(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
11 April 2002 (11.04.2002)

PCT

(10) International Publication Number
WO 02/28226 A1

(51) International Patent Classification[7]: A47B 81/06

(21) International Application Number: PCT/GB01/04119

(22) International Filing Date:
13 September 2001 (13.09.2001)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0024408.7 5 October 2000 (05.10.2000) GB

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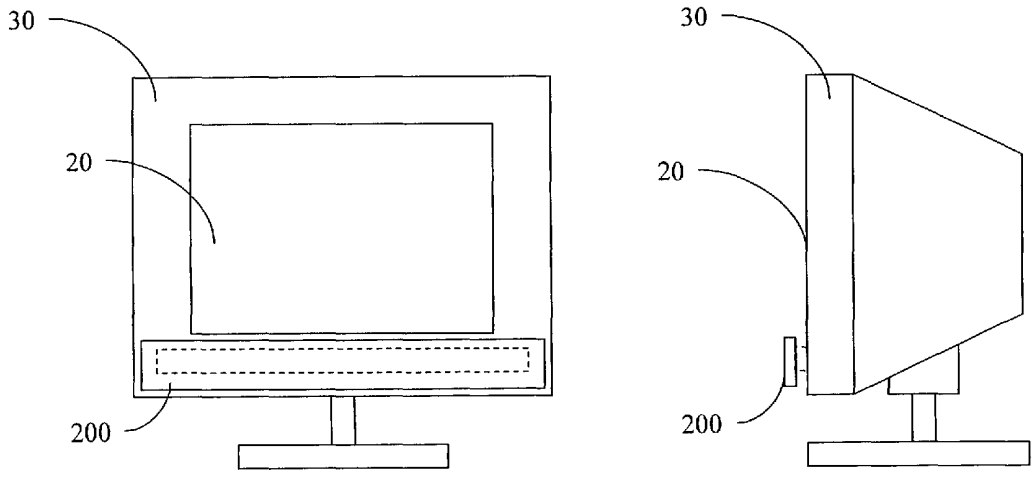
(81) Designated States *(national)*: JP, US.

(84) Designated States *(regional)*: European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR).

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: SUPPORT FOR A DISPLAY DEVICE



(57) Abstract: The present invention relates to a support (100). A support (100) is provided for attaching to a display device (10) comprising at least one rigid support member and support attachment means for attaching one or more of the at least one rigid support member onto the display device (10), the support (100) having a surface for supporting an attachment, the arrangement being such that, in used, the support (100) supports said attachment in a predetermined location with respect to the display device (10). The attachment may be rapidly and easily accessed, even in busy or cluttered environments. The attachment is not easily damage, deteached or lost. Also, the attachment can be such that it enhances the attractiveness of the working environment.

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SUPPORT FOR A DISPLAY DEVICE

FIELD OF THE INVENTION

The present invention relates to a support.

BACKGROUND OF THE INVENTION

Reference will now be made to Figures 1a and 1b of the accompanying drawings which show the background to the invention.

Figure 1 illustrates a display device 10 such as, in this example, a cathode ray tube monitor. The display device, generally 10, comprises a display screen 20, a beznet (the display screen surround) 30, a rear casing 40 and a stand 50. The display device 10 displays an image on the display screen 20. The image on the display screen 20 may be viewed by a user looking at the display screen 20 in the direction X. Typically, the display device 10 will be a computer monitor for use at work or at home.

Often, users of the computer will wish to have information readily to hand to assist in operating the computer or performing a particular task. Also, users may wish to view personal items or decorative designs such as pictures to create a more pleasing working environment.

Various different known techniques exist which enable users to have information readily to hand or to be able to view personal items or decorative designs.

Some users have paper notepads to hold the information, others utilise sophisticated computer applications which store the required information, whereas many rely on Post-it® notes with written information which may be affixed to any suitable surface. Personal items or decorative designs may be placed in frames and located on a wall or desk or just simply attached to a suitable surface such as, for example, a notice board.

However, all of these techniques have disadvantages.

In busy or cluttered environments, paper notepads may be hard to locate and the information may be distributed throughout the notepad making rapid, error free retrieval difficult. Sophisticated computer applications may be able to accurately store the required information, but accessing the information requires the application to be run or at the very least switched to and the required information searched for, all of

which takes time. Hence, many users will instead resort to making notes, typically on Post-it® notes, of frequently used information. However, these may be easily detached, lost, damaged which can result in failure to perform a particular task or to achieve a particular standard of performance in the workplace. Also, where many such Post-it® notes are used, this provides an unattractive working environment.

SUMMARY OF THE INVENTION

According to a first aspect of the present invention there is provided a support for attaching to a display device comprising at least one rigid support member and support attachment means for attaching one or more of said at least one rigid support member onto said display device, said support having a surface for supporting an attachment, the arrangement being such that, in use, said support supports said attachment in a predetermined location with respect to said display device.

In embodiments of the present invention, the support may be attached to a display device such as, for example, a computer monitor. The support may be formed from a single rigid support member or from a composite of many rigid support members. The composite of many rigid support members may have means for connecting the members together. One or more of the rigid support members may have attachment means for attaching the support to the display device. The support has a surface for supporting an attachment in a predetermined location with respect to the display device. In embodiments, a support may be semi-permanently attached to the display device. The attachment means are such that the support is not readily removed when an attachment is removed from the support.

Hence, the support enables attachments to be located in a predetermined location with respect to the display screen and readily attached and removed as required. The attachment may be rapidly and easily located even in busy or cluttered environments. The support may provide an expanded surface area over that provided by a computer monitor surround which enables the user to have a greater number of attachments on the support than would be possible only using the surround. Also, the greater surface area provides superior organisational capacity for the attachments. Furthermore, each attachment will not be easily damaged, detached or lost. Also, the attachment may be such that it enhances the attractiveness of the working environment.

Preferably, the support defines an aperture, the aperture having a horizontal and a vertical dimension equal to or larger than a respective horizontal dimension and vertical dimension of a display screen of the display device such that the display screen may be viewed through the aperture.

Hence, in preferred embodiments the display screen of the display device may be viewed fully whilst the support is attached to the display device thereby ensuring that the user is able to view all the information on the display screen. In embodiments, the support aperture is a similar shape to the display screen with larger horizontal and vertical dimensions such that the support may be attached to a surround of the display screen.

In embodiments, the aperture has a horizontal dimension in the range of 200mm to 1000mm and a vertical dimension in the range of 150mm to 600mm.

Hence, the surround may be attached to display screens ranging from 279mm (11 inches) to 787mm (31 inches) diagonal dimension.

In embodiments, the aperture has an aspect ratio of 16:9.

In other embodiments, the aperture has an aspect ratio of 4:3.

Hence, the support may be configured for standard or wide-screen display screens.

However, a problem with such permanent or semi-permanent supports is that the controls or switches of the display device may become inaccessible.

Preferably, the support defines an access aperture, the access aperture being positioned such that a control of the display screen may be accessed through the access aperture.

Hence, in preferred embodiments, the support does not obstruct the controls or switches of the display device which may be switched on or off, or the display settings adjusted by the user through the access aperture.

Preferably, the at least one rigid support member comprises a plastic moulding.

However, a problem with such supports is that attachments are often difficult to locate or align thereon.

Preferably, the support comprises a shoulder operable to assist in locating an attachment thereon.

Hence, if preferred embodiments, a shoulder or rim is provided against which a corresponding edge of an attachment may be located which assists the user in locating and aligning the attachment on the support.

In embodiments, the at least one rigid support member is of wire.

Accordingly, each rigid support member is lightweight, affordable and robust enough to allow reuse by removal and addition of different detachable attachments or overlays.

In embodiments, the support comprises a plurality of rigid support members.

Hence, the support may be formed from a composite of more than one support member. This allows each member to be smaller, thereby enabling the support to be contained and distributed in smaller packaging.

Preferably, the support comprises one rigid support member.

In preferred embodiments, the provision of a single rigid support member provides a secure structure which is easy to attach to the display device.

Preferably, the support has a length and a width, the width of the support being in the range 5mm to 100mm and the length being in the range 150mm to 1500mm.

Hence, the support can have a range of lengths and widths, any of which may be suitable for attaching to the surround of display devices ranging from 279mm (11 inches) to 787mm (31 inches) diagonal dimension.

In embodiments, the support attachment means comprises one of hooked-thread and coarse fabric nylon fasteners, press studs, suction means, adhesive, and a lip extending from said support to engage with said display device.

Hence, any suitable technique may be selected for attaching the support to the display device depending on the surface characteristics of the display device. The user may be provided with one or more attachment means with which the support may be attached to the display device thereby providing increased flexibility and interoperability.

However, a problem with attaching a support to display devices is that the viewing face of the display device is often curved. To overcome this problem, it is possible to manufacture different supports, each capable of attaching to a display device of a predetermined curvature. However, to do so is inconvenient.

Preferably, the support attachment means extends away from the at least one rigid support member towards the display screen.

Preferably, the support attachment means space the support a predetermined distance away from the display device.

Preferably, the support attachment means comprises a plurality of pillars upstanding from the at least one rigid support member.

Hence, the pillars allow the support to be located a predetermined distance from the display device. This separation between the support and display device allows for variations in curvature between the two to be accommodated and enables the support to be attached to display devices having a wide variation in curvatures. The pillars preferably extend orthogonally from the support. Preferably, the pillars are a moulded part of the support and have Velcro® pads attached at the distal end. In preferred embodiments, the pillars have a cavity for receiving a stud, the stud having a Velcro® pad attached thereon. The display device has Velcro® pads correspondingly located thereon which co-operate to attach the support onto the display device.

It will be appreciated that to enable users to perform their work tasks quickly and efficiently various items of commonly used stationery or office items need to be easily locatable. The stationery items may be placed on a desk, in a drawer or in a specifically designed receptacle such as a so-called "desk-tidy".

However, stationery items placed on a desk may also be hard to locate and are easily dropped to the floor. Where stationery items are stored in a drawer, the drawer must be opened to gain access to the required item and closed thereafter to prevent any inadvertent injury. With a desk-tidy, it may be difficult to find a suitable location for it to be placed and this too may be easily dropped to the floor.

This problem is further compounded when it is realised that often, a desk may not actually have any drawers, or that a computer workstation does not have a readily accessible and unobstructive receptacle for depositing stationery items.

Preferably, the support further comprises a receptacle.

Hence, in preferred embodiments, users are able to perform their work tasks quickly and efficiently as various items of commonly used stationery or office items will be easily locatable since the support provides a readily accessible and

unobstructive receptacle for depositing stationery items.

Preferably, the receptacle comprises one of a clip and a moulded plastic tray.

In preferred embodiments the clip and the moulded tray may be configured to hold particular stationery items.

Preferably, the support further comprises means for attaching the receptacle to the support.

Preferably, the receptacle is removable from the support.

Hence, in situations where no receptacle is required then it may be removed from the support. In these situations, the support provides an increased surface area for an attachment. Equally, by arranging for the receptacle to be removable, different configuration receptacles can be provided, each of which is suited to a different task or a holding different combinations of items.

However, a problem with such receptacles is that the display device can be tilted such that the display screen is arranged to be substantially perpendicular to the user. Tilting the display screen results in the receptacle also tilting which may cause items located therein to become displaced.

Preferably, the receptacle comprises an upper member forming a first retaining channel and a lower member forming one or more retaining channels, and the support comprises an upper and lower aperture operable to receive the upper member and the lower member respectively, the first retaining channel and one of the one or more retaining channels being co-operable such that the receptacle is retained on the support.

Hence, in preferred embodiments, the upper aperture receives the first retaining channel and the lower aperture receives one of the one or more retaining channels. Selecting different ones of the one or more retaining channels causes the receptacle to tilt, thereby compensating for any tilt on the display device such that items located within the receptacle do not become displaced. Also, by providing such a standardised fixing mechanism, any number of different configuration receptacles which use this fixing mechanism can be fixed to the support.

According to a second aspect of the present invention there is provided an attachment for being supported by the support, the attachment comprising means for attaching the attachment to the support.

In preferred embodiments of the present invention, an attachment may be attached to a support located on a display device such as, for example, a computer monitor. The attachment may be attached to the support using attachment means.

Hence, the attachment may be located in a predetermined location with respect to the display screen and readily attached and removed as required. The attachment may be rapidly and easily located even in busy or cluttered environments. Furthermore, the attachment will not be easily damaged, detached or lost. Also, the attachment may be such that it enhances the attractiveness of the working environment.

Preferably, the attachment defines an aperture, the aperture having a horizontal and a vertical dimension equal to or larger than a respective horizontal dimension and vertical dimension of a display screen of the display device such that the display screen may be viewed through the aperture.

Hence, in preferred embodiments the display screen of the display device may be viewed fully whilst the attachment is attached to the support thereby ensuring that the user is able to view all the information on the display screen.

In embodiments, the aperture has a horizontal dimension in the range of 200mm to 1000mm and a vertical dimension in the range of 150mm to 600mm.

Hence, the attachment may be attached to a support on display screens ranging from 279mm (11 inches) to 787mm (31 inches) diagonal dimension.

In embodiments, the aperture has an aspect ratio of 16:9.

In other embodiments, the aperture has an aspect ratio of 4:3.

Hence, the attachment may be configured for standard or wide-screen display screens.

Preferably, the attachment is flexible.

Hence, the attachment may be conveniently packaged by rolling and transported.

Preferably, the attachment has printing thereon.

In preferred embodiments, the printing is a literary or artistic work. Hence, users of the computer will have information readily to hand to assist in operating the computer or performing a particular task even in busy or cluttered environments and accessing the information requires very little time. Furthermore, since the attachment

is securely attached to the support the information is not easily detached, lost or damaged. Also, users can view personal items or decorative designs such as pictures to create a more attractive working environment.

In embodiments, the attachment comprises an electronic device.

Hence, in embodiments, electronic devices such as a clock, an electronic schedule or a display having a graphical user interface may be attached to the support.

Preferably, the attachment comprises more than one attachment member.

Hence, the attachment may be formed from a composite of more than one attachment member. This allows each member to be smaller, thereby enabling the attachment to be contained and distributed in smaller packaging or sold and distributed separately.

In embodiments, the attachment has a length and a width, the width of the attachment being in the range 5mm to 100mm and the length being in the range 150mm to 1500mm.

In embodiments, the means for attaching comprises one of hooked-thread and coarse fabric nylon fasteners, press studs, suction means, adhesive, and an lip extending from attachment to engage with said support.

Hence, any suitable technique may be selected for attaching the attachment to the display device depending on the surface characteristics of the support. The user may be provided with one or more attachment means with which the attachment may be attached to the support thereby providing increased flexibility and interoperability.

In embodiments, the attachment further comprises a receptacle.

Hence, users are able to perform their work tasks quickly and efficiently as various items of commonly used stationery or office items will be easily locatable since the attachment provides a readily accessible and unobstructive receptacle for depositing stationery items.

In embodiments, the receptacle comprises one of a clip and a moulded plastic tray.

In preferred embodiments the clip and the moulded tray may be configured to hold particular stationery items.

Preferably, the attachment further comprises means for attaching the receptacle

to the attachment.

