Aug. 5, 1958 P. CASTIGLIONE 2,846,106

DEVICE FOR DISPENSING AND APPLYING AN ADHESIVE TAPE

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Fig. 1.

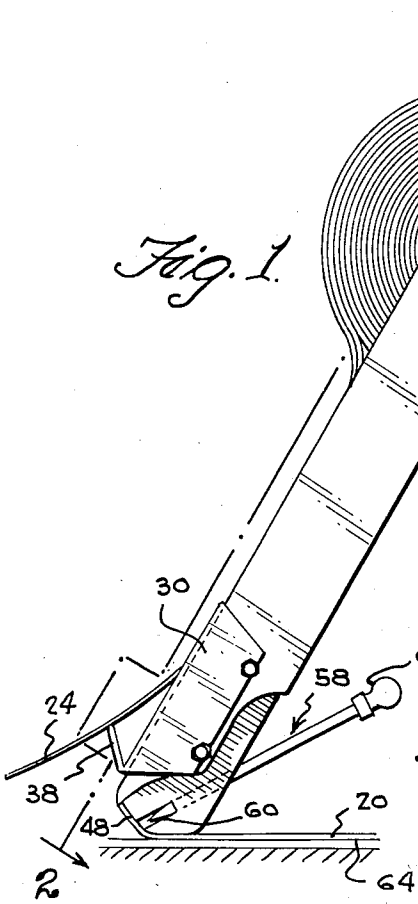


Fig. 3

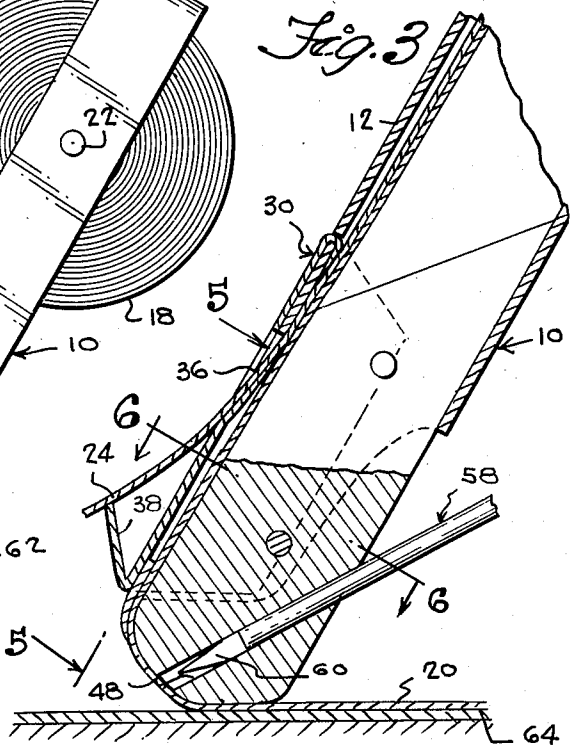


Fig. 4

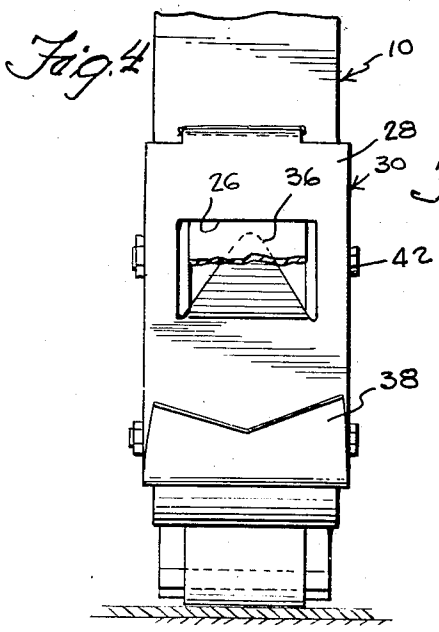
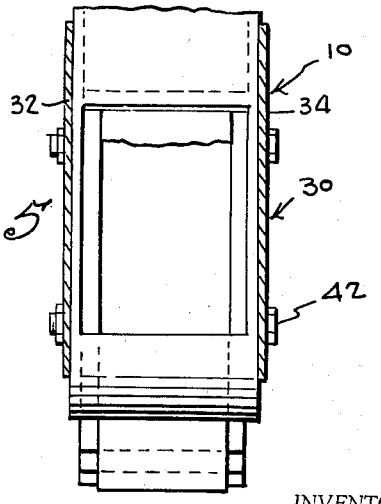


