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Weick et al.

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[45] **Mar. 4, 1975**

[54] **ADHESIVE TAPE DISPENSER**

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[73] Assignee: **said Weick by said Trueb and said Hesener**

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[21] Appl. No.: **452,249**

Related U.S. Application Data

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[30] **Foreign Application Priority Data**

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Nov. 14, 1971 Switzerland 16536/71

[52] **U.S. Cl.** ..... **242/55.53,** 156/577, 248/205 A
[51] **Int. Cl.** **B65h 19/02**
[58] **Field of Search** ..... 242/55.2, 55.3, 55.53, 242/68; 248/205 A, 207, 309, 310, 314, 346, 349, 350; 225/39, 42, 46, 47; 156/574, 576, 577, 579

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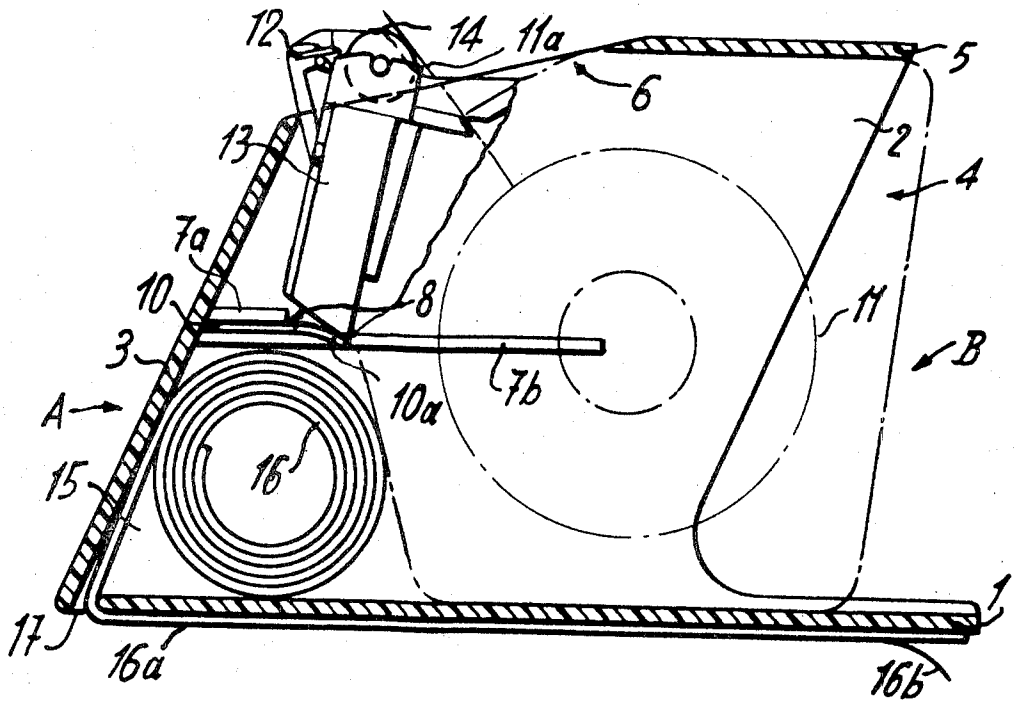
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Assistant Examiner—John M. Jillions
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[57] **ABSTRACT**

A self-supporting holder for a hand-held adhesive dispenser which comprises a seat for the dispenser and means for preventing displacement of the dispenser during withdrawal of tape therefrom. The holder will release the dispenser when desired and is so weighted or can be so secured that it will remain stationary on a support surface during withdrawal of tape from the dispenser.

