

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
28 June 2007 (28.06.2007)

PCT

(10) International Publication Number
WO 2007/073294 A1

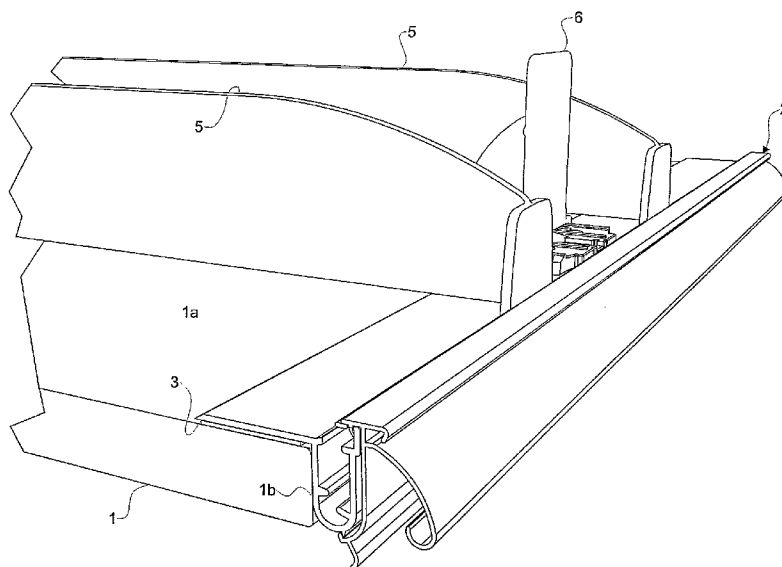
- (51) International Patent Classification:
A47F 5/00 (2006.01) G09F 3/20 (2006.01)
- (21) International Application Number:
PCT/SE2006/001456
- (22) International Filing Date:
20 December 2006 (20.12.2006)
- (25) Filing Language: Swedish
- (26) Publication Language: English
- (30) Priority Data:
0502867-5 22 December 2005 (22.12.2005) SE
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- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: A DEVICE FOR FIXING ACCESSORIES TO A SHELF



(57) Abstract: A device (2, T) for releasably fixing accessories (5, 6) to a shelf (1), comprising an elongate channel element (10, 10') which is adapted to be fastened to the front edge of a shelf and which includes an axially extending channel (13, 13') for accommodating engagement parts (53) of a number of accessories disposed in juxtaposed relationship along the shelf, and a fixing element (20, 20') which co-acts with the channel element such as to affix the engagement parts accommodated in the channel element wherein the fixing element (20, 20') can be moved relative to the channel element for adjustment between a fixing mode, in which the engagement parts are fixed, and a release mode in which the engagement parts are released.

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A DEVICE FOR FIXING ACCESSORIES TO A SHELF

Field of invention

5 The present invention relates to a fastening device for releasably fixing accessories to a shelf of the kind defined in the preamble of claim 1. The invention also relates to a system, and a shelf equipped with such a fixing device.

10 The shelf accessories may be of different kinds, such as for instance shelf dividers, pushing devices, holders for information carriers, trays, etc.

Background of the invention

15 Stores that retail convenience goods or commodities on a daily basis often present their goods on shelves. In order to create an ordered display of these goods on the shelving and to enhance their presentation there is used a number of different accessories, such as shelf dividers, different types of devices for pushing the goods and different types of goods-carrying trays, etc. Such accessories are often mounted on the upper surface of the shelf.

20 Known technology allows these accessories to be fastened to the shelf in a number of different ways, for instance mechanically with the aid of screws or technically equivalent devices, by frictional engagement or by adhesion with the aid of double-sided adhesive tape or by corresponding means.

25 The devices used to fasten the accessories to the shelves will preferably have some fundamental properties. One important property is that it is possible to fasten the accessories at selected positions along the length of the shelving, so as to position the accessories in a chosen space relationship that is adapted to suit different packages and different quantities of goods. The accessories should further be securely held to the shelf in order to avoid that they
30 are inadvertently loosened or displaced from their intended positions.

Shelf dividers constitute an example of accessories where the mutual distance there between can be particularly important. The shelf dividers often consist of partitioning walls which are fastened to the shelving such as to extend at right angles to the longitudinal direction of the

shelving and to project outwardly perpendicularly therefrom. The primary purpose of the shelf dividers is to separate different groups of goods from one another and to create order on the shelving. Particularly when a goods advancing means is placed between two shelf dividers, it is essential that the shelf dividers are not displaced towards one another, not even to the slightest extent, since the friction between goods and shelf dividers may then become so great as to prevent advancement of the goods.

The accessories will preferably also be held firmly, such as to ensure that they will not topple. In conjunction with this, it is highly important will be held firmly and that the fixing device will enable respective accessories to be readily fixed and removed.

A particularly desirable property is that it is possible to fix a number of accessories to the shelf and to release a number of accessories from the shelf readily by hand. A system which allows several accessories to be fixed and released at the same time can be used, for instance, in setting up shelf dividers on a new shelf or in reorganizing the whole of the shelf or a larger part thereof. In setting up shelf dividers on an empty shelf, the shelf dividers are first placed in roughly estimated positions along the shelf, with respect to the goods to be placed thereon. The person responsible for setting up the shelf will normally start at one end of the shelf and work towards the other end thereof. When arriving at the other end of the shelf it may become apparent that there is not sufficient room on the shelf to place a last shelf divider. All of the earlier placed shelf dividers must then be adjusted by displacing the same somewhat in either direction so as to provide space for the last shelf divider so as to fill out the earlier occurring free end of the shelf. In respect to the work involved in making this adjustment it is highly beneficial when the shelf dividers are not fixed to the shelf, so as to avoid the necessity loosening and re-fastening the dividers. When all of the shelf dividers have been finally positioned, it is desirable that all dividers can be fixed simultaneously in their respective positions readily by hand. This will readily ensure that non of the dividers will topple or be displaced or loosened on their respective intended positions while fixating the dividers or when subsequenetly placing goods on the shelf.

Even when the shelf is placed in order and the shelf dividers are placed in their respective positions, it is sometimes necessary to reorganize the shelf, requiring one or more of the shelf dividers to be moved, removed or fixed in position. For example, this is the case when the spacing between two adjacent shelf dividers must be adjusted in order to accommodate a new

item of goods or package of goods of other dimensions. In addition, it may often be desirable to subsequently fasten other accessories, such as information carriers, for instance flag holders or coupon holders on a shelf that has earlier been placed in order. In order to facilitate such reorganization of parts of a shelf that has already been placed in order it is desirable that individual accessories can be removed and then secured in a new position and to affix new accessories without needing to release remaining shelf dividers.

