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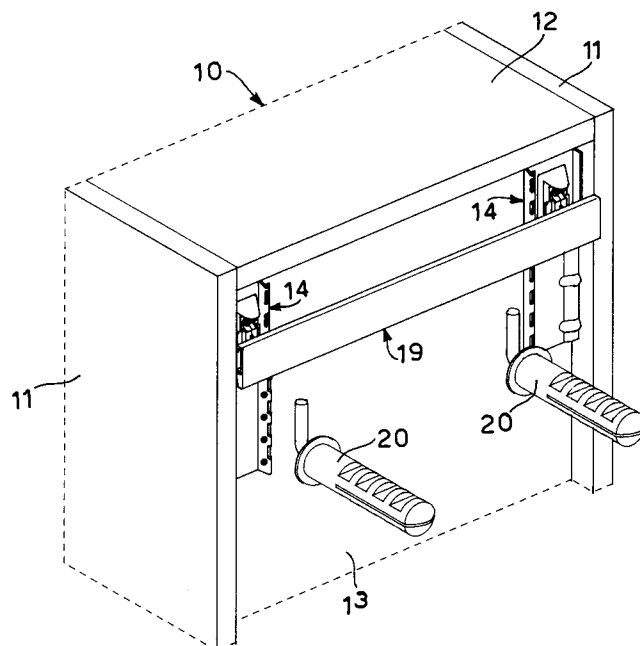
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(54) **Wall furniture item with a wall attachment system comprising a bar position-adjustable in terms of height and depth.**

(57) A wall furniture item comprises at least one pair of attachment devices (14) for attachment to a retaining element (20, 22) fixed to the wall, in which each of said attachment devices (14) comprises a coupling element (15) position-adjustable in terms of both depth and height and arranged to engage said

retention element (20, 22) fixed to the wall. According to the invention, the coupling elements (15) of said attachment devices (14) are interconnected by a bar (19) to be hooked to said retention element (20, 22) fixed to the wall.

**Fig.4****EP 0 636 328 A2**

This invention comprises a wall furniture item with a wall attachment system comprising a bar position-adjustable in terms of height and depth.

Preferably but not necessarily, the wall furniture item according to a invention is a kitchen furniture unit.

To wall-mount an item of wall furniture it is known to the expert of the art to use an attachment device in which a coupling element is articulatedly secured to a frame or plate and is position-adjustable relative to said plate.

The plate is arranged to be fixed to the side panel and possibly also to the top panel of the item, either to the rear or to the front of the back panel (depending on whether the attachment device is to be hidden or exposed), whereas the coupling element freely engages a channel-shaped bar, or hooks or hook plugs fixed to the wall, or to a member suitable for this purpose.

The aforesaid attachment devices are provided with linkages comprising operating screws for adjusting the vertical position of the coupling element relative to the plate, or its length, or the angle formed between the plate and the coupling element, in accordance with the extent of opening of this latter.

Said operating or adjustment screws are accessible either from the interior of the furniture item, or through one or more holes formed in the back panel in the case of a hidden attachment device.

In this manner it is possible, within certain limits, to adjust the position of the wall furniture item in terms both of depth and height, after it has been mounted on the wall by engaging the coupling elements of the attachment devices fixed to the item side panels with the bar or hook plugs fixed to the wall.

Attachment devices of the aforesaid briefly described type are illustrated for example in German patents 2,717,169, 3,036,984 and 3,111,357, in EP-A-389054 and in US-4143846.

The coupling element of attachment devices of the known art is easily and comfortably engagable with a channel-shaped bar fixed to the wall, but if individual hook plugs or bar hooks are used, it is essential for the hook plugs or the successive hooks on the bar to be in a predetermined position apart corresponding to the distance between the axes of the furniture item attachment devices.

This means that bars have to be provided with hooks at a distance apart corresponding to that between the attachment devices on the furniture item, or that the hook plugs have to be fixed into the wall with extreme accuracy.

