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(54) Adhesive tape applicator.

(57) An adhesive tape applicator comprises a base (6) which carries a support (8) for a roll of masking tape which is turnable about a vertical axis to permit tape to be drawn from the roll. The applicator is provided with forming means (13a, 13b) adapted to form and guide the tape as it is drawn from the applicator into respective longitudinal portions (T1, T2) extending at an angle to one another, and to guide the tape into contact with the object, so that the two longitudinal portions of the tape adhere to respective contiguous faces of an edge of the object. Tape is drawn from the roll around a guide roller (16a, 16b) prior to entry into the forming means (13a, 13b) and by maximising the distance between each roller and its associated forming means, tendency for tape to foul as it enters the forming means is reduced, ensuring that the tape is applied to the side edges of the object in a desired manner.

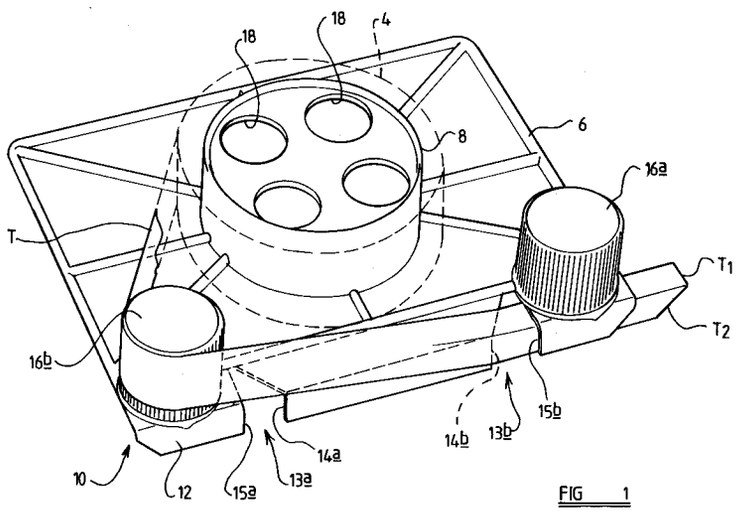

FIG 1

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Description of Invention

This invention is concerned with an adhesive tape applicator.

The applicator forming the subject of this invention has been devised primarily for use by painters and decorators for the purpose of applying masking tape to the edge of a carpet or other floor covering which abuts against a skirting board, so that the skirting board can be painted without getting paint on the adjacent edge of the carpet.

In the specification of copending application GB-A-2247002 there is described an applicator for applying tape around two contiguous faces of an edge of an object such as a carpet, the applicator comprising a base, means to support a supply of adhesive tape on the base, means adapted on movement of the applicator along the edge of an object to form the tape as it is drawn from the supply into two longitudinal portions extending at an angle to one another and to guide the tape into contact with said object, so that the two longitudinal portions of the tape adhere to the respective faces. In use, masking tape is drawn from the supply around a roller through a cut-away portion which provides the forming means.

Difficulty has been encountered in the use of the applicator of the kind described in the specification of said copending application, and it is one of the various objects of this invention to provide an improved applicator for applying tape around two contiguous faces of an edge of an object.

According to this invention there is provided an adhesive tape adhesive tape applicator comprising a base, means to support a supply of adhesive tape on the base, means adapted on movement of the applicator along the edge of an object to form the tape as it is drawn from the supply into two longitudinal portions extending at an angle to one another and to guide the tape into contact with said object so that the two longitudinal portions of the tape adhere to respective faces of the object,

characterised in that the applicator comprises two such forming means adapted to so form and guide the tape in respective opposite directions, each forming means being associated with a respective roller located in spaced relationship from said forming means.

By the provision of two such rollers better forming of the tape as it passes through the forming means may be obtained.

Preferably said forming means are each provided in the front edge of the applicator, and the rollers are located at opposite corner portions of the front edge. Preferably downstream of each forming means guide means is provided, against which the formed tape may be pressed as the tape is applied to the object.

Preferably each of said forming means is located immediately adjacent to the roller associated with the other forming means.

In this manner the distance between each roller and its associated forming means may be maximised to minimise the tendency for tape to twist as it is formed and so to ensure that the tape is applied in the desired manner.

Preferably the outer surfaces of each roller is generally located so that one of said faces of the forming means extends as a tangent thereto.

There will now be given a detailed description, to be read with reference to the accompanying drawings, of an applicator which is a preferred embodiment of this invention, having been selected for the purposes of illustrating the invention by way of example.

In the accompanying drawings

FIGURE 1 is a schematic perspective view of the preferred embodiment;

FIGURE 2 is an underneath view of the preferred embodiment; and

FIGURE 3 is a sectional view showing tape having been applied by the use of the preferred embodiment.