According to a third aspect of the present invention there is provided a combination of a display device and the support of the first aspect of the present invention, wherein the support is attached to the display device using the support attachment in a predetermined location such that the support does not substantially obscure a display screen of the display device.

Preferably, the combination further comprises the attachment of the second aspect of the present invention, wherein the attachment is attached to the support in a predetermined location such that the support does not substantially obscure a display screen of the display device.

According to a fourth aspect of the present invention there is provided a kit of parts comprising the support of the first aspect of the present invention and the attachment of the second aspect of the present invention.

According to a fifth aspect of the present invention there is provided screen surround comprising the support of the first aspect of the present invention and the attachment of the second aspect of the present invention.

BRIEF DESCRIPTION OF THE DRAWINGS

For a better understanding of the present invention, reference will now be made by way of example to the accompanying drawings in which:

Figure 1 illustrates a display device;

Figure 2 illustrates a support according to an embodiment of the present invention attached to the display device;

Figures 3A to 3D illustrate different techniques for attaching a support to a display device;

Figure 4 illustrates an attachment according to an embodiment of the present invention attached to the support illustrated in Figure 2;

Figures 5A to 5D illustrate different techniques for attaching the attachment to the support;

Figures 6A to 6C illustrate different receptacles according to an embodiment of the present invention;

Figures 7A to 7D illustrate an attachment according to different embodiments

of the present invention;

Figures 8A to 8F illustrate a support according to different embodiments of the present invention attached to the display device;

Figures 9A and 9B illustrate alternative attachment means;

Figures 10A and 10B show isometric views illustrating a support according to a preferred embodiment of the present invention in proximity to, and attached to, the display device;

Figure 11 shows an isometric view illustrating the support of Figure 10B located on the display device, and the arrangement attachments according to different embodiments of the present invention to be attached thereon;

Figures 12A to 12C show isometric views illustrating a support and attachment means according to embodiments of the present invention in proximity to the display device;

Figures 13A and 13B show isometric views illustrating supports according to embodiments of the present invention attached to the display device;

Figures 14A and 14B show isometric views illustrating supports according to embodiments of the present invention attached to the display device and having access apertures;

Figure 15 illustrates a support having pillars according to a preferred embodiment of the present invention;

Figure 16 illustrates receptacle attachment means according to a preferred embodiment of the present invention;

Figure 17 illustrates the shoulder arrangement of a support according to a preferred embodiment of the present invention;

Figure 18a illustrates an embodiment of the pillar arrangement;

Figure 18b illustrates an embodiment of the pillar arrangement with angled-head studs;

Figure 18c illustrates an embodiment of the pillar arrangement with flat-head studs;

Figure 19 illustrates an embodiment of the angled-head studs;

Figure 20 illustrates a preferred embodiment of the support;

Figures 21 illustrates an embodiment of the flat-head studs;

Figure 22a illustrates a front view of a receptacle according to a preferred embodiment of the present invention; and

Figure 22b illustrates a rear view of the receptacle according to a preferred embodiment of the present invention.

DESCRIPTION OF PREFERRED EMBODIMENTS

Before describing the preferred embodiments of the present invention, in order to aid understanding a general description of display devices will be given with reference to Figure 1.

DISPLAY DEVICE

Figure 1 illustrates a display device 10 such, as in this example, a cathode ray tube (CRT) computer monitor. The display device 10 comprises a display screen 20, display surround 30, rear casing 40 and stand 50.

The display screen 20 displays an image which may be viewed by a user generally in the direction X. The display screen 20 has a width A in the horizontal direction and a height B in the vertical direction. Typical display screens 20 range in size from 279mm (11 inches) to 787mm (31 inches) diagonal dimension. The display screen 20 may have various aspect ratios, 4:3 and 16:9 are two illustrative examples.

The display surround 30 or beznet surrounds the display screen 20 and generally forms an integral component of the display device casing. The display surround 30 has an overall width W in the horizontal direction and an overall height H in the vertical direction. The display surround 30 has an aperture through which the display screen 20 may be viewed, the aperture size being substantially equal to the width A and the height B of the display screen 20. Accordingly, the display surround 30 has a width C in the horizontal direction, the width C being the horizontal distance between a vertical edge of the surround adjacent to a vertical edge of the display screen 20 and the nearest external vertical edge of the surround 30, typically in the range of 5mm to 75mm. The display surround 30 has a height D in the vertical direction, the height D being the vertical distance between a horizontal edge of the surround adjacent to a horizontal edge of the display screen 20 and the nearest external horizontal edge of the surround 30, typically in the range of 5mm to 75mm.

SUPPORT

Figure 2 illustrates a support 100 according to an embodiment of the present invention attached to the display device 10. In this illustrative embodiment, the support 100 comprises a single member. The support 100 is rectangular, having a length E in the horizontal direction and a width F in the vertical direction. The support 100 is made of a material which is rigid such that it retains its integrity and configuration. The support 100 may, therefore, have a nominal depth G if a suitable material such as plastics, cellulose materials, or metals and alloys thereof are used. Preferably, the support 100 is a plastic moulding.

The support 100 is attached using attachment means to the display device 10 in a suitable position for supporting an attachment, in this example the support 100 is located on the display surround 30. Whilst the support 100 is shown located on a lower horizontal section of the surround 30, it will be appreciated that the support 100 may equally be located on the upper horizontal section or either of the vertical sections of the surround 30. Preferably, the support 100 has a length E and width F such that it extends beyond the surround 30 thereby providing an increased surface area. However, it will be appreciated that the support 100 may have any suitable length L and width B and may be such that it does not extend beyond the surround 30. Also, it will be appreciated that the support 100 need not be rectangular, but may be any shape which would be easy to manufacture and suitable for use as a support.

The support 100 is preferably located such that it does not substantially obscure the display screen 20. However, the support 100 may be located to obscure the display screen 20 if required. Also, the support 100 is preferably located such that the two major surfaces are substantially parallel to the display screen 20. However, the support 100 need not be located substantially parallel to the display screen 20 if an alternative configuration was required to, for example, compensate for the tilt of the display screen 20. Hence, the support 100 may be positioned in any suitable location with respect to the display screen 20, the support 100 being a semi-permanent device onto which an attachment may be attached.

Figures 8A to 8F illustrate a support according to alternative embodiments of the present invention attached to the display device 10.

Figure 8A illustrates a support 100-1 according to a embodiment of the present invention attached to the display device 10. In this embodiment, the support 100-1 is a frame. The support 100-1 comprises a single member. Alternatively, the support 100-1 may comprise four members and means for connecting the members together to form the support. The support 100-1 is a quadrilateral, having an overall length W_1 in the horizontal direction and an overall width H_1 in the vertical direction. The support 100-1 has an aperture through which the display screen 20 may be viewed, the aperture size having a horizontal dimension A_1 and a vertical dimension B_1 being equal or larger than the width A (illustrated in Figure 1) and the height B (illustrated in Figure 1) respectively of the display screen 20. The support 100-1 has a width C_1 in the horizontal direction equal or greater than the width C (illustrated in Figure 1) of the surround 30 and a height D_1 in the vertical direction, equal or greater than the height D (illustrated in Figure 1) of the surround 30. The support 100-1 is made of a material which is rigid such that it retains its integrity and configuration.

The support 100-1 is attached to the display device 10 using attachment means in a suitable position for supporting an attachment, in this example the support 100-1 is located on the display surround 30. Preferably, the support 100 has an overall length W_1 and an overall width H_1 such that it extends beyond the surround 30. However, it will be appreciated that the support 100 may have any suitable overall length W_1, overall width B_1, aperture size, width C_1 and height D_1. Also, it will be appreciated that the support 100-1 need not be quadrilateral, but may be any shape which would be convenient to manufacture and suitable for use as a support.

Figure 8B illustrates a support according to an embodiment of the present invention attached to the display device 10. In this embodiment, the support 100-2 comprises a single member. The support 100-2 is of similar configuration to the support 100-1, but having a smaller a width C_2 and height D_2. The support 100-2 does not form an integral loop like 100-1, but has a portion of the lower horizontal section removed. The smaller width C_2 and height D_2 and the removed portion results in a decrease in overall weight and size of the support 100-2. The support 100-2 is made of a material which is rigid such that it retains its integrity and configuration.

The support 100-2 is attached to the display device 10 using attachment means in a suitable position for supporting an attachment, in this example the support 100-2 is located on the display surround 30. It will be appreciated that the support 100-2 need not be quadrilateral, but may be any shape which would be easy to manufacture and suitable for use as a support.

Figure 8C illustrates a support according to an embodiment of the present invention attached to the display device 10. In this embodiment, the support 100-3 comprises a single member. The support 100-3 is of similar configuration to the support 100-1, but having a nominal width C_3 and height D_3. The nominal width C_3 and height D_3 results in a decrease in overall weight and size of the support 100-3.

The support 100-3 is made of a metal, such as plated copper wire. The plated copper wire may be preformed into the configuration shown or may be shaped by the user into the configuration required.

The support 100-3 is attached to the display device 10 using attachment means in a suitable position for supporting an attachment, in this example the support 100-3 is located on the display surround 30. It will be appreciated that the support 100-3 need not be quadrilateral, but may be any shape which would be easy to manufacture and suitable for use as a support. In this embodiment, an attachment may use the attachment means illustrated in Figure 9B to attach to the support 100-3.

Figure 8D illustrates a support 100-4 according to an embodiment of the present invention. The support 100-4 comprises a more than one member, in this case, three. Each member 110 is rectangular. Each member 110 is made of a material which is rigid such that it retains its integrity and configuration.

Each member 110 is attached to the display device 10 using attachment means in a position suitable to form a support 100-4 for supporting an attachment. In this example the support 100-4 is located on the display surround 30. A first member is located on a lower horizontal section of the surround 30 and a further member is located on each of the vertical sections of the surround 30.

Whilst three members 110 are shown it will be appreciated that more or fewer members 110 may be used, as required. Also, it will be appreciated that there is no requirement for the members 110 to be arranged regularly or symmetrically.

Furthermore, whilst the three members 110 are, for convenience in manufacture, all the same size it will be appreciated that this need not be the case or that the user may adjust the size of the members 110 to fit onto the surround 30 as required.

Figure 8E illustrates a support 100-5 according to an embodiment of the present invention. The support 100-5 comprises a more than one member, in this case, two. Each member 110 is made of a material which is rigid such that it retains its integrity and configuration.

Each member 110 is attached to the display device 10 using attachment means in a position suitable to form a support 100-5 for supporting an attachment. In this example the support 100-5 is located on the display surround 30. A first member 120 is located on the lower horizontal section of the surround 30 and a further member 130 is located on the upper horizontal section of the surround 30. The first member 120 is of similar configuration but smaller than the member 110 illustrated in Figure 3D. The second member 130 has a lip that extends over the external edges of the upper horizontal section of the surround 30. The lip may be used to attach the second member 130 to the display device as illustrated in Figure 9A. The member 130 is held in place by its own weight. The member 130 may be removed or repositioned on the surround 30 by lifting. The lip may optionally have a high friction surface. Alternatively, the lip may have other attachment means located thereon.

Whilst two members 120, 130 are shown it will be appreciated that more or fewer members may be used, as required. Also, it will be appreciated that there is no requirement for the members 120, 130 to be arranged regularly or symmetrically.

Figure 8F illustrates a support 100-6 according to an embodiment of the present invention. The support 100-6 comprises a more than one member, in this case, two. Each member 140 is made of a material which is rigid such that it retains its integrity and configuration.

Each member 140 is attached to the display device 10 using attachment means in a position suitable to form a support 100-6 for supporting an attachment. In this example the support 100-6 is located on the display surround 30. Each member 140 is located on the upper horizontal section of the surround 30. The member 140 has a lip that extends over the external edges of the upper horizontal section of the surround 30.

The lip may be used to attach the member 140 to the display device as illustrated in Figure 9A. The member 140 is held in place by its own weight. The member 140 may be removed or repositioned on the surround 30 by lifting. The lip may optionally have a high friction surface. Alternatively, the lip may have other attachment means located thereon.

Whilst two members 140 are shown it will be appreciated that more or fewer members may be used, as required. Also, it will be appreciated that there is no requirement for the members 140 to be arranged regularly or symmetrically.

Figures 3A to 3D illustrate different techniques for attaching supports to the display device.

Figure 3A illustrates the support 100 attached to the surround 30 using a two component hooked-thread and coarse fabric nylon fastener 110A, 110B such as Velcro®. One of the components 110B is fixed, typically using adhesive to the surround 30. The other component 110A is then fixed, again typically using adhesive to the support 100. The two components 110A, 110B are then engaged to attach the support 100 in the desired location. The support 100 may be removed or repositioned on the surround 30 by disengaging the two components 110A, 110B of the fastener.

Figure 3B illustrates the support 100 attached to the surround 30 using an alternative two component press-stud fastener 120A, 120B. One of the components 120B is fixed to the surround 30. The other component 120A is fixed to the support 100. The two components 120A, 120B engage to attach the support 100 in the correct location. The support 100 may be removed or repositioned on the surround 30 by disengaging the two components of the fastener 120A, 120B.

Figure 3C illustrates the support 100 attached to the surround 30 using an adhesive 130. If the adhesive 130 is renewable, then the support 100 may be removed or repositioned on the surround 30. Otherwise, new adhesive may be used each time the support 100 is removed or repositioned.

Figure 3D illustrates the support 100 attached to the surround 30 using a suction cup 140. The suction cup 140 is attached to the surround or the support 100. The support 100 may be removed or repositioned on the surround 30 by disengaging the suction cup 140.

Hence, various attachment means may be used to attach the support 100 onto the display device 10. The attachment means selection will depend upon the properties of the display device 10 to be attached to. More than one attachment means may be provided to enable the user to choose the most appropriate.

Figure 12A shows an isometric view illustrating a support 100-7 and attachment means 300, 310 according to embodiments of the present invention, in proximity to the display device 10. The support 100-7 may be attached to the display device 10 by engaging the two component hooked-thread and coarse fabric nylon fastener 300, 310 such as Velcro®. One of the components 310 is fixed, typically using adhesive to the surround 30. The other component 300 is then fixed, again typically using adhesive to the support 100-7. The two components 300, 310 are then engaged to attach the support 100-7 in the desired location. The support 100-7 may be removed or repositioned on the surround 30 by disengaging the two components 300, 310 of the fastener. This embodiment has an advantageous configuration in that the fastener 300, 310 provides increased robustness enabling the support 100-7 to carry additional mass.

Figure 12B shows an isometric view illustrating the support 100-7 and attachment means 110A, 110B according to embodiments of the present invention in proximity to the display device 10. The support 100-7 may be attached to the display device 10 by engaging the two component hooked-thread and coarse fabric nylon fastener 110A, 110B such as Velcro®. One of the components 110B is fixed, typically using adhesive to the surround 30. The other component 110A is then fixed, again typically using adhesive to the support 100-7. The two components 110A, 110B are then engaged to attach the support 100-7 in the desired location. The support 100-7 may be removed or repositioned on the surround 30 by disengaging the two components 110A, 110B of the fastener.

