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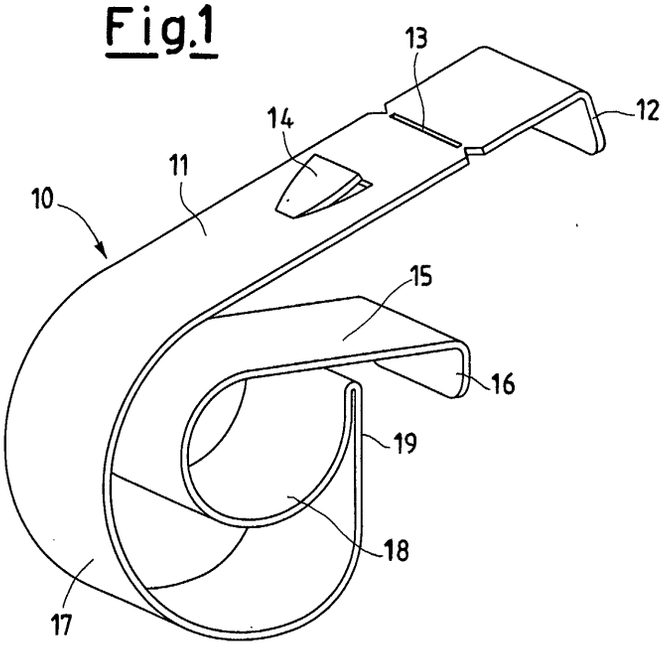
(54) Baseboard block handle for the removable assembly of a baseboard to the lower wall of a piece of furniture

(57) A baseboard block handle for the removable assembly of a baseboard (20, 21; 120; 220) to the lower wall (23, 123, 223) of a piece of furniture (24, 124, 224) comprises: stable anchorage devices to said baseboard (20, 21; 120; 220) and elastically yielding devices acting between said anchorage devices and said lower wall (23, 123, 223). According to the invention, said handle (10, 110, 210) structurally consists of a tape-shaped spring, in a single shaped piece, comprising: an upper leaf spring section (11, 111, 211), a section (15, 115, 215) below said leaf spring (11, 111, 211) and terminating with a hook (16, 116, 216). At least one loop-shaped section (17, 117, 217) extends from said leaf spring section (11, 111, 211) and from said underlying section (15, 115, 215), forming a ledge (19, 119, 219) with an interspace from the hook (16, 116, 216) at a distance varying in relation to the thickness of the baseboard (20, 21; 120; 220).

Fig.1



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Description

[0001] The present invention relates to a so-called baseboard block handle for the removable assembly of a baseboard between the lower wall of a piece of furniture and the floor.

[0002] The handle according to the invention is particularly, but not exclusively, suitable for application to a piece of kitchen furniture.

[0003] Most kitchen furniture currently manufactured does not rest directly on the floor but has feet which can be adjusted in height, in order to guarantee the stability of the furniture and also to allow the underlying space to be cleaned.

[0004] In furniture of this kind, the application of a baseboard is recommended both for aesthetic reasons, to hide the feet of the furniture from sight and also any possible service cables and tubes, and also to avoid the accumulation of dirt.

[0005] For this purpose metal and/or plastic hooks have already been proposed, consisting of a plate which can be fixed to the internal surface of the baseboard, with two pairs of opposite arms extending from the plate, suitably shaped, allowing them to be clipped onto the feet of the furniture.

[0006] Assembly devices of this type have a fully satisfactory functioning, but imply the necessity of being fixed onto the internal side of the baseboard in pre-established interspaced positions, in correspondence with the feet of the furniture.

[0007] Assembly devices have also been proposed, made of a single piece of plastic material comprising an anchorage device at the upper edge of the baseboard, from which an elastically yielding annular element extends, which acts between said anchorage device and the lower wall of the furniture, in order to keep the baseboard in position due to the forced pressure exerted thereon, which is discharged onto the floor.

[0008] Assembly devices of this type have the disadvantage that once the elastically yielding annular element has been inserted and acts between the lower wall of the furniture and the baseboard, it tends to rapidly lose its elasticity properties, and its deformation becomes practically permanent, so that the device can no longer guarantee a stable positioning of the baseboard, especially after this has been removed various times, for example for cleaning the floor under the furniture.

[0009] Another considerable disadvantage of these elastically yield ring devices derives from the fact that they are not always easy to handle by the user, when removed from the baseboard.

[0010] Yet another drawback is that the structure of devices equipped with an elastically yielding ring made of plastic material is such that it cannot be completely hidden from sight, making them also appear unaesthetic.

[0011] There are also known devices, so-called baseboard handles, which are structurally made up of an anchorage device (set square) to the baseboard and an elastically yielding element acting between said anchorage device and said lower wall, wherein said elastically yielding element consists of a piston extending from said anchorage device and terminating with a pressure surface suitable for acting against said lower wall.

[0012] A device of this type is described, for example, in EP-517289.

[0013] Baseboard block handles of the type described in EP-517289, in order to prevent the anchoring set square from being fixed to the baseboard, by means of screws, require that the same set square be equipped with elastically yielding clamps capable of firmly gripping the top edge of the baseboard.

[0014] It is evident, however, that baseboard block handles of this type must be equipped with set squares having clamps with different thicknesses, in relation to the thickness of the baseboard.

[0015] This fact, together with its relatively complex structure, makes the manufacturing of this type of product rather expensive. Furthermore, the necessity of having various differently-sized articles, in relation to the thickness of the baseboard, also makes the managing of the warehouse particularly onerous.

[0016] In order to overcome this drawback of producing differently-sized devices for the stable anchorage of the handle to the baseboard, in relation to its thickness, handles have been proposed, in a single metal piece, in which the anchorage means, instead of consisting of clamps which grip the baseboard, consists of a simple set square from whose upper wing plugs extend downwards, hammered into the top edge of the baseboard itself.

[0017] A leaf spring acting between the baseboard and the lower wall of the furniture extends, obliquely, from the set square.

[0018] The application of this device is inconvenient and inaccurate, above all in the case of the assembly and re-assembly of the baseboard.

[0019] Furthermore, it cannot be used with baseboards made of metal draw pieces or plastic material.

[0020] The general objective of the present invention is to avoid the above drawbacks of the known art by producing a baseboard block handle which, in addition to having extremely low manufacturing and warehouse management costs, is also capable of guaranteeing a correct and stable assembly of the baseboard over a period of time, even after repeated removals, allowing the easy assembly and dismantling of the baseboard itself and, last but not least, having the great advantage of being able to be used with baseboards made of different materials, sections and thicknesses, within a relatively wide range.

[0021] The above objective is achieved by a baseboard block handle having the characteristics described in claim 1 and underlying claims enclosed.