It is also desirable that the means for fixating the accessories will have an aesthetic appearance and will not be an unnecessary obstacle to placing or removing goods on and from a shelf or from adjacent shelving. It is also important that the accessory fixing means are of simple construction and can be produced and mounted at low cost.

It is also desirable that the means for securely holding accessories to a shelf can be applied to existing shelves without requiring the shelves to be replaced or modified in some way.

In addition to the aforesaid accessories that are normally placed on the shelf or shelving there are also often used different types of holders for price labels and other information carriers that refer to the goods placed on the shelves.

One example in this respect resides in the data-carrying strips comprised of an elongate profiled element fastened to the front edge of respective shelving such as to extend along the full length of a shelf or along several juxtaposed shelf sections. This data-carrying strip includes a longitudinally extending transparent plastic pocket in which price labels can be placed side by side in front of the goods to which the information carried thereby relates.

In recent times there has been found wider use for so-called mother profiles or holder profiles, primarily in convenience stores. The mother profiled sections are also comprised of an elongate profiled element which is fastened to the front edge of a shelf along its full length or along mutually juxtaposed sections thereof. Instead of an elongate plastic pocket the mother profiles include an elongate engagement part to which separate plastic pockets for labels or other information-carrying holders, such as flag holders, can be fastened in selective positions along the front edge of the shelf. The use of mother profiles provides greater flexibility and more possibilities for achieving an informative, striking and aesthetically attractive presentation of goods-related information.

Prior art techniques

WO2004/112549 describes a system for fastening accessories to a shelf. The system includes
5 an accessory which has a foot, and a channel element that has an outwardly open channel. The
channel element is comprised of extruded aluminium and is fastened along the front edge of a
shelf. A fixing device, for instance in the form of an elongate leaf spring, is disposed in the
channel. The fixing device can be adjusted between a fixing position in which the feet of
10 respective accessories accommodated in the channel are fixed and a release position in which
said feet are released through the medium of a manoeuvring device accessible from outside
the channel.

WO2005/7025386 describes a similar system which comprises a channel element formed by
15 extruded aluminium and having an outwardly open channel which is fastened to the front edge
of a shelf for accommodating the feet of respective accessories. An elongate fixing device that
has an outwardly open and axially extending groove is provided in the channel and can be
adjusted between an accessory fixing position and an accessory released position. This system
differs from the known system described above by virtue of the fact that the fixing device can
20 be adjusted between its respective positions by manipulating one of the accessories
accommodated in the channel element, among other things.

Both of the known systems described above thus enable all accessories accommodated in the
channel to be readily fixed and released respectively by hand. The systems also allow
25 subsequent adjustment of the accessories to be achieved readily when the accessories are
located in the channel element and the fixing device is in its accessory release mode.

The design of the systems that include an outwardly open channel in which the feet or
corresponding engagement parts of the accessories are accommodated ensures that the
accessories will be held stably in their fixed positions and that the accessories will stand
30 relatively firmly on the shelf even in the release mode of the system, so as to facilitate
subsequent adjustment of the accessories. Fastening of the accessories in the channel element
disposed on the front edge of the shelf also enables the systems to be formed in the absence of
parts that project up from the shelving if so desired.

WO2001/78043 describes a mother profile or holder profile for securing, for instance, label holders on the front edge of shelving. The mother profile is comprised of an elongate profiled element which is mounted on the front edge of a respective shelf. The profiled element includes a rear mounting part for fixing the element to the shelf and a front securing part to which label holders and other accessories of a corresponding design can be releasably snapped into the profiled element at chosen positions along the element.

Summary of the invention

One object of the present invention is to provide a fixing device of the kind defined in the first paragraph of this description, wherein the fixing device has a simple and reliable construction and is simple and inexpensive to manufacture, mount and use.

Another object of the present invention is to provide such a fixing device which enables a number of accessories to be fixed and released simultaneously to and from a shelf with the aid of a simple handgrip.

Another object of the invention is to provide such a fixing device that enables a mother profile or holder profile to be integrated in the fastening device.

Still another object of the invention is to provide such a fixing device that can be readily manufactured, for example extruded in a single piece.

These and other objects of the invention are achieved with a fixing device of the kind defined in the preamble of claim 1 and having the special features set forth in the characterising clause of the claim.

Because the fixing device is arranged generally outside the channel in the channel element there is obtained a significantly simpler construction than that of earlier known fixing devices that include an open channel for accommodating the engagement parts of respective accessories. Because the channel need only have sufficient space to accommodate the engagement parts of respective accessories, the channel element can be given a much smaller cross-section in a forward direction from the front edge of the shelf than what was earlier possible. This enables the channel element to be formed from a suitable polymer material

while still obtaining sufficient torsional stiffness along the full length of the channel element, even in the case of fixing devices of relatively large lengths. Moreover, placement of the fixing element generally outside the channel enables the entire fixing device, including channel element and fixing element, to be produced in one single piece through the medium of a generally simple and inexpensive injection moulding process or an inexpensive extrusion process.

The fixing element is conveniently connected to the channel element by means of an axially extending hinge about which the fixing element can be rotated relative to the channel element. This results in an integrated unit which can be readily produced in the absence of subsequent mounting of separate details.

The fixing device will conveniently include a profiled section which projects forwardly from the shelf and which is intended for holding further shelf accessories or information carriers and which is connected to the fixing element. There is obtained in this way a combined fixing device for fixing first shelf accessories, such as shelf dividers, pusher devices, trays and the like on top of the shelf and for securing second accessories and/or labels and the like on the front edge of the shelf. This embodiment thus enables a simple extruded element to be combined as an integral part with the fixing device for shelf accessories disposed there above with a mother profile or information carrying strip.

The fixing device conveniently includes an abutment part which is comprised of an elastically friction enhancing material for affixing abutment with the shelf accessories received in the channel. This provides more secure fixing of the accessories in the fixing mode of the device and counteracts displacement of the accessories along the shelf.

The channel element may include an abutment surface which is intended to engage the abutment part when the fixing device is in its accessory release mode, so as to releasably keep the fixing device in its release mode. This will ensure that the fixing device is kept in its release mode even in the case of a simple fixing device that is comprised of polymer material that has relatively small torsion stiffness along its length.

