



EUROPEAN PATENT APPLICATION

Application number : **92500114.1**

Int. Cl.⁵ : **B26D 7/20**

Date of filing : **11.09.92**

Priority : **16.09.91 ES 9102052**

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Date of publication of application :
28.04.93 Bulletin 93/17

Designated Contracting States :
AT BE CH DE DK FR GB IT LI NL PT SE

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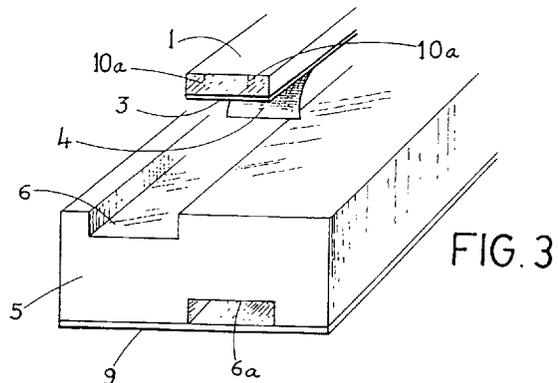
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Stop device for cutting blades of guillotines and similar machines.

It comprises a dolly bar (1) or stop, provided on one of its faces with an adhesive (3) to fix the dolly bar in the base of a groove of the dolly bar holder (5); said dolly bar holder can be provided with a groove (6,6a) on each of two opposing faces, or even a groove (6,6a,6b,6c) on each of its four faces. The dolly bar holder (5) is fixed within a groove (7) of the bench (8) of the guillotine by means of an adhesive layer (9).

The dolly bar (1) is strongly fixed in the working position. With a dolly bar holder having more than one groove, it is possible to adapt the device to guillotines having the cutting edge of the blade in different positions.



The present invention refers to a stop device for the cutting blades of guillotines and similar machines which is extremely easy to embody, but which, nevertheless, offers important advantages related to the ease of its incorporation in conventional guillotine benches and related to its possibilities of adaptation to the position of the cutting edge of the blade, which may vary according to the type of guillotine involved.

BACKGROUND OF THE INVENTION

There are known stop devices for the cutting blades of guillotines which are formed by metal dolly bars which fit into a groove in the work surface of the machines, and which are intended to prevent the edge of the cutting blade from striking the metal surface of the bench in executing the cut of the material. It is usual for a dolly bar holder to be used, formed by a strip or other metal shape which fits in the groove of the machine bench, said shape containing a groove intended to house the dolly bar.

The problem with such dolly bars consists in retaining them immobile in the groove of the work bench or dolly bar holder, given that they have to withstand the blow from the blade edge which, following the principle of reaction, may easily cause the dolly bar to become detached.

The currently known dolly bars have to be pressure fitted in the corresponding groove in order to obtain a solid fit and avoid movements of the dolly bar. In practice the dolly bar is fitted through hammer blows. It does not need underlining that this operation is, at the very least, cumbersome.

One type of dolly bar utilized is composed of an undulating thermoplastic material which is pressure fitted into the groove, such as the dolly bar which is the object of the spanish Utility Model No. 168,753, in the name of D. José Moreno Gallart, or provided with elastic side rims along its longitudinal edges, as in the object of the spanish Utility Model No. 179,061 in the name of the same titleholder. These embodiments have not yielded the results which were hoped for.

Another type of known dolly bar is described in the spanish Patent No. 8803521. This dolly bar is made of a thermoplastic material and is provided with a longitudinal rib on one of its faces, intended to fit within a groove. But this embodiment has also failed to produce satisfactory results, since, among other reasons, it requires a special configuration of groove to be formed on the work bench, so the dolly bar can only be fitted in grooves specially configured for it. In general, the dolly bars utilized to date have to be of a width which does not allow tolerance with respect to the width of the groove in which they need to fit.

DESCRIPTION OF THE INVENTION

With the aim of definitively solving the mentioned problem the stop device for cutting blades of guillotines and similar machines which is the object of this invention has been devised.