The general object of the present invention is to obviate the drawbacks of the known art by providing a wall furniture item comprising a wall

attachment system which can be mounted in a freely removable manner either on a bar comprising successive hooks or on individual hook plugs fixed to a wall, without any need for the distance between the axes of two successive hook plugs or between two successive hooks on a bar to be equal to the distance between the axes of the coupling elements of the attachment devices on the furniture item.

Said object is attained by a wall furniture item with the characteristics defined in the accompanying claims.

The structural and functional characteristics of the invention and its advantages compared with the known art will be more apparent from an examination of the following description given with reference to the accompanying schematic drawings, which show one embodiment of a wall furniture item formed in accordance with the principles of the invention. In the drawings:

Figure 1 is a perspective view showing from the rear the upper corner part of a wall furniture item comprising a hidden attachment device coupled to a bar in accordance with the known art;

Figure 2 is an exploded perspective view showing the rear part of a wall furniture item in accordance with the invention;

Figure 3 is a detail showing the system for securing the attachment devices to the bar which connects them together;

Figure 4 is a perspective view of the furniture item of Figure 2, but with the fixing bar secured to the attachment devices in the position for use with hook plugs fixed to the wall;

Figure 5 is a view similar to Figure 2, but showing a wall furniture item of the invention to be mounted on a bar comprising successive hooks;

Figure 6 is a view similar to Figure 5, but showing the wall furniture item coupled to said bar;

Figures 7 and 8 are two perspective views showing the wall furniture item of the invention with the fixing bar in two different adjustment positions; and

Figure 9 is a view similar to Figure 1, but showing the interior of the wall furniture item.

Figure 1 of the drawings is a view from the rear showing the upper corner part of a wall furniture item 10 formed from two side panels 11, a top panel 12, a back panel 13 and a base plus intermediate shelves, not shown.

The reference numeral 14 indicates overall a hidden attachment device, which can for example be of the type illustrated in EP-A-555924, to which reference should be made for further clarification.

The attachment device could evidently also be of a different type, hidden or exposed, ie fixed to the interior of the furniture item instead of to the rear of the back panel.

An exposed attachment device is illustrated for example in EP-33179.

In the known art, the coupling element 15 of the attachment device 14, which is position-adjustable in terms of depth and/or height by the screws 16, 17 respectively (Figure 9), is freely hooked to a channel-shaped bar 18 to be fixed to a wall.

In contrast, if using an exposed attachment device such as that illustrated in EP-33179, mounting is by hook plugs.

It is however apparent that whether individual hook plugs fixed to the wall or a bar with successive hooks is used, the position on the wall of the hook plugs or the position of the hooks and fixing plugs of the wall bar is determined both by the position of the attachment devices fixed to the wall furniture item and by the dimension (width) of this latter and its mounting position on the wall.

In this respect, the fixing position of an individual wall plug and that of the plugs for fixing the bar to the wall must be as close as possible to the coupling element of the attachment device in order to ensure correct load distribution.

This represents a serious restriction to easy, quick, reliable and correct mounting of the furniture item for any structural situation of the wall which is to receive it.

The invention described hereinafter obviates the said limits and drawbacks of the known art.

According to the present invention, with reference to Figures 2-8 of the drawings, the attachment devices 14 for the furniture item are operationally interconnected by a bar 19 to be coupled to hook plugs 20 fixed to the wall (Figure 4) or to hooks 21 projecting from a bar 22 to be fixed to the wall.

In the illustrated non-limiting embodiment, the attachment devices 14 are of hidden type fixed to the rear of the back panel 13, and allowing the wall furniture item to be adjusted in depth and height by operating the screws 16, 17 (Figure 9).

However the inventive principle is also applicable to attachment devices which are not hidden, ie which are fixed to the interior of the furniture item 10 and provided with a coupling element which passes through an aperture provided in the back panel 13.

The hidden attachment device 14 considered herein is illustrated and described in EP-A-555924, to which reference should be made for further clarification of its structure and operation.

