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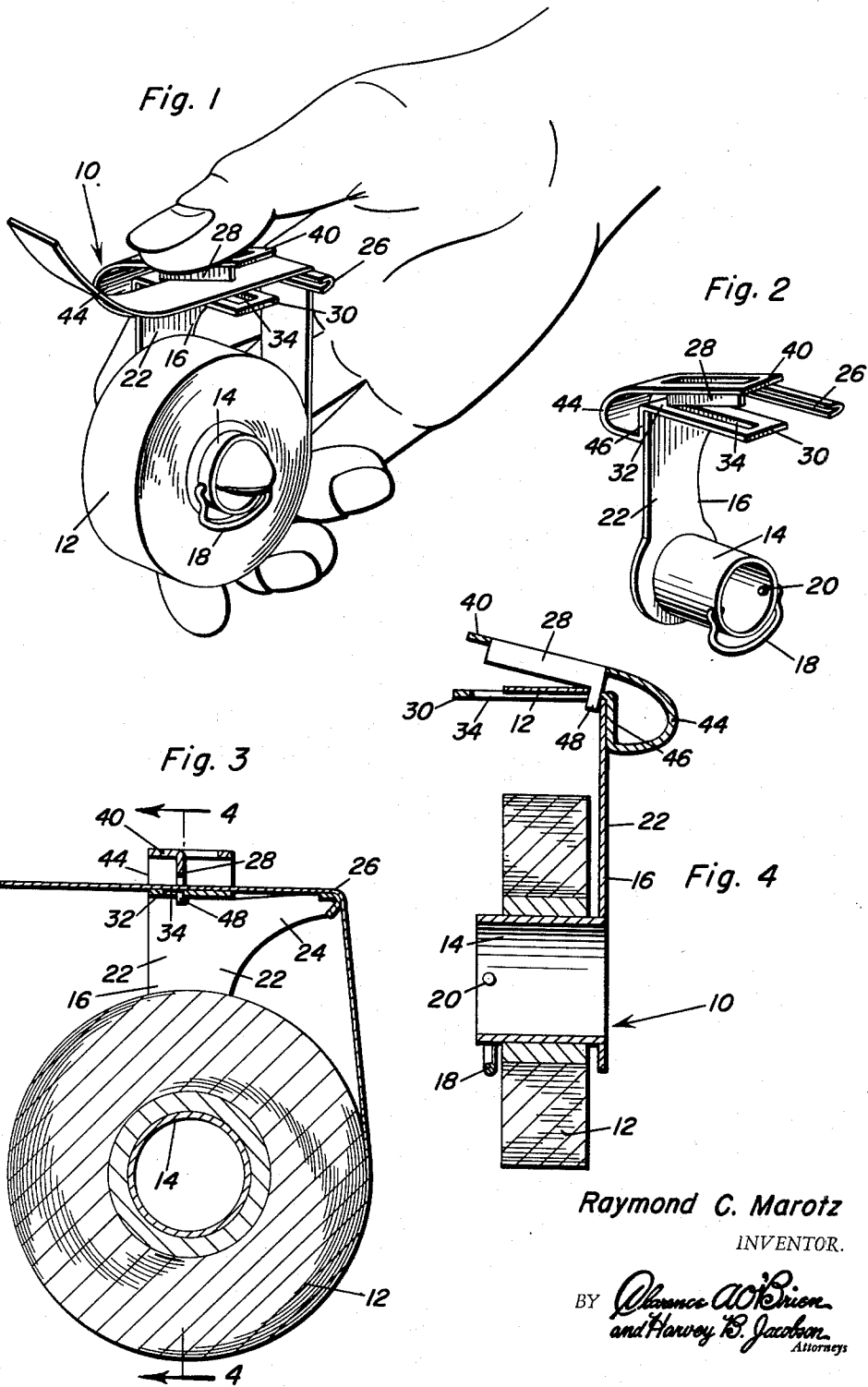
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TAPE CUTTER