[0022] The structural and functional characteristics of the invention, together with its advantages with respect

to the known art, can be more clearly understood from the following description, referring to the enclosed drawings, which illustrate an embodiment of the invention itself. In the drawings:

- figure 1 is a perspective view illustrating an example of a baseboard block handle produced according to the invention;
- figure 2 is a perspective view of the handle of figure 1 applied to the baseboard of a piece of furniture;
- figures 3, 4 and 5, are respectively a vertical section, a front raised view, and a plan view, illustrating the handle of figures 1, 2 applied to the baseboard of a piece of furniture;
- figure 6 is sectional view, like figure 3, but illustrating the same handle applied to two distinct baseboards having a different thickness;
- figures 7, 8 are two sectional views illustrating the assembly sequence of the baseboard block handle in question;
- figure 9 is a sectional view like figure 8, but illustrating the baseboard block handle in question applied on the side of a piece of furniture;
- figures 10, 11 and 12, are sectional views respectively illustrating the handle according to the invention, applied to three different types of baseboard profiles, for example made of extruded aluminum or plastic material;
- figures 13, 14 show a second possible embodiment of the invention; and
- figures 15, 16 show a third possible embodiment of the invention.

With reference to figures 1-12 of the drawings, a first example of the baseboard block handle produced according to the principles of the present invention is indicated as a whole with 10, and is structurally made up of a tape-shaped spring in a single piece of blanked and shaped metal.

According to the invention, said spring 10 comprises: an upper oblique leaf spring section 11 terminating with a grip 12, which is connected to said section 11 by means of a lower resistance or effraction line 13. Said leaf spring 11 obliquely extends upwards and towards the outer part of the furniture. A harpoon 14 also obliquely extends from the section 11 upwards and towards the outer part of the furniture.

A hooked section 15 terminating with a hook 16 is situated in an underlying position with respect to said upper leaf spring section.

Again according to the invention, said leaf spring section 11 and said hooked section 15, 16 are interconnected by means of a first and second loop-shaped section 17, 18, which form a ledge 19 which is interspaced from the hook 16 at a varying distance.

The baseboard block handle described above with reference to figure 1 is used as clearly illustrated in figures 2-8.

More specifically, the handle 10 is applied to the top edge of a baseboard 20 as shown in figures 2-5 of the drawings, i.e. by means of its forced insertion - due to the flexibility and elasticity of the structure - onto the top edge of the baseboard 20, said edge fitting into the space formed between the hook 16 and the ledge 19.

[0023] As illustrated in figure 6, it should be noted that the handle 10 according to the invention, thanks to its particular spring- and double-looped structure 17, 18 is capable of adapting itself to different thicknesses of materials, modifying the amplitude and configuration of the internal loop 18, as indicated with the dashed lines.

[0024] The initial configuration of the handle 10 is naturally set on a minimum thickness X of a baseboard 20, and can then be varied - thanks to the flexibility and elasticity of the material - so as to be adapted to the greatest thickness Y of a baseboard 21 (figure 6).

[0025] Figures 7, 8 clearly illustrate the assembly sequence of a baseboard 20 equipped for the whole length with a series of suitably interspaced handles 10.

[0026] The baseboard 20 equipped with the handles 10, and resting on the floor, is obliquely brought against the base of a foot 22 fixed to the lower wall 23 of a piece of furniture (figure 7).

[0027] By subsequently pushing in the direction of the arrow F, the baseboard 20 is forced into the vertical position of figure 8 against the foot 22, with the leaf spring section 11 stressed and forcefully inserted between the top edge of the baseboard 20 and the wall 23 of the furniture, thus firmly blocking the baseboard 20 in position, due to the vertical upward and downward thrust which is created, causing a pressure which keeps the gasket 25 of the baseboard 20 pressed against the floor 26 (figure 8). During this operation, the external loop 17 also undergoes variations in both the configuration and dimensions.

[0028] In the position of figure 8, the elastically yielding harpoon 14 acts so as to prevent the accidental outward dismantling of the handle 10.

[0029] Figure 9 illustrates the case of the assembly of a baseboard on the side of a piece of furniture, whereby the front grip 12 of the handle 11 has been removed by means of a cut along the effraction line 13, in order to avoid its unaesthetic protrusion from the side of the furniture.

[0030] Figures 10-12 illustrate the possibility of applying the same handle 10 according to the invention to three different baseboards 27, 28, 29 made for example of extruded aluminum, or plastic material.

[0031] The handle can be applied directly onto the profile, as illustrated in figures 10, 11, or with the interposition of an adapter 30, positioned on the profile itself, as illustrated in figure 12.

[0032] Figures 13, 14 show a second possible embodiment of the invention, wherein the components,

identical and/or substantially equivalent to those previously described and illustrated, with reference to figures 1-12, are indicated with the same reference numbers increased by 100.

[0033] The baseboard block handle illustrated in figures 13, 14 is indicated as a whole with 110 and is also structurally made up of a tape-shaped spring in a single piece made of blanked and shaped metal.

[0034] According to this second embodiment of the invention, said spring 110 comprises: an upper oblique leaf spring section 111 which is obtained by blanking and bending from an underlying flat section 115 terminating at the front with a grip 112, which is connected to said section 115 by means of a lower resistance or effraction line 113.

[0035] Said section 115 also has a hook 116, behind said grip 112.

[0036] Again according to the invention, a loop-shaped section 117 extends from said leaf spring section 111 and flat section 115, terminating with a ledge 119, which folds back thereon, interspaced from the hook 116 at a distance varying in relation to the thickness of the baseboard 120.

[0037] 114 indicates a harpoon obtained from the leaf spring 111.

[0038] The assembly system and functioning of the handle 110 illustrated in figures 13, 14 are entirely analogous to those of the handle described and illustrated with reference to figures 1-12.

[0039] Figures 15, 16 show a third possible embodiment of the invention, wherein the components, identical and/or substantially equivalent to those previously described and illustrated, with reference to figures 1-12, are indicated with the same reference numbers increased by 200.

[0040] The baseboard block handle illustrated in figures 15, 16 is indicated as a whole with 210 and is also structurally made up of a tape-shaped spring in a single piece made of blanked and shaped metal.

[0041] According to this third embodiment of the invention, said spring 210 comprises: an upper oblique leaf spring section 211 terminating with a grip 212, which is connected to said section 211 by means of a lower resistance or effraction line 213.

[0042] From the section 211, a harpoon 214 also extends obliquely upwards and towards the outer part of the furniture.

[0043] A hooked section 215 terminating with a hook 216 is situated in an underlying position with respect to said upper leaf spring section 211.

[0044] Again according to the invention, said leaf spring section 211 and said hooked section 215, 216 are interconnected by means of a loop-shaped section 217, from which an elastically yielding ledge 219 is obtained, by means of blanking, which is interspaced from the hook 216 at a distance varying in relation to the thickness of the baseboard 220.

[0045] The configuration and dimensions of the loop-shaped section 217 can also vary in relation to the baseboard 220.

[0046] The assembly system and functioning of this third embodiment of the invention are clearly illustrated in figures 15, 16 and analogous and/or equivalent to what is described and illustrated with reference to figures 1-12.

[0047] The baseboard block handle according to the invention has the following advantages:

[0048] The hooking onto the baseboard is simple, does not require the use of tools, is also easily comprehensible for inexpert users, and the thickness of the baseboard in no way influences the stability of the hooking.

[0049] With varying thicknesses of the baseboard, the pressure directions acting thereon do not change: this consequently guarantees the stability of the assembly.

[0050] The harpoon 14 situated on the leaf spring 11, upon insertion into the lower wall of the furniture, avoids the involuntary dismantling of the baseboard.