The fixing device will conveniently include a manoeuvring arm on that side of the channel element facing away from the shelf. This enables easy access to the fixing device from in

front of the shelves, for adjustment purposes. The manoeuvring arm also produces a lever-arm-effect which facilitates fixing and releasing of accessories, even when many engagement parts are fixed in the channel element with a relatively large tensioning force.

5 By providing the channel element and the manoeuvring arm with co-acting engagement means for releasable securement of the fixing device in its fixing mode it is ensured that the fixing device will be retained in its fixing mode along its full length even when its torsional stiffness is relatively low.

10 If the abutment part and the manoeuvring arm are each placed on a respective side of the hinge, it is possible to obtain a transmission which amplifies the lever-arm-effect of the manoeuvring arm.

The abutment part of the fixing device is preferably disposed outside the channel in order to
15 obtain the simplest possible cross-section construction and manufacture of the integrated fixing device by injection moulding or extrusion of the integrated fixing device. It is also possible, however, to design the fixing device so that the abutment part will be located in the channel when the fixing part of the device is in a fixing and/or releasing mode if so desired.

20 The profiled element will also conveniently include a mounting section which is designed for abutment with the shelf surface so that the channel element will project down beneath the shelf surface, in front of the front edge of the shelf. This enables the fixing device to be readily fitted to a standard shelf, for instance with the aid of double-sided adhesive tape. Moreover, this will enable the fixing device to be placed in a position in which it does not
25 prevent access to the goods on the shelf and which will also allow labels placed on the front profile section of the fixing device to be easily read.

Other objects of the invention and benefits afforded thereby will be apparent from the following detailed description of the invention and from the accompanying claims.

30

Brief description of the drawings

The present invention will now be described with reference to various embodiments thereof and also with reference to the figures of the accompanying drawings, in which

Fig. 1 is a perspective view of a shelf on which three different accessories have been mounted with the aid of an accessory fixing device according to a first embodiment of the invention

Fig. 2 is a perspective view of the fixing device shown in figure 1.

5

Fig. 3a and 3b are side views of the fixing device illustrated in figures 1 and 2 respectively and show the device in an accessory fixing mode and an accessory releasing mode respectively.

10 Fig. 4a, 4b and 4c are respectively perspective views taken obliquely from the rear, from one side of the device and from beneath the device, showing a part of an accessory that can be used together with the accessory fixing device shown in figure 1.

Fig. 5a and 5b are side views corresponding to the views of figures 3a and 3b respectively and
15 also show part of an accessory.

Fig. 6 is a perspective view of a fixing device according to a second embodiment of the invention, as seen obliquely from the front.

20 Fig. 7 is a side view of the fixing device shown in figure 6.

Detailed description of embodiments

There have been used in the following description directional and positional designations,
25 such as up, down, forwards, rearwards, over, under, in front of, behind, upper, lower, front and rear. These designations relate to directions and positions of a horizontal shelf or of details when fixed to such a shelf. By the front edge of a shelf is meant that edge of the shelf that faces towards a person in normal use of the shelf. The designations are used to provide greater clarity to this description and shall not be considered to limit the protective scope of
30 the claimed invention.

Figure 1 shows a front part of a typical store shelf 1 that has an upper shelf surface 1a and a front edge 1b. A system fixing device 2 according to a first embodiment of the invention is fastened to the shelf surface 1a with the aid of double-sided adhesive tape 3 such that part of

the fixing device will project down immediately in front of the front edge 1b of the shelf. Three accessories in the form of two shelf dividers 5 and a pusher device 6, are fixed to the shelf with the aid of the fixing device as is described below in more detail. At least the shelf dividers 5 have to this end a foot that includes an engagement part as described in more detail below with reference to figures 4a-4c.

The fixing device 2 illustrated in figures 2, 3a and 3b is comprised of an integrated profiled element which is produced in one piece by the co-extrusion of two different polymer materials. The fixing device 2 can thus be produced very readily and at low cost. The construction provides, at the same time, a high degree of freedom with respect to the design of the fixing device 2, so as to provide an aesthetically attractive construction which will conform to the shelf to which it shall be fastened and to other goods presentations and furnishing details. The extruded profiled element can be cut into lengths that correspond to different standard shelves, for instance in lengths of 600, 900, 1200 and 1330 mm. If the fixing system is applied to shelves of other lengths, the fixing device is simply sawn situ with the aid of a saw or hacksaw. Lengths that differ from standard lengths may also be provided in the manufacturing process.

The fixing device 2 includes a channel element 10 and a fixing element 20. The channel element 10 includes a mounting section 11 and a part 12 that projects down from the surface 1a of the shelf. The mounting section 11 is intended to lie in abutment with the shelf surface 1a via the intermediate double-sided adhesive tape 3 (figure 1). The fastening device may, alternatively, be secured to the shelf with the aid of screws or other fasteners with the mounting section lying directly against the shelf surface.

The downwardly projecting part 12 has a generally U-shaped cross section comprising a rear leg 12a and a front leg 12b which define an upwardly open channel 13 therebetween. At the upper end of the rear leg 12a an upper rear flange 14 projects obliquely outwards through a short distance in a forwardly and upwardly direction. An upper front flange 15 projects out rearwardly through a short distance at the upper end of the front leg 12b. An abutment surface 15a is arranged on the upper front flange 15. A rear upper engagement flange 16 and a front lower engagement flange 17 project out in the channel 13 from the rear leg 12a and the front leg 12b respectively in a direction inwards the channel. A first latching flange 18 is provided

on the outer surface of the downwardly projecting part 12 slightly in front of the bottom of said downwardly projecting part 12.

5 The fixing element 20 includes an engagement part 21 and a manoeuvring arm 22. The engagement part 21 is comprised of a string of elastic polymer material that has a high coefficient of friction and that has been co-extruded with the polymer material that forms the remainder of the fixing device 2. The manoeuvring arm 22 is formed by a generally J-shaped part 22a and a part 22b that projects out at right angles to the channel element 10. A second latching flange 23 projects out towards the channel element 10 from the lower tip of the J-shaped part 22a. A gripping flange 24 also projects out from the lower part of the J-shaped part 22a in a direction away from the channel element 10.