The stop device for cutting blades of guillotines and similar machines comprises a dolly bar fitted within a groove formed on the work bench or within a grooved dolly bar holder, which in turn fits in the groove on the guillotine bench. Said dolly bar is characterized in that it is provided on its lower face, opposed to the work face, with a self-adhesive covering, formed by a strip provided on both its faces with layers of self-adhesive material, one of said layers constituting the bonding surface of the strip with the dolly bar. The other layer of self-adhesive material is in origin protected by a detachable sheet, in such a way that, once the protective sheet is detached, said layer constitutes the bonding surface of the dolly bar with the base of the groove in the bench or dolly bar holder.

The dolly bar holder is provided, on at least one of its faces other than the face in which the groove which receives the dolly bar is formed, with a self-adhesive covering for fixing the dolly bar holder in the groove on the work bench of the guillotine.

The dolly bar holder has, at least on two opposing faces, corresponding grooves for selectively housing the dolly bar, said grooves being arranged at different distances from one of the sides of the dolly bar holder, in order that the dolly bar holder may adopt two work positions, with one groove or the other positioned on the working face.

When the dolly bar holder has four equal faces it is envisaged that the four faces be provided with corresponding grooves for selectively housing the dolly bar. These grooves are placed at different distances with respect to the face of the dolly bar holder nearest to each groove, in order that the dolly bar holder may adopt four working positions, each with one of the grooves positioned on the work face.

The ends of the dolly bar holder are provided with at least a groove each, placed in the same face which contains the groove for receiving the dolly bar and extending transversally across said groove, sections of the dolly bar being fitted within said transverse grooves and adhered to their bases. Said sections constitute stops which inhibit the longitudinal displacement of the dolly bar.

The ends of the dolly bar holder are further provided with at least a depression each, formed in the same face which contains the groove receiving the dolly bar. These depressions extend transversally across the groove and have a depth greater than that of the groove, so as to allow the introduction of a tool (such as a screwdriver) beneath the dolly bar to facilitate its withdrawal from within the groove.

BRIEF DESCRIPTION OF THE DRAWINGS

To improve understanding of all that is described in the present specification it is accompanied by a number of drawings in which is illustrated, with the sole status of example, a practical case of an embodiment of the stop device for cutting blades.

In said drawings,

figure 1 is a perspective view of a part of a dolly bar with the protective sheet partially detached from a tape whose two faces are coated with an adhesive film, adhered to the lower face of the dolly bar;

figure 2 shows a transverse cross section of the dolly bar arranged and adhered in a groove provided in the work bench of a guillotine;

figure 3 is a perspective view of a dolly bar separated from the dolly bar holder, provided with grooves in two opposing faces;

figure 4 shows a transverse cross section of a dolly bar holder provided with grooves in two opposing faces, adhered to the groove in a guillotine bench;

figure 5 is virtually equal to figure 4, with the dolly bar holder is adhered to the base of the groove through the opposite face with respect to the one shown in figure 4;

figure 6 is a similar view to that of figures 4 and 5, showing a dolly bar holder with four equal faces provided with corresponding grooves, housed in the groove of the guillotine bench; and

figure 7 is a detail in perspective of one of the ends of a dolly bar holder.

DESCRIPTION OF A PREFERRED EMBODIMENT

The described device shown in the drawings comprises a dolly bar -1- of a strong material with a certain degree of elasticity, one of whose larger faces has adhered to it a tape -2- with adhesive coverings -3- on both its faces and a detachable protective sheet -4-.

The device further comprises a dolly bar holder -5- in the form of a strip which, similarly to other dolly bar holders, is provided with a groove -6- receiving the dolly bar -1- therein, the protective sheet -4- being removed from the dolly bar in order that the adhesive covering -3- of its outer face fixes the dolly bar in the working position.

The dolly bar holder -5- adheres to the base of a groove -7- provided in the work bench -8- of the guillotine due to the presence of a layer of glue -9- compatible with the nature of the dolly bar holder and the bench -8-. It is also possible to use a tape with adhesive on both its faces, similar to the tape -2-.

Preferably the dolly bar holder -5- is provided in two opposing faces with grooves -6- and -6a- which are arranged at different distances from the nearest

edge of the dolly bar holder, and which are referenced -a- and -b- in figures 4 and 5 of the drawings.

Thus it is possible to use one or other of the faces of the dolly bar holder, according to the position of the cutting edge of a blade -10- of the guillotine, in order to ensure that the cutting edge will come to rest on the stop dolly bar -1- (figures 4 and 5).