Filed March 25, 1959

2 Sheets-Sheet 1



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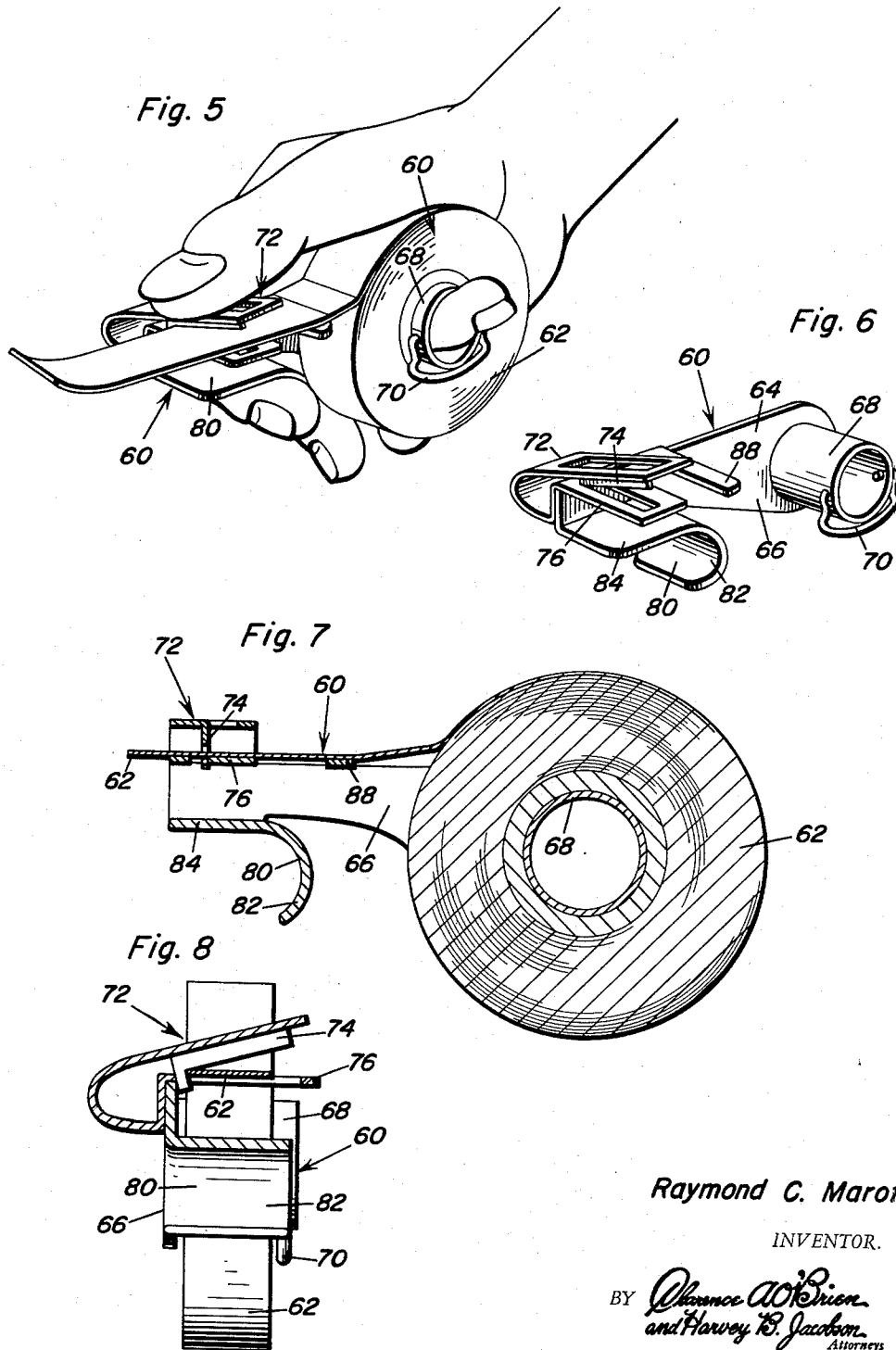
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TAPE CUTTER

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5 Claims. (Cl. 30-124)

This invention relates to cutters and more particularly to tape cutters.

An object of the invention is to provide a practical, easily operated, small and lightweight cutter for tape of all types and especially electrician's tape.

Another object of the invention is to provide a cutter which materially reduces the effort involved in cutting tape and at the same time enables the user to select a piece of tape any length that he desires after which it may be cut neatly, rapidly and with precision.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

FIGURE 1 is a perspective view of one form of the cutter showing the same in use.

FIGURE 2 is a perspective view of the cutter in FIGURE 1.