6 Claims, 10 Drawing Figures



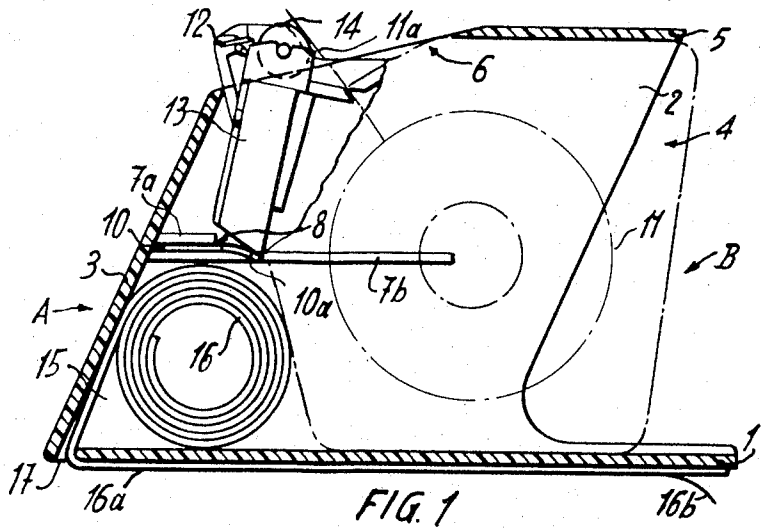


FIG. 1

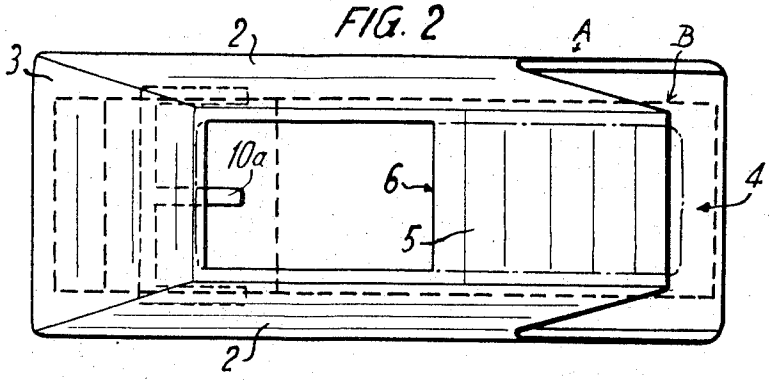


FIG. 3

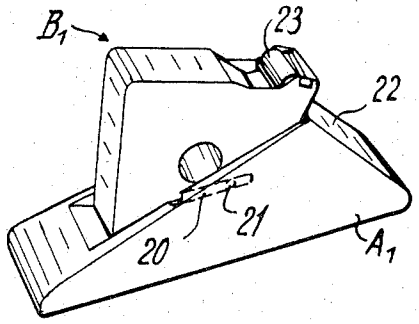
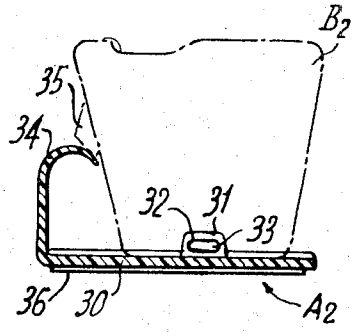