When a dolly bar holder with four equal faces is used (figure 6), each face is provided with a groove -6-, -6a-, -6b-, -6c-, all of which are at differing distances with respect to the nearest face to the groove in question. In this way the dolly bar holder may adopt four different positions, in each of which the dolly bar -1- will occupy a different position in order to adapt itself to the position of the cutting edge of the blade -10-.

Both if the dolly bar -1- is adhered directly to a groove provided in the guillotine bench, or if it is adhered in a groove of a dolly bar holder, the position of the dolly -2 bar- with respect to the cutting edge of the blade -10- is slightly decentered towards one side, so that the wear -10a- produced by the cutting edge of the blade in the dolly bar is situated to one side. In this way when the wear -10a- becomes excessively deep and begins to affect the precision of the cut accomplished by the cutting blade -10- it is possible to change the position of the dolly bar 180°, so that the cutting edge strikes on a different line. Once the dolly bar becomes worn in two zones -10a- it is necessary to replace it, a feature which is already routine in the use of known dolly bars.

The ends of the dolly bar holder -5- are further provided with at least a groove -11- each, placed in the same face having the groove -6- for receiving the dolly bar -1- and extend transversally thereto, in which fit sections -1a- of the dolly bar -1-, said sections remaining adhered in the base of the grooves -11-. Said sections constitute stops for inhibiting the longitudinal displacement of the dolly bar -1- (figure 7).

The ends of the dolly bar holder -5- are further provided with at least a depression -12- each, placed in the same face containing the groove -6- which receives the dolly bar -1-. These depressions extend transversally to the groove -6- and have a depth greater than that of the groove -6- in order to allow a tool (such as a screwdriver) to be introduced under the dolly bar -1- thus facilitating its withdrawal from within the groove -6-.

The described device offers the following advantages with respect to other known devices:

- It is not necessary to exercise any force or pressure when positioning the dolly bar -1- in the groove -6- of the dolly bar holder, or directly in the groove -7- of the bench -8- (figure 2), and there may even be a certain tolerance between the dolly bar and the groove, since the fixing of the dolly bar in the working position is guar-

- anted by the action of the adhesive covering -3-.
- The dolly bar -1- remains completely immobile and does not suffer displacements during the action of the cutting blade -10-.
 - When the dolly bar holder -5- is provided with various grooves the device may be attached to guillotines which have their cutting blades arranged in positions which vary one from another, without the necessity of using different dolly bar holders.
 - Despite the fact that the dolly bar -1- does not move on receiving the blow of the cutting edge of the blade (rather the opposite: it becomes more strongly impacted in its base) there is no particular obstacle to separating the dolly bar from the groove, either to change its position once the wear -10a- left by the cutting edge of the blade becomes very pronounced, or to replace it once it has been used in both the common dolly bar positions.
 - It will be possible to unify the thickness and width of the dolly bars for all types of guillotines, given that in each case a dolly bar holder appropriate to the characteristics of the guillotine may be used, said dolly bar holder being provided with a standardized groove, according to the dimensions of the dolly bar.
 - The dolly bar may be much thinner than the ones which are normally used, and this allows their manufacturing from a material which, even when involving a greater initial cost than the material currently used, proves more cost effective in the longer run, since being resistant and elastic (nylon for example) and capable of self-sealing the incisions which the cutting edge of the guillotine produces in the dolly bar, thus extending its life.
 - For the same reason as outlined in the previous paragraph the dolly bar may be supplied in rolls so that the user may cut such lengths as are required with dimensions appropriate to the characteristic of his guillotines.

The materials employed in manufacturing the components of the stop dolly bar for the cutting blades of guillotines remain independent of the object of this invention, as do the forms and dimensions of the same and all accessory details which may arise, always and insofar as they do not affect its essence.

Claims

1. A stop device for the cutting blades of guillotines and similar machines which comprises a dolly bar engaged in a groove formed in the work bench or within a dolly bar holder formed by a splined strip which is in turn engaged in the groove of the guil-

lotine bench, characterized in that the dolly bar (1) is provided on its lower face, opposite to its working face, with a self-adhesive covering (3), formed by a strip (2) provided on both its faces with layers of self-adhesive material, one of said layers constituting the bonding surface of the strip with the dolly bar, while the other is initially protected by a detachable sheet in such a way that, once the protective sheet is removed, it constitutes the bonding surface of the dolly bar with the base of the groove in the bench (7) or in the dolly bar holder (5).