Figure 12C shows an isometric view illustrating the support 100-7 and attachment means 110A, 110B, 320 according to embodiments of the present invention in proximity to the display device 10. The support 100-7 may be attached to the display device 10 by engaging the two component hooked-thread and coarse fabric nylon fastener 110A, 110B such as Velcro®. One of the components 110B is fixed, typically using adhesive to the surround 30. The other component 110A is then fixed,

again typically using adhesive to the support 100-7. The two components 110A, 110B are then engaged and the attachment 320 is arranged to engage on the upper surface of the surround 30 such that the support 100-7 is attached in the desired location. The support 100-7 may be removed or repositioned on the surround 30 by disengaging the two components 110A, 110B of the fastener. This embodiment also has an advantageous configuration in that the fastener 320 provides increased robustness enabling the support 100-7 to carry additional mass.

Figure 15 illustrates a support having pillars according to an embodiment of the present invention. The support 110-12 is attached to the display surround 30. The display surround 30 is curved. The support 110-12 has a number of pillars 150 on the surface adjacent to the display screen. The pillars 150 extend from that surface towards the display surround 30. The pillars 150 have a Velcro® pad located on the exposed end. The display surround 30 have a corresponding number of Velcro® pads located thereon which are engageable with the pads located on the pillars 150. The pads co-operate to retain the support 110-12 in the correct position.

The spacing caused by the pillars 150 enable a substantially planar support 110-12 to be easily attached to a curved display surround 30.

In embodiments, the distal ends of the pillars 150 form a tube into which a ribbed cylinder is placed and retained by a friction fit. A Velcro® pad is fixed to the exposed end of the ribbed cylinder. The ribbed cylinder can be moved along the longitudinal axis of the tube. This additional movement provides an additional tolerance to compensate for the curvature of the display surround 30.

In embodiments where the support 110-12 is moulded plastic, the pillars 150 and an access aperture 300c are an integral part of the moulding.

Figure 18a illustrates a preferred embodiment of the pillar arrangement. The pillars 150-1 are shown in enlarged view for clarity. The pillars 150-1 form a cavity for receiving a stud. The cavity is comprised of a number of rib channels which extend along at least part of the longitudinal axis of the pillar. The rib channels are orientated radially from the centre of the cavity. In the preferred arrangement, four rib channels are provided, which are arranged orthogonally to each other. Preferably, at least one of the rib channels 153 has a different relative cross-section to the others. In this

illustrative example, one of the rib channels 153 has a larger relative cross-section than the other rib chanels 152.

The arrangement of the at least one of the rib channels or key 153 ensures that the stud can only be inserted in a predetermined orientation. In other words, the stud is keyed into that orientation. The stud (illustrated in Figures 19a-b and 20a-b) has a corresponding arrangement of ribs. The ribs of the stud engage in the respective rib channels of the pillars 150-1 in the predetermined orientation.

One pair of the pillars 150-1 are arranged such that the studs are arranged in a first orientation, whilst the other pair of the pillars 150-1 are arranged in a second orientation. Preferably, the key 153 is arranged uppermost for one pair of the pillars 150-1, whilst the key 153 is arranged lowermost for the other pair of the pillars 150-1.

Figure 18b illustrates an embodiment of the pillar arrangement with angled-head studs. The pillars 150-1 are arranged on a support 110-15 which is shown in close proximity to a display device having a contoured surround 30.

Each pillar 150-1 has located therein a removable angled-head stud 510 as illustrated in Figure 19. The key 153 of each pillar 150-1 ensures that the angled-head stud 510 is orientated such that the face 505 of each stud 510 is arranged to contact the contoured surround 30 tangentially.

The face 505 of each stud 510 has, for example, Velcro® fixed thereon with the hook prongs orientated in a predetermined direction. As illustrated in Figure 19a, the prongs face in the direction of the key rib 501. This arrangement ensures that the Velcro® provides the maximum possible adhesion because each prong is orientated such that it may bear the mass of the support 110-15.

The surround has Velcro® fixed thereon in corresponding locations such that they cooperate with the Velcro® on the face 505 of each stud 510 to fix the support 110-15 to the surround 30. The orientation of the key 153 of each pillar 150-1 ensures that the angled-head stud presents its face 505 in the correct orientation.

Figure 18c illustrates an embodiment of the pillar arrangement with flat-head studs. The pillars 150-1 are arranged on a support 110-15 which is shown in close proximity to a display device having a flat surround 30.

Each pillar 150-1 has located therein a removable flat-head stud 610 as

illustrated in Figure 20. The flat-head stud 610 arranged such that the face 605 of each stud 610 is substantially parallel to the surround 30.

The face 605 of each stud 610 also has, for example, Velcro® fixed thereon with the hook prongs orientated in a predetermined direction. As illustrated in Figure 20a, the prongs face in the direction of the key rib 601. This arrangement ensures that the Velcro® provides the maximum possible adhesion because each prong is orientated such that it may bear the mass of the support 110-15.

The surround has Velcro® fixed thereon in corresponding locations and in a suitable orientation such that they cooperate with the Velcro® on the face 605 of each stud 610 to fix the support 110-15 to the surround 30.

Hence, the user can be provided with two sets of studs, each suitable for either flat or contoured surrounds. The arrangement of the key 153 advantageously ensures that the studs are suitably orientated such that the correctly contact the surround 30.

Figure 20 illustrates a preferred embodiment of the support.

The support 110-15 is a plastic moulding and comprises an aperture for viewing a display screen and an access aperture 300d. The support 110-15 has a lower shoulder 400a and an inner shoulder 400b for assisting with attachment orientation. Support pillars 150-1 are located on the rear face of the support 110-15. A number of support apertures 600 are provided which are arranged to receive corresponding members on a receptacle (see Figures 22a and 22b), such that the receptacle may be supported on the surround 1105-15.

ATTACHMENT

Figure 4 illustrates an attachment 200 according to an embodiment of the present invention attached using attachment means to the support 100 illustrated in Figure 2. In this illustrative embodiment, the attachment 200 comprises a single member. The attachment 200 is rectangular, having a length I in the horizontal direction and a width J in the vertical direction. The attachment 200 may be made of a material which is flexible. The attachment 200 may have a nominal depth K. The attachment may be manufactured from a material such as plastics, PVC, vinyl-based materials, plasticized partial polyvinyl butyral, cellulose materials, paper or cardboard. Alternatively, the attachment 200 may be an electronic device. Illustrative examples of

electronic devices are a clock, an electronic schedule or a display having a graphical user interface.

The attachment 200 is attached to the support 100 in a suitable position. Preferably, the attachment 200 has a length I and width J such that it extends beyond the support 100. However, it will be appreciated that the attachment 200 may have any suitable length I and width J. Also, it will be appreciated that the attachment 200 need not be rectangular, but may be any shape.

The attachment 200 is preferably located such that it does not substantially obscure the display screen 20. However, the attachment 200 may be located to obscure the display screen 20 if required. Also, the attachment 200 is preferably located such that its two major surfaces are substantially parallel to the display screen 20. However, the attachment 200 need not be located substantially parallel to the display screen 20 if an alternative configuration is required. Hence, the attachment 200 may be positioned in any suitable location with respect to the display screen 20.

The attachment 200 preferably has printing thereon. Preferably, the printing is literary or artistic material. This material may be printed onto the attachment 200. Preferably, the attachment is laminated. In the case of the attachment being an electronic device, the material may be generated electronically. Illustrative examples of the types of material include annotated instructions for using application programs, reminders, to-do lists, web-site addresses, telephone numbers, addresses, corporate information, decorative pictures or designs, product information and the like. The attachment 200 may also be arranged such that the surface may be written on using a non-permanent marker thereby allowing a user to make notes in a similar fashion to a so-called "white board". Thus users are able to have personal or business information readily available when sat at their desk. Also, users are able to personalise the monitor to provide a more individually pleasing working environment.

Hence, the attachment enables information may be readily to hand, and may provide for an attractive working environment.

Figures 7A to 7D illustrate attachments according to alternative embodiments of the present invention.

Figure 7A illustrates an attachment 200-1 according to an embodiment of the present invention attached to a support. In this embodiment, the attachment 200-1 comprises a single member. The attachment 200-1 is a quadrilateral, having an overall length M in the horizontal direction and an overall width N in the vertical direction. The attachment 200-1 has an aperture through which the display screen 20 may be viewed, the aperture size being substantially equal or larger than the width A and the height B of the display screen 20 as illustrated in Figure 1. The attachment 200-1 has a width O in the horizontal direction equal or greater than the width C (illustrated in Figure 1) of the surround 30 and a height P in the vertical direction equal or greater than the height D (illustrated in Figure 1) of the surround 30.

The attachment 200-1 is attached to the support using attachment means. Preferably, the attachment 200-1 has a length M and width N such that it extends beyond the surround 30. However, it will be appreciated that the attachment 200-1 may have any suitable overall length M, overall width N, aperture size, width O and height P. Also, it will be appreciated that the attachment 200-1 need not be quadrilateral, but may be any shape which would be easy to manufacture.

Figure 7B illustrates an attachment 200-2 according to an embodiment of the present invention attached to a support. In this embodiment, the attachment 200-2 comprises a single member. The attachment 200-2 is similar to the attachment 200-1 described above but is an ovoid having an aperture through which the display screen 20 may be viewed, the aperture size being substantially equal or larger than the width A (illustrated in Figure 1) and the height B (illustrated in Figure 1) of the display screen 20. The attachment 200-2 is attached to the support using attachment means.

Figure 7C illustrates an attachment according to an embodiment of the present invention attached to a support. The attachment 200-3 comprises a more than one member, in this case, four which in combination form a composite attachment. Each member is a trapezoid.

Each member is attached to support using attachment means in a position suitable such that the members form the composite attachment. A first member 220 located on the lower and upper horizontal section of the surround 30 and a further member 210 is located on each of the vertical sections of the surround 30.

Figure 7D illustrates an attachment according to an embodiment of the present invention attached to a support. In similar manner to that described above, the attachment 200-4 comprises a more than one member, in this case, four which in combination form a composite attachment. However, in this case each member is a quadrilateral. Each member is made of a material which is rigid such that it retains its integrity and configuration.

Each member is attached to support using attachment means in a position suitable such that the members form the composite attachment. A first member 230 located on the lower and upper horizontal section of the surround 30 and a further member 240 is located on each of the vertical sections of the surround 30.

Figure 11 shows an isometric view illustrating a support 100-7 according to an embodiment of the present invention located on the display device 10 in a predetermined location. Different attachments 200-5, 200-6 and 200-7 may be located on the support 100-7 at a predetermined location.

Figures 5A to 5D illustrate different techniques for attaching the attachments to the support.

The attachment 200 may be attached using the two component hooked-thread and coarse fabric nylon fastener 110A, 110B such as Velcro®, the alternative two component press-stud fastener 120A, 120B, the adhesive 130 or the suction cup 140 described above. Where the attachment 200 is manufactured from plasticized partial polyvinyl butyral and associated compounds thereof, the glass adhesion properties of the material provide the means for attachment to a suitable support 100. In preferred embodiments, the means for attachment comprises a so-called 'low-tack' adhesive.

Hence, various attachment means may be used to attach the attachment 200 onto the support 100. The attachment means selection will depend upon the properties of the support 100 to be attached to. In preferred embodiments, more than one attachment means will be provided to enable the user to choose the most appropriate.

Figure 17 illustrates the shoulder arrangement of a support according to a preferred embodiment of the present invention.

The support 110-14 has a shoulder, lip or rim 400 which extends around its outer perimeter. The shoulder 400 extends from the support 110-4 towards the user.

Hence, the shoulder 400 is upstanding from the support 110-4. The shoulder 400 preferably extends a distance which generally slightly longer than the thickness of the attachment 220-5. The shoulder 400 assists in the placement and retention of an attachment 200-5. An edge of the attachment 200-5 is placed against the shoulder which helps to orientate the attachment 200-5 when being affixed to the support 110-14.

It will be appreciated that a further or alternative shoulder could be provided which extended around the inner perimeter of the support 110-14. Also, it will be appreciated that either shoulder need not extend around the whole of the outer perimeter of the support 110-14, instead the shoulder could extend around only part of the perimeter of the support 110-14 or could simply comprise one or more suitably sized pillars or protrusion. Further it will be appreciated that the shoulder could extend a distance which is less than the thickness of the attachment 220-5.

RECEPTACLE

Figures 6A to 6C illustrate different receptacles. These receptacles may be attached to the display device 10, thereby forming the support. Alternatively, however, the receptacles may be attached to a support, forming the attachment.

Figure 6A illustrates a tray 300 for storing items. Preferably, the tray 300 is a moulded plastic tray. The user may place items such as stationery items in the tray 300 for convenient storage. In preferred embodiments this receptacle may be attached to the display device 10, thereby forming the support.

Hence, stationery items such as pens, pencils, rubber stamps, erasers, rubber bands, paper clips, tags etc. are easily locatable.

Figure 6B illustrates a holder 310 for holding items. Preferably, the holder 310 is a moulded plastic holder. The user may place items such as stationery items in the holder 310 for convenient storage. In preferred embodiments this receptacle may be attached to the support or display device.

Figure 6C illustrates a clip for holding items. Preferably, the clip 320 is a moulded plastic clip. Alternatively, the clip 320 may be formed from a metal. The user may place planar sheet items such as paper, photographs etc. in the clip for

storage. In preferred embodiments this receptacle may be attached to the support or display device.

Hence, notes or personal items such as photographs or pictures may be located on the display device.

Figure 10A shows an isometric view illustrating a support 100-7 including a receptacle according to an embodiment of the present invention in proximity to the display device 10.

Figure 10B shows an isometric view illustrating a support 100-7 including a receptacle according to an embodiment of the present invention located on the display device 10 in a predetermined location.

Figure 13A shows an isometric view illustrating a support 100-8 including a receptacle according to an embodiment of the present invention located on the display device 10 in a predetermined location.

Figure 13B shows an isometric view illustrating a support 100-8 including a receptacle according to an embodiment of the present invention located on the display device 10 in a predetermined location.

Figure 16 illustrates receptacle attachment means according to a preferred embodiment of the present invention.

The right hand side of the drawing shows a support 110-13 with no receptacle attached. The left-hand side of the drawing shows a section B-B through the support 110-13 with a receptacle 332 attached.

The receptacle 332 has an upper member 336 and a lower member 334. The upper member 336 forms a channel, groove or slot. The lower member 334 forms a number of parallel channels, grooves or slots, in this embodiment there are two. The upper member 336 and lower member 334 may extend the whole or part of the length of the receptacle 332. The members 334, 336 may be fixed to the receptacle 332 or be an integral part.

The support 110-13 (illustrated in part) has an upper aperture 340 and a lower aperture 338. The upper aperture 340 and the lower aperture 338 have an entry region 341 and a retaining region 342. The entry regions 341 are arranged to receive the respective member 336, 334. The members 336, 334 are arranged such that channels

are aligned with the respective retaining regions 342. The receptacle 332 is then slid (in this embodiment to the left) so that the channels engage with the retaining regions 342 such the receptacle 332 fixed in place on the support 110-13. Different channels (such as 340) may be selected to change the angle or tilt of the receptacle 332. Although the upper member 336 has been shown with one channel, it will be appreciated that it may have more than one. Similarly, although the lower member 334 has been shown with two channels, it will be appreciated that it may have more than two.