10 The fixing element 20 is connected to the channel element 10 by means of a hinge 30 that forms an axle which extends along the system and which allows the fixing element 20 to be rotated relative to the channel element 10. In the case of the illustrated embodiment, the hinge is comprised of a relatively thin bridge of the same material as that from which the channel element 10 and the fixing element 20 are made, with the exception of the deformable element 21. However, the hinge may alternatively be formed from some other flexible material that is co-extruded with the other materials included in the accessory fixing system.

20 At the embodiment illustrated in figures 1 – 3b, 5a and 5b the fixing device also includes a front profiled section 25, 26 which constitutes an engagement profile for securing further accessories, such as label holders or flag holders (not shown). The front profile section includes an upper hook-shaped projection 25 and a lower forwardly arched portion 26 that has a lower rounding whose radius of curvature is smaller than that of the arched portion. The hook-shaped projection 25 and the arched portion 26 extend out from the J-shaped portion 22a of the manoeuvring arm 22 in a direction away from the channel element 10 and are formed integrally as a one-piece structure with the remainder of the fixing device 2.

30 Figures 4a-c illustrates an example of an accessory that is suited for being held by the fixing device according to the invention. The figures show the front portion of a shelf divider 5, although it will be understood that other accessories with a corresponding engagement part 53, that is described further below, are suited for being fixed at shelves which are provided with a fixing device according to the invention. The shelf divider 5 includes a dividing wall

51 and a front plate 52 whose lower part forms an engagement part 53 which is intended to be received by and affixed in the fixing device 2 (see figure 1). In order to achieve effective stability when the shelf divider is placed on the shelf, the engagement part 53 includes a portion that has a given extension parallel with the longitudinal direction of the fastening device below that part of the accessory that is placed on the shelf surface.

The engagement part 53 also includes a front surface 54 which is generally vertical, and a lower portion which tapers downwardly into a tip 55 that includes draughts or clearances 55a in the sides of the engagement part 53. Slightly above the bottom tip 55 there extends rearwardly an upper horizontal flange 56 that has a generally constant cross-section over the full width of the engagement part 53. There is provided in the engagement part 53 a rearwardly open aperture 57 of round cross-section beneath the upper flange 56. A beak-like projection 58 extends rearwardly beneath the aperture 57. The beak-like projection 58 includes laterally facing and downwardly facing clearances 58a, 58b in the engagement part 53.

Figures 5a and 5b illustrate how the shelf divider 5 shown in figures 4a-c can be affixed to a shelf (not shown in figures 5a-b) and released with the aid of a fastening device 2, shown in figures 2-3.

Figure 5a shows the fixing device in its release mode. The fixing element 20 has herewith been rotated anticlockwise about the hinge 30, wherewith the abutment part 21 has come into abutment with the abutment surface 15a on the channel element 10. As a result of the resilience of the abutment part 21 and its relatively high coefficient of friction the fixing element 20 is kept in its release mode along its full length. This is particularly beneficial since it allows the fixing element 20 to be formed from a material that has a relatively small rigidity and can also be readily caused to take and be retained in a distinct release position so as to enable accessories to be positioned, removed and displaced along the full length of the fastening device 2. In this position of the fixing element 20 it is possible to insert the engagement parts 53 of a desired number of accessories 5, 6 into the channel 13 of the channel element 10. The tip 55 of the engagement part 53 and the lower clearance 58b of the beak-like projection 58 allows the tip 55 and the projection 58 to pass the rear upper engagement flange 16 of the channel element 10 and take the position shown in figure 5a. In this position, the rear upper flange 6 is in engagement with the aperture 57 in the engagement part

53 between the flange 56 and the projection 58, at the same time as the lower front engagement flange 17 of the channel element lies against the tip 55 below the front vertical surface 54 of the engagement part. This engagement between the engagement flanges 16, 17 of the channel element and the engagement part 53 of the accessory ensures that the accessory will stand relatively firmly on the shelf while, at the same time, enabling the accessory to be easily displaced along the shelf in the longitudinal direction of the fixing device 2.

When all accessories have been moved into the fastening device in the manner described above and adjusted to desired positions in the longitudinal direction of the shelf, all of the accessories are fixed simultaneously by turning the fixing element 20 clockwise to the position shown in figure 5b. During this rotation of the fixing element 20, the abutment surface releases its frictional engagement with the abutment surface 15a and, instead, is caused to abut the vertical surface 54 on the engagement part 53 of the shelf divider 5. During this rotation, the distance of the abutment part 21 from the hinge 30 gives rise to a force that urges the engagement part rearwards. This results in the application of a tensioning force along three contact lines of the engagement part 53 in the fixing device 2. This tension force is obtained by the abutment of the abutment part 21, the upper rear flange 16 and the lower front flange 17 with the corresponding parts 54, 57, 55 on the engagement part. This results in stable fixation of the accessory 5 to the shelf, which prevents the accessory from being lifted or toppled, not even if the accessory is subjected to relatively large forces. The relatively high coefficient of friction of the abutment part 21 in combination with the tension force with which the abutment part 21 lies against the engagement part 53 also gives rise to a high degree of friction between the abutment part 21 and the engagement part. This counteracts displacement of the accessory in the longitudinal direction of the fixing device in a simple and effective manner when the fixing device is in its accessory fixing mode.

When the fixing element 20 is turned to its fixing mode, the second latching flange 23 on the fixing element 20 will come into engagement with the first latching flange 18 on the channel element 10. This results in releasable latching of the fixing element 20 in its fixing mode along the full length of the fixing device. This is particularly beneficial since the fixing element 20 can then be formed of a material that has a relatively small stiffness and also enables the fixing device to be caused to take and be kept in a distinct fixing position such as to enable accessories to be firmly affixed along the full length of the fixing device 2.

Accessories can be plucked from the shelf by rotating the fixing element counter clockwise back to the release position shown in figure 5a. The accessories 5 can then be readily plucked from the fixing device 2, by rotating the accessories slightly about a horizontal axis at right angles to the longitudinal direction of the fixing device. The clearances 58a, 58b (see figure 4a) on the beak-like projection 58 and the downwardly narrowing tip herewith enables the engagement part 53 to be turned out of its relatively loose engagement with the engagement flanges 15, 16 of the channel element 10.

The described adjustments of the fixing device 2 between its accessory release and accessory fixing modes can be made readily by gripping the gripping flange 24 on the manoeuvring arm 22 of the fixing element 20. Because the distance of the gripping flange 24 to the hinge 30 is substantially greater than the distance of the abutment part 21 to the hinge 30, there is obtained a transmission which enables the fixing element to be moved to and from its fixing mode with a relatively small finger force, even when the abutment part 21 lies against the engagement part 53 with a high abutment force when in its fixing mode.