Fig. 5

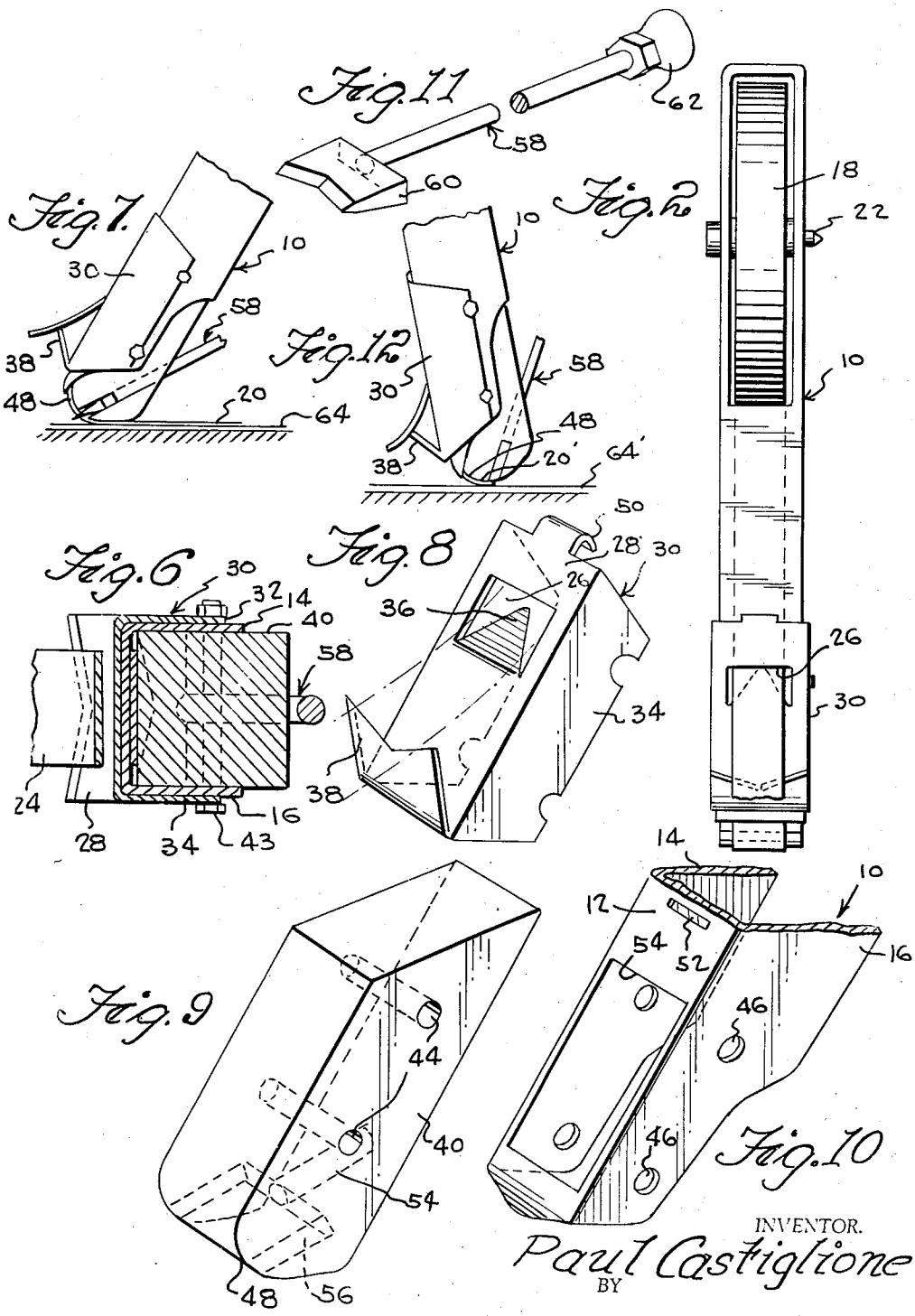


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DEVICE FOR DISPENSING AND APPLYING AN ADHESIVE TAPE

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2,846,106

DEVICE FOR DISPENSING AND APPLYING AN ADHESIVE TAPE

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3 Claims. (Cl. 216—21)