It should be noted that the inventive idea is applicable to any other type of attachment device, whether hidden or exposed, provided it comprises

a depth and height adjustable coupling element to engage with a hook plug and/or bar fixed to the wall.

As stated, according to the invention the coupling elements 15 of the pair of attachment devices 14 are in fact interconnected by a bar 19.

For this purpose the bar 19 comprises a longitudinal slot 23 (Figure 3) which is mounted in a freely slidable manner over the coupling elements 16 of the attachment devices 14.

In this manner, the wall furniture item 10 provided with the attachment devices 14 interconnected by the bar 19 can be easily and comfortably coupled to the hook plugs 20 or to equivalent elements 21 projecting from a bar 22 fixed to the wall, independently of the accuracy of the distance between said plugs 16 or similar elements 21, or of the position of the plugs (not shown) which fix the bar 22 to the wall.

After this, the height and depth adjustments of the wall furniture item 10 relative to the wall can be made by operating the respective adjustment screws 16, 17 (or equivalent) of the attachment devices 14, so as to vary the position of the coupling elements 15 and consequently of the bar 19, as shown in Figures 7 and 8 of the drawings.

Figure 7 shows the bar 19 in a position totally within the space defined by the back panel 13 and side panels 11 at the upper travel limit, whereas Figure 8 shows the bar 19 in a totally external position at the lower travel limit.

Intermediate adjustments are obviously also possible.

A further advantage of the wall furniture item according to the invention is that the entire attachment system is incorporated into it and can be transported with the furniture item.

The object stated in the introduction to the description is hence attained.

Claims

1. A wall furniture item of the type comprising at least one pair of attachment devices (14) for attachment to a retaining element (20, 22) fixed to the wall, in which each of said attachment devices (14) comprises a coupling element (15) position-adjustable in terms of both depth and height and arranged to engage said retention element (20, 22) fixed to the wall, characterised in that the coupling elements (15) of said attachment devices (14) are interconnected by a bar (19) to be hooked to said retention element (20, 22) fixed to the wall.
2. A furniture item as claimed in claim 1, characterised in that said bar (19) is secured to said coupling elements (15) in a freely removable

manner.

3. A furniture item as claimed in claim 1, characterised in that said bar (19) is contained within the overall outline of said wall furniture item.