2. A stop device according to claim 1, characterized in that the dolly bar holder (5) is provided in at least one of its faces other than the one which is positioned in the groove for receiving the dolly bar, with a self-adhesive covering (9), formed by a strip which is adhesive on both faces, and which is intended to fix the dolly bar holder within the groove (7) in the work bench of the guillotine.
3. A stop device according to claims 1 and 2, characterized in that two opposing faces the dolly bar holder (5) contain at least one groove (6, 6a) each, intended to selectively house the dolly bar (1), said grooves being placed at different distances with respect to one of the side edges of the dolly bar holder in order that the dolly bar holder may adopt two working positions, with one or other of the grooves placed in the working face.
4. A stop device according to claims 1 to 3, characterized in that the four faces of the dolly bar holder (5) contain corresponding grooves (6, 6a, 6b, 6c) intended to selectively house the dolly bar (1), said grooves being arranged at different distances with respect to the face of the dolly bar holder nearest to each groove, with the objective that the dolly bar holder can adopt four working positions, each with one of the grooves in the working face.
5. A stop device according to claims 1 and 2, characterized in that the ends of the dolly bar holder (5) are each provided with at least one groove (11), arranged in the face containing the groove (6) for receiving the dolly bar (1) and extending transversally thereto, in which fit corresponding sections (1a) of the dolly bar (1), said sections remaining adhered in the base of the grooves (11) and constitute stops for inhibiting the longitudinal displacement of the dolly bar (1).
6. A stop device according to claims 1 and 2, characterized in that the ends of the dolly bar holder (5) are each provided with at least a depression

(12) placed in the face containing the groove (6) for receiving the dolly bar (1) and extending transversally thereto, and which are of greater depth than the groove (6).