The embodiment of the fixing device shown in figures 1-3b, 5a and 5b, includes an integrated front profile section 25, 26 which constitutes a so-called mother profile. This mother profile can be used for securing, for instance, label holders such as label pockets and flag holders. The fixing device thus constitutes an integrated single-piece structure which, in addition to fixing to the shelf such accessories as shelf dividers, trays and pusher devices also other accessories, such as label holders and flag holders placed appropriately along the front edge of the shelf so as to be easily seen.

The embodiment of the fixing device 2' shown in figure 6 and 7 is identical with the embodiment described above with the exception of the front profiled section. In the case of the embodiment illustrated in figure 6 and figure 7, the front profiled section instead comprises a transparent label pocket 27 which is fastened to the manoeuvring arm 22' of the fixing element 20' by means of a hinge forming bridge of material 28, and by a supportive flange 29 which projects out forwardly from the manoeuvring arm 22', below the hinge 28. This embodiment enables, for instance, price labels (not shown) to be placed at selective positions along the front edge of the shelf, by inserting said labels into the pocket 27. The supportive flange 29 ensures that label pockets 27 will be held, under the influence of gravity, at an appropriate angle for optimal reading of the labels. The hinge 28 enables the label pocket

27 to be turned up from its rest position shown in figure 6 as indicated by the double-headed arrow A in figure 6. This enables the gripping flange 22' to be readily reached when wishing to adjust the fixing device 2' between its accessory and accessory fixing modes.

5 Although the invention has been described above with reference to exemplifying embodiments thereof, it will be understood that these embodiments do not limit the scope of the invention and that variations can be freely made within the scope of the accompanying claims. For instance, if desirable the fixing device may be adapted so that a part thereof, suitably the abutment part can project fully or partially into the channel, either in a release mode, a fixing
10 mode or in both of said modes. A substantial part of the fixing device, such as the manoeuvring arm and the front profiled section is, in this case, disposed outside the channel so as to provide a simple and reliable construction that can be produced in a simple and inexpensive fashion and simple use. A Swedish patent application related to the present application and entitled "A system and fixing device for fixing accessories to a shelf" has
15 been filed by the same applicant on the same date as the present application. The contents of this related application are included in the present application by virtue of this reference. It will be understood that different embodiments and details from the two applications can be combined.

CLAIMS

1. A device (2, 2') for releasably fixing accessories (5, 6) to a shelf (1), comprising an elongate channel element (10, 10') which is adapted to be fastened along the front edge of a shelf and which includes an axially extending channel (13, 13') for receiving engagement parts (53) of a number of accessories disposed in juxtaposed relationship along the shelf; a fixing element (20, 20') which co-acts with the channel element for fixing engagement parts accommodated in the channel element and which is movable relative to the channel element for adjustment between a fixing mode in which the engagement parts are fixed, and a release mode in which the engagement parts are released, **characterized in** that the fixing element (20, 20') is disposed generally outside in the channel element (10, 10').
2. A device according to claim 1 in which the channel element (10, 10') and the fixing element (20, 20') are mutually joined by means of a hinge (30, 30') that extends parallel with the channel (13, 13') and that defines an axle about which the fixing element can rotate relative to the channel element.
3. A device according to claim 1 or 2 comprising a profiled section (25, 29) which projects out forwardly from the shelf and which is adapted for the fixation of further accessories or information carriers, wherein the profiled section is disposed on the fixing element (20, 20').
4. A device according to any one of claims 1-3, in which the channel element (10, 10'), the fixing element (20, 20') and the front profiled section (25-29) has the form of a one-piece structure.
5. A device according to claim 4, in which the profiled element is produced by an extrusion process or by an extrusion moulding process.
6. A device according to any one of claims 1-5, in which the fixing element (20, 20') includes an abutment part (21, 21') for fixing abutment with the accessories (5, 6) accommodated in the channel (13, 13'), wherein the abutment part has the form of a resilient friction enhancive material.

- 5 7. A device according to claim 6, in which the channel element (10, 10') includes an abutment surface (15a, 15a') which is adapted for engagement with the abutment part (21, 21') when the fixing element (20, 20') is in its release mode, such as to releasably secure the fixing device in its release mode.
- 10 8. A device according to any one of claims 1-7 in which the fixing element (20, 20') includes a manoeuvring arm (22, 22') disposed on the side of the channel element (10, 10') distal from the shelf.
9. A device according to claim 8, in which the channel element (10, 10') and the manoeuvring arm (22, 22') include co-acting engagement means (18, 23, 18', 23') for releasably holding the fixing element (20, 20') in its fixing mode.
- 15 10. A device according to any one of claims 8-9, in which the abutment part (21, 21') and the manoeuvring arm (22, 22') are each disposed on a respective side of the hinge (30, 30')
- 20 11. A device according to any one of claims 1-10 in which the abutment part (21, 21') is disposed outside the channel.
12. A device according to any one of claims 1-10 in which the abutment part projects at least partially into the channel.
- 25 13. A device according to any one of claims 1-12, in which the profiled element includes a mounting section (11, 11') which is adapted for abutment with the shelf surface such that the channel element will project down beneath the shelf surface in front of the front edge of the shelf.
- 30 14. A system for fixing accessories to a shelf comprising a fixing device (2, 2') according to any one of claims 1-13, and an accessory (5, 6).
15. A shelf which includes an accessory fixing device (2, 2') according to any of claims 1-13.