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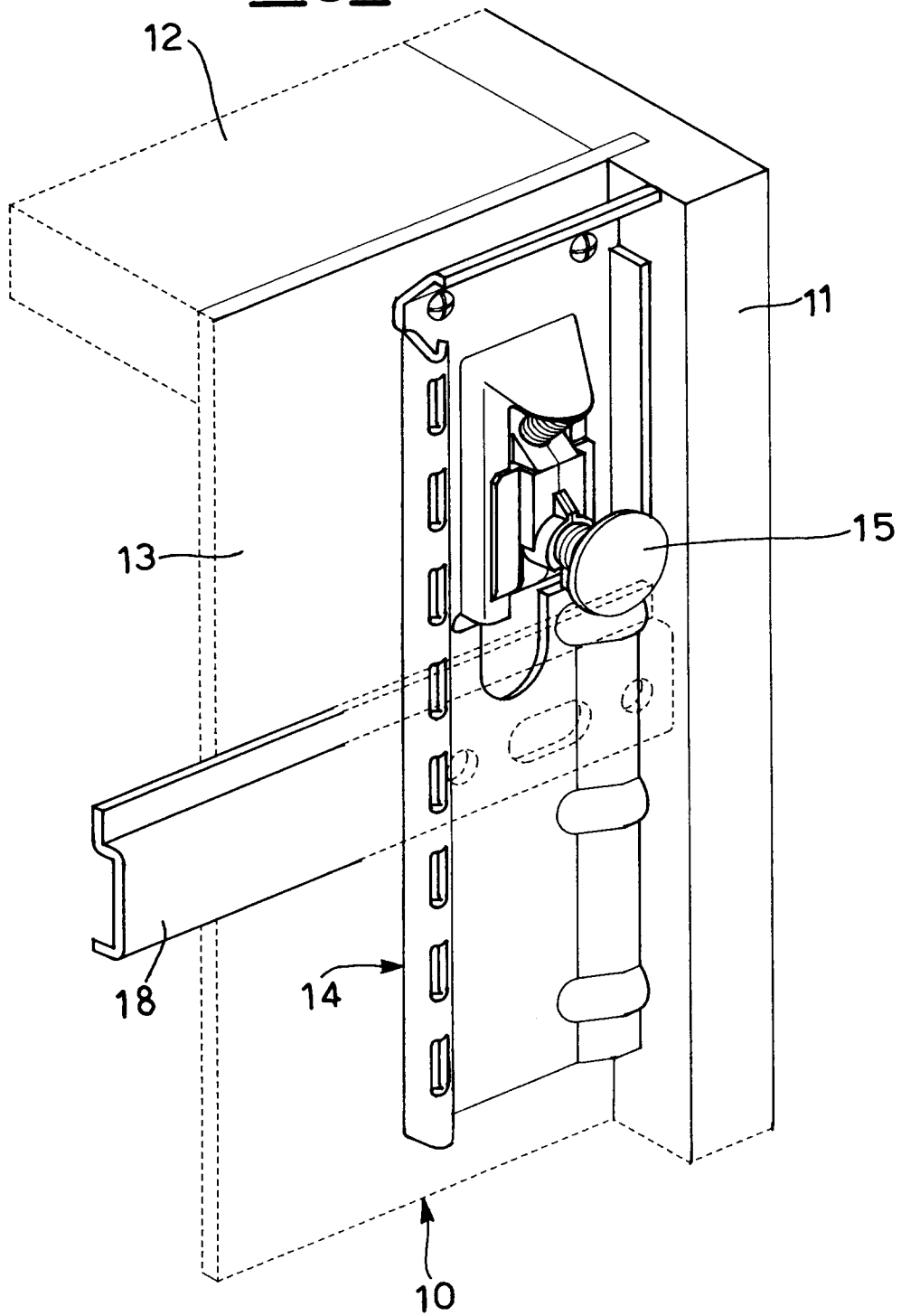
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Fig.1



