device.

Figure 8 is a perspective view of the cutter blade.

Figure 9 is a sectional view taken on the line 9—9 of Figure 4 looking in the direction of the arrows.

Figure 10 is a perspective view of the door prop.

Similar reference characters indicate corresponding parts throughout the several views in the drawings.

Referring to the drawings in detail, it should be noted that the device constituting the present invention includes a substantially cylindrical casing 10 having end walls 11 and a portion of the cylindrical wall, is in fact a door 12 hinged as at 13 for vertical swinging movement, and is supported in an open position by a break-jointed prop or bracket 14 whereby a longitudinally disposed opening or mouth 15 is provided in said cylindrical wall. Through this mouth 15 is dispensed the required length of tape, as may be cut in a manner presently described.

The end walls 11 have fixed thereto and extending centrally and inwardly therefrom, studs 16 providing trunnions carried by a pair of spaced parallel brackets 17 outside of the casing 10, with the casing disposed therebetween, as shown in Figures 1, 2 and 3, of the drawings. The brackets 17 increase in width toward the rear ends thereof and formed on the rear ends and extending outwardly at right angles thereto are attaching ears 18, the latter having openings therein for receiving screws or other fastening means 19 for securing the brackets to a wall, or other support, as indicated in said Figures 1, 2 and 3.

The end walls 11 also have lugs 20 secured to and extending laterally therefrom for engaging with stops 21 cut and struck inwardly from the

brackets 17 adjacent to the rear portions thereof for disposal in the path of the lugs 20, to limit rearward movement of the casing to its normal position in a rotary direction, as best seen in Figure 1 of the drawings.

Secured within the casing 10, in the form shown, are two disk-like partitions 22 and 23, respectively, the partitions each including a pair of walls having peripheral flanges formed thereon and directed toward each other for disposal in engagement, as shown in Figure 4, of the drawings. The partition 22 is arranged midway of the ends of the casing to provide a wide space or compartment 24, and the partition 23 is arranged adjacent to one end wall to provide an intermediate compartment or space 25, and an end compartment or space 26. Each of the spaces or compartments is adapted to receive a roll A of adhesive tape B, the rolls being variable in widths in accordance with that of the compartments or spaces, that is the compartment 24 is for a roll or spool of two inch tape, the compartment 25 for a roll of one inch tape, and the compartment 26 for a roll of one-half inch tape. However, the device can be made from only one roll or spool of tape of any width or for more than three rolls, as will be apparent.

Within the casing 10, near the end walls 11 thereof, and keyed or splined at 27 to the studs or trunnions 16 are forwardly and downwardly curved arms 28 having at their lower ends pivots 29, connecting thereto upright rocking levers 30 for operating the cutting means and guard therefor. These levers 30 at their lower ends are pivoted at 31 to short links 32, which are also pivoted at 33 to the end walls 11 below the studs or trunnions 16, as best shown in Figure 5 of the drawings. The upper ends of the levers 30 are rearwardly directed and secured to and extending inwardly and laterally therefrom are pins 34.

The cutting means includes a pair of substantially arcuate shaped arms 35 disposed upon opposite ends of the studs or trunnions 16, which constitute pivots therefor, these arms 35 being reduced toward their forward ends, and the latter are bent downwardly and terminate in inwardly directed ears 36 which have secured thereto and bridging the same a cutter bar 37, the latter being formed with substantially triangular shaped blades 38. There are in this instance three blades 38, one for each compartment or space, and each blade is of a length co-extensive with the width of its companion compartment, as best shown in Figures 2 and 4 of the drawings, with its beveled knife edge directed toward the compartment, as will be apparent.

The guard for the cutting means is of enlongated substantially U-shape, to provide limbs 39 that have their rear ends curved downwardly and are likewise pivotally mounted on the studs or trunnions 16, for disposal of the bight portion 40 of such guard adjacent to and in advance of the cutter bar 37. The limbs 39 each has an arcuate slot 41 extending along the length thereof, while the arms 35, each has an oppositely positioned arcuate shaped slot 42 arranged therein and being curved upwardly from and adjacent to the pivot point thereof, as best shown in Figure 5 of the drawings. The rear ends of the slots 41 and 42 terminate substantially in alignment with each other, and mounted in the slots are the pins 34 that are secured to the outer ends of the levers 30.

Within the casing 10 at the delivery side of the device is a rack 43 having the closely arranged

horizontally disposed upper and lower guide rolls or rods 44 and 45, respectively, between which a slot is provided through which the tape B is threaded, this rack 43 being made fast and in an upstanding position in confronting relation to the mouth 15, through which the severed tape is acquired.

The casing 10 at the end walls 11 thereof and exteriorly of the same, has a pair of coiled springs 46 attached thereto, these being also attached to the brackets 17, rearwardly of the said casing, and such springs urge and hold the latter in its normal position.