The present invention relates to a device for dispensing and applying an adhesive tape.

An object of the present invention is to provide a device for dispensing and applying an adhesive tape to a surface.

Another object of the present invention is to provide a device for dispensing and applying an adhesive tape which lends itself to one hand operation, one having a simple structure, one sturdy in construction and economical to manufacture and assemble, and one which is highly effective in action.

These and other objects and advantages of the present invention will be fully apparent from the following description when taken in connection with the annexed drawings, in which:

Figure 1 is a side elevational view of the device of the present invention, showing in a position of use applying a tape to a surface;

Figure 2 is a view taken on the line 2—2 of Figure 1;

Figure 3 is a fragmentary sectional view, on an enlarged scale, of a portion of the assembly shown in Figures 1 and 2;

Figure 4 is a fragmentary elevational view of the front portion of the device;

Figure 5 is a sectional view taken on the line 5—5 of Figure 3;

Figure 6 is a sectional view taken on the line 6—6 of Figure 3;

Figure 7 is a fragmentary elevational view, on a reduced scale, showing how the device of the present invention is pushed along a surface to be taped;

Figure 8 is an isometric view of a portion of the device;

Figure 9 is an isometric view of another portion of the device of the present invention;

Figure 10 is an isometric view of still another portion of the invention;

Figure 11 is an isometric view of a blade member used in the device; and

Figure 12 is an elevational view similar to Figure 7, showing how the tape is started on the surface of the article to be taped.

Referring in greater detail to the drawings in which like numerals indicate like parts throughout the several views, the device of the present invention comprises a handle of U-shaped cross-sectional configuration arranged in an upwardly sloping direction and having a web 12 and a pair of spaced parallel flanges 14 and 16 projecting perpendicularly from the web 12. The exterior surface of the web 12 constitutes a front face and the interior surface of the web 12 constitutes a rear face. The web 12 is cut away adjacent one end of the handle 10 to form a slot in which is mounted a wound roll of tape having a free end, the roll being designated by the reference numeral 18 in the free end, shown in Figures 1, 3 and 7, being designated by the reference numeral 20. The roll 18 is mounted upon a pin 22 for free rotation while unwinding about the pin 22 as an axis transverse of the handle 10 and adjacent to and inwardly of the upper end of the handle 10. The pin 22 traverses the slot provided in the upper end portion of the handle 10.

The tape on the roll 18 is of the type having one face carrying an adhesive coating with a separable ribbon covering the face having the coating. A portion of the ribbon after separation from the tape is shown in Figures 1 and 3 and designated by the reference numeral 24.

The front face of the handle 10 below and spaced from the roll 18 is provided with a slot 26. Most conveniently, the slot 26 is provided in the web 28 of a channel-shaped piece 30 which has its flanges 32 and 34 overlying and embracingly engaging the flanges 14 and 16 of the handle 10.

The space between the flanges 14 and 16 adjacent the inner surface of the web 12 constitutes a tunnel extending along the rear face of the handle 10 inwardly from the lower end of the handle 10 and terminating at a point adjacent to and below the roll 18.

The piece 30 is provided with a fixed pointed tongue 36 positioned within the tunnel so formed so that the point thereof faces toward the roll 18 and is inwardly of the upper wall of the slot 26 provided in the piece 30. The base portion of the tongue 36 is formed contiguously with the web 28 of the piece 30 and is in registry with the slot 26 provided in the piece 30.