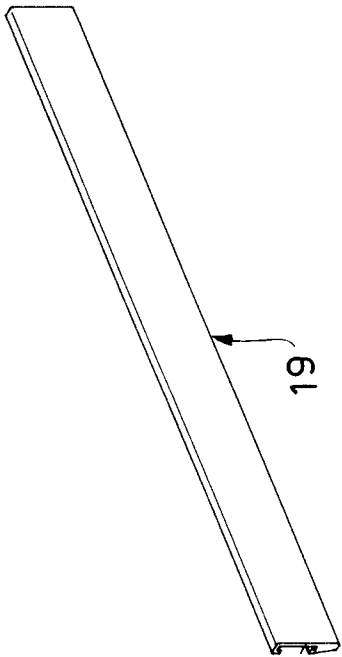


Fig. 2

Fig. 3

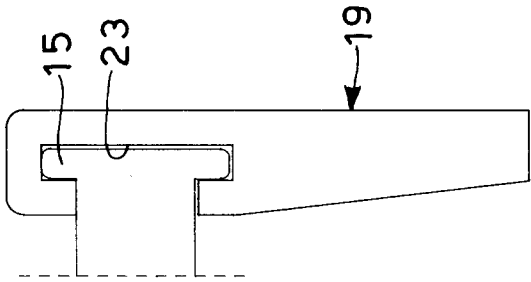