In the operation of the device, it might be mentioned that a length of tape is first removed from the roll and the latter is then placed within its compartment. The length or portion which is indicated at C is arranged for disposal through the mouth 15, so that it can be conveniently grasped. When it is desired to remove a length of tape from the roll, the portion C is gripped and pulled outwardly in substantially a horizontal plane, which results in the tape being unwound from the roll. When the desired length is reached, the portion C is then given a quick downward movement or jerk. That movement results in the casing 10 partially rotating forwardly against the action of the springs 46. The forward rotation of the casing 10 moves the upper ends of the levers 30 forwardly, as shown in Figure 5 of the drawings, and such movement causes the pins 34 to ride forwardly in the slots 41 and 42 for rocking the cutting means and the guard, they being lowered simultaneously, but due to the fact that the arcuate slots 42 are upwardly directed, the cutter bar will move ahead of the bight portion of the guard adjacent to the end of the downstroke of the latter, and such movement of the cutter bar will cause the blade to sever the tape, as will be apparent upon inspection of Figure 5. After the strip has been severed, a relatively long portion remains to be grasped when it is desired to remove and sever a subsequent strip of tape from the roll.

What I claim is:

1. A tape holding and cutting device comprising a casing for housing a roll of tape and having a mouth therein for the passage of a length of tape from the roll therethrough, bracket means with the casing mounted for rotation thereon, means to limit rotation of the casing in one direction, means for urging and holding the casing to and in its normal position, cutting means positioned in the casing and connected to the bracket means for rocking movement, and means for moving the cutting means against said length of tape for severing the same upon rotation of the casing with a quick movement in an opposite direction.

2. A tape holding and cutting device comprising a casing for housing a roll of tape and having a mouth therein for the passage of a length of tape from the roll therethrough, bracket means with the casing mounted for rotation thereon, means to limit rotation of the casing in one direction, means for urging and holding the casing to and in its normal position, cutting means connected to the bracket means for rocking movement, means for moving the cutting means against said length of tape for severing the same upon rotation of the casing in an opposite direction, and guard means for the cutting means and connected to the bracket means and the cutting means for movement with the latter.

3. A tape holding and cutting device compris-

ing a casing for housing a roll of tape and having a mouth therein for passage of a length of tape from the roll therethrough, bracket means with the casing mounted for rotation thereon, means to limit rotation of the casing in one direction, means for urging and holding the casing to and in its normal position, cutting means connected to the bracket means for rocking movement, means for moving the cutting means against said length of tape for severing the same upon rotation of the casing in an opposite direction, means providing a slot within the casing for passage of the tape, said cutting means being arranged relative to the slot to leave a length of tape projecting therethrough after the severing operation, and said casing being recessed to provide the mouth below the slot to facilitate gripping the length of tape projecting therethrough.

4. A tape holding and cutting device comprising a casing for housing a roll of tape and having a mouth therein for the passage of a length of tape from the roll therethrough, bracket means with the casing mounted for rotation thereon, means to limit rotation of the casing in one direction, means for urging and holding the casing to and in its normal position, cutting means including arms having one of their ends pivotally connected to the bracket means, means providing a slot within the casing for passage of the tape, a b'ade carrying cutter bar secured to and bridging the arms for disposal along the length of the slot, and levers having connection with the arms, the bracket means and the casing, whereby upon movement of the casing in an opposite direction the blade is moved against said length of tape for severing the same.

5. A tape holding and cutting device comprising a casing for housing a roll of tape and having a mouth therein for the passage of a length of tape from the roll therethrough, bracket means with

the casing mounted for rotation thereon, means to limit rotation of the casing in one direction, means for urging and holding the casing to and in its normal position, cutting means including arms having one of their ends pivotally connected to the bracket means, means providing a slot within the casing for passage of the tape, a blade carrying cutter bar secured to and bridging the arms for disposal along the length of the slot, levers having connection with the arms, the bracket means and the casing, whereby upon movement of the casing in an opposite direction the blade is moved against said length of tape for severing the same, guard means for the cutting means and including limbs connected to the pivots of said arms, and means of connection between the levers and said limbs for movement of the guard means with the cutting means.

6. A tape holding and cutting device comprising a substantially cylindrical casing, partitions arranged in said casing for dividing the same into compartments, each compartment being adapted to receive a roll of tape, said casing having a longitudinally disposed opening providing a mouth in its cylindrical wall, a hinged door for closing the opening, spaced parallel brackets having the casing mounted for rotation thereon and between the same, abutment means on the brackets, means on the casing and engaged with the abutment means to limit rotation of the casing in one direction to a normal position, means for urging and holding the casing to and in its normal position, cutting means connected to the brackets for rocking movement, and means for moving the cutting means against any one of the lengths of tape from the rolls for severing the same upon rotation of the casing in an opposite direction.

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No references cited.