The applicator which is the preferred embodiment of this invention is similar to the applicator described in said copending application to which reference should be made for details not included herein.

The preferred embodiment comprises a base 6 which carries a support 8 for a roll of masking tape (shown at 4 in dotted lines in Figure 1) which is turnable about a vertical axis to permit tape to be drawn from the roll.

A front edge 10 of the base comprises a downwardly extending lip 12 disposed at an angle of slightly more than 90° to plane of the base, the lip tapering downwardly to provide a sharp edge. Provided in said front edge are two notches 13a, 13b formed by a parallel-cutaway portion of the lip and a cut away portion of the base, the front and rear edges 14a, 15a and 14b, 15b respectively providing forming means to form tape into the desired angular arrangement by feeding the tape through one or other of the notches 13.

Located adjacent to each of the notches 13a, 13b is a roller 16b, 16a. freely rotatable on a pin 17. The construction and arrangement is such that the distance between the roller 16b and its associated forming notch 13b is maximised, such that a length of tape T drawn from a roll of masking tape on the support 8 passes around the roller 16b, and through the notch 13b to be formed thereby into two longitudinal portions extending at an angle to one another and applied to the edge of the object, such as the edge of a carpet 30, Figure 3. An inner side 20 of the lip 12 lies in a plane extending

generally at a tangent to said rollers 16, and together with an undersurface 22 of the base, provides guidance means for the tape as it is pressed around the edge of the carpet.

The distance provided between the roller 16b and its associated notch 13b makes it easier for the tape to be formed over the front edge as the tape is drawn into the notch 13b, and beneath the front edge after it passes through the notch 13b, to be applied to the edge of the object. In particular, by maximising this distance tendency for the tape to foul as it is folded into said longitudinal portions is reduced.

By inverting the roll of masking tape on the support 8, the tape may be passed around the other roller 16a, prior to being passed to the notch 13a, for application in the opposite direction.

Thus in the use of the applicator which is the preferred embodiment of this invention, conveniently tape is applied from one corner towards a central part of a wall, and the tape is cut, prior to the application of the tape from an adjacent corner towards said central part of the wall.

Conveniently in the support 8 finger apertures 18 are provided, enabling a user of the device to press on the base 6, to apply the requisite downward pressure as the device is drawn along the edge of the carpet or other object in the application to the edge thereof of the tape T, as tape is drawn from the roll.

The tape T is engaged around the edge portion of the carpet 30 as shown in Figure 3, the outer, unadhered side being pressed against the guide surfaces 20 and 22. In this manner the tape may be applied between the wall W (or skirting board), allowing the wall to be painted whilst protecting the edge of the carpet. Subsequently the tape may be drawn from position.

The features disclosed in the foregoing description, or the following claims, or the accompanying drawings, expressed in their specific forms or in terms of a means for performing the disclosed function, or a method or process for attaining the disclosed result, as appropriate, may, separately or in any combination of such features, be utilised for realising the invention in diverse forms thereof.

Claims

1. An adhesive tape applicator comprising a base (6), means (8) to support a supply of adhesive tape (T) on the base, means (13) adapted on movement of the applicator along the edge of an object (30) to form the tape (T) as it is drawn from the supply into two longitudinal portions (T1, T2) extending at an angle to one another and to guide the tape into contact with said object (30) so that the two longitudinal portions of the tape adhere to respective faces of the object, characterised in that the applicator comprises two such forming means (13a, 13b) adapted to so form and guide the tape in respective opposite directions, each forming means (13a, 13b) being associated with a respective roller (16a, 16b) located in spaced relationship to said forming means.

2. An applicator according to Claim 1 wherein said forming means (13a, 13b) are each provided in the front edge (12) of the applicator, and the rollers (16a, 16b) are located at opposite corner portions of the front edge.

3. An applicator according to one of Claims 1 and 2 wherein located downstream of each forming means (13a, 13b) guide means (20a, 22a; 20b, 22b) is provided, against which the formed tape may be pressed as the tape is applied to the object (30).

4. An applicator according to any one of the preceding claims wherein each of said forming means (13a, 13b) is located immediately adjacent to one of the roller (16b 16a) associated with the other forming means.

5. An applicator according to any one of the preceding claims wherein the outer surface of each roller (16a, 16b) is located so that one of the faces of the forming means extends as a tangent thereto.