The retaining regions 342 may extend lengthwards a predetermined distance such that the receptacle 332 is appropriately aligned on the support 110-13 when the members 336, 334 reach the end of the retaining regions 342.

Figure 22a illustrates a front view of a receptacle according to a preferred embodiment of the present invention. The receptacle 700 comprises a number of adjacent cups 710, 720, 730 for storing items. Figure 22b illustrates a rear view of the receptacle according to a preferred embodiment of the present invention. The receptacle 700 comprises a plurality of members 740 arranged to engage with and be retained by corresponding the support apertures 600 provided on the support 110-16 illustrated in Figure 21.

ACCESS APERTURE

Figure 14A shows an isometric view illustrating a support 100-10 including an access aperture 300a.

The access aperture 300a is arranged to be located at a predetermined location such that buttons, switches or other controls which are used to operate and adjust the display device 40 are readily accessible by the user. In this embodiment the access aperture 300a is an ovoid. However, it will be appreciated that the access aperture 300a may be any suitable shape such as a circle. Preferably, any attachments supported by the support 100-10 have a corresponding access aperture located therein.

Figure 14B shows an isometric view illustrating a support 100-11 including an access aperture 300b.

The access aperture 300b is arranged to be located at a predetermined location such that buttons, switches or other controls which are used to operate and adjust the

display device 40 are readily accessible by the user. In this embodiment the access aperture 300b is an quadrilateral. However, it will be appreciated that the access aperture 300b may be any suitable shape such as a rectangle or square. Preferably, any attachments supported by the support 100-11 have a corresponding access aperture located therein.

Although particular embodiments have been described herein, it will be appreciated that the invention is not limited thereto and that many modifications and additions thereto may be made within the spirit and scope of the invention. For example, various combinations of the features of the following dependent claims could be made with the features of the independent claims without departing from the scope of the present invention.

CLAIMS

1. A support for attaching to a display device comprising:

at least one rigid support member; and

support attachment means for attaching one or more of said at least one rigid support member onto said display device, said support having a surface for supporting an attachment, the arrangement being such that, in use, said support supports said attachment in a predetermined location with respect to said display device.

2. The support of any preceding claim, wherein the support defines a viewing aperture, said aperture having a horizontal and a vertical dimension equal to or larger than a respective horizontal dimension and vertical dimension of a display screen of said display device such that said display screen may be viewed through the aperture.

3. The support of any preceding claim, wherein said support defines an access aperture, said access aperture being positioned such that a control of said display screen may be accessed through said access aperture.

4. The support of any preceding claim, wherein the support comprises a shoulder operable to assist in locating an attachment thereon.

5. The support of any preceding claim, wherein said support attachment means extends away from said at least one rigid support member towards said display screen.

6. The support of any preceding claim, wherein said support attachment means comprises a plurality of pillars extending orthogonally from said at least one rigid support member.

7. The support of any preceding claim, further comprising a receptacle.

8. The support of claim 7, wherein said receptacle is removable from said support.

9. The support of claim 7 or claim 8, wherein said receptacle comprises an upper member forming a first retaining channel and a lower member forming one or more retaining channels, and wherein said support comprises an upper and lower aperture operable to receive said upper member and said lower member respectively, said first retaining channel and one of said one or more retaining channels being co-operable with said upper and lower aperture such that said receptacle is retained on said support.

10. The support of any preceding claim, comprising one rigid support member.

11. An attachment for being supported by said support as claimed in any preceding claim, the attachment comprising:

means for attaching said attachment to said support.

12. The attachment of claim 11, wherein said attachment defines an aperture, said aperture having a horizontal and a vertical dimension equal to or larger than a respective horizontal dimension and vertical dimension of a display screen of said display device such that said display screen may be viewed through the aperture.

13. The attachment of claim 11 or 12, wherein said attachment defines an access aperture, said access aperture being positioned such that a control of said display screen may be accessed through said access aperture.

14. The attachment of any of claims 11 to 13, wherein said attachment is flexible.

15. The attachment of any of claims 11 to 14, having printing thereon.

16. The attachment of any of claims 11 to 15, comprising more than one attachment member.

17. A combination of a display device and said support as claimed in any of claims

1 to 10 wherein said support is attached to said display device in a predetermined location such that said support does not substantially obscure a display screen of said display device.

18. A combination as claimed in claim 17 further comprising said attachment as claimed in any of claims 11 to 16 wherein said attachment is attached to said support in a predetermined location such that said support does not substantially obscure a display screen of said display device.