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FIG.1

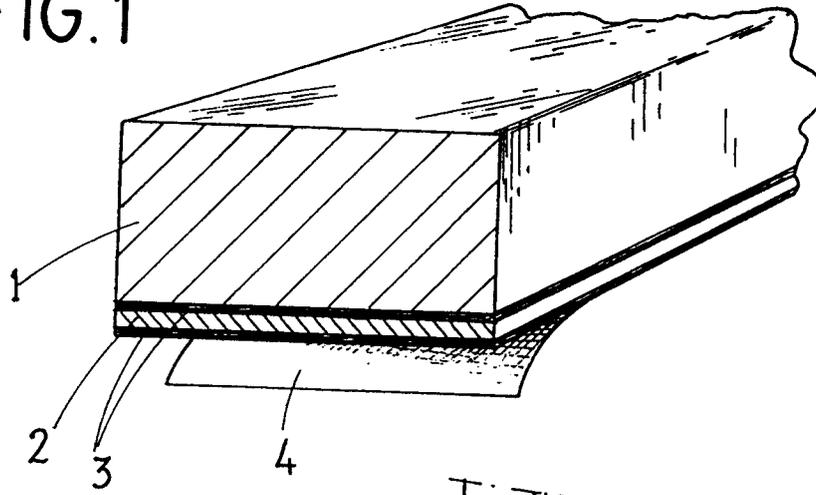


FIG.2

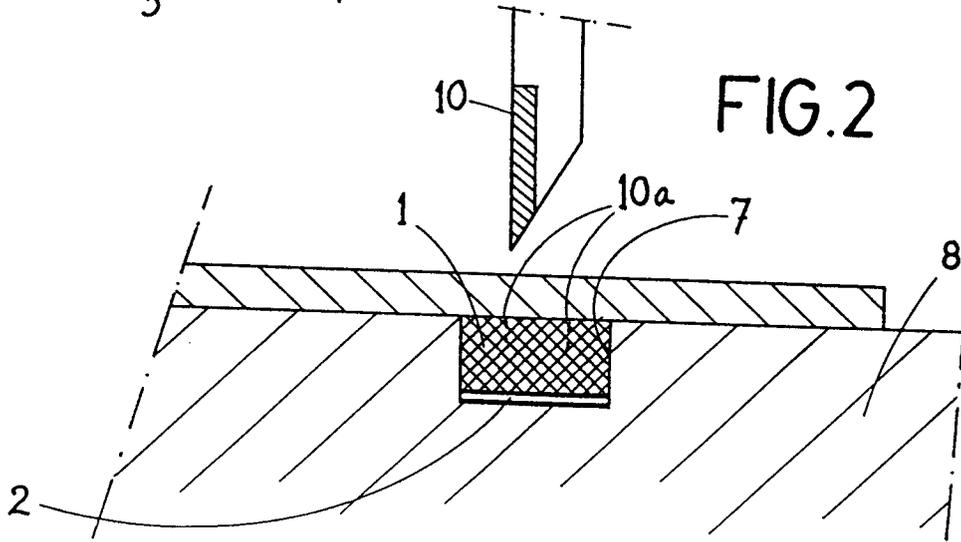
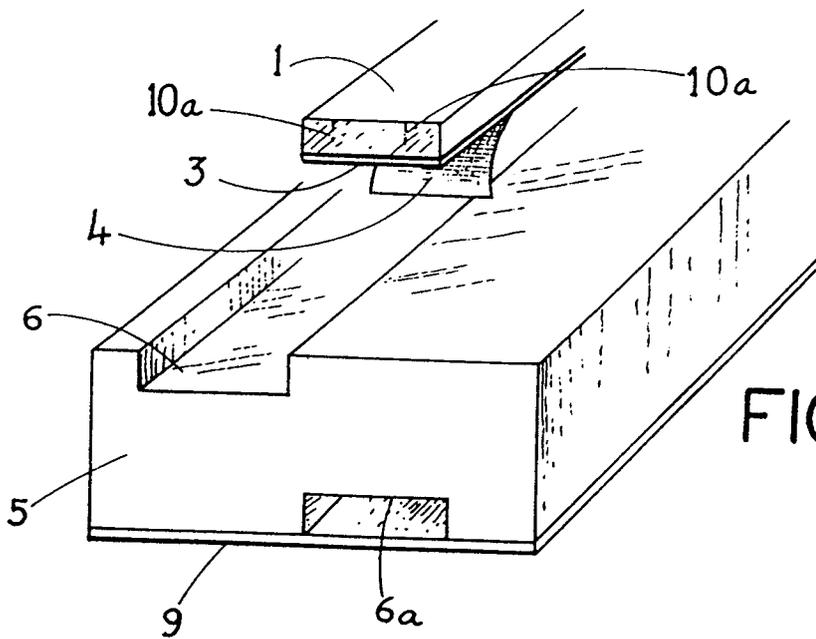
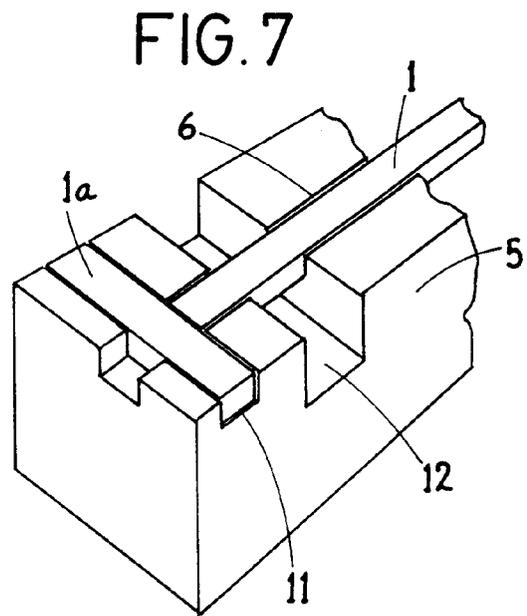
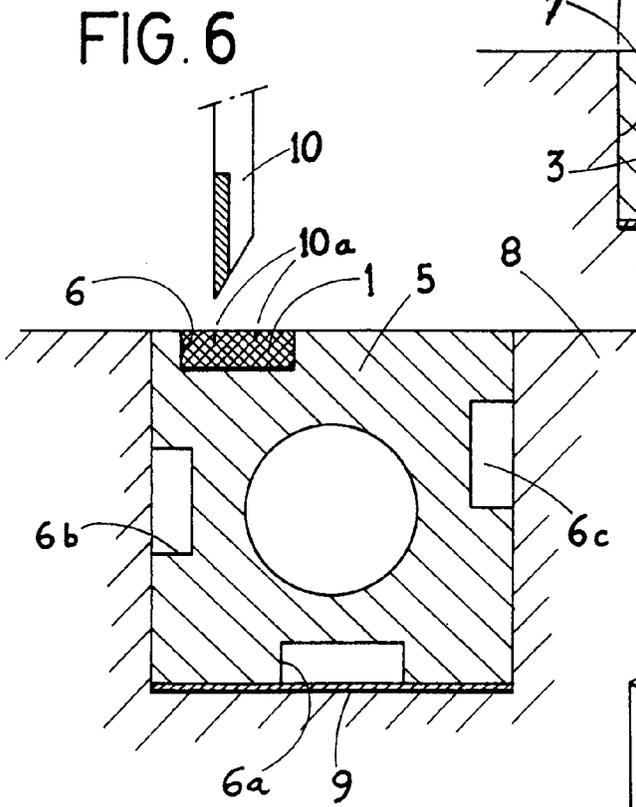
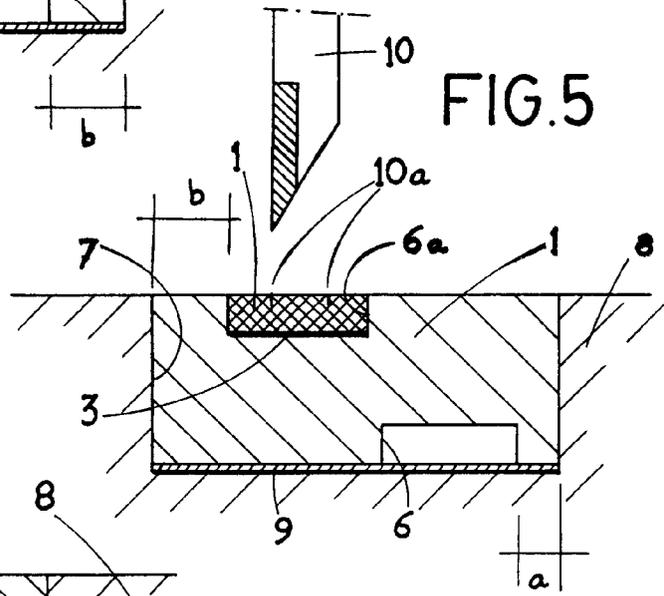
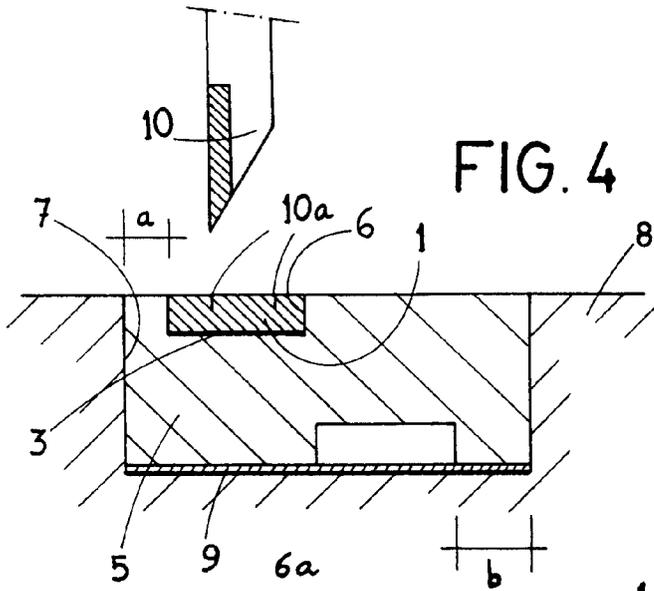


FIG.3







European Patent
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EUROPEAN SEARCH REPORT

Application Number

EP 92 50 0114

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.5)
Y	US-A-2 007 731 (J. R. TOMLIN) * page 2, line 43 - line 62; figure 2 * ---	1	B26D7/20
Y	FR-A-2 599 659 (P. GEREST) * page 1, line 32 - page 2, line 19; figure 1 * ---	1	
A	FR-A-840 211 (I. OESTERREICHER) -----		
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			B26D B27L
Place of search THE HAGUE		Date of completion of the search 03 DECEMBER 1992	Examiner VAGLIENTI G.L.M.
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

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