Fig.4

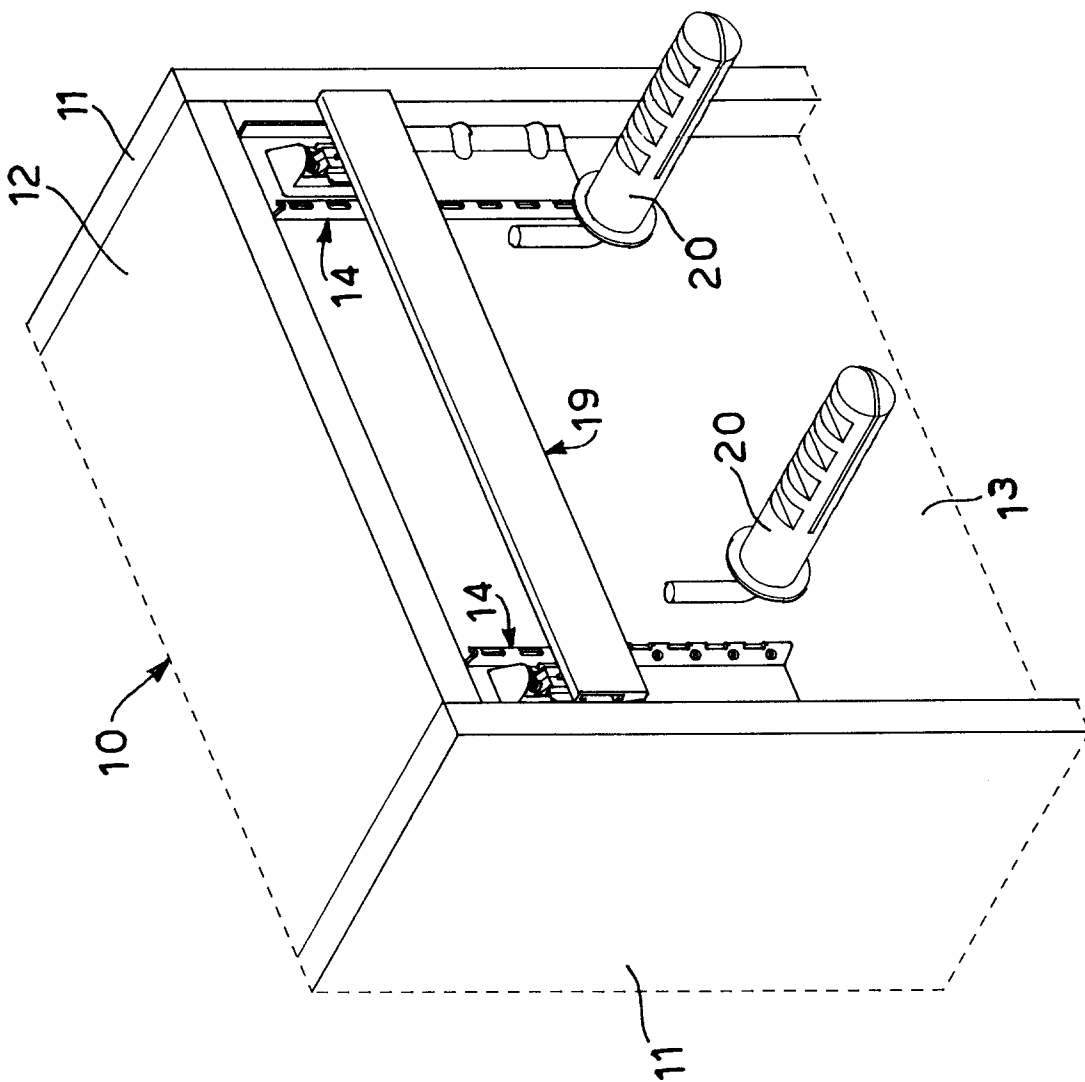


Fig.5

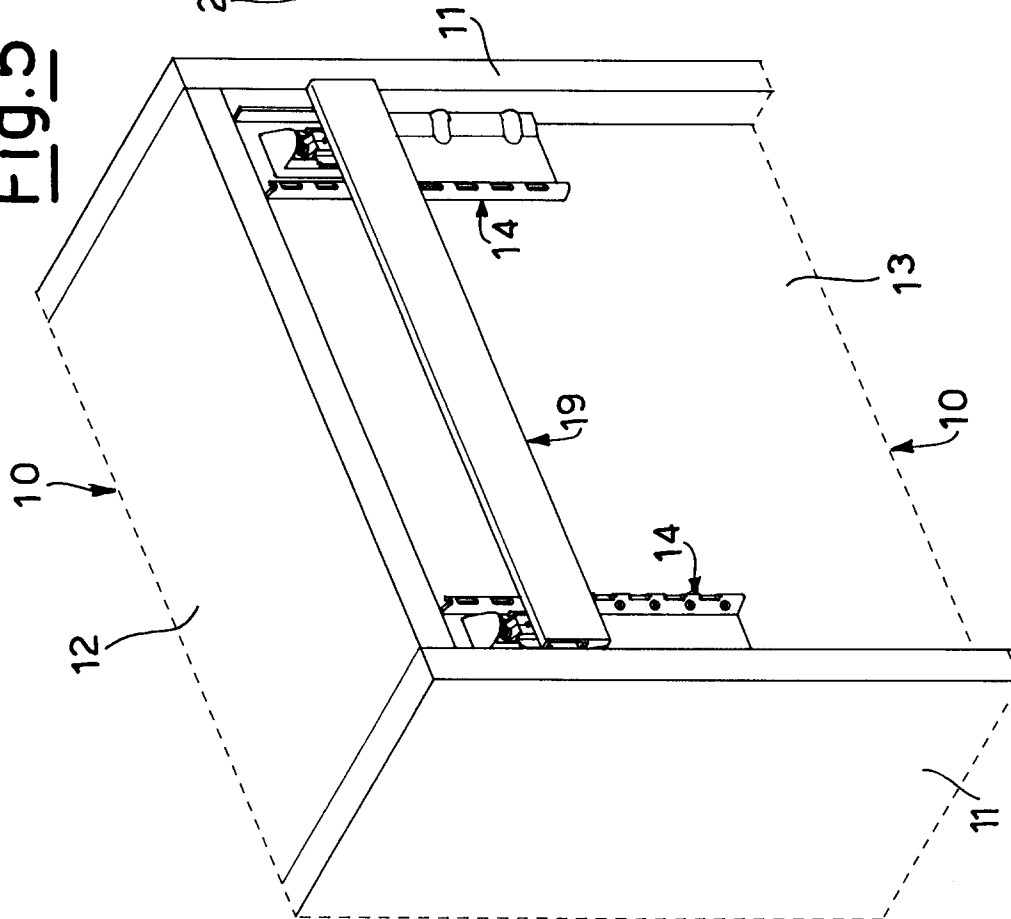