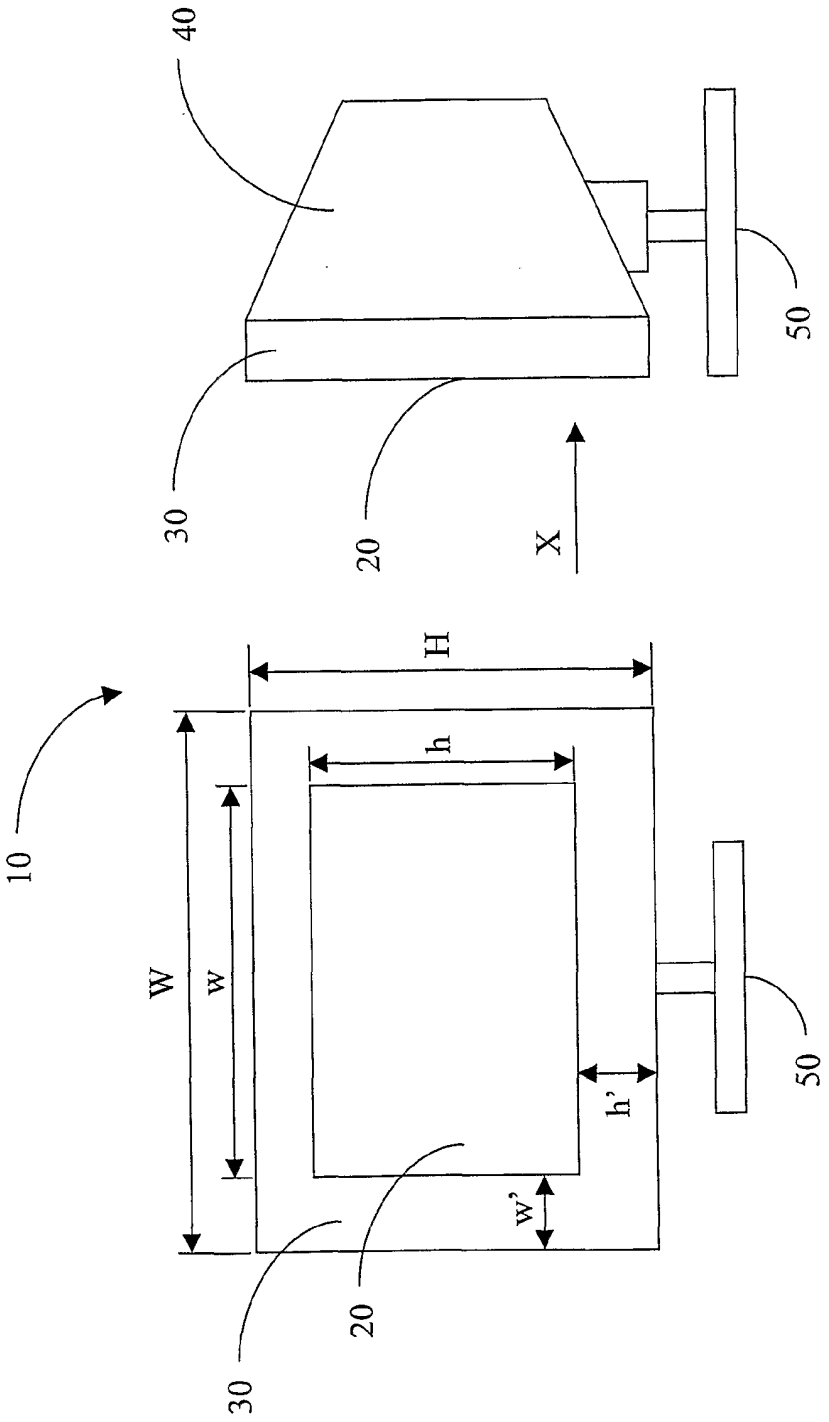


Figure 1

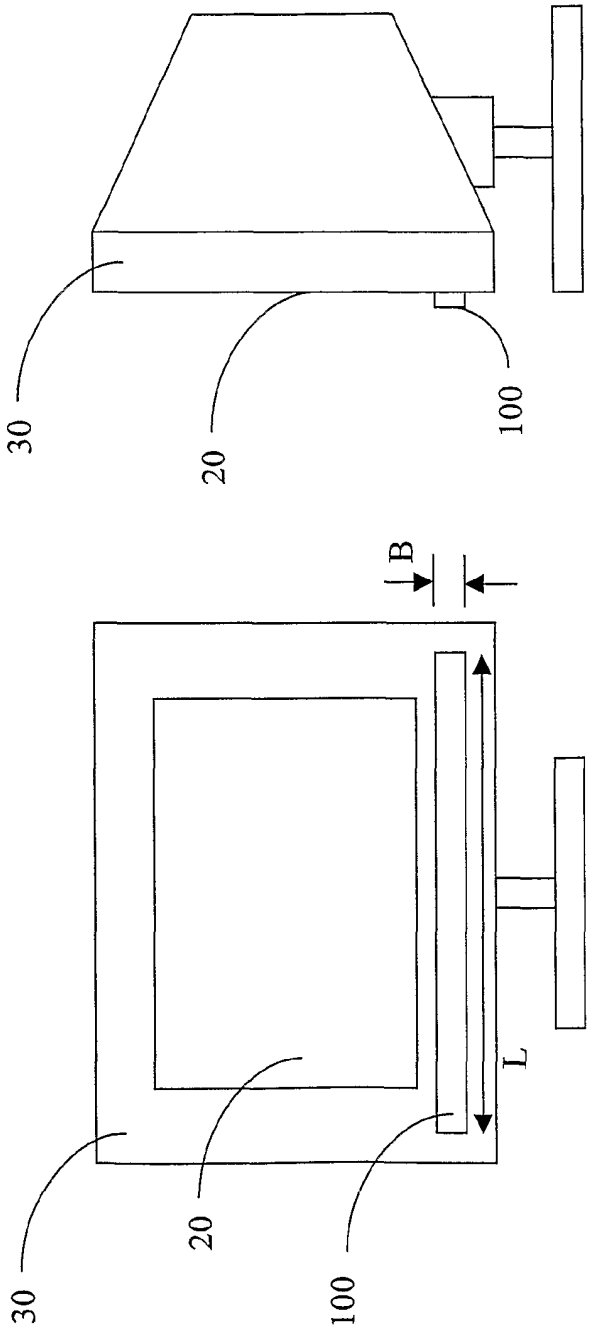


Figure 2

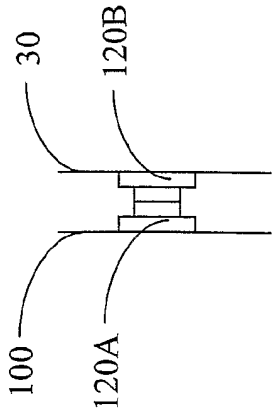


Figure 3B

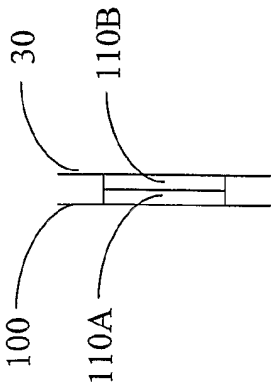


Figure 3A

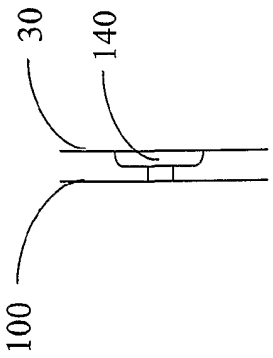


Figure 3D

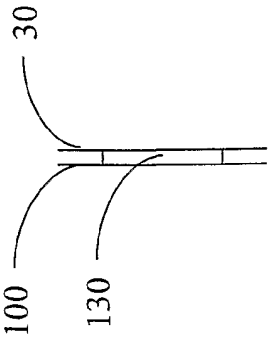


Figure 3C

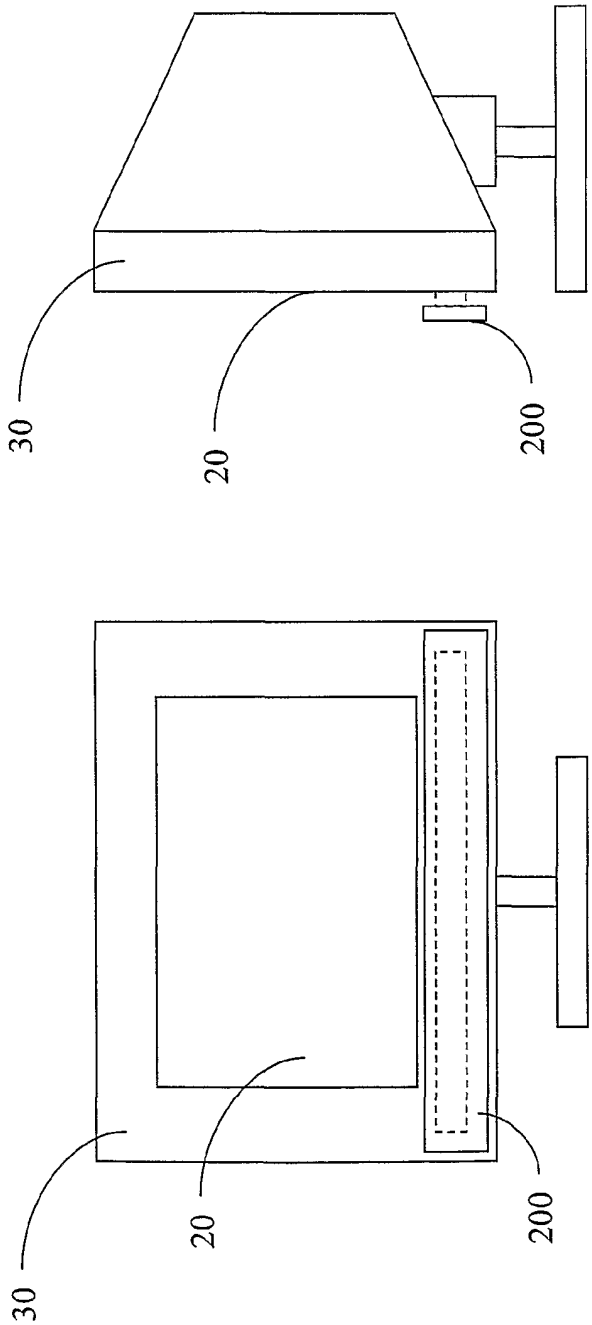


Figure 4

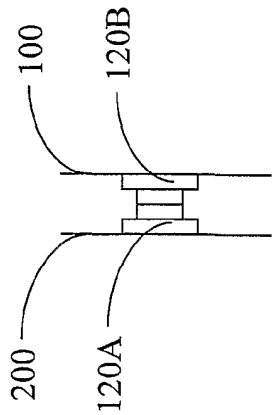


Figure 5B

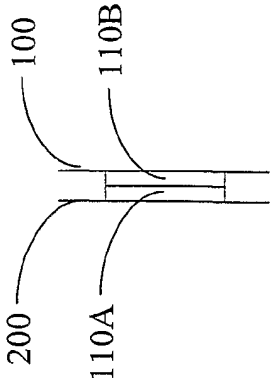


Figure 5A

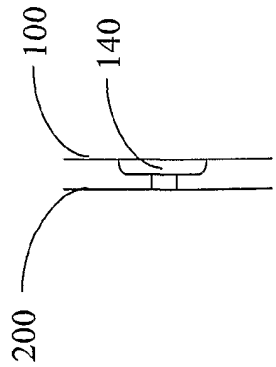


Figure 5D

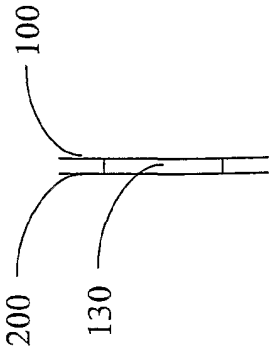


Figure 5C

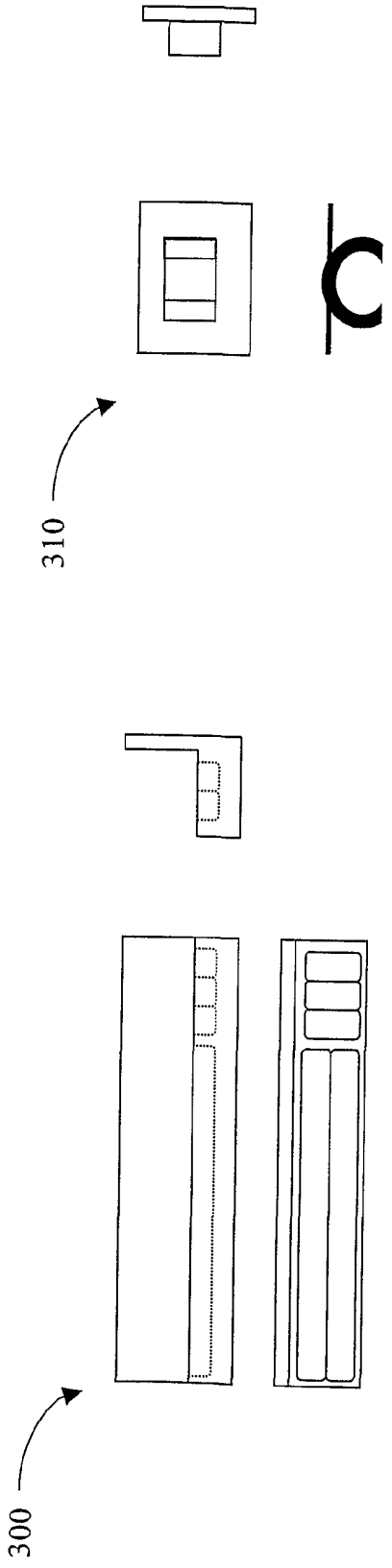


Figure 6A

Figure 6B

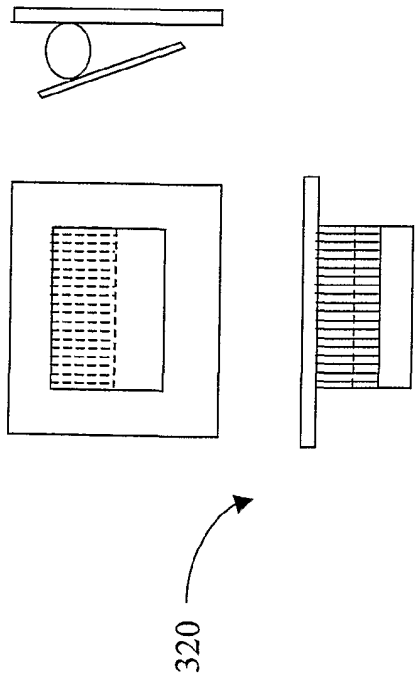


Figure 6C

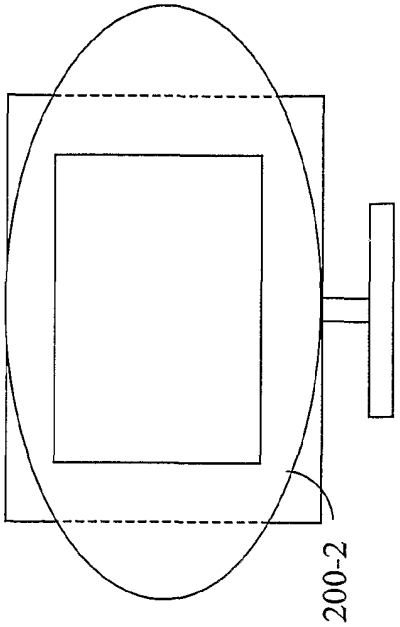


Figure 7B

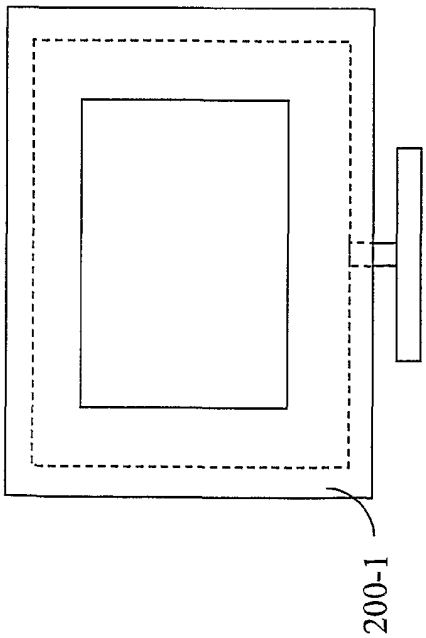


Figure 7A

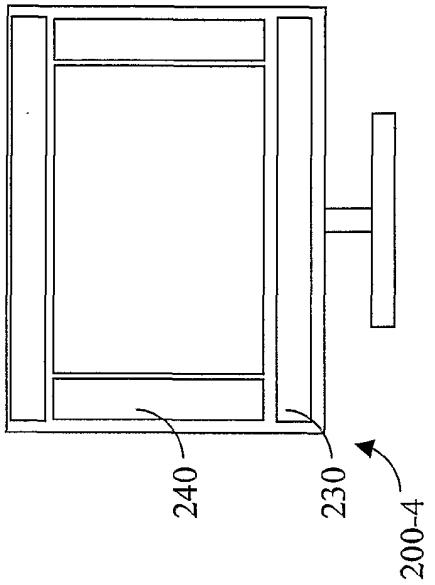


Figure 7D

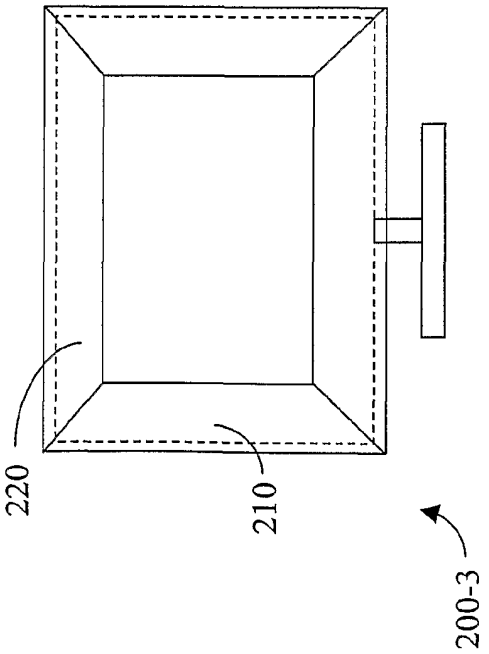


Figure 7C

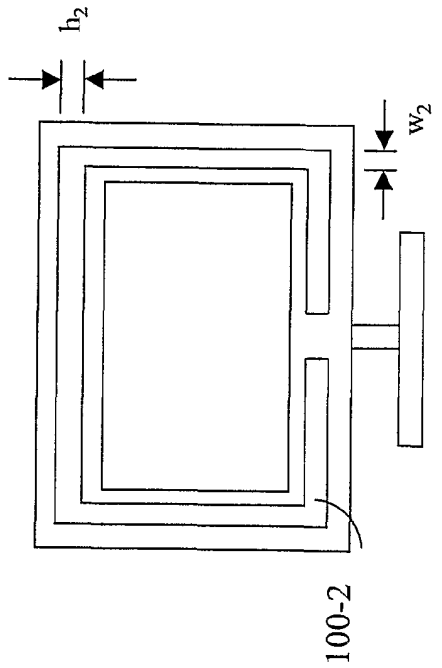


Figure 8B

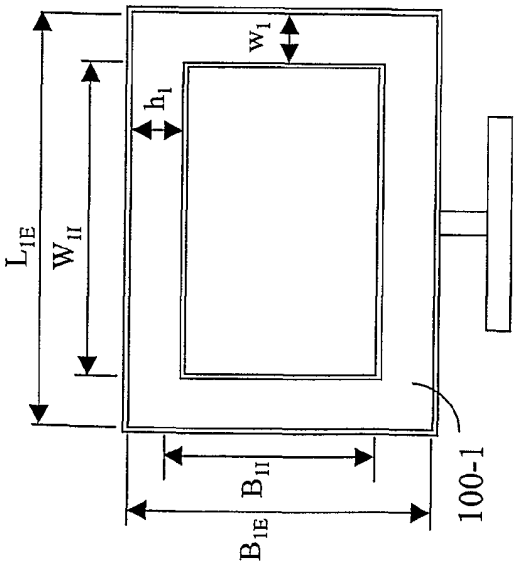


Figure 8A

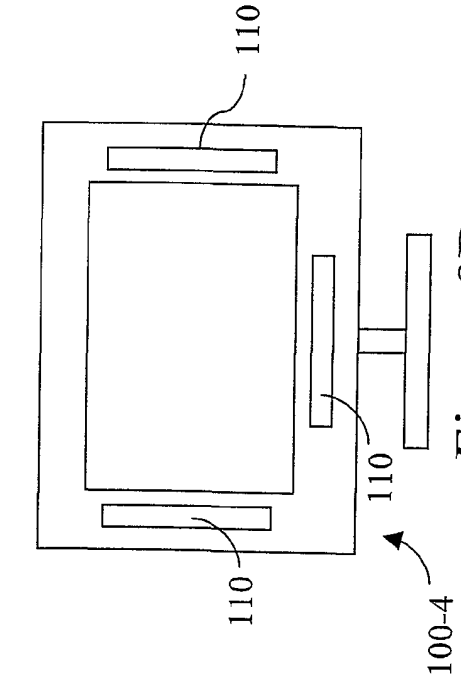


Figure 8D

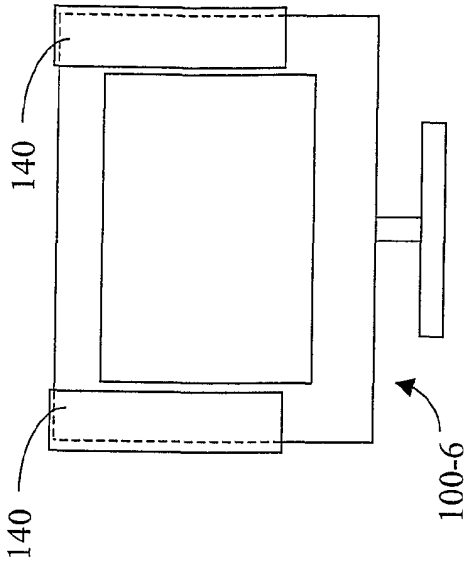


Figure 8F

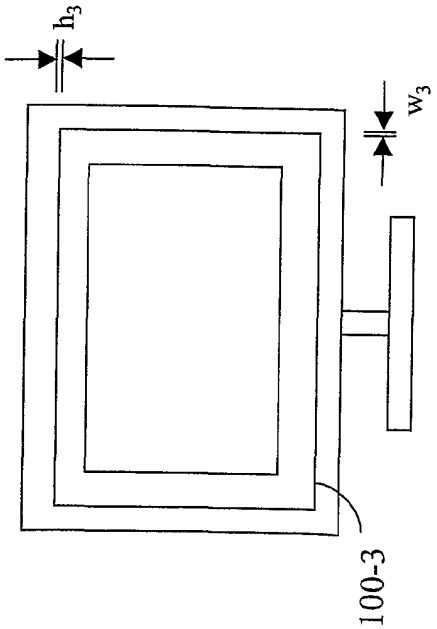


Figure 8C

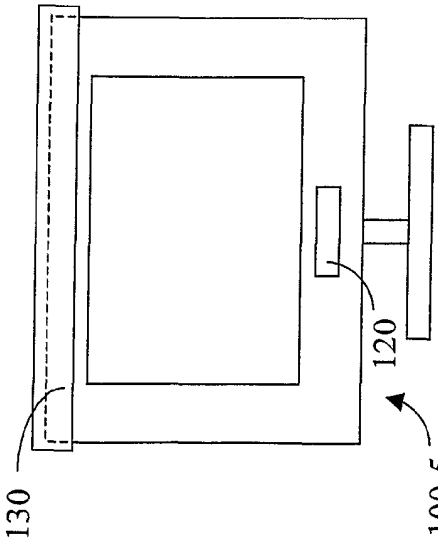


Figure 8E

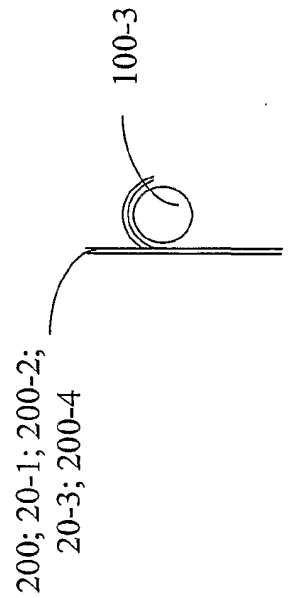


Figure 9B

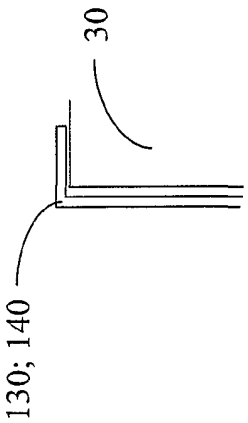


Figure 9A

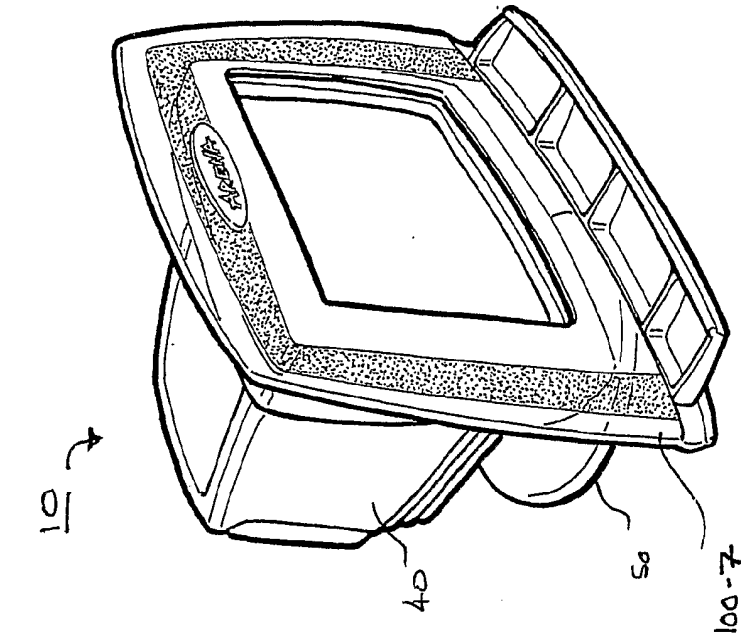


FIGURE 10B.