[0051] Thanks to the vertical pressure exerted by the handle, the baseboard gasket is positively pressed against the floor, thus adapting itself to any possible planarity defects, and avoiding the accumulation of dust and dirt.

[0052] The handle assembled onto the side of the furniture is invisible, due to the possibility of removing the front grip.

[0053] The handle according to the invention can be used with baseboards made of wood, metal, and also plastic material.

[0054] The objectives specified in the introduction of the invention are thus achieved.

[0055] The protective scope of the invention is defined by the following claims.

Claims

1. A baseboard block handle for the removable assembly of a baseboard (20, 21; 120; 220) to the lower wall (23, 123, 223) of a piece of furniture (24, 124; 224) of the type comprising: stable anchorage devices to said baseboard (20, 21; 120; 220) and elastically yielding devices acting between said anchorage devices and said lower wall (23, 123, 223), **characterized in that** said handle (10, 110, 210) structurally consists of a tape-shaped spring, in a single shaped piece, comprising: an upper leaf spring section (11, 111, 211), a section (15, 115, 215) below said leaf spring (11, 111, 211) and terminating with a hook (16, 116, 216), at least one loop-shaped section (17, 117, 217) extending from said leaf spring section (11, 111, 211) and from said underlying section (15, 115, 215), forming a ledge (19, 119, 219) which is interspaced from the hook (16, 116, 216) at a distance varying in relation to the thickness of the baseboard (20, 21; 120; 220).

2. The handle according to claim 1, **characterized in that**. said upper leaf spring section (11) and said underlying section (15) are interconnected by means of a first and second loop-shaped section (17, 18), which form a ledge (19) which is interspaced from the hook (16) at a distance varying in relation to the thickness of the baseboard (20, 21).

3. The handle according to claim 1, **characterized in that** said upper leaf spring section (111) is obtained by means of blanking and bending, from an underlying section (115) from which a loop-shaped section (117) extends, terminating with a ledge (119), folded back thereon, which is interspaced from the hook (116) at a distance varying in relation to the thickness of the baseboard (120).

4. The handle according to claim 1, **characterized in that** said upper leaf spring section (211) and said lower section (215) are interconnected by means of a loop-shaped section (217) which have an elastically yielding ledge (219) which is interspaced from the hook (216) at a distance varying in relation to the thickness of the baseboard (220).

5. The handle according to claim 1, **characterized in that** said upper leaf spring section (11) terminates with a grip (12) which is connected to said section (11) by means of a lower resistance or effraction line (13).

6. The handle according to claim 1, **characterized in that** from the leaf spring section (11) a harpoon (14) also extends obliquely, upwards and towards the outer part of the furniture.

7. The handle according to claim 3, **characterized in that** said section (115) terminates in the front with a grip (112) which is connected to said section (115) by means of a lower resistance or effraction line (113).

8. The handle according to claim 7, **characterized in that** said section (115) also has a hook (116), behind said grip (112).

9. The handle according to claim 3, **characterized in that** said leaf spring (111) is equipped with a harpoon (114).

10. The handle according to claim 4, **characterized in that** said leaf spring section (211) terminates with a grip (212).

11. The handle according to claim 4, **characterized in that** said section (211) terminates with a hook (216).

12. The handle according to claim 4, **characterized in that** said leaf spring section (211) has a harpoon (214).

13. The handle according to claim 1, **characterized in that** said leaf spring section (11, 111, 211) obliquely extends upwards and towards the outer part of the furniture.