FIGURE 3 is a longitudinally sectional view of the cutter in FIGURE 2.

FIGURE 4 is a sectional view taken on the line 4-4 of FIGURE 3.

FIGURE 5 is a perspective view of another form of the cutter showing it in use.

FIGURE 6 is a perspective view of the cutter in FIGURE 5.

FIGURE 7 is a longitudinal sectional view of the cutter in FIGURE 5.

FIGURE 8 is a transverse sectional view of the cutter in FIGURE 7.

In the accompanying drawings reference is first made to FIGURES 1-4 inclusive. Cutter 10 is shown in these figures, with FIGURES 1, 3 and 4 illustrating a typical roll of tape 12. The cutter is made preferably of metal and has a spool 14 at one end of a frame 16 and on which the roll of tape 12 is mounted for free rotation. A spring clip 18 having its ends projected through aligned openings 20 near the outer end of the spool, functions as a retainer to prevent the roll of tape 12 from separating from its spool 14. The clip is easily removed by separating its ends from apertures 20 and replaced by snapping the ends of the clip in the same apertures 20.

Frame 16 comprises a flat-faced rigid plate 22 with an extending portion 24 at one corner thereof. A tape guide arm 26 is integral with portion 24 and extends at right angles to the plane of one side or face of the plate 22. Guide 26 has a cross-sectional shape in the form of a rounded V to present a smooth curved outer surface over which the tape is placed.

The severing of the tape takes place by placing the tape between the movable cutter member 28 and the fixed cutter member 30. Fixed cutter member 30 is in the form of a flat plate 32 having a slot 34 therein. An edge (FIGURE 3) of the slot cooperates with the lower edge of the essentially rectangular movable cutter 28 to obtain the necessary shearing action for severing the tape. Movable cutter 28 may be struck from an essentially flat panel 40 or may be otherwise fixed to a panel or element (FIGURE 2), and the other end has a curved loop 44 of spring material terminating in an integral connection with an upstanding flat wall 46 that fits flush against the outside surface of the upper portion of plate 22 and that is adhered thereto, for instance by being welded, soldered, riveted, formed integral therewith or otherwise connected.

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Plate 32 extends laterally outward from the plane of plate 22 and is located above spool 14.

The movable cutter member 28 has a short finger 48 which occupies slot 34 at all times to prevent the cutter member 28 from becoming misaligned with the slot 34 and to guide the movable cutter in its severing operation.

In use, a selected length of tape is pulled from the roll of tape 12 and placed across guide 26 and the fixed cutter member 30. Then with a single motion, the movable cutter 28 is depressed so that it enters slot 34, severing the tape in a neat clean cut. Loop 44 is made of spring material, for instance spring steel. The entire device may be made of spring metal, but the only part that is actually necessarily constructed of spring metal or other spring substance is loop 44. The bias of the spring material is such to maintain the movable cutter in an elevated position such as shown in FIGURE 2 so that tape 12 is easily placed between the movable and fixed cutters for the severing operation.

FIGURES 5-8 illustrate a second form of the cutter.

In these figures there is shown a cutter 60 constructed very much along the lines of cutter 10. Here again, the cutter is to be used with a roll of tape 62, and the tape may be of any type, preferably electrical tape or tape used prevalently in a number of trades. Cutter 60 has a frame 64 constructed of a flat plate 66. Spool 68 is attached near one end of the flat plate and is perpendicular to the plane of plate 66. A spring clip 70 identical to spring clip 18, is connected with spool 68 and serves a purpose similar to clip 18. A cutter assembly 72 having a movable cutter member 74 and a fixed cutter member 76 identical to the corresponding cutter assembly of FIGURE 2, is attached to plate 66 along one side edge thereof instead of along an end edge as in cutter 10. Finger grip 80 is connected to flat plate 66 along the side edge opposite to the side edge at which cutter assembly 72 is secured. The finger grip 80 has a curved portion 82 and a flat portion 84 integral therewith and approximately parallel to the fixed cutter member 76.

In use, a piece of tape 62 of the desired length, is stretched across guide 88 which responds in purpose to guide 26, and the fixed cutter member 76 of cutter assembly 72. The movable cutter member 74 is then depressed by the thumb (FIGURE 5) thereby severing the tape to the desired length.