Fig.6

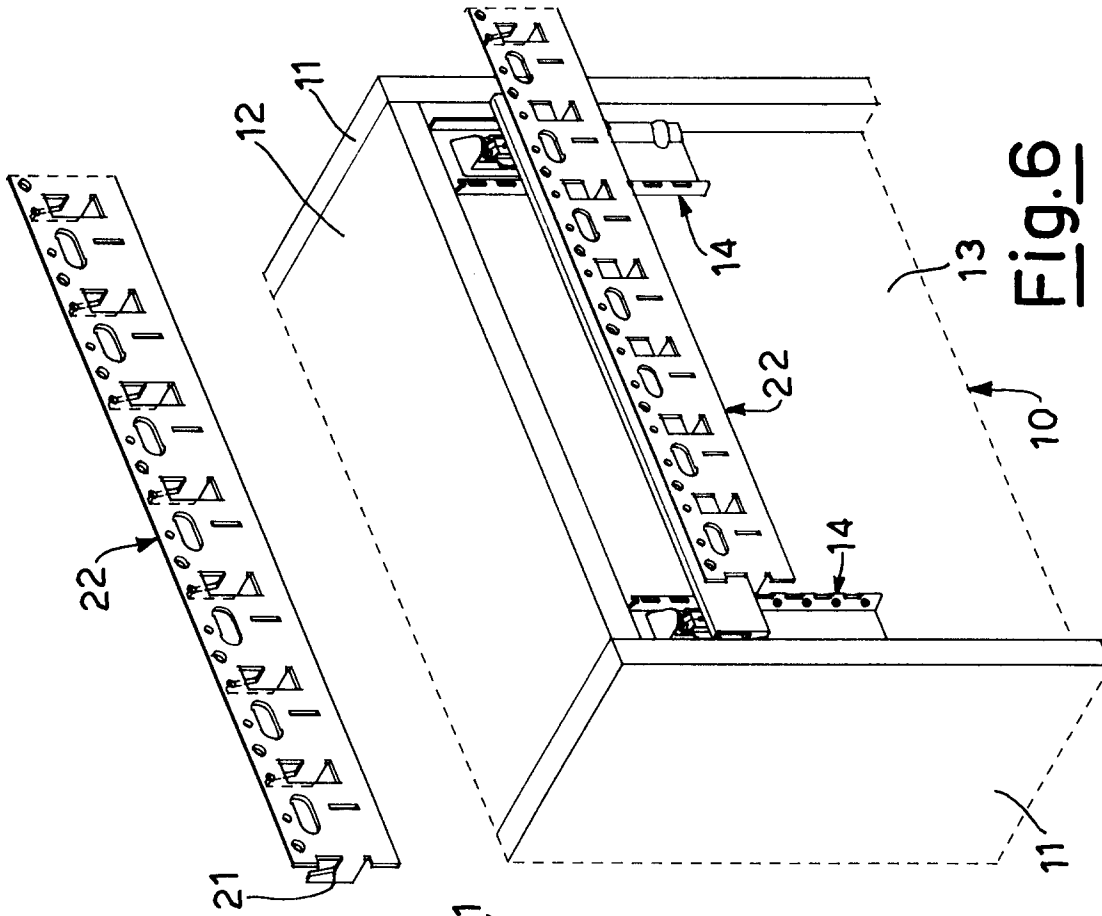


Fig. 8