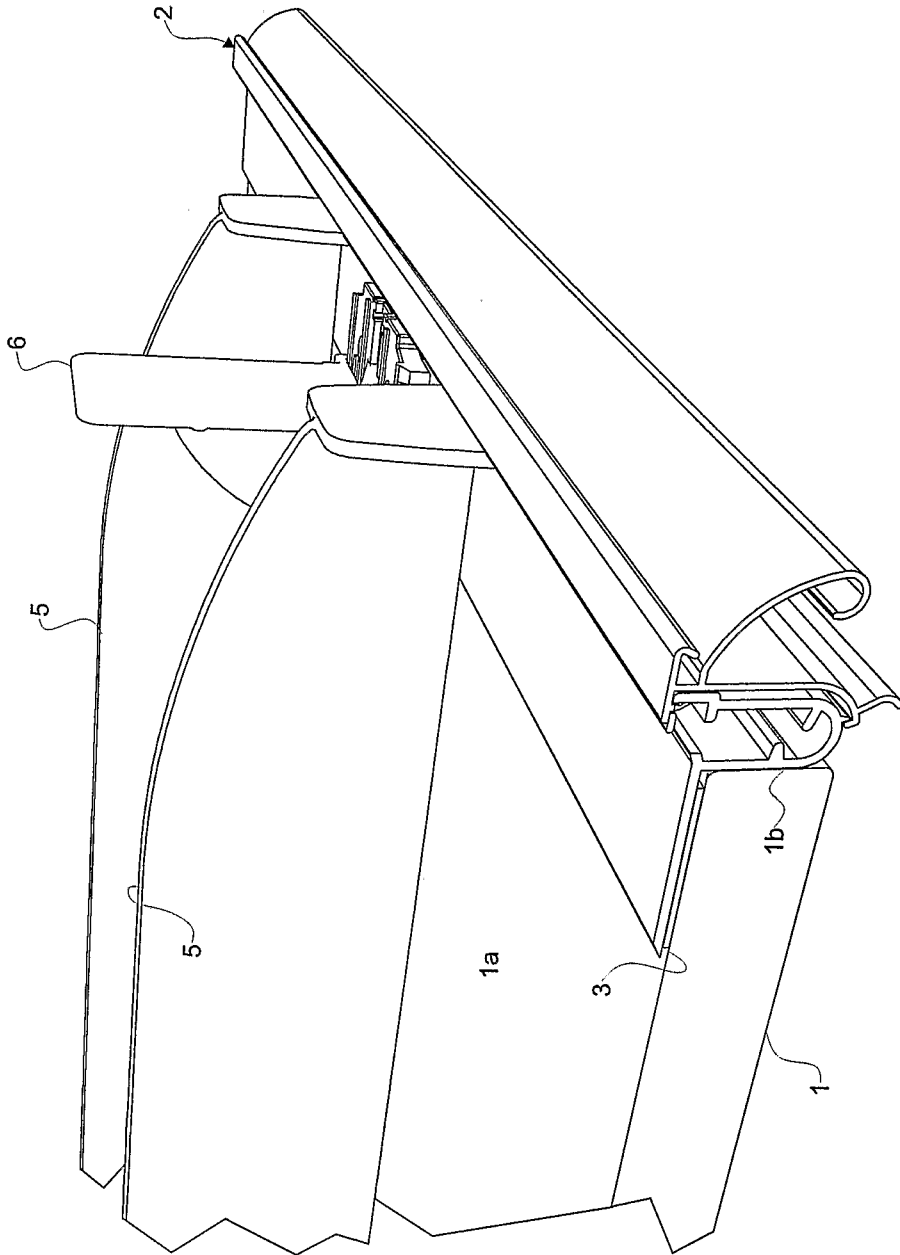


Fig. 1

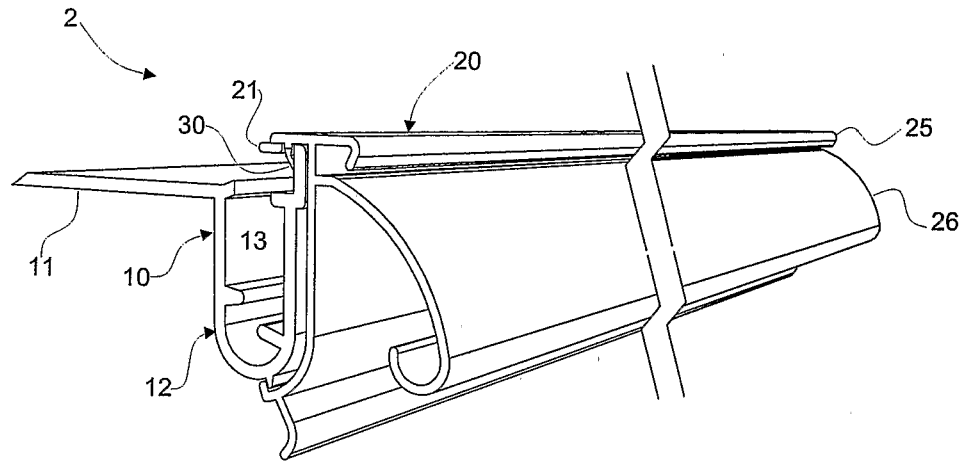


Fig. 2

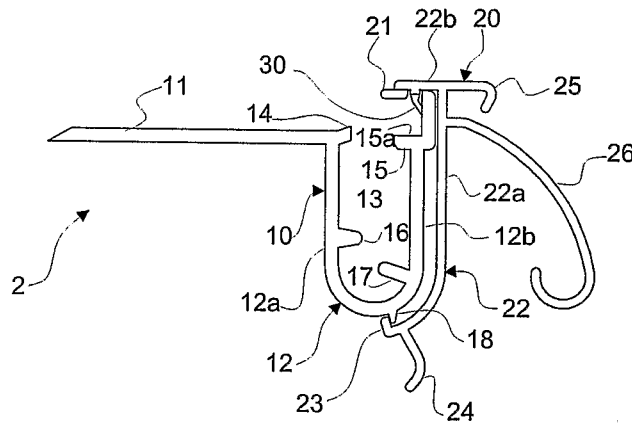


Fig. 3a

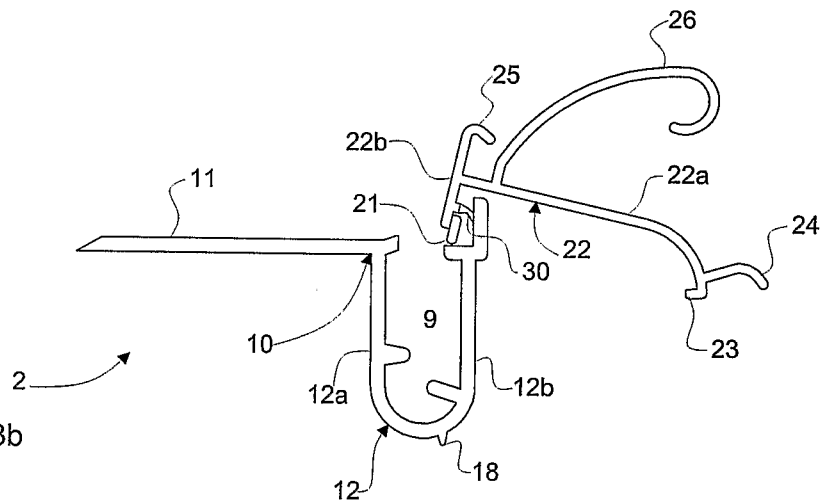


Fig. 3b

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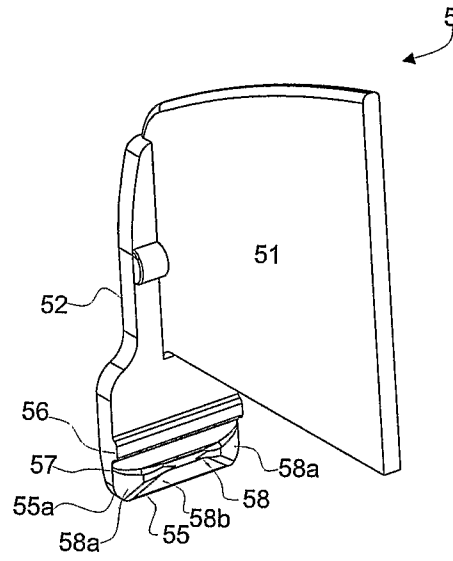