FIG. 4



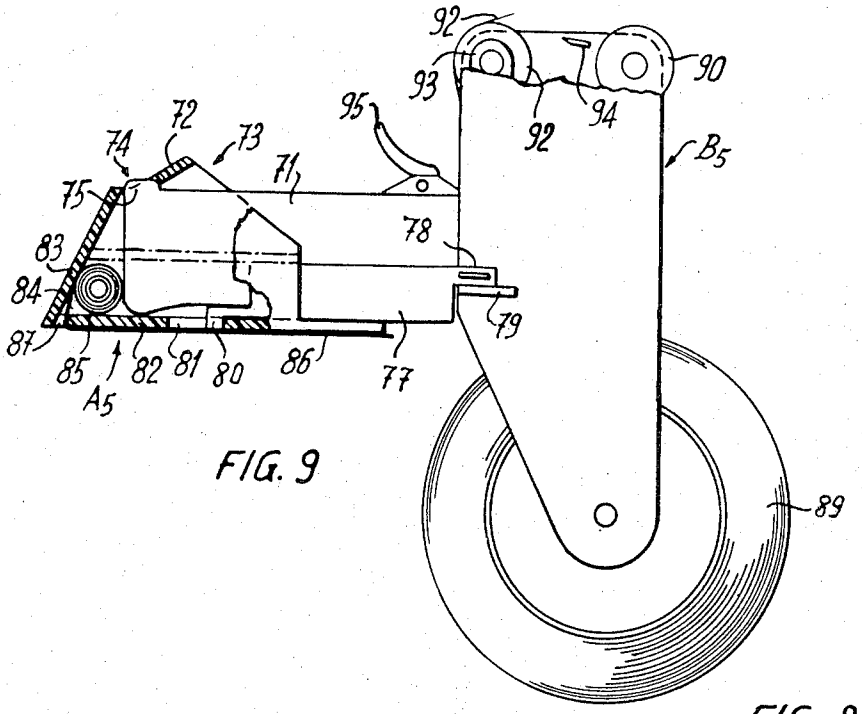


FIG. 9

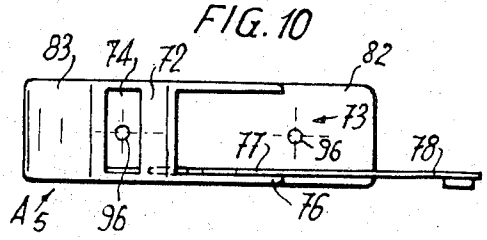


FIG. 10

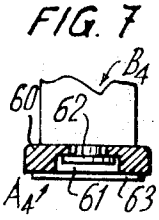


FIG. 7

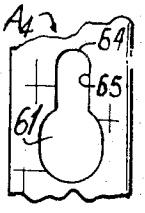


FIG. 8

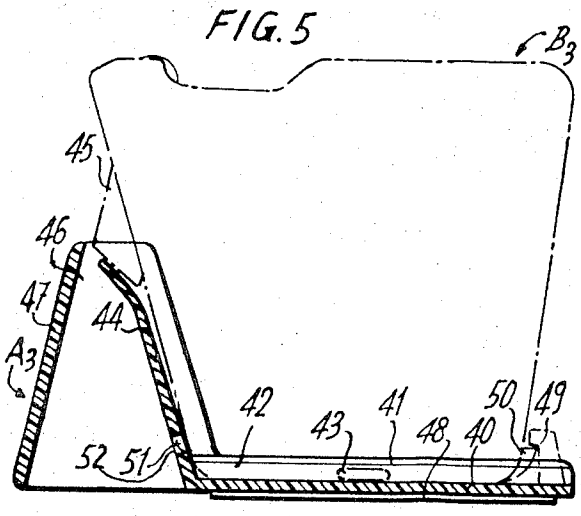


FIG. 5

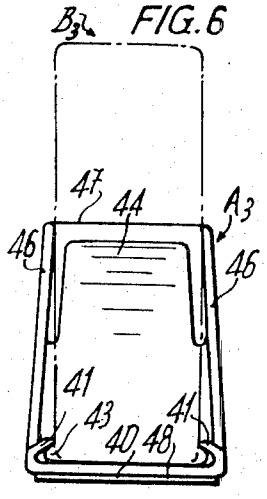


FIG. 6

ADHESIVE TAPE DISPENSER

This is a division of application Ser. No. 218,930 filed Jan. 19, 1972, now abandoned.

BACKGROUND OF THE INVENTION

This invention relates to adhesive tape dispensers.

Adhesive tape dispensers are generally one of two different types. One type is a hand-held dispenser which has to be grasped in one hand while tape is removed with the other hand and the other type is a self-supporting dispenser which can rest on a table-top and from which tape can be withdrawn with one hand only.

It is an object of this invention to provide a holder for a hand-held dispenser which can be used to convert a hand-held dispenser into a self-supporting dispenser and thus obviate the necessity of having two separate dispensers.