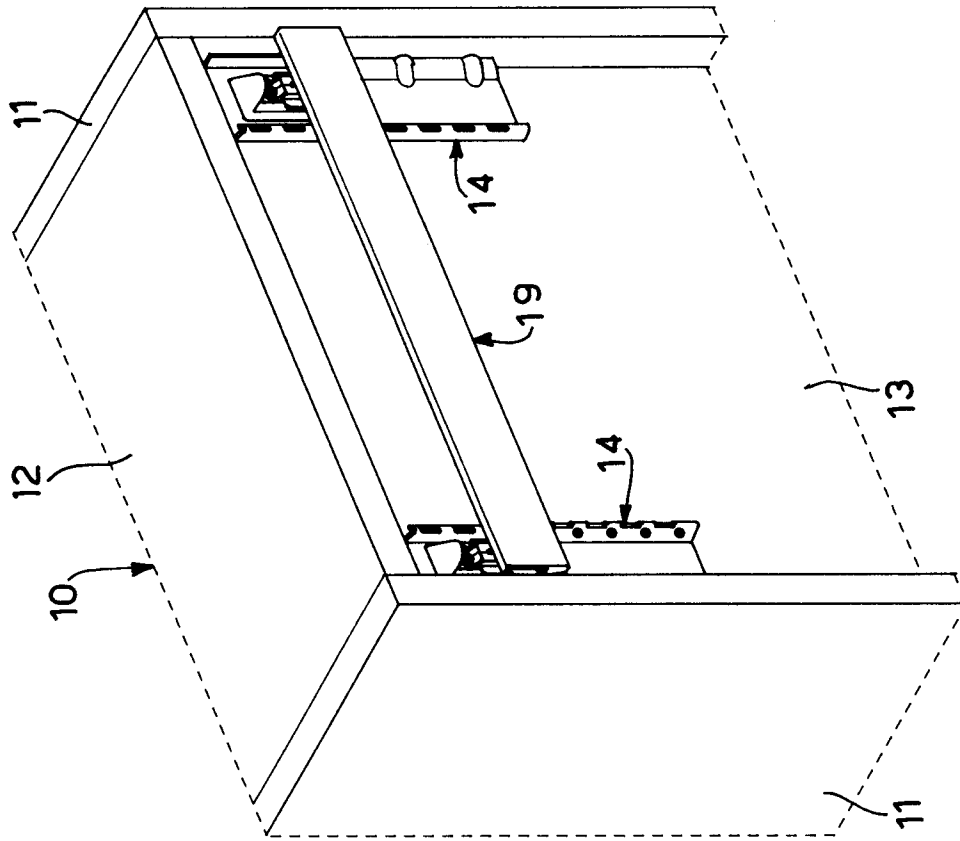


Fig. 7

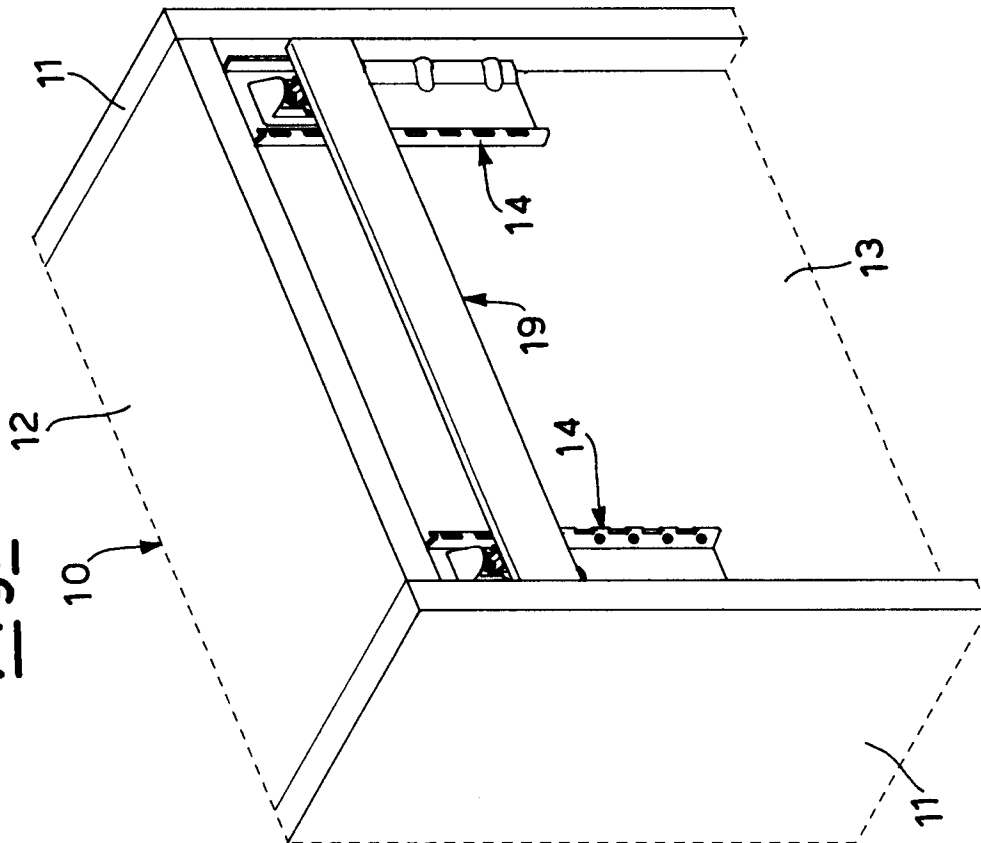


Fig. 9