Fig. 4a

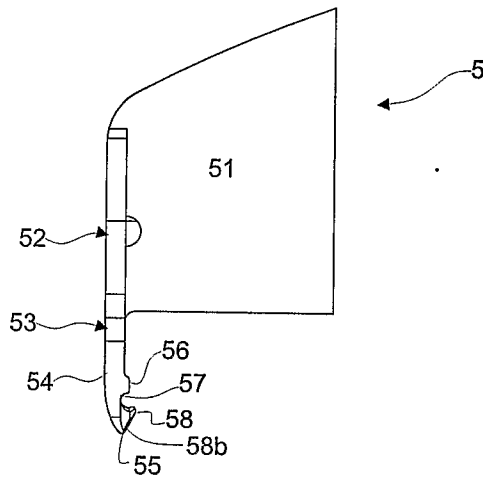


Fig. 4b

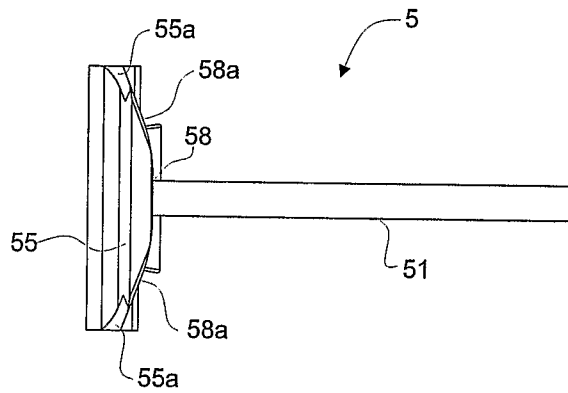


Fig. 4c

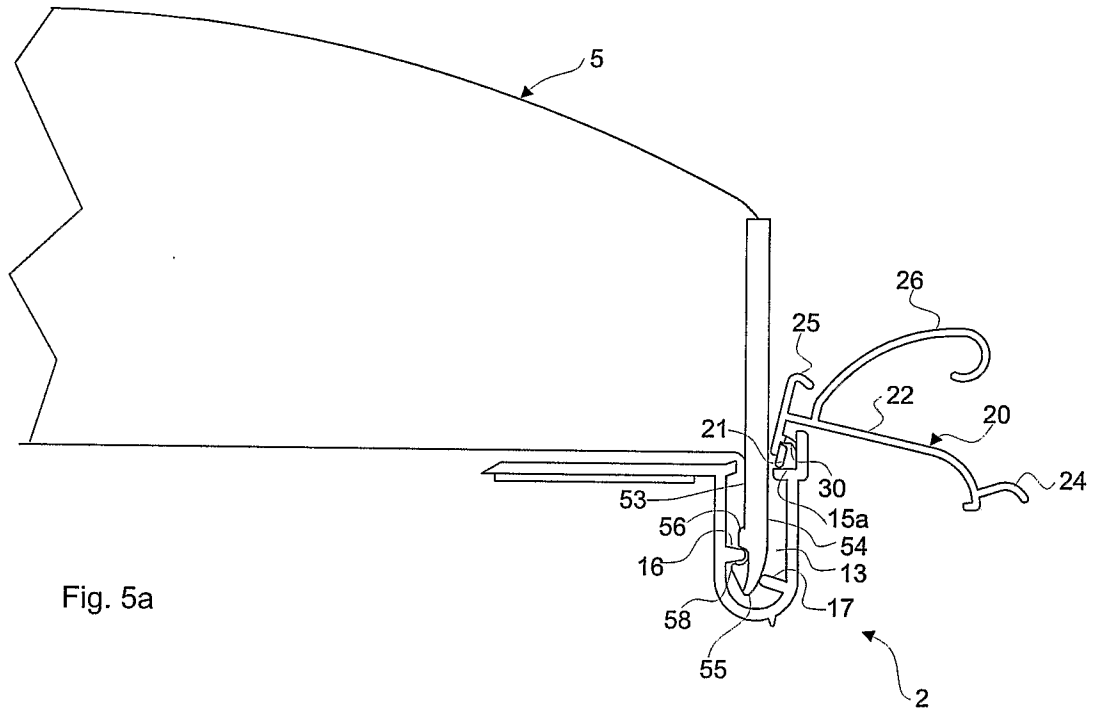


Fig. 5a

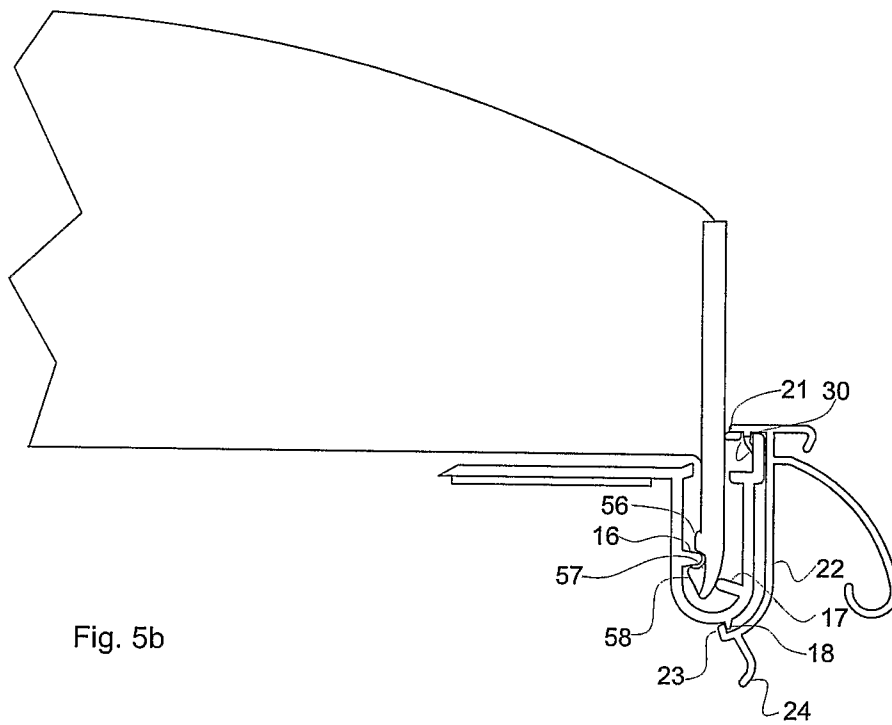


Fig. 5b

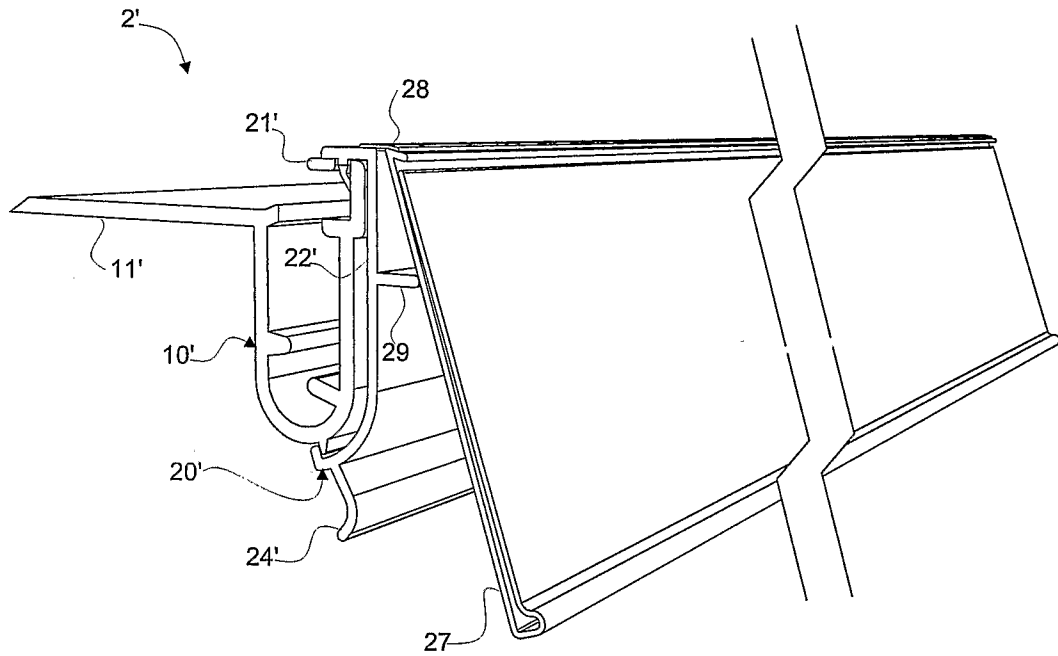


Fig. 6

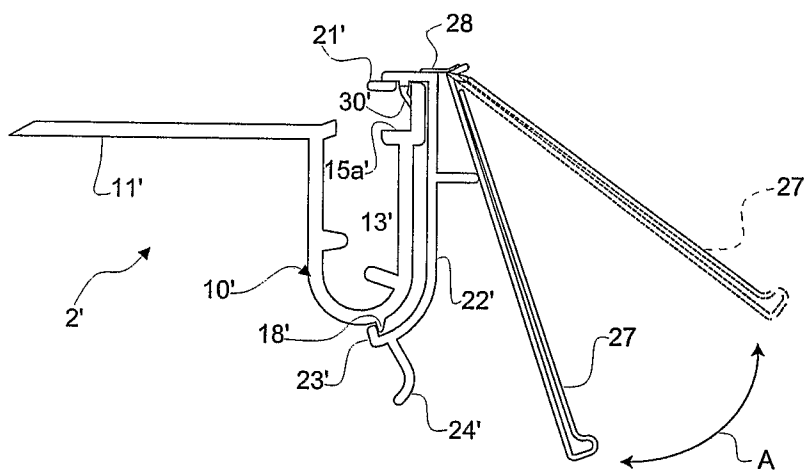


Fig. 7

INTERNATIONAL SEARCH REPORT

International application No.

PCT/SE2006/001456

A. CLASSIFICATION OF SUBJECT MATTER

IPC: see extra sheet

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC: A47F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-INTERNAL, WPI DATA, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	WO 2006074955 A1 (JOALPE INDUSTRIA DE EXPOSITORES, S.A.), 20 July 2006 (20.07.2006), figures 3-5,9-11, adherent text --	1,14,16
A	US 4762236 A (JACKLE, III ET AL), 9 August 1988 (09.08.1988), column 4, line 5 - line 36; column 5, line 25 - column 6, line 29, figures 1,5,6 ---	1-15
A	WO 2004112549 A1 (HL DISPLAY AB), 29 December 2004 (29.12.2004), page 12, line 19 - page 13, line 15; page 15, line 13 - page 16, line 26, figures 1-9 --	1-15

 Further documents are listed in the continuation of Box C. See patent family annex.

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Date of the actual completion of the international search

3 April 2007

Date of mailing of the international search report

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INTERNATIONAL SEARCH REPORT

International application No.

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
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A	US 5577337 A (LIN), 26 November 1996 (26.11.1996), whole document --	1-15
A	DE 68334796 U1 (VALKIESER, HANS HELMUT), 12 January 1984 (12.01.1984), whole document --	1-15
A	EP 0120099 A1 (THE HOWARD MARLBORO GROUP), 3 October 1984 (03.10.1984), page 7, line 26 - page 9, line 2, figure 3 -- -----	1-15

International patent classification (IPC)**A47F 5/00** (2006.01)**G09F 3/20** (2006.01)**Download your patent documents at www.prv.se**

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INTERNATIONAL SEARCH REPORT
Information on patent family members

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