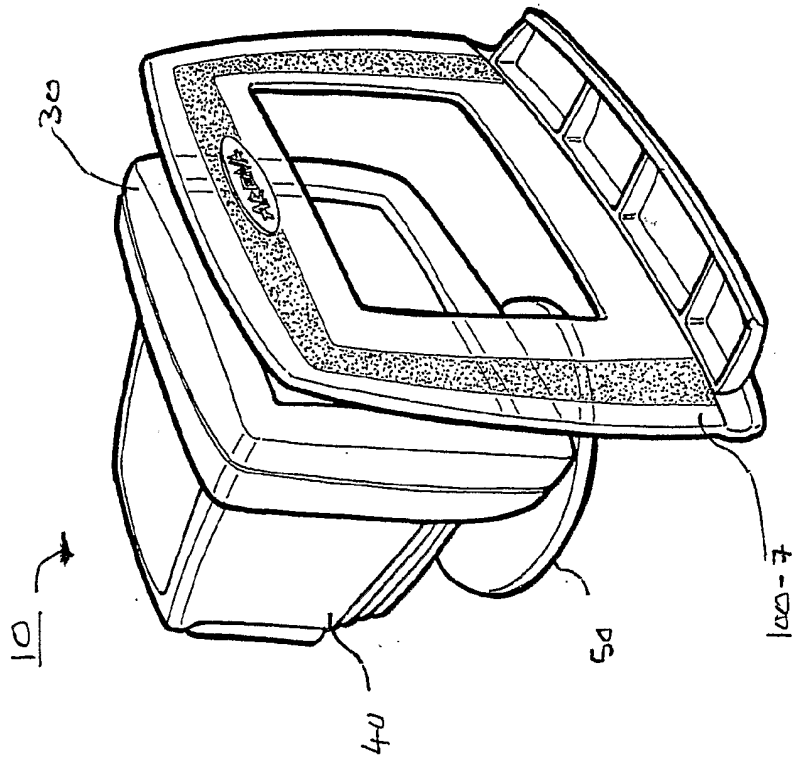


FIGURE 10A

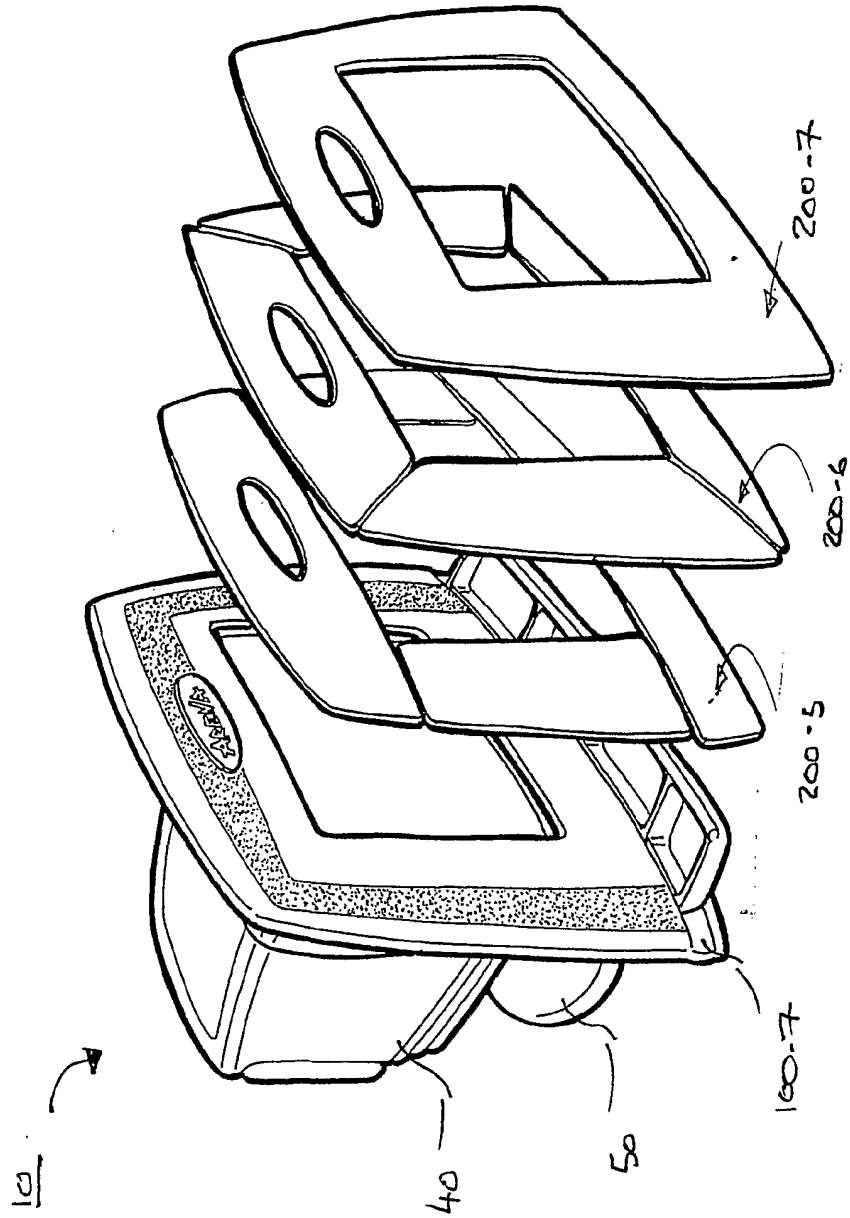


FIGURE 11

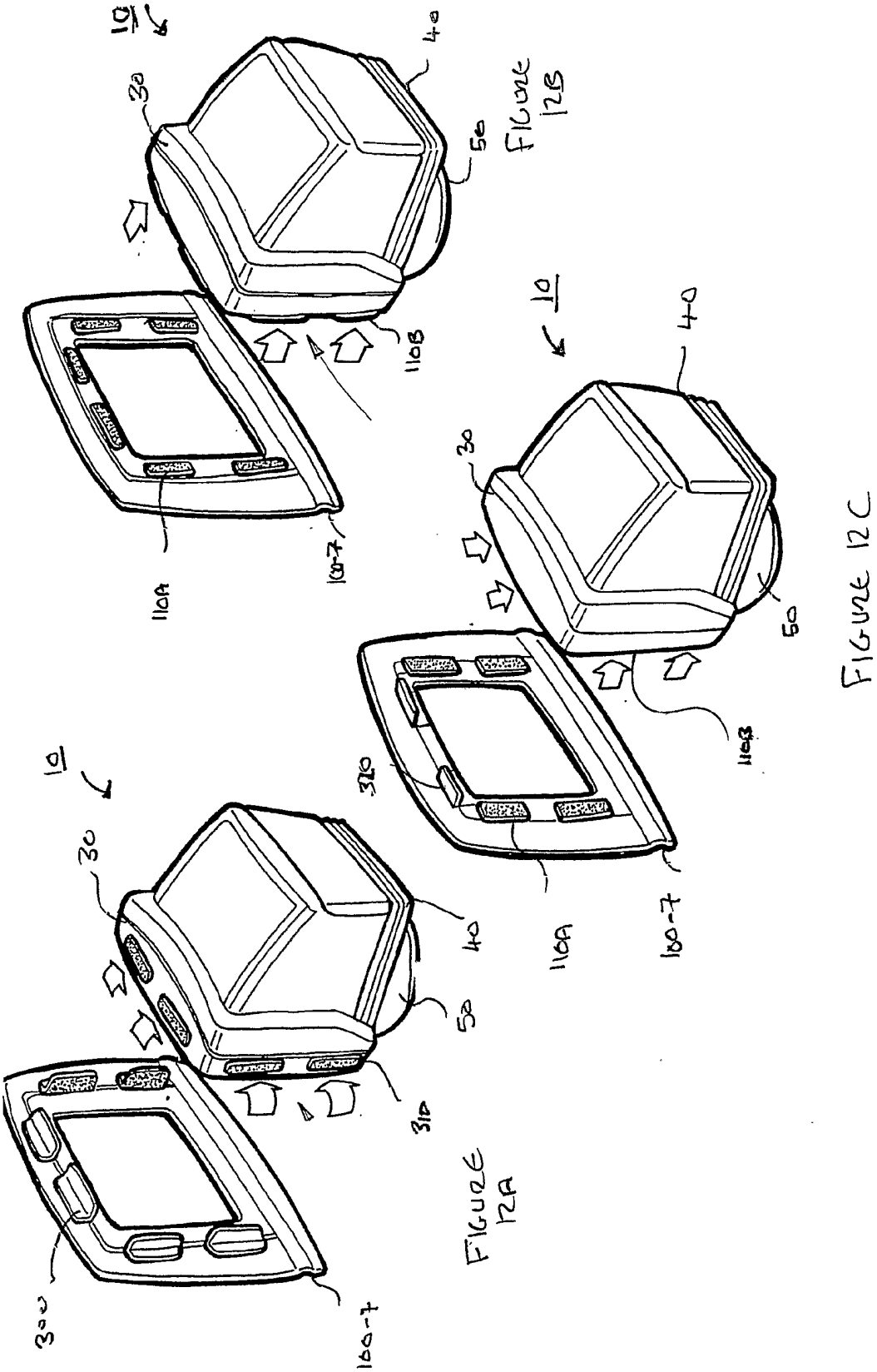


FIGURE 12A

FIGURE 12B

FIGURE 12C

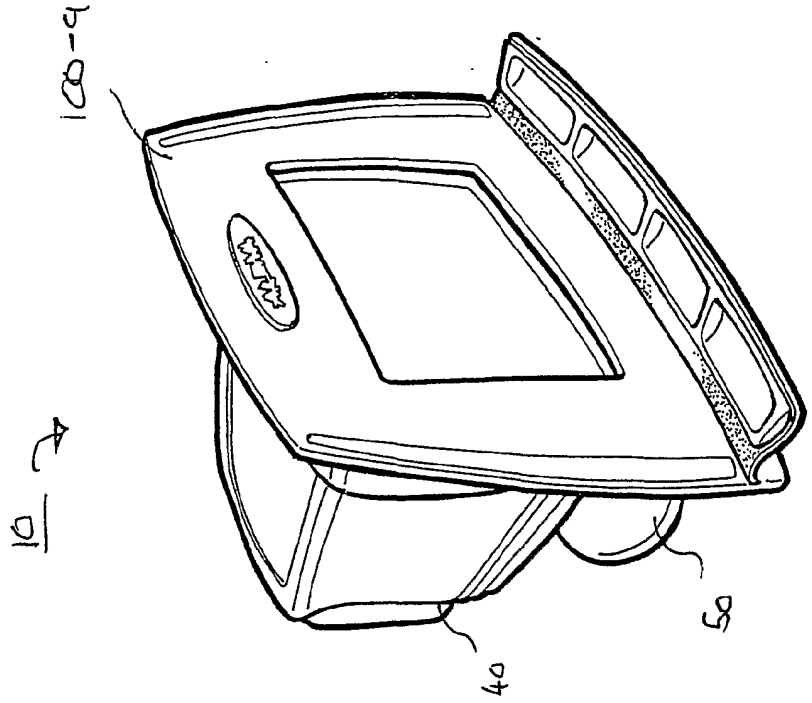


FIGURE 13B.

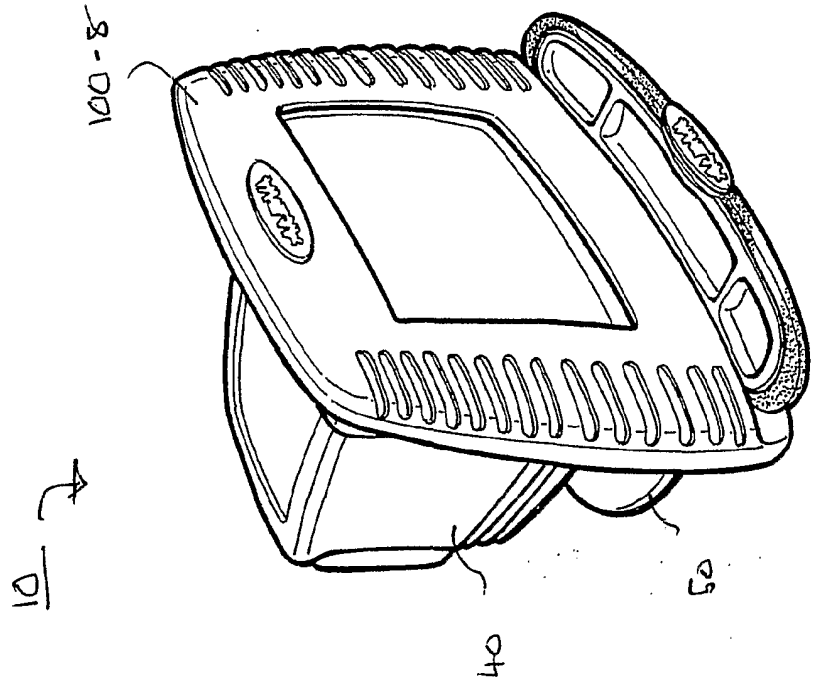


FIGURE 13A

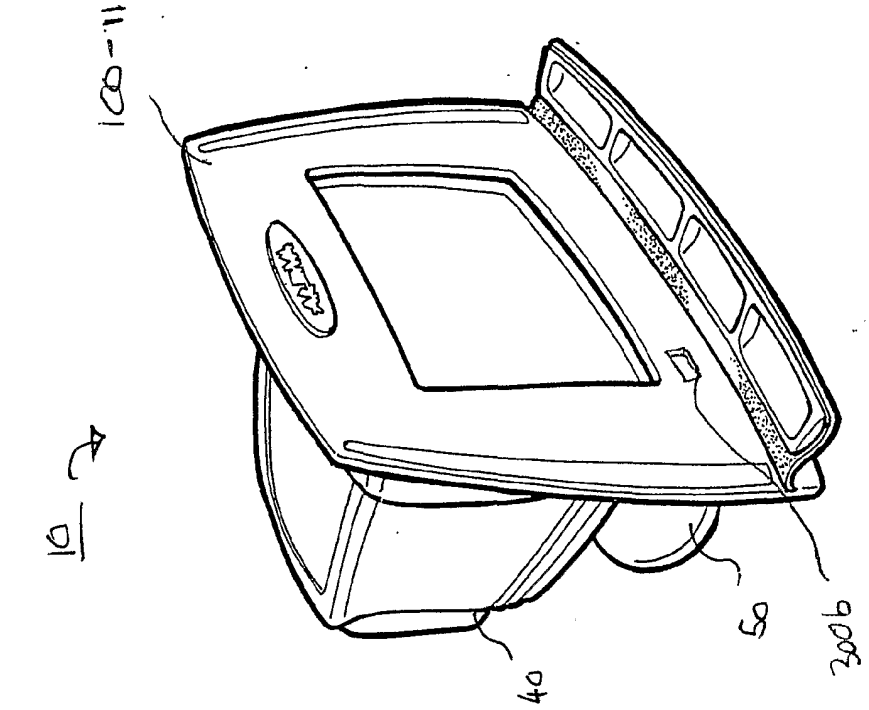


FIGURE 14B.