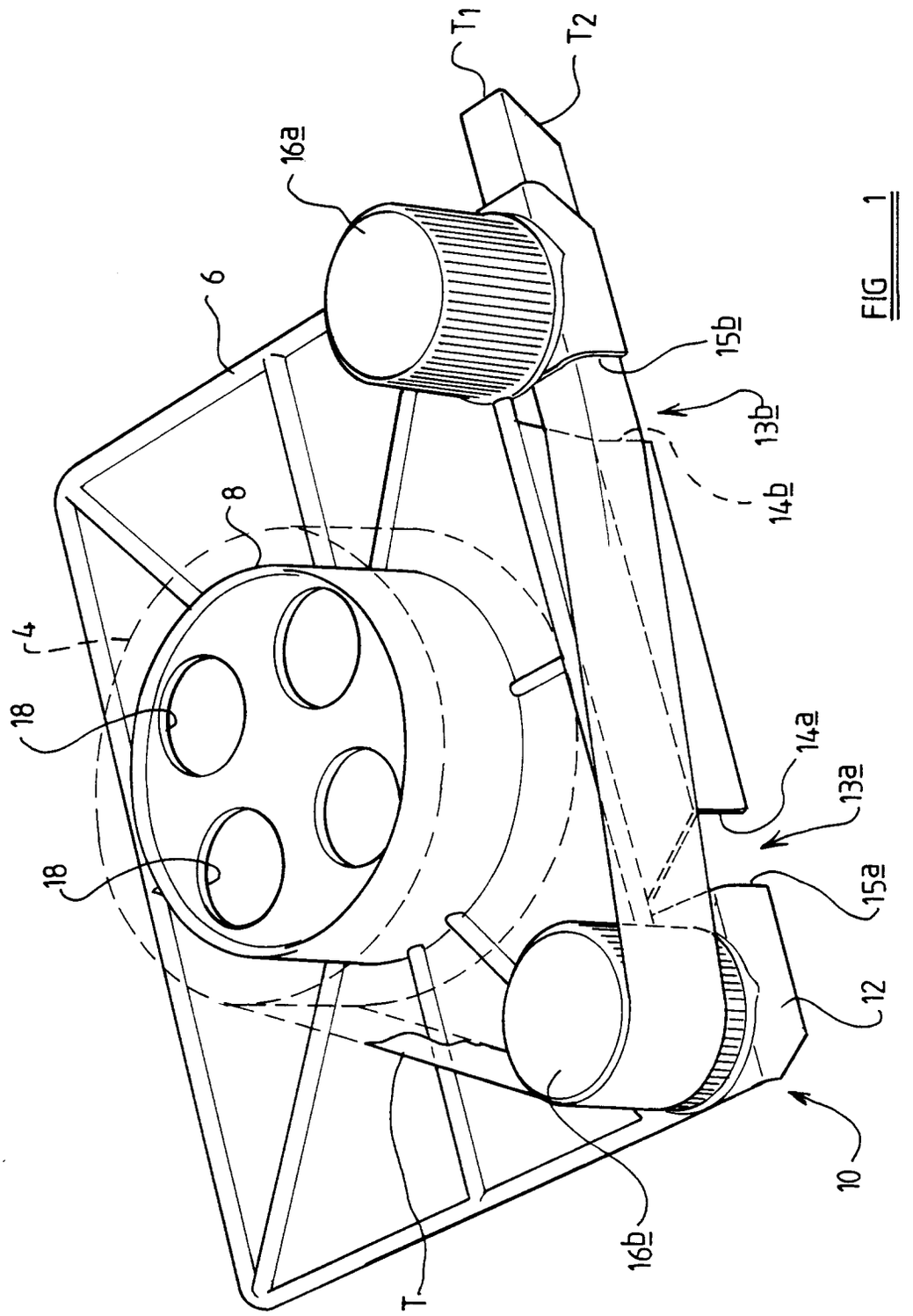

FIG 1

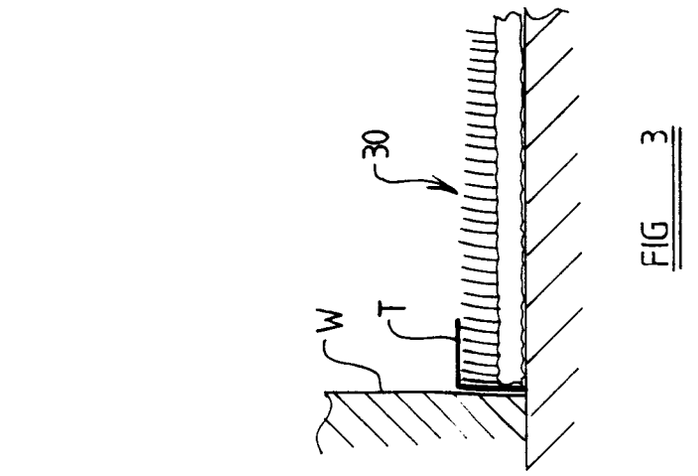

FIG 3

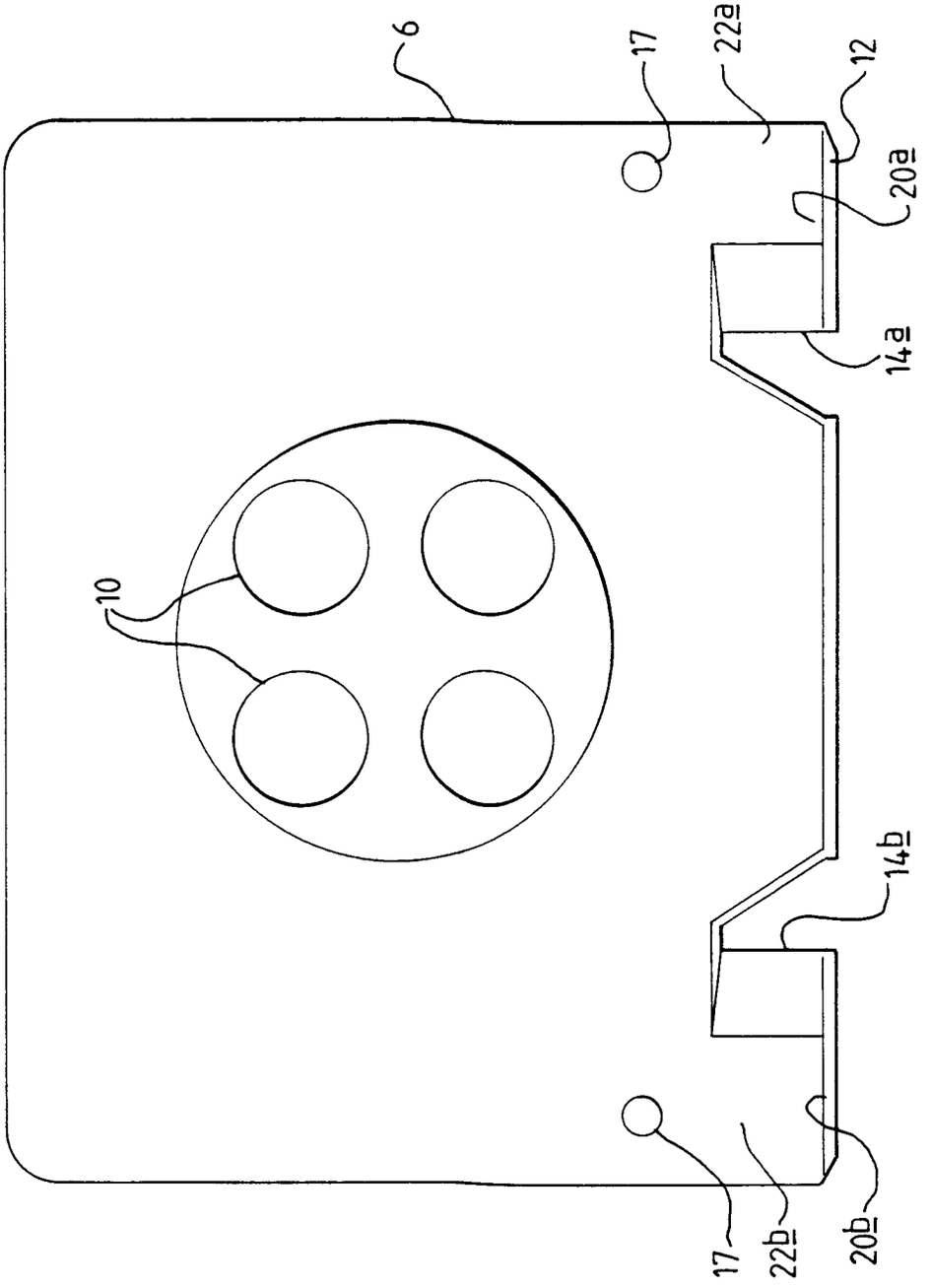

FIG 2

European Patent Office

EUROPEAN SEARCH REPORT

Application Number
EP 94 11 7695

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
X	WO-A-93 09050 (MINNESOTA MINING AND MANUFACTURING COMPANY) * page 5, line 25 - page 8, line 13; figures *	1	B65H37/00 B65H37/06
Y		2,3	
D,Y	GB-A-2 247 002 (GARRY LYMER DAY) * the whole document *	2,3	
A	US-A-3 677 865 (DUMONT W.W.)		

TECHNICAL FIELDS SEARCHED (Int.Cl.6)

B65H

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	24 January 1995	Thibaut, E

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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