Fig.1

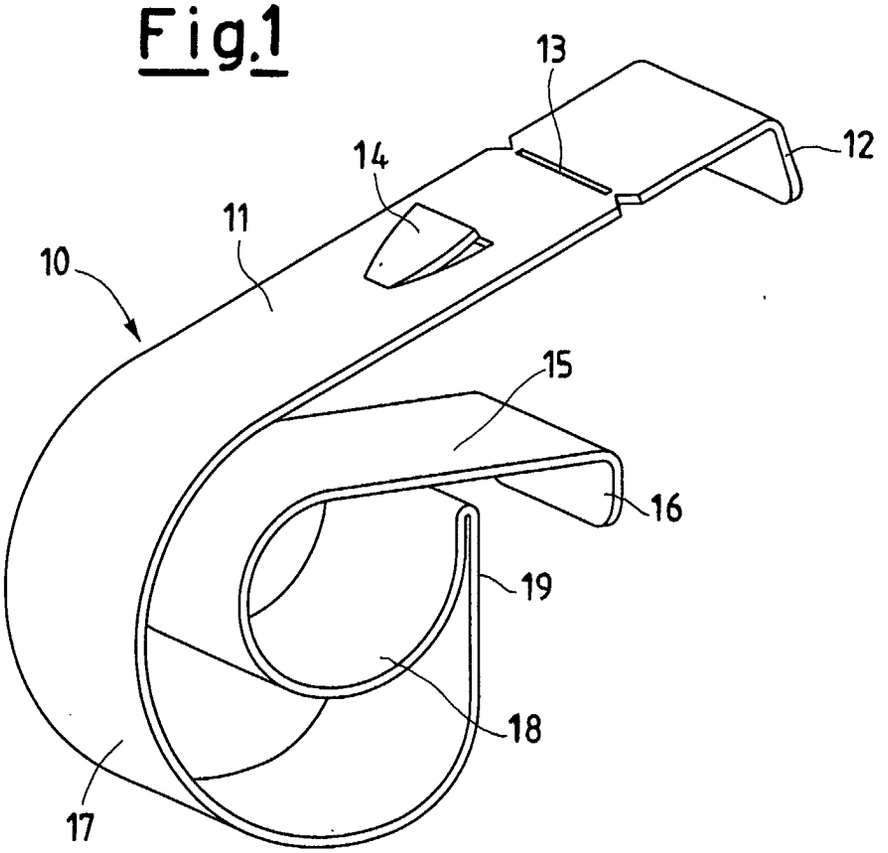


Fig.2

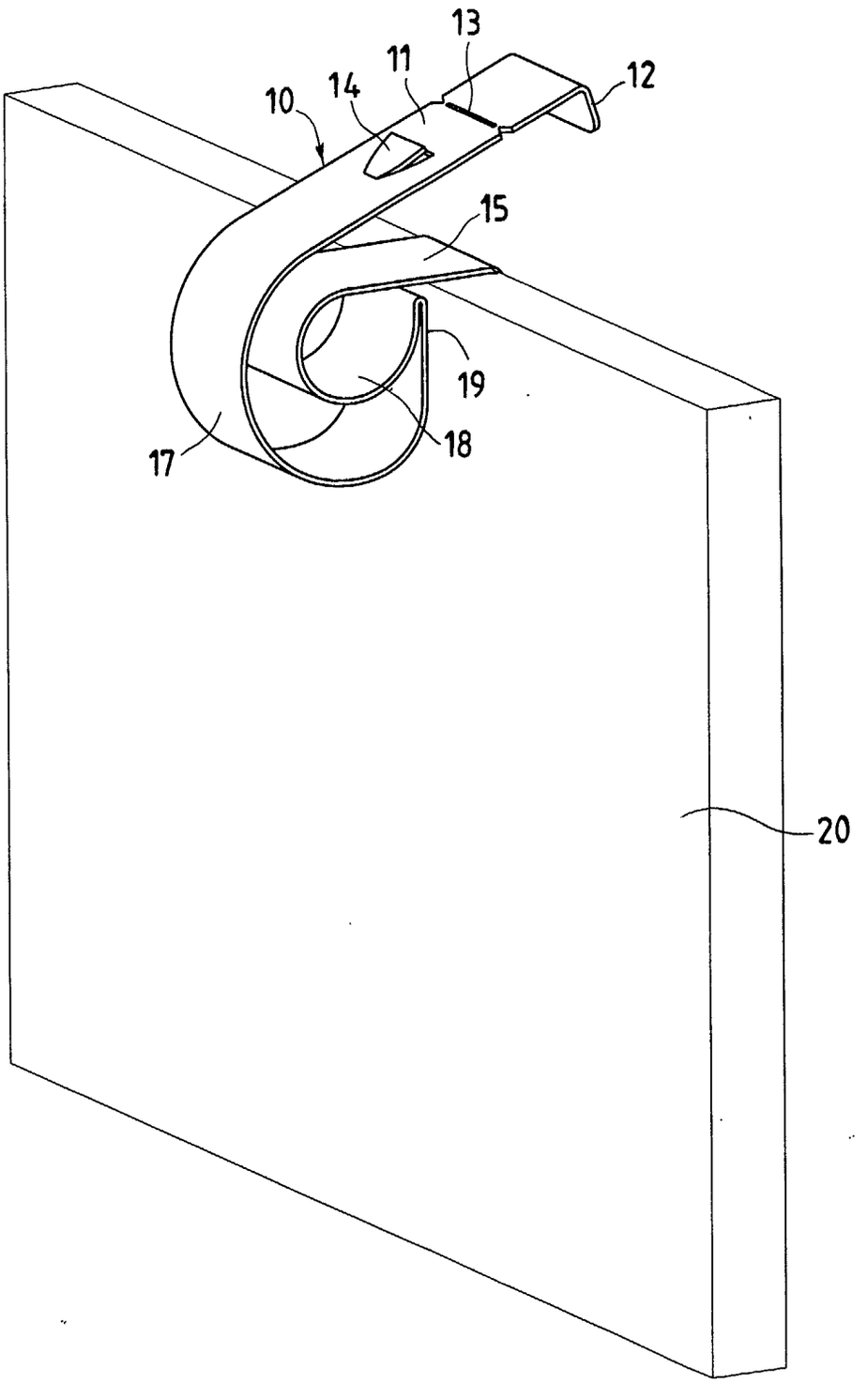


Fig.4

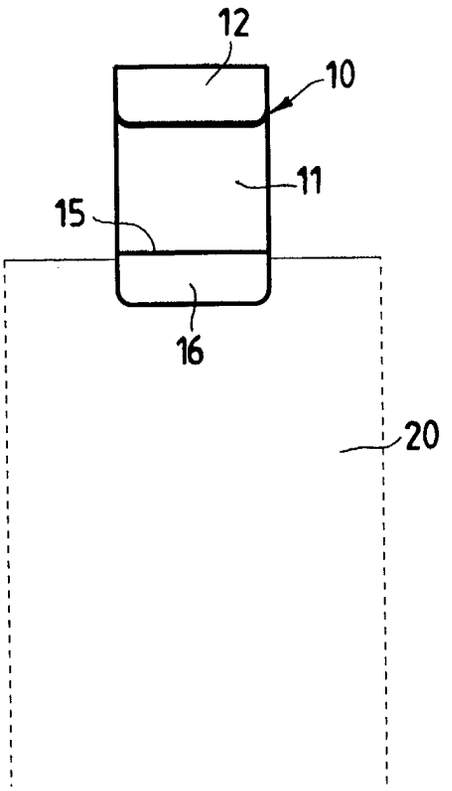


Fig.3

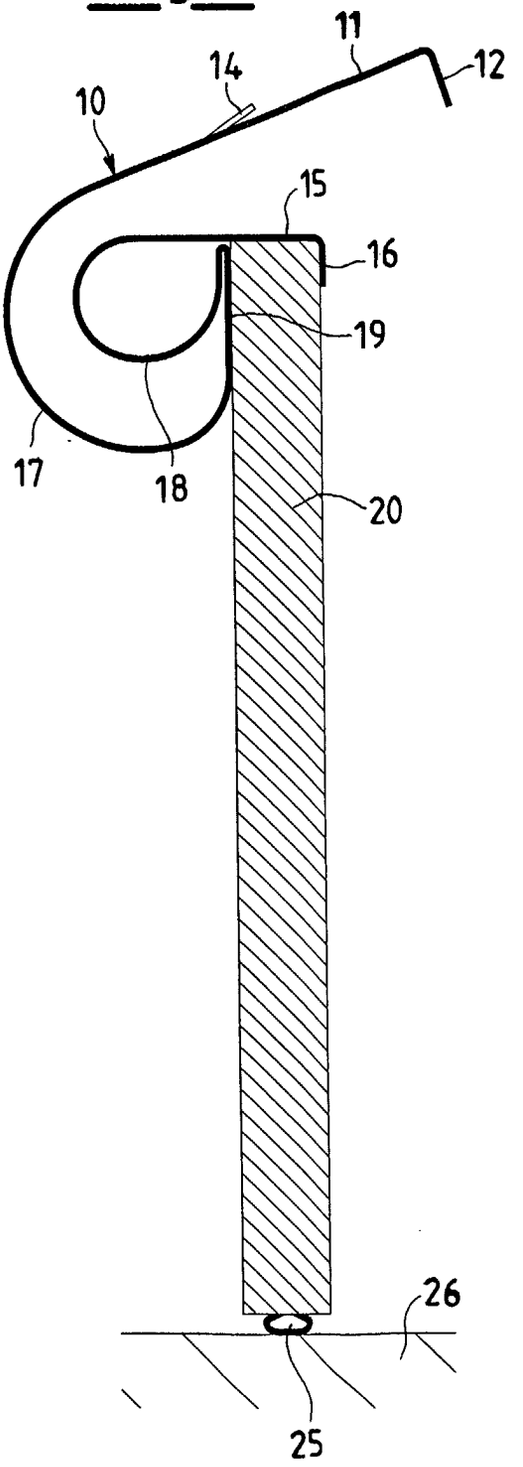
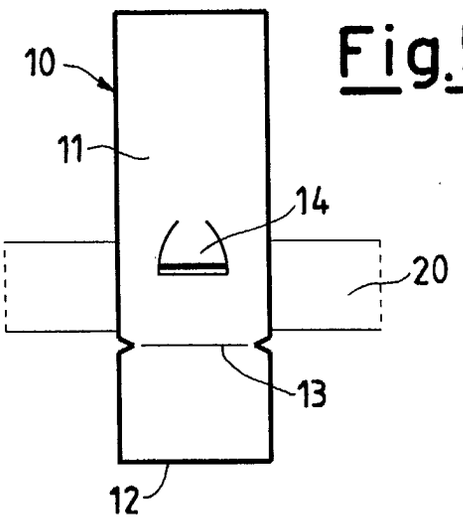