SUMMARY

According to the present invention, there is provided a self-supporting holder for a hand-held adhesive tape dispenser, which comprises a seat for the dispenser and means for preventing displacement of the dispenser during withdrawal of tape therefrom, the holder being adapted to release the dispenser when desired and being so weighted or being adapted to be so secured that it will remain stationary on a support surface during withdrawal of tape from the dispenser.

With the holder of this invention it is only necessary to have one manually held applicator and a holder. Adhesive tape can be removed as required from the dispenser when located in the holder placed on a table. If, however adhesive tape is required at any other place the applicator can be removed from the holder by a simple manipulation.

According to one embodiment of the invention, the bottom surface of the holder may be covered with an adhesive tape sticky on both sides to secure the holder to a flat surface and a chamber may be provided for holding reserve adhesive tape either in rolled or elonated form.

Whilst in most known dispensers the adhesive tape has to be pulled out by hand, hand-held dispensers with a double function are known. The adhesive tape is either pulled out by hand or is directly applied by moving the dispenser over the surface to be taped. Such dispensers have a manually operated member for changing the direction of the tape, this member being usually in the form of a sliding part. If this member is in its lower position, the adhesive tape being unwound runs lower than the cutting knife, so that a cutting action is avoided. When the member is in its upper position, the adhesive tape runs higher and the tape comes into contact with the knife and is severed thereby.

For use in conjunction with this kind of dispenser, a further embodiment of the invention incorporates a resilient member by the action of which the member for changing the direction of the tape is forced towards the band exit opening when the dispenser is positioned in the holder.

BRIEF DESCRIPTION OF THE DRAWINGS

In order that the invention may be more fully understood, preferred embodiments thereof will now be described, by way of illustration only, with reference to the accompanying drawings, in which:

FIG. 1 is a longitudinal section through a holder in the form of a casing into which the dispenser shown in broken lines is inserted;

FIG. 2 is a plan view of the holder of FIG. 1;

FIG. 3 is a perspective view of a shell-shaped holder with a dispenser placed therein;

FIG. 4 is a longitudinal section of a holder in the form of a plate or rail formed with lateral locking means;

FIG. 5 is a longitudinal section through a holder in the form of a plate or rail which is provided with a spring and groove connection;

FIG. 6 is a side view of the holder of FIG. 5;

FIG. 7 is a cross section of a holder in the form of a plate or rail which is formed with a keyhole slot for use with a bayonet joint;

FIG. 8 is a plan view of part of the holder of FIG. 7;

FIG. 9 is a longitudinal section through a holder for receiving a dispenser provided with a handle; and,

FIG. 10 is a plan view of the holder of FIG. 9.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

As shown in FIGS. 1 and 2, the holder A which is in the form of a casing adapted to receive a tape dispenser, has a trapezoidal vertical cross-section. Two broad side walls 2 are in the shape of a parallelogram so that the front wall 3 is inclined at an acute angle to the bottom plate 1. On the side opposed to the insertion opening 4, the upper wall 5 is provided with a forwardly inclined recess or opening 6. Two longitudinal ribs 7*a*, 7*b* of different lengths are formed on the inside of each side wall 2 and a longitudinal groove 8 open towards the rear is formed therebetween to receive a spring 10 which is E-shaped in plan and which with its outer limbs is in clamping engagement with side walls 2. The central limb 10*a* of the spring is downwardly bent.

A hand-held dispenser B shown in broken lines is formed so that adhesive tape can be manually withdrawn as well as applied directly. The dispenser B comprises in addition to a rotatably supported adhesive tape roll 11, a knife 12 and a slidable member 13 for changing the direction of the tape, the slidable member carrying a rotatable roller 14 at the end next to the knife 12. When it is not inserted in the holder, adhesive tape can be manually removed in the usual manner from the dispenser B. For directly applying adhesive tape, the dispenser is grasped in one hand and is inverted in respect to the position shown in the drawing and is passed over the article to be taped, the sliding member 13 being depressed during this movement by the index finger. In this manner the adhesive tape 11*a* is pressed by the roller 14 against the supporting surface. As soon as the sliding member 13 is released, the adhesive tape 11*a* comes into contact with the knife 12 and is severed thereby.