In both illustrated forms of the cutter the spools are made hollow and they are registered with an aperture in the frames of the cutters so that one of the fingers of the user may pass thereto. The entire cutter is designed to be used in one hand so that the passing of the finger into the spool serves to support the cutter. When held in this way the thumb of the user is free to depress the movable cutter during the tape severing operation.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. In a tape cutter, a single flat-faced plate, means on said plate to support a roll of tape, a one-piece cutter assembly connected with said plate and including a fixed cutter member lateral to one face of said plate, and a movable cutter member, said fixed cutter member having a slot, said movable cutter member having a blade movable into said slot and adjacent to an edge of said slot to sever the tape, resilient means connected with said movable cutter member and said plate for opposing the movement of said movable cutter in one direction and for re-

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turning said movable cutter to a rest position, a finger attached to one end of said blade and always occupying a portion of said slot to guide said movable cutter and also to prevent said movable cutter from becoming misaligned relative to said slot.

2. In a tape cutter, a single rigid plate providing a frame, a tubular spool on said plate to support a roll of tape, a spring retainer clip removably mounted on one end of said spool, a cutter assembly connected with said frame and including a fixed cutter member and a movable cutter member, said fixed cutter member attached to said plate and having a slot, said movable cutter member movable into said slot and adjacent to an edge of said slot to sever the tape, resilient means connected with said movable cutter member and said frame for opposing the movement of said movable cutter in one direction and for returning said movable cutter to a position, a finger attached to said movable cutter, said finger lateral to said movable cutter and constantly occupying a functioning position at an end portion of said slot to guide said movable cutter and also to prevent said movable cutter from becoming misaligned with said slot, and a tape tautening guide attached to and projecting laterally from said frame and located between but spaced from said cutter members and said spool.

3. A holder, dispenser and cutter for a roll of tape comprising, in combination, a frame embodying a single planar plate provided adjacent one end with an aperture providing a finger opening, provided at said one end with a relatively short open-ended tubular spool attached at one end to and projecting laterally from one side of said plate in alignment with said aperture permitting the user to insert a finger through the aperture and to pass the same through the passage in said tubular spool, said spool serving to support the roll of tape, a relatively stationary cutter member fixedly mounted at the other end of said plate and spaced from one side of the spool and parallel to the spool and provided with a slot, a guide for the free end portion of the tape fixed on said plate and extending at right angles from the plate, said guide being parallel with and spaced from said cutter member to permit the tape coming from the spool to be trained over an intended edge of the guide and then passed over the slotted portion of the cutter member, and a relatively movable spring biased cutter member mounted opposed to and movable toward and from the stationary cutter member and provided with a cutter blade normally spaced from the slot but movable into the slot when finger pressure is applied to the movable cutter, said cutter blade provided

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at one end with a finger, said finger extending into the cooperating end portion of the slot and serving to key the cutter blade with the slot in a manner to maintain constant alignment between the blade and slot.

5 4. The structure defined in claim 3 and wherein the stationary and movable cutter members have corresponding end portions thereof joined together by way of a loop-like spring, and a hook-shaped finger-grip mounted on said other end portion of said plate and disposed in spaced parallelism relative to the axis of said spool.

10 5. A holder, dispenser and cutter for a roll of tape adapted to be held in and operated by a single hand comprising a planar plate provided at one end portion with an open-ended tubular spool having an end thereof attached to the plate, said plate provided with a finger hole aligned with the passage in said spool, means removably mounted on a free end portion of the spool for removably holding the roll of tape in operative rotatable position on the spool, said plate being provided at the end opposite the spool with an extension, and said extension being provided with a right angularly disposed tape guide parallel with but spaced from said spool, and a one-piece cutter assembly fixedly mounted for operation on an end portion of the plate opposite to that on which said spool is mounted, said cutter assembly including a fixed cutter member extending at right angles from the plate at one side of the plate, a movable cutter member opposed to the fixed cutter member, like ends of said members being connected by a loop-like spring which serves to separate and keep the members normally separated but permits the movable cutter member to be forcibly pressed toward and against the fixed cutter member, said fixed cutter member having a slot, said movable cutter member having a laterally disposed cutter blade, said cutter blade being aligned with and forcibly movable into the slot, and said guide being generally coplanar with and spaced from said stationary cutter member.

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