Fig.5



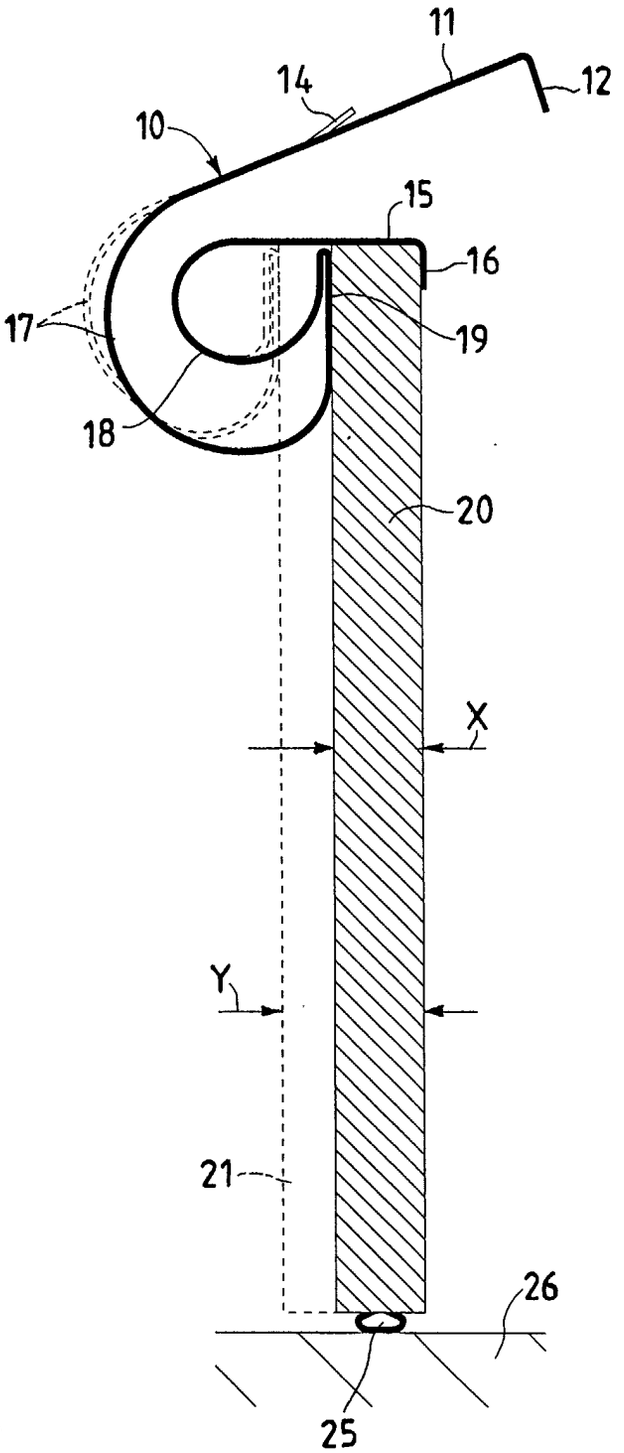


Fig.6

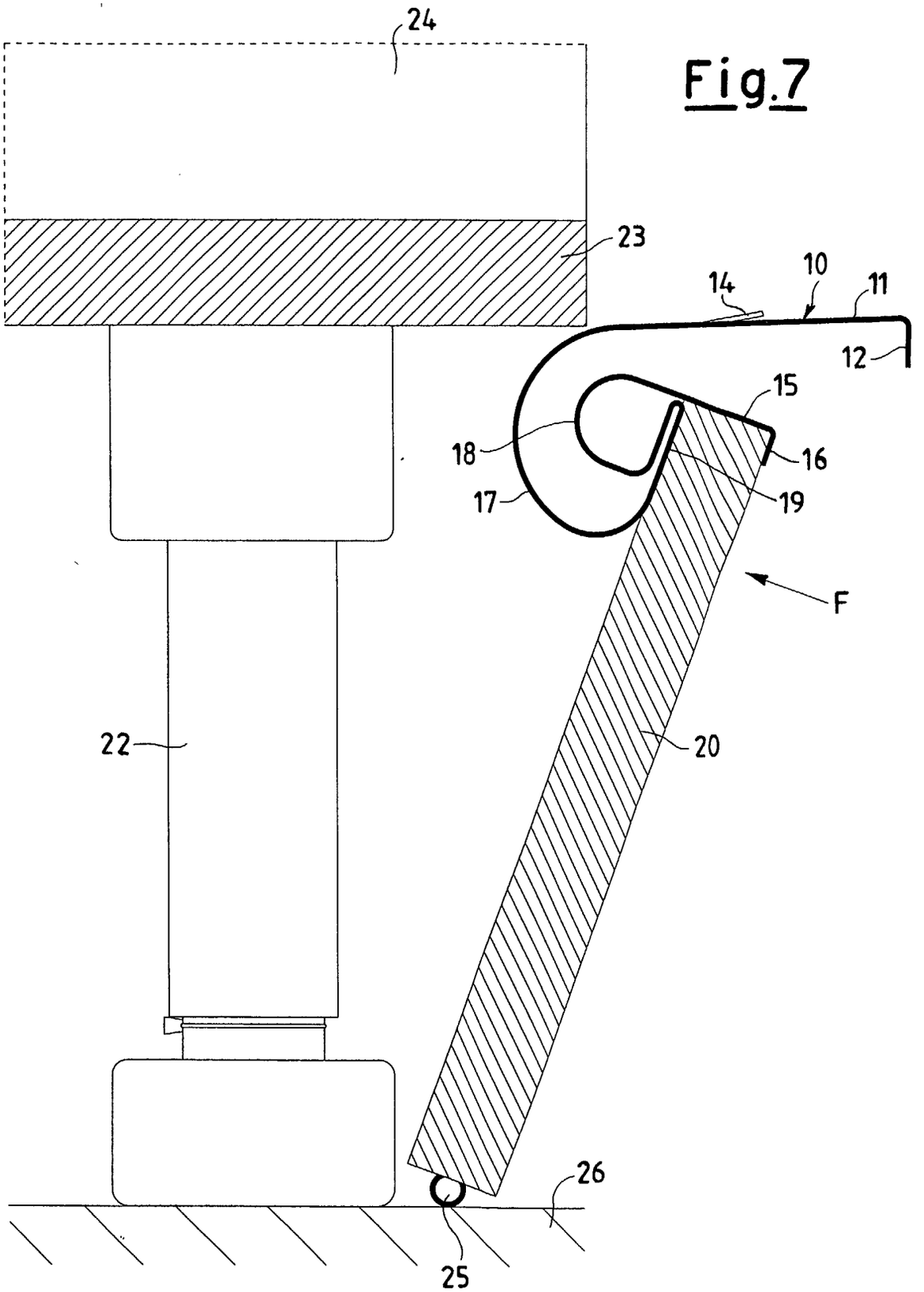


Fig.7

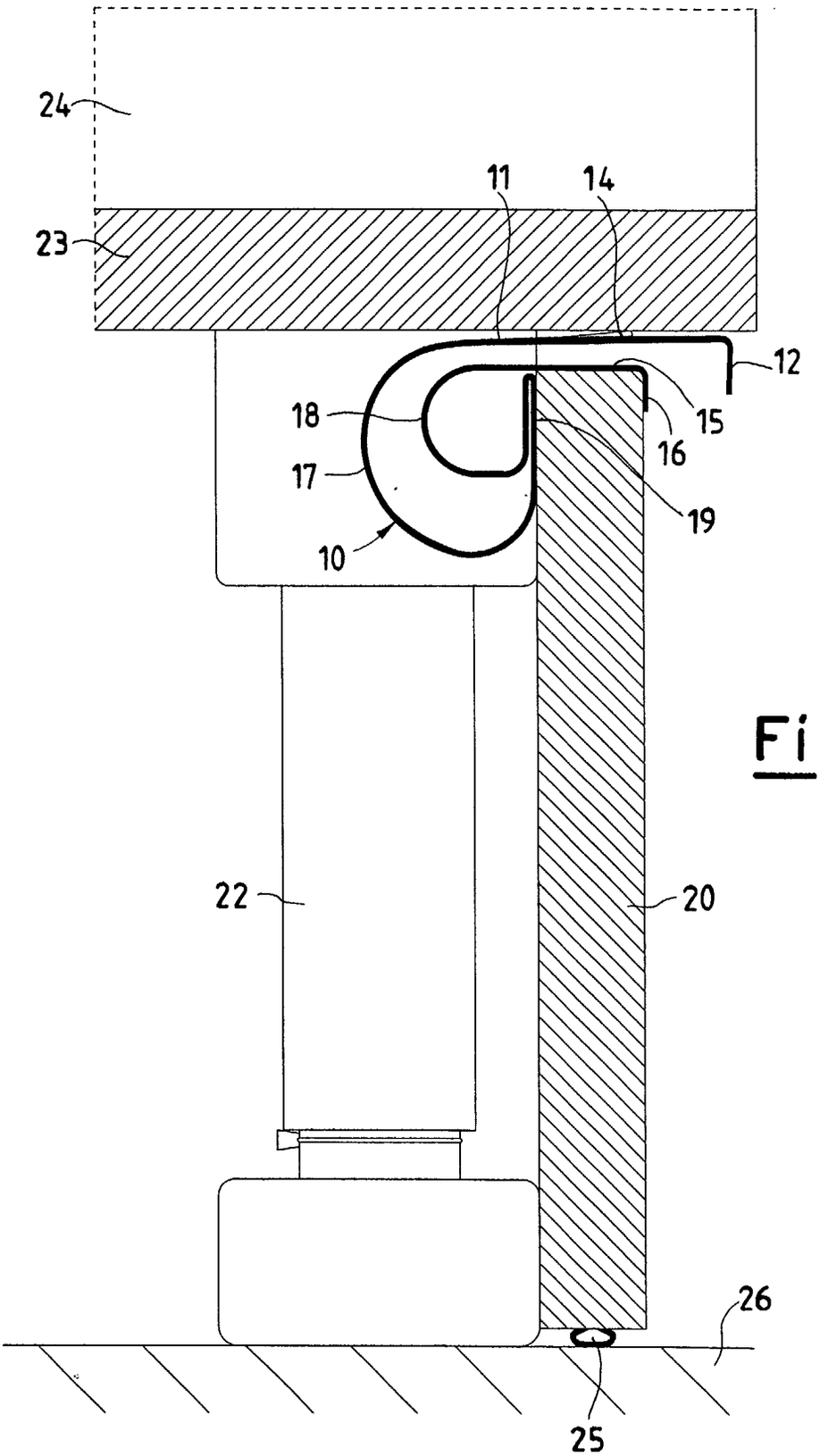


Fig.8

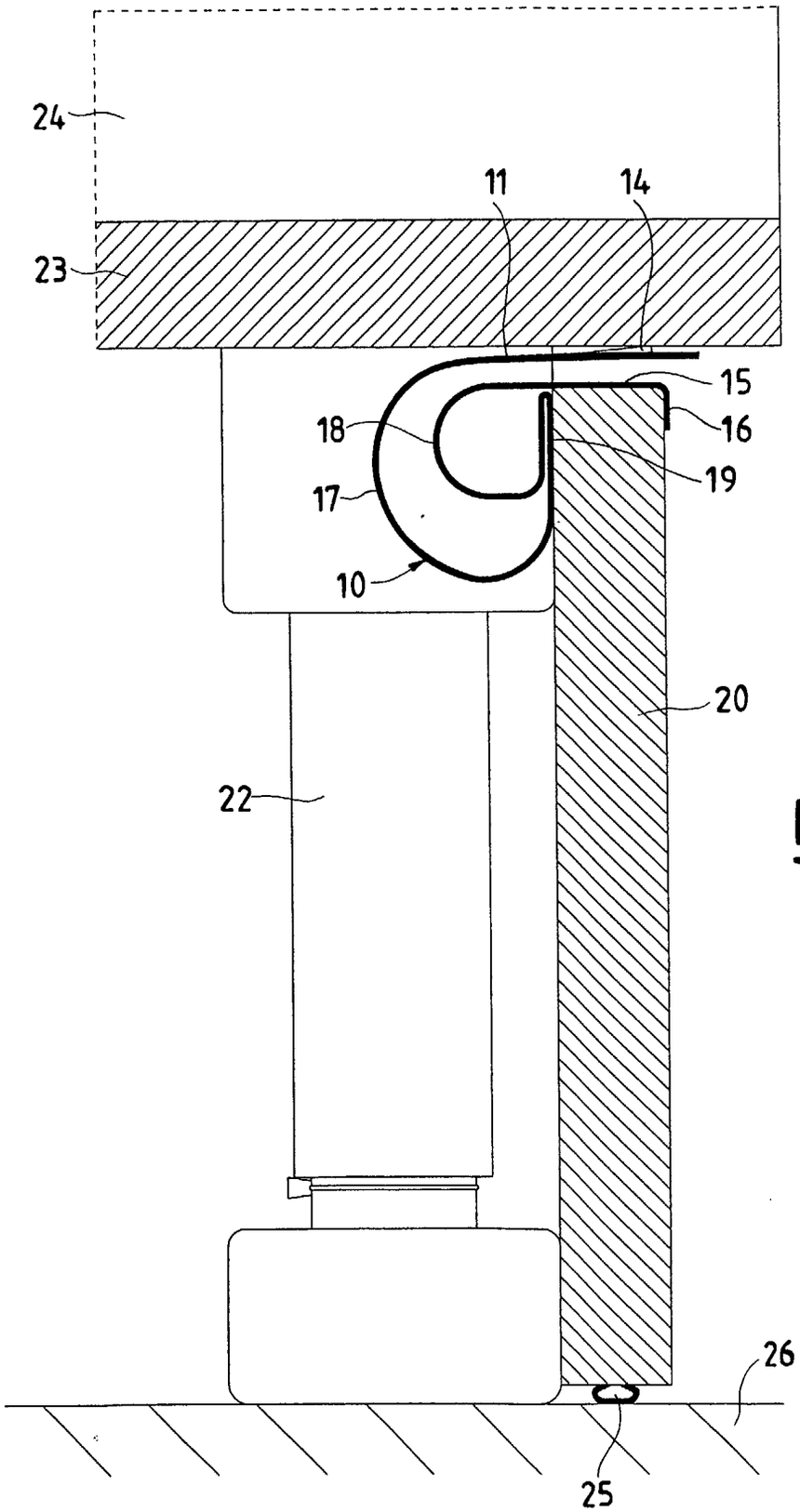


Fig.9

Fig.10

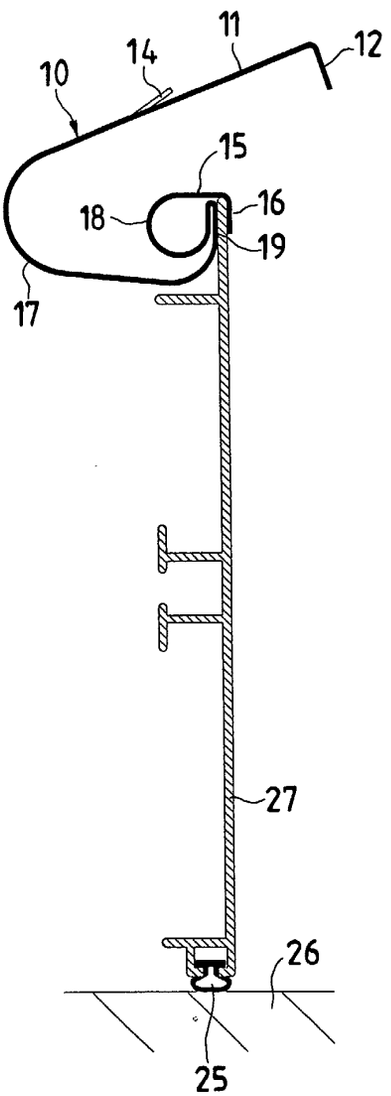


Fig.11

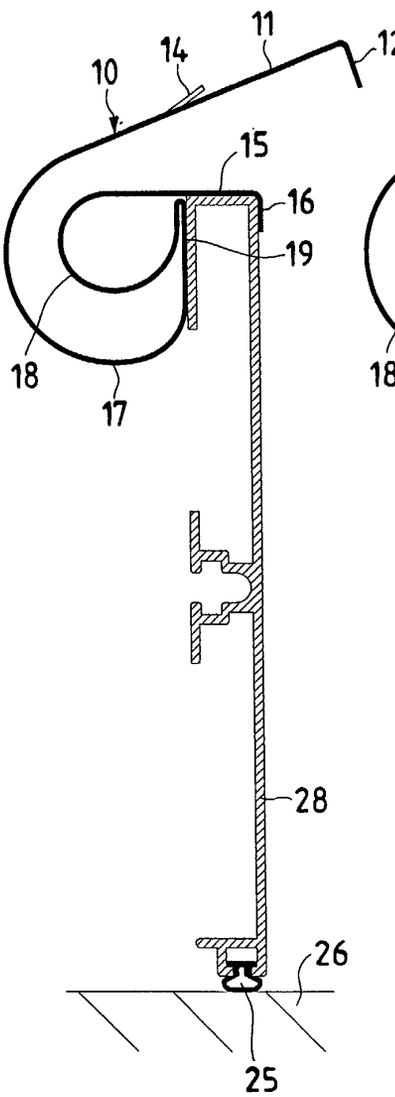


Fig.12

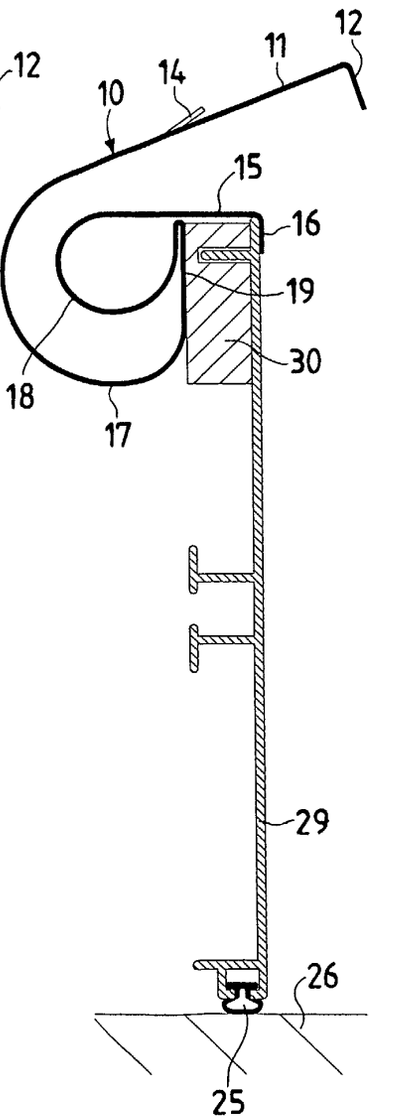


Fig.13

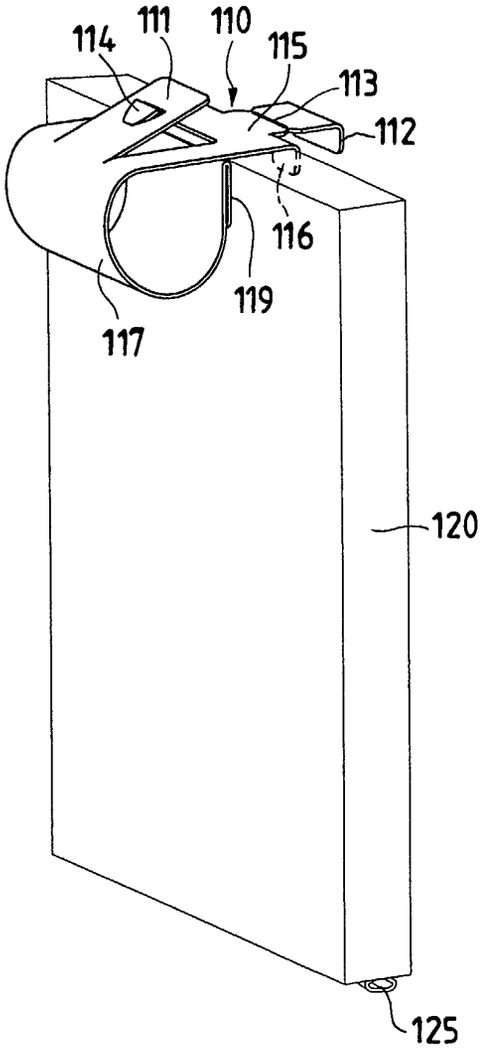