By inserting the hand-held dispenser B in the holder A, the device is converted into a self-supporting dispenser which can be used on a table. In the longitudinal direction, the front wall 3 forms the necessary abutment whilst the upper wall 5 secures the dispenser vertically in position in relation to the bottom plate 1. During insertion of the dispenser B in the holder A, the spring limb 10*a* meets the operative end of the sliding member 13 and forces the sliding member upwardly so that the end of the adhesive tape 11*a* can be securely seized. Moreover, in this position of the sliding member 13, the roller 14 forms a guard against accidental injury

by the knife **12.** For removing a strip of adhesive tape, the adhesive tape **11***a* is first of all pulled upwardly at a steep angle. By dipping the tape so that it makes a flatter angle, the sliding member **13** is pushed downwardly as a result of the tensile force set up by pulling and is pushed downwardly against the action of the spring limb **10***a* so that the desired cutting contact is made between the adhesive tape **11***a* and the cutting edge of the knife **12.** The tape is severed and the sliding member **13** is again forced upwardly by the action of the spring limb **10***a*. By virtue of the rear portion of the dispenser B being freely accessible, the dispenser can easily be removed from the holder A in which it is inserted and can also be inserted therein just as easily.

In an area located above its lower forward corner, holder A is provided with a chamber **15** which houses a length of tape **16***a* which is adhesive on both sides and which is wound up as a roll **16.** The bottom of this corner area is also formed with a slot **17** through which the adhesive tape **16***a* can be removed. A portion of tape corresponding in length to the bottom plate **1** is withdrawn and pressed against the bottom underside. After that, the protective cover **16***b* is peeled off and severed in the area of the slot **17.** The holder can now be secured by virtue of being self-adhesive on any surface such as a table, cupboard surface, window or the like. When the adhesive action has been lost by repeated removal of the holder, the used-up section of tape is detached from the bottom and a new section is drawn out as above described. The used-up section is torn off.

It is obvious that there may be arranged between the bottom plate **1** and the dispenser B an oblong tape chamber for the reception of adhesive tape which is sticky on both sides. In this event the space for the dispenser B would be separated from said oblong chamber by a partition or lateral ribs.

In the embodiment shown in FIG. **3,** the holder is in the form of an upwardly open socket A **1.** When sliding in the handheld dispenser B **1** having a member **23** for changing the direction of the tape, small ribs **21** arranged on the broad sides of the dispenser engage in grooves **20** in the socket. By this engagement between ribs and grooves and by virtue of the abutment of dispenser B **1** against the front wall **22** of the socket A **1,** the desired retention of the dispenser for removal of the adhesive tape is achieved. The socket A **1** can be secured on any desired surface by means of an adhesive tape which is sticky on both sides. The socket can also be secured in position by screw means or it may be of sufficient weight to resist movement.

In the embodiment shown in FIG. **4,** the holder is in the form of a plate or rail A **2** and is provided with a springy snap fastening means. This fastening means consist of two springy ears **31** laterally formed on the rail. The ears are formed with holes **32** or recessed portions adapted to receive projections **33** arranged in suitable positions on the hand-held dispenser B **2.** An integrally formed resilient tongue **34** cooperates with a member **35** for changing the direction of the tape in the same manner as has been described in connection with the embodiment of FIGS. **1** and **2.** The interengaging means **31, 32** and **33** prevent horizontal movement of the dispenser and also secure it in position against vertical movement.