A guide element 38 provided on its upper end with a knife blade projects in an upwardly direction from the front face of the piece 30 adjacent the lower end of the handle 10 and has the knife blade, of V-shape, spaced below and in alignment with the slot 26.

A block 40 is inserted into the lower end portion of the handle 10 with the front face thereof under the web 12 of the handle 10 and with its side faces embracingly engaged by the flanges 14 and 16 of the handle 10. The block 40 is secured to the lower end portion of the handle 10 by means of nut and bolt assemblies 42 which extend through appropriately spaced bores 44 in the block 40 and aligned holes 46 in the flanges 14 and 16. The lower end portion of the block 40 is provided with a convexly curved face portion, as at 48 in Figure 9, which provides a tape directing and applying surface as shown in Figures 1, 3, 7 and 12.

The piece 30 is provided on its upper end with a lip 50 which is received within an appropriately arranged slot 52 in the web 12 of the handle 10 upwardly of an opening 54 provided in the web 12.

The block 40 is provided with a bore 54 extending inwardly from the rear face thereof and terminating at the rear face of a chamber 56 provided in the block 40 which has its forward end opening out of the tape directing and applying surface 48 of the block 40. A blade member 58 having a cutting head 60 on one end and a handle 62 on the other end is positioned with the portion adjacent the end having the handle 62 exteriorly of the rear face of the handle 10 and with the cutting head 60 within the chamber 56. The blade member 58 is reciprocatingly mounted in the block 40 for movement from the position in which the cutting edge of the head 60 is inwardly of the surface 48 to a position in which the cutting edge projects out of the surface 48 to thereby sever the separated tape as the latter moves over the surface 48.

A portion of the tape received from the roll 18 adjacent the free end thereof is movable in response to unwinding movement of the roll 18, the tape moving from the roll 18 into the tunnel provided between the flanges 14 and 16 of the handle 10 and upon being moved through the tunnel thus formed having in turn the end edge penetrated between the separable ribbon 24 and one face of the tape carrying the adhesive coating by the point of the tongue 36 to separate the ribbon 24 from the tape, the separated ribbon 24 being moved out of the slot 26 in the piece 30 and over the knife blade of the guide element 38. The tape, separated from the ribbon 24, moves along and out of the tunnel and over the directing and applying surface 48 and backwardly along in abutting

engagement with a surface **64** to which the tape is to be applied. In Figure 3, the free end portion **20** of the tape has been secured to the surface **64** and in Figure 7 the blade member **58** has been manually advanced to a position in which the cutting edge of the head **60** projects outwardly of the chamber **56**, severing the tape and leaving the end portion **20** of the tape securely fixed to the surface **64**.

The portion of the tape still projecting over the forward portion of the surface **48** may be next applied to another surface to be taped, as shown in Figure 12, by rocking movement of the handle **10** in a counterclockwise direction to a position in which the surface **48** is downwardly with an end portion **20'** of the tape between the surface **48** and the surface **64'**. The device of the present invention is now in position for moving once more to the upwardly sloping direction position shown in Figures 1, 3 and 7, in which the device may be pushed along the surface **64** drawing from the tunnel formed therein the adhesive tape and applying the same to the surface to be taped. At intervals, the ribbon **24** may be severed by drawing the same over the cutting edge or knife blade of the guide element **38**.

Although the device has been described for use with an adhesive tape having a separable ribbon covering the adhesive coating on the tape, it is to be understood that it may be used for tape without such separable ribbon.

While only a single embodiment of the present invention has been shown and described, other embodiments are contemplated and numerous modifications and changes may be made therein without departing from the spirit of the invention as set forth in the appended claims.