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Fig.14

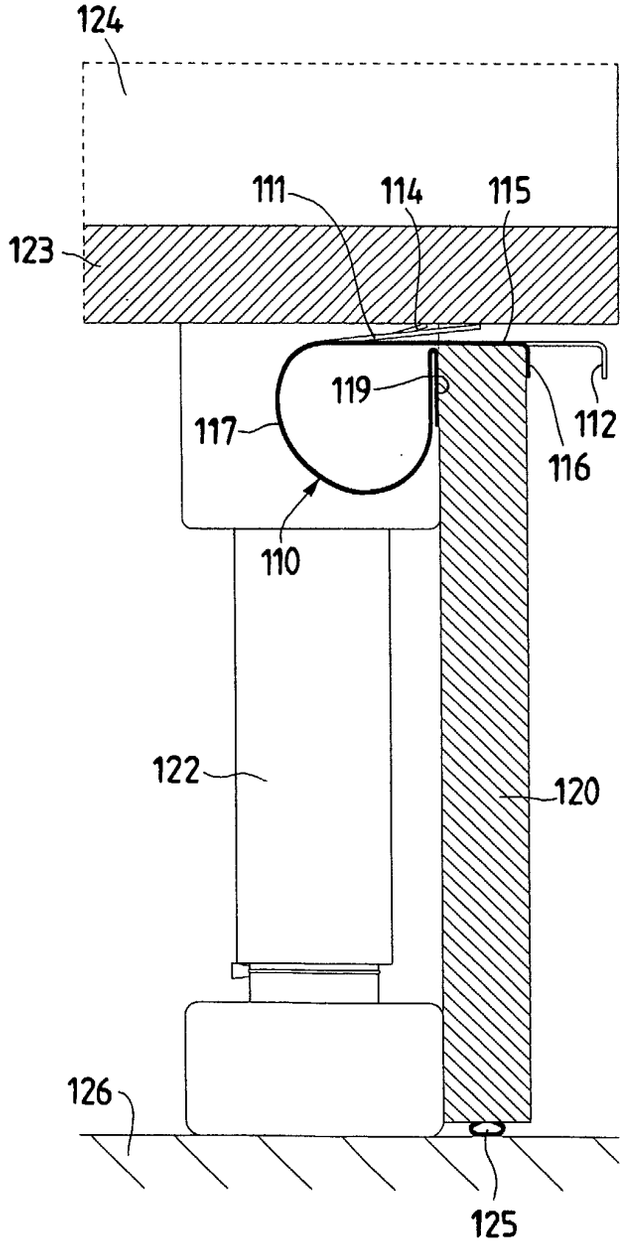
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Fig.15

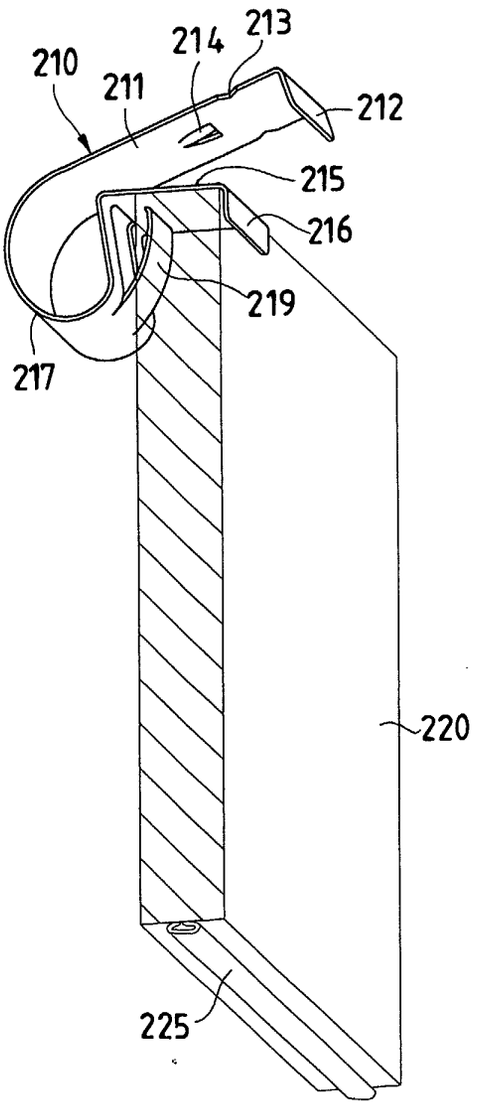
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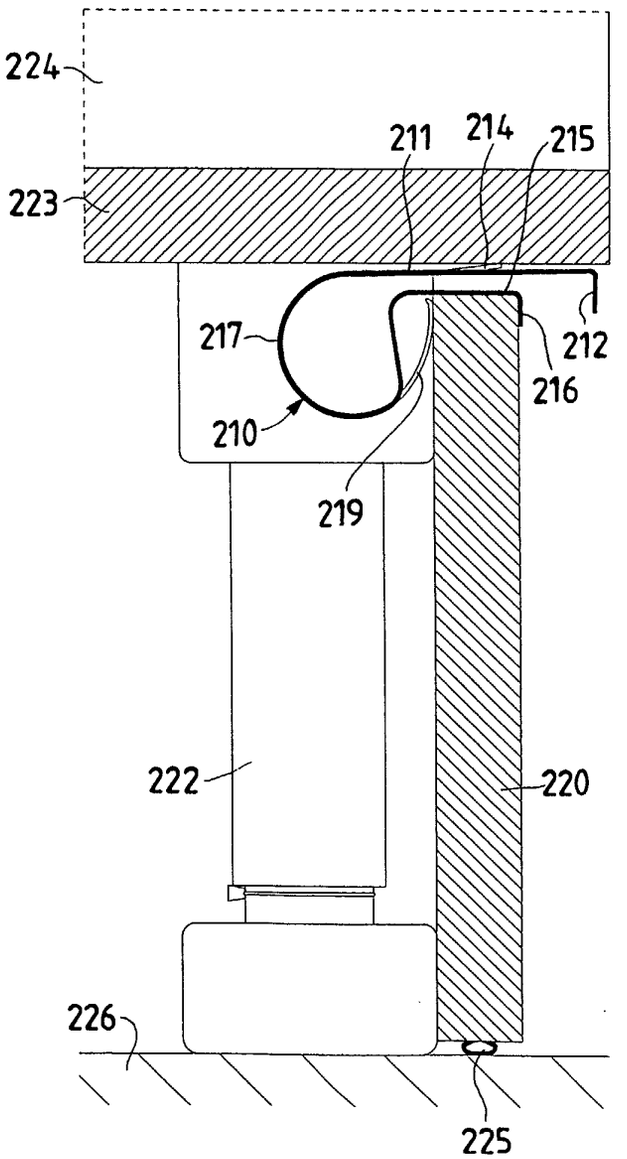
Fig.16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European Patent Office

EUROPEAN SEARCH REPORT

Application Number
EP 02 07 7321

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.7)
X	DE 296 18 655 U (FRANKE GMBH & CO KG) 12 December 1996 (1996-12-12)	1,5,6	A47B95/00
A	* page 1 - page 4, line 19; figures 1,2 *	3	
A	DE 27 05 365 A (BULTHAAAUP GMBH & CO) 10 August 1978 (1978-08-10) * figures 1-3 *	1	

TECHNICAL FIELDS SEARCHED (Int.Cl.7)

A47B

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	25 September 2002	Noesen, R

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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L : document cited for other reasons

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EPO FORM 1503 03.82 (P04C01)

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO. EP 02 07 7321

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
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25-09-2002

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82