An adhesive tape which is sticky on both sides and which is used for securing the rail **30** on any flat surface is designated by reference **36.**

In the embodiment of FIGS. **5** and **6,** a holder A3 is in the form of a rail **40** having a U-shaped cross section. The two short limbs of the U form two grooves **42** on the sides facing each other. A hand-held dispenser B **3** shown in broken lines has two ribs **43** formed on its two broad side walls which engage in the grooves **42.** The dispenser B3 is simply secured by sliding it on rail **40.**

It would be possible to make the rail U-shaped only in that area in which the ribs **43** are located on the dispenser B3. An equivalent arrangement for holding the dispenser and holder together comprises grooves on the dispenser and corresponding ribs or other projections on the rail **40.**

At its forward end, the rail **40** is provided with a bridge piece **44** which is springy at its upper portion. This cooperates in the manner already described with a member **45** on the applicator B3 for changing the direction of the tape. The end of the bridge piece **44** can also be formed by a metal spring.

For its protection and for aesthetic reasons, the bridge piece **44,** which in addition to its function as spring also serves as an abutment stop for the dispenser B3, may be surrounded by wall portions **46** and **47.** By omitting the front wall **47,** the moulding is simplified and the rail **40** can be forwardly extended up to the end of the holder.

As can be seen in FIG. **5,** the bridge piece **44** can also be used for holding the dispenser B3 in locked engagement. For this purpose, the rear corner portion of the rail is formed with a hook which is springy towards front or rear. The hooked-shaped extension **49** of the rail is shown in dotted lines and engages a lug **50** on the dispenser. On the opposite end, the dispenser is formed with a rounded protrusion **51** which is located in a corresponding recess **52** in the bridge piece **44.** The dispenser is held first in an inclined position so that the lug **50** and the hook-shaped extension come into engagement. It is then turned down until the protrusion **51** is locked in position by virtue of the springyness of the bridge piece **44** or the hook-shaped part **49.** The elasticity required for this connection can also be obtained by forming the recess **52** in the bridge piece **44** for the reception of protrusion **51** in a springy piece held in a U-shaped slot in the bridge piece **44.**

FIG. **7** shows in cross-section a holder A4 which is in the form of a rail **60.** The rail **60** is provided with a keyhole slot **61** which can be seen in the plan view of the rail shown in FIG. **8.** A dispenser B4 is formed on its underside with an undercut projection **62** which can be readily engaged in the keyhole slot **61.** By moving the dispenser lengthwise, the projection **62** is moved into the narrower part of the keyhole slot and the parts are in this way securely held in position. The end **64** of the keyhole slot acts as abutment.

The holder A5 shown in FIGS. **9** and **10** serves to hold a hand-held dispenser B5 which is provided with a handle portion **71.** The upper casing wall **72** is forwardly inclined from the opening **73** for sliding in the handle and at some distance from this opening has a recess **74.** The dispenser B5 with its handle in an inclined position is inserted into the opening **73** from above and is then rotated clockwise and brought into an horizontal position. In this way the protrusion **75** on the handle is engaged in the recess **74** and secures the dispenser in position. In order that the dispenser is prevented from being swung upwardly, a sliding member **77** located on the inside of the casing side wall **76** is pulled out so that

its forward end 78 projects over a projection 79 on the applicator. For limiting the extent to which the handle can be inserted, a projection 80 on the underside of the handle engages in a recess 81 in the casing bottom 82. An adhesive tape roll 85 is located in a chamber 84 formed between the free end of the handle and the front inclined wall 83 of the holder A5. An adhesive tape 86 which is sticky on both sides can be pulled out through a slit 87 and can be stuck against the outside of the casing bottom 82. The special handling of the adhesive tape has already been described above.

The holder A5 can, for example, be secured to the edge of a work table so that the adhesive tape roll 89 is located outside the table surface. The holder A5 can also be screwed onto a surface and for this purpose the bottom of the casing 82 is provided with holes 96.