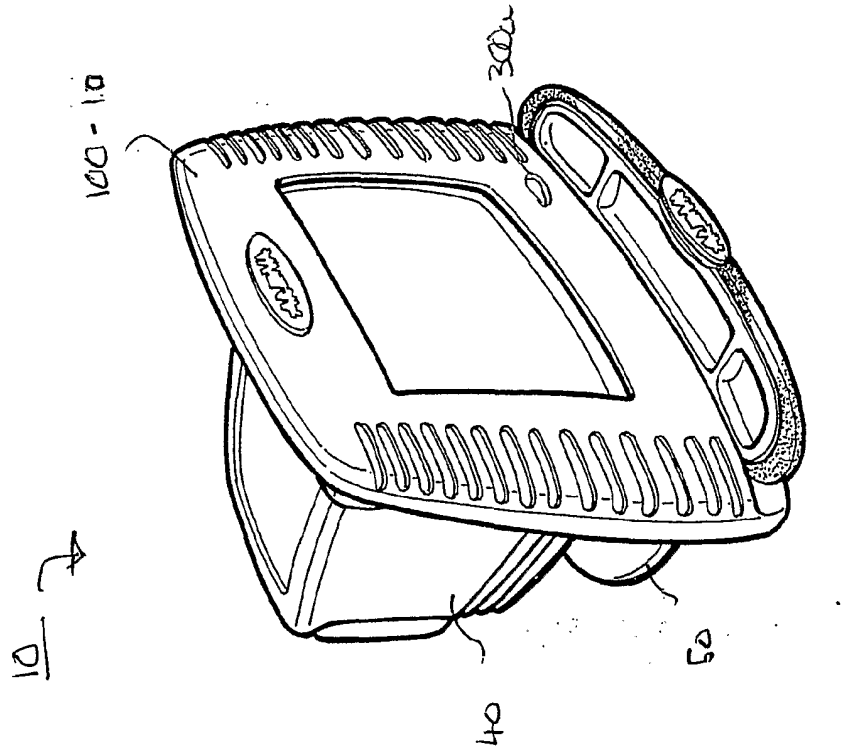
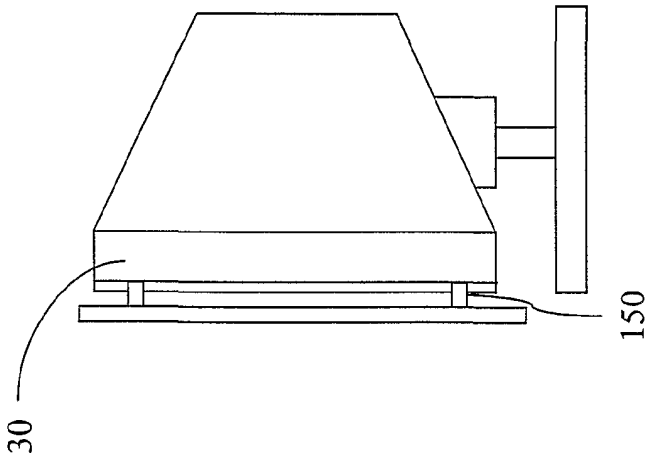
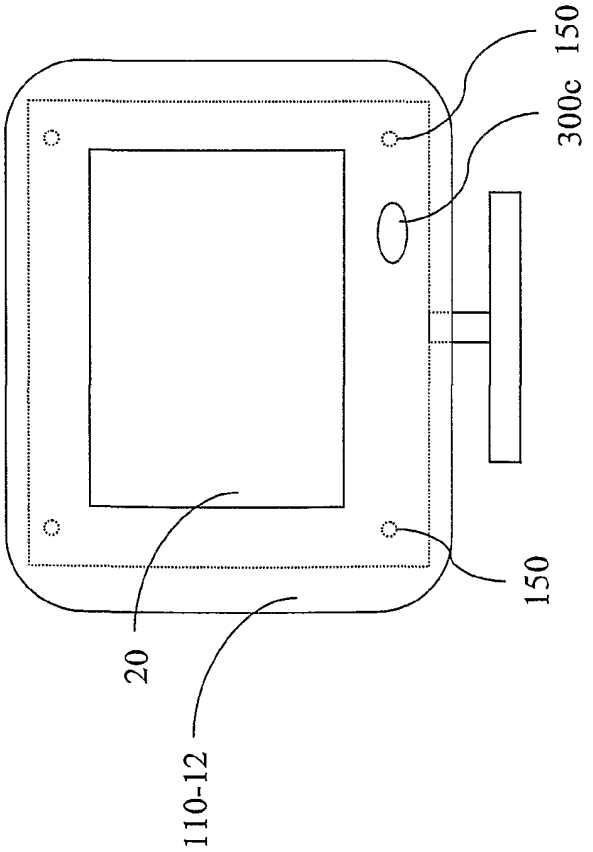