What is claimed is:

1. A device for dispensing and applying an adhesive tape comprising a handle arranged in an upwardly sloping direction and having a front face and a rear face, a wound roll of tape having a free end supported in said handle for free unwinding rotational movement about an axis transverse of said handle adjacent the upper end thereof, said tape having one face carrying an adhesive coating and a separable ribbon covering said one face, there being a slot in the front face of said handle below and spaced from said roll, said handle being formed with a tunnel extending along said rear face inwardly from the lower end of said handle to a point adjacent to and below said roll, a fixed pointed tongue positioned within said tunnel so that the point faces toward said roll and inwardly of the upper wall of said slot and spaced below said roll with the base portion thereof in registry with said slot, and a guide element projecting in an upwardly direction from the front face of said handle adjacent the lower end and having the upper end below and in alignment with said slot, the lower end of said handle being convexly curved so as to provide a tape directing and applying surface, the portion of the tape adjacent the free end being movable responsive to unwinding movement of said roll from said roll into said tunnel and upon being moved through said tunnel having in turn the end edge penetrated between said separable ribbon and the one face carrying the adhesive coating by the point of said tongue to separate the ribbon from said tape and the separated ribbon moved out of said slot and over said guide element and the separated ribbon moved along and out of said tunnel and over said directing and applying surface and backwardly along in abutting engagement with a surface to which the adhesive face is to be applied.

2. A device for dispensing and applying an adhesive tape comprising a handle arranged in an upwardly sloping direction and having a front face and a rear face, a wound roll of tape having a free end supported in said handle for free unwinding rotational movement about an axis transverse of said handle adjacent the upper end thereof, said tape having one face carrying an adhesive coating and a separable ribbon covering said one face, there being a slot in the front face of said handle below and spaced from said roll, said handle being formed with a tunnel extending along said rear face inwardly from the lower end of said handle to a point adjacent to and below said roll, a fixed pointed tongue positioned within said tunnel so that the point faces toward said roll and inwardly of the upper wall of said slot and spaced below said roll with the base portion thereof in registry with said slot, and a guide element projecting in an upwardly direction from the front face of said handle adjacent the lower end and having the upper end below and in alignment with said slot, the lower end of said handle being convexly curved so as to provide a tape directing and applying surface, the portion of the tape adjacent the free end being movable responsive to unwinding movement of said roll from said roll into said tunnel and upon being moved through said tunnel having in turn the end edge penetrated between said separable ribbon and the one face carrying the adhesive coating by the point of said tongue to separate the ribbon from said tape and the separated ribbon moved out of said slot and over said guide element and the separated ribbon moved along and out of said tunnel and over said directing and applying surface and backwardly along in abutting engagement with a surface to which the adhesive face is to be applied, said guide element being provided on its upper end with a knife blade for cutting the separated ribbon as it passes over said blade.

3. A device for dispensing and applying an adhesive tape comprising a handle arranged in an upwardly sloping direction and having a front face and a rear face, a wound roll of tape having a free end supported in said handle for free unwinding rotational movement about an axis transverse of said handle adjacent the upper end thereof, said tape having one face carrying an adhesive coating and a separable ribbon covering said one face, there being a slot in the front face of said handle below and spaced from said roll, said handle being formed with a tunnel extending along said rear face inwardly from the lower end of said handle to a point adjacent to and below said roll, a fixed pointed tongue positioned within said tunnel so that the point faces toward said roll and inwardly of the upper wall of said slot and spaced below said roll with the base portion thereof in registry with said slot, a guide element projecting in an upwardly direction from the front face of said handle adjacent the lower end and having the upper end below and in alignment with said slot, the lower end of said handle being convexly curved so as to provide a tape directing and applying surface, the portion of the tape adjacent the free end being movable responsive to unwinding movement of said roll from said roll into said tunnel and upon being moved through said tunnel having in turn the end edge penetrated between said separable ribbon and the one face carrying the adhesive coating by the point of said tongue to separate the ribbon from said tape and the separated ribbon moved out of said slot and over said guide element and the separated ribbon moved along and out of said tunnel and over said directing and applying surface and backwardly along in abutting engagement with a surface to which the adhesive face is to be applied, and a blade member having a cutting edge on one end thereof positioned in said handle so that said cutting edge is normally inwardly of said tape directing and applying surface and the portion adjacent the other end exteriorly of said handle rear face, said blade member being mounted in said handle for movement from the aforesaid position to a position in which said cutting edge projects out of said surface to sever the separated tape.

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