Normally with this dispenser the adhesive tape is applied directly. For this purpose the handle of the applicator when not been mounted in the holder is seized and the dispenser is moved over the surface to be taped. The adhesive tape 92 is forced against the surface by rollers 90 and 91. The roller 91 forms the lower end of a member 93 used for changing the direction of the tape and is capable of being moved into two positions. During the direction application of the adhesive tape it is locked in the position shown so that the path of the tape is located lower than a knife 94. When the tape is to be severed, the lever 95 is operated to unlock a locking mechanism (not shown) of member 93 so that the latter is displaced towards the roll 89 by virtue of the tension present in the tape 92. In this way the adhesive tape comes into contact with knife 94 and is cut thereby. As soon as lever 95 is released, a spring (not shown) forces the member 93 again into the position shown in the drawing. When secured in the holder A5, adhesive tape can be manually removed without difficulty from the dispenser B5. It is only necessary to seize the end of the adhesive tape 92 and pull out the desired length and then operate the lever 95.

It has also been determined that a small package can be taped much better when the dispenser B5 is fixed in its holder. The package is seized with both hands and placed on both rollers 90, 91 whereby contact is made with the end of the adhesive tape 92. The package is then slid over the rollers until the first side has been taped and is then turned through 90° and taped on the second side in the same manner until the tape runs completely round the package. The adhesive tape is then severed by actuating the lever 95. This manner of working is more efficient than manipulating with one hand a dispenser which is not held in a holder and holding the package in the other hand and having to turn it around.

Naturally the connection between the handle of the applicator and the holder can be realised in any other manner or by means different to those shown.

We claim:

1. In combination with a manually operated adhesive tape dispenser including a casing and having a movable sliding member for applying the adhesive tape, one end of said sliding member being adapted to deflect the adhesive tape and extending through an opening in a sliding surface integrally formed with said casing and the other end of said sliding member projecting from said casing outside said sliding surface for manual operation, a base adapted to receive and support said adhesive tape dispenser, said base comprising:
   1. a bottom wall for securing said base to a support;
   2. a front member extending from said base;
   3. two side members extending from said base;
   4. means provided on said side members to engage with said dispenser and releasably to hold said dispenser in said base;
   5. resilient means attached to said base in the area of said front member and adapted to urge said sliding member of said dispenser when inserted into said base towards said opening in said sliding surface; and
   6. a second adhesive tape on said bottom wall of said base adapted to secure adhesively the bottom wall of said base to a support.

2. A base according to claim 1, wherein said side members comprise side walls, longitudinal ribs are provided on the side walls for engagement with said dispenser, and said resilient means comprises a spring which is held in clamping engagement with the side walls between said ribs, the arrangement being such that the spring urges said sliding member towards the said opening in said sliding surface.

3. A base according to claim 1, wherein said resilient means comprises a resilient tongue or bridge piece.

4. A base according to claim 1 comprising a casing open at one end for insertion of the dispenser and having an opening at the upper corner of the opposite end through which tape may be withdrawn, the side walls of the casing at the insertion end being so shaped that, when the dispenser is positioned in the holder, it can be manually grasped for removal thereof.

5. A base according to claim 2, wherein the front member comprises a front wall forming with said side walls a chamber in which said means are provided for holding a roll of the second adhesive tape, and a slot is provided in the bottom wall of the base for the second adhesive tape to pass through.

6. In combination with a manually operated adhesive tape dispenser including a casing and having a movable sliding member for applying the adhesive tape, one end of said sliding member being adapted to deflect the adhesive tape and extending through an opening in a sliding surface integrally formed with said casing and the other end of said sliding member projecting from said casing outside said sliding surface for manual operation, a base adapted to receive and support said adhesive tape dispenser, said base comprising:
   1. a bottom wall for securing said base to a support;
   2. an inclined front member extending from said base and limiting insertion of the dispenser;
   3. two side members extending from said base;
   4. means provided on said side members to engage with said dispenser and releasably to hold said dispenser in said base;
   5. resilient means attached to said base in the area of said front member and adapted to urge said sliding member to said dispenser when inserted into said base towards said opening in said sliding surface;
   6. means for holding a second adhesive tape in said base in the area of said front member; and
   7. a slot in the base at the point of juncture between said bottom wall and front member for the second adhesive tape to pass through and to adhesively secure the bottom wall of said base to a support.

* * * * *