FIGURE 14A





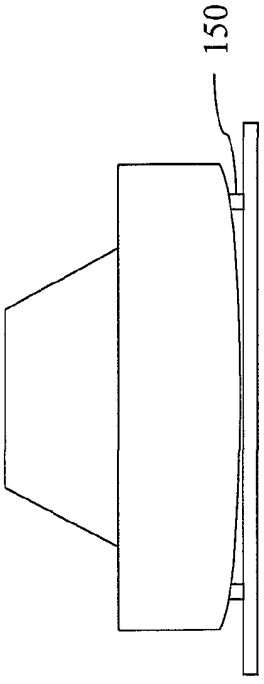


Figure 15

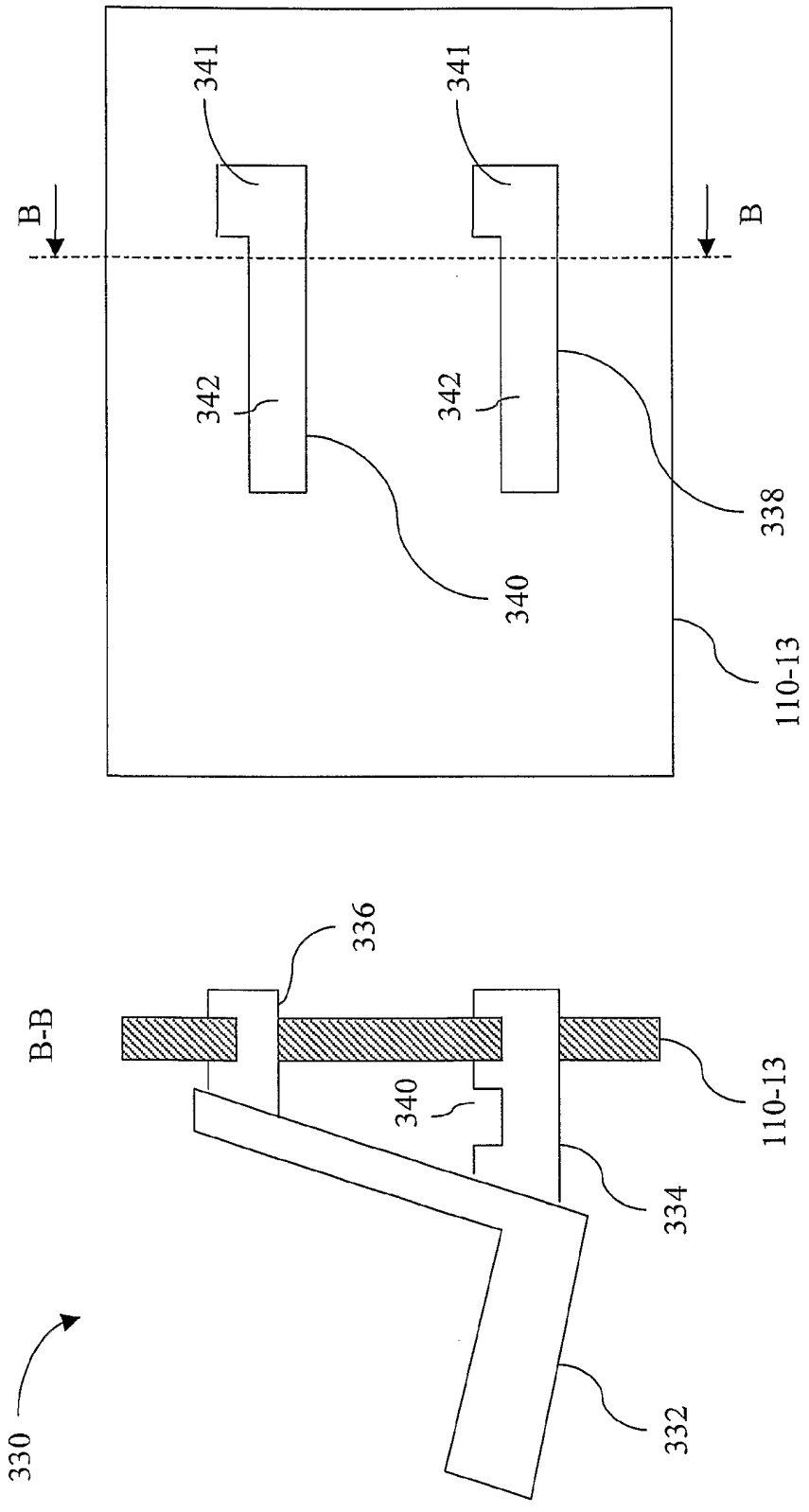


Figure 16

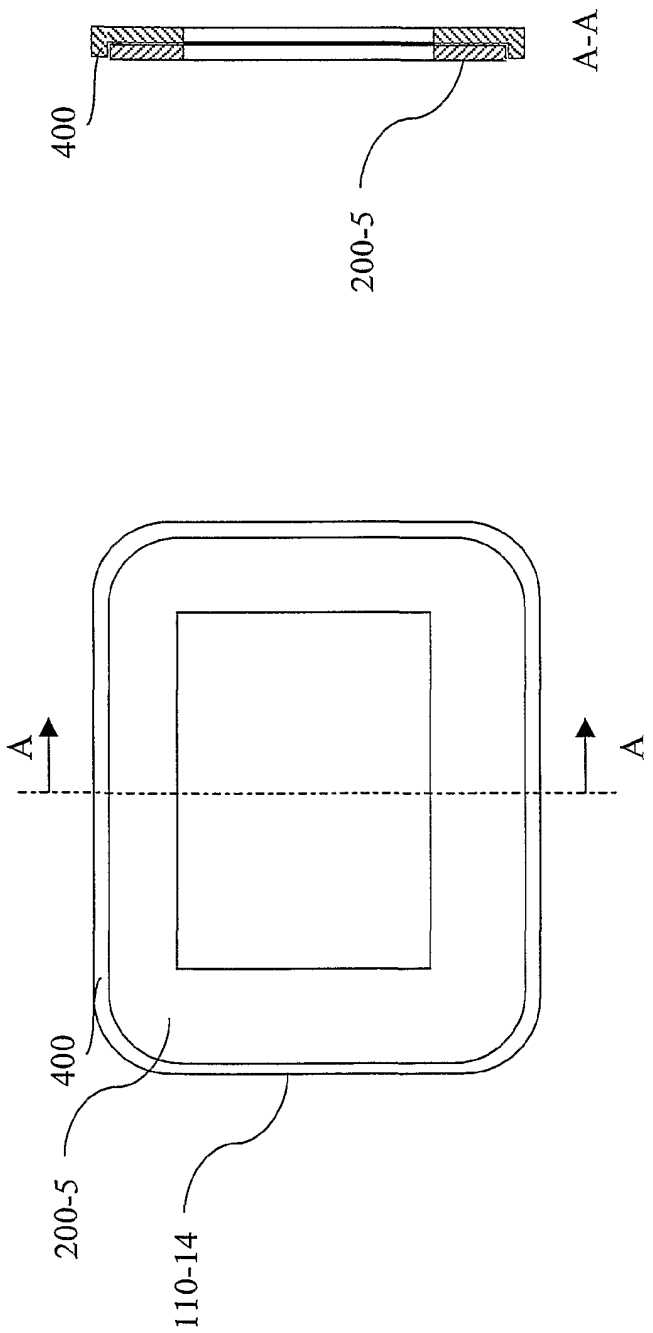


Figure 17

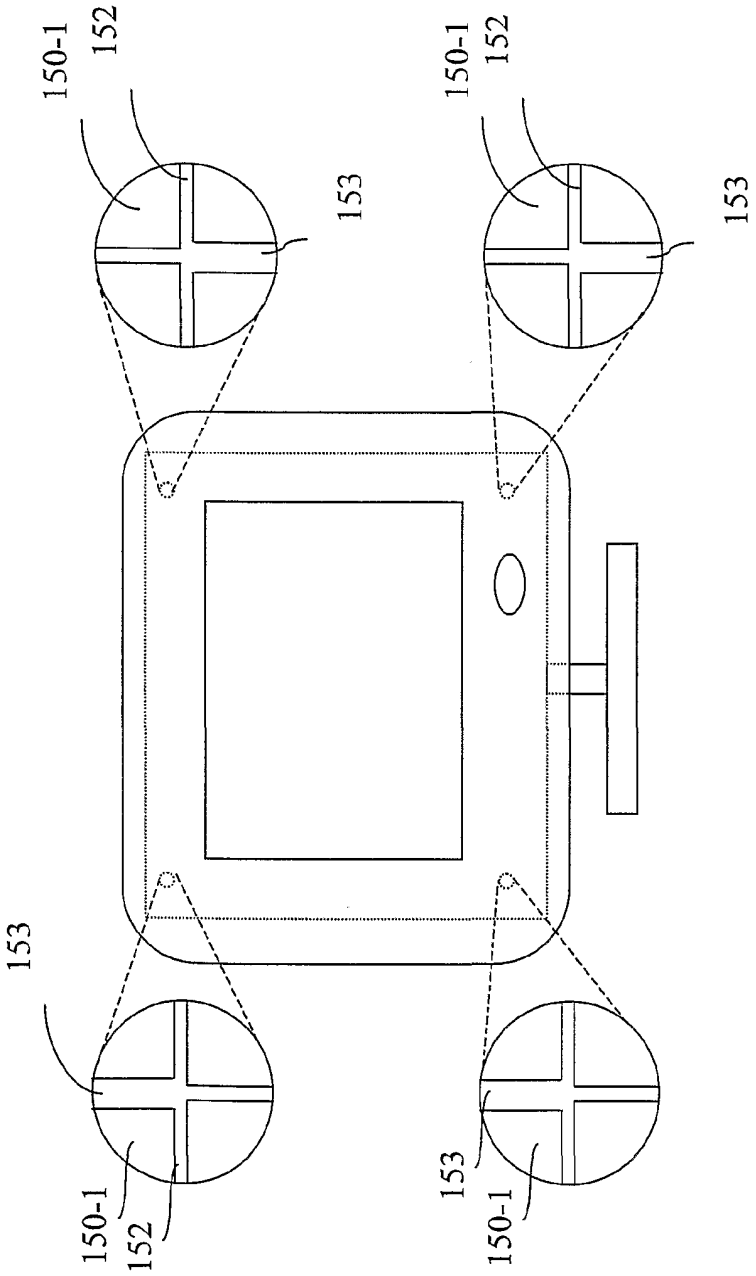


Figure 18A

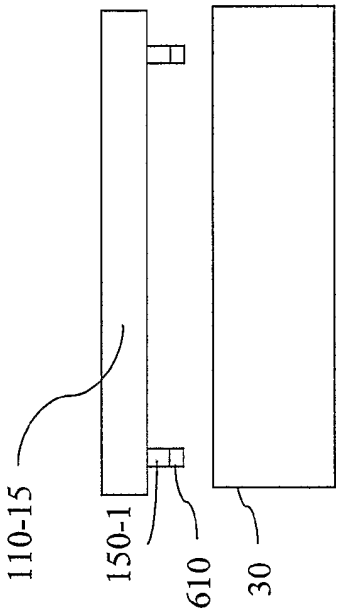


Figure 18C

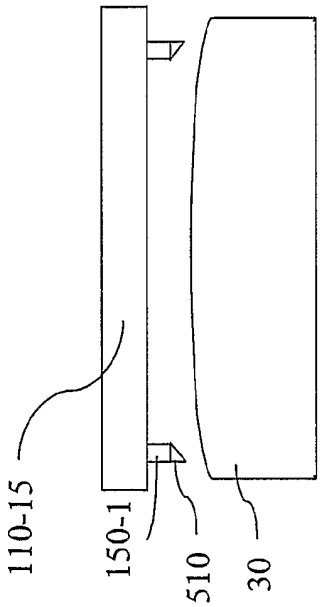


Figure 18B

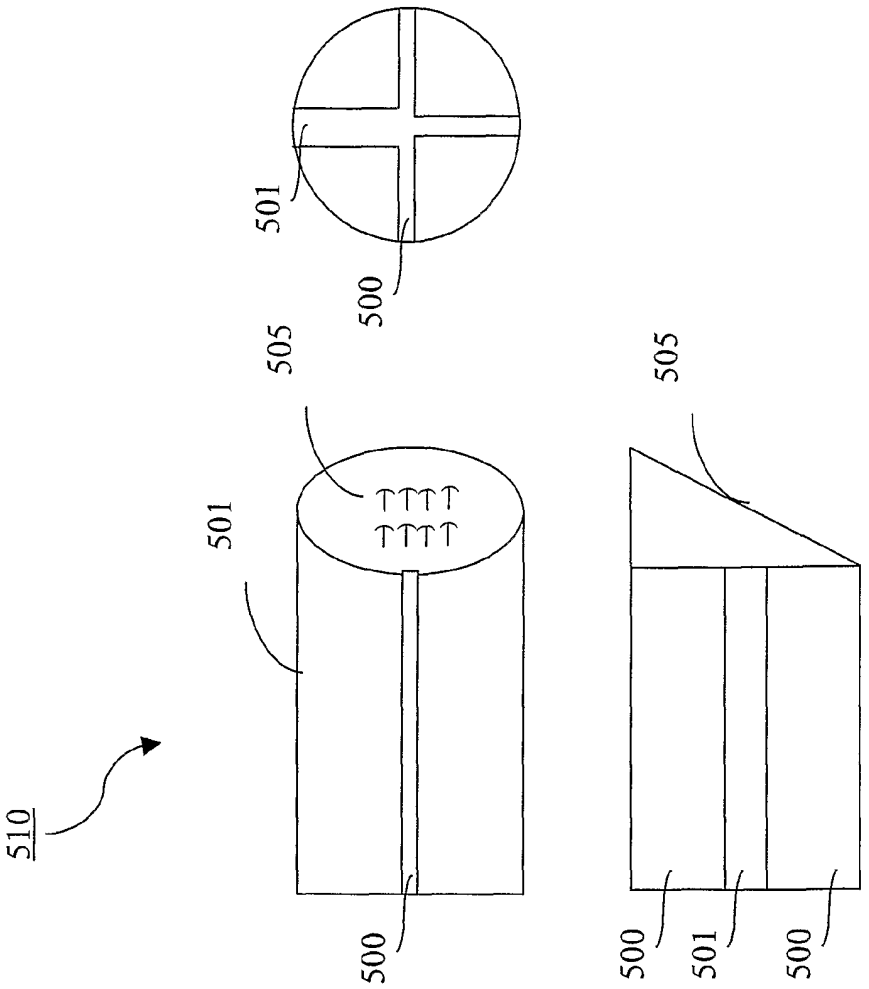


Figure 19

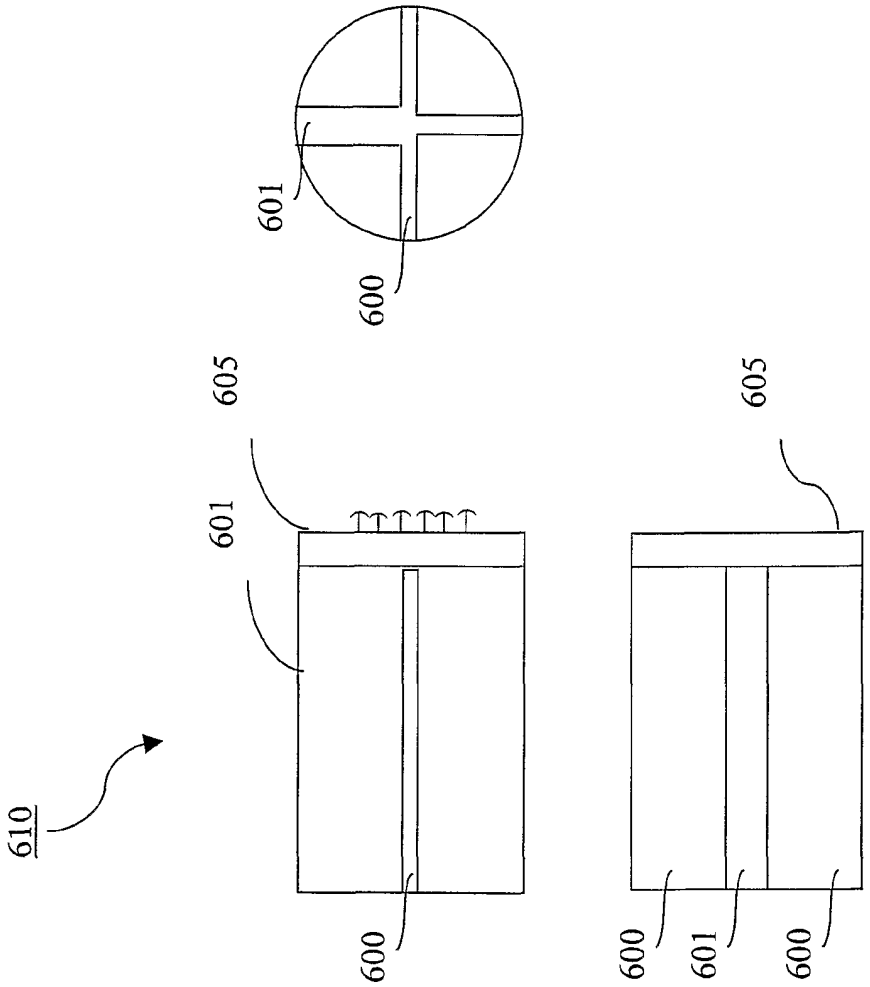


Figure 20

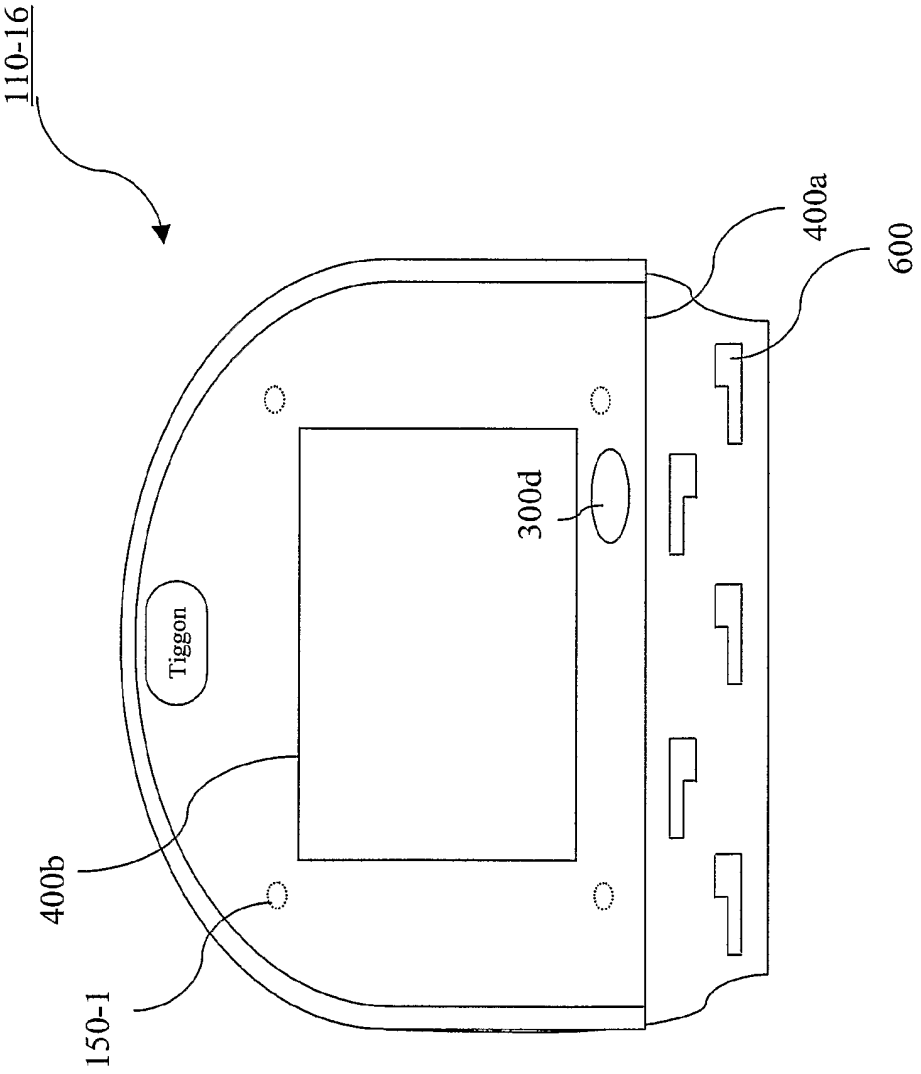


Figure 21

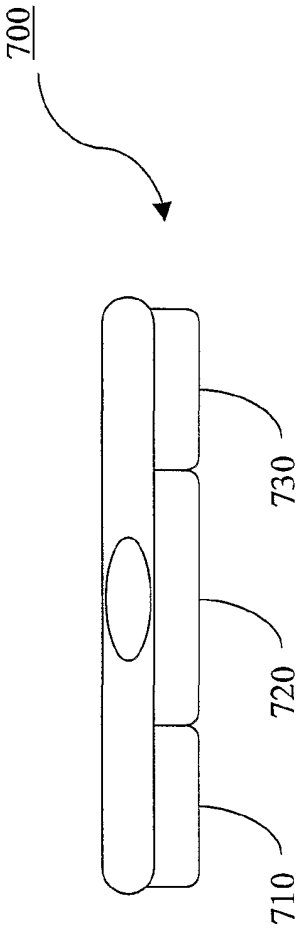


Figure 22A

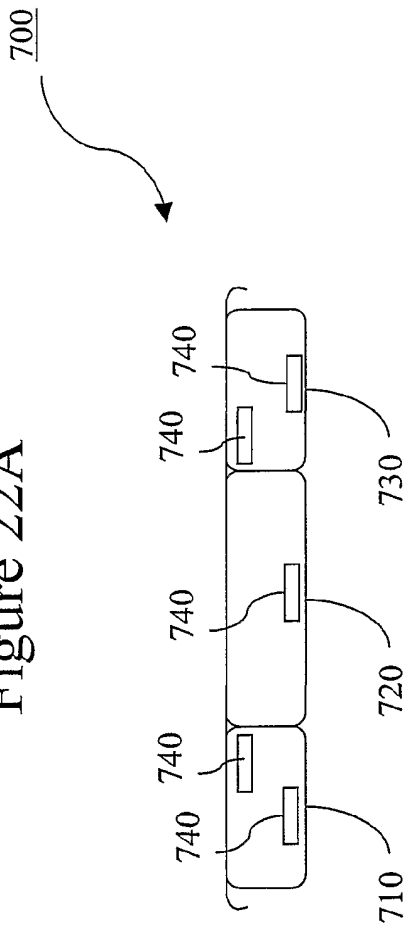


Figure 22B

INTERNATIONAL SEARCH REPORT

Int[illegible]onal Application No
PC[illegible]GB 01/04119

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 A47B81/06

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 7 A47B B43K

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

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

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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Y	---	9
Y	US 5 918 845 A (WHITAKER RICHARD J) 6 July 1999 (1999-07-06) column 6, line 57 - line 61; figure 8	9

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[X] Further documents are listed in the continuation of box C.

[X] Patent family members are listed in annex.

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Date of the actual completion of the international search	Date of mailing of the international search report
15 November 2001	28/11/2001

Name and mailing address of the ISA	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31–70) 340–2040, Tx. 31 651 epo nl, Fax: (+31–70) 340–3016	Papadimitriou, S

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INTERNATIONAL SEARCH REPORT

International Application No
PCT/GB 01/04119

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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X	US 5 398 905 A (HINSON LAURIE A) 21 March 1995 (1995-03-21) column 1, line 6 - line 10 column 3, line 14 - line 22 column 3, line 32 - line 37 column 3, line 54 - line 58; figures 1,6	1-3,11, 15,17
X	US 5 499 793 A (SALANSKY CHARLES A) 19 March 1996 (1996-03-19) column 4, line 41 - line 63 column 5, line 5 - line 7 column 5, line 14 - line 17; figures 1,2	1,11,17, 18
X	DE 200 05 038 U (TOP WANT IND CO) 21 June 2000 (2000-06-21) page 5, paragraphs 5,6; figures 4,4A	1

INTERNATIONAL SEARCH REPORT

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Int nal Application No
PCT/GB 01/04119

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