Title: WORKSTATION EQUIPMENT CONTAINER

The present invention relates to a workstation equipment container and more particularly, but not solely, to a so-called equipment bin for containing data management equipment such as dealer boards, computer keyboards, telephony boards, telecommunications apparatus and speakers.

In modern dealing desks for financial institutions it is desirable to support data management equipment in a simple manner which will provide operators and dealers with ease of access.

According to the present invention there is provided a workstation equipment container comprising an outer shell adapted to be fixed to a desk or other workstation, an inner receptacle adapted to support data management equipment and pivot means for mounting the receptacle in the shell so that the receptacle is stationary when the data management equipment is used but can be pivoted within the shell by a force substantially greater than the force required to operate the equipment.

A constructional embodiment of the present invention will now be described, by way of example, with reference to the accompanying drawings, wherein:-

Figure 1 is a side elevation of an equipment bin according to one embodiment of the present invention;

Figures 2A and 2B show side and end views, respectively, of a side plate of part of the outer shell;

Figures 3A, 3B and 3C show plan, front and end views, respectively, of a rear wall of part of the outer shell;

Figures 4A, 4B and 4C show plan, front and end views, respectively, of a front rail of part of the outer shell;

Figures 5A, 5B and 5C show plan, front and end views, respectively, of a side plate of the inner receptacle;

Figures 6A and 6B show front and end views, respectively, of a rear wall of the inner receptacle;

Figures 7A, 7B and 7C show front, plan and end views, respectively, of a front rail of the inner receptacle;

Figures 8A, 8B and 8C show front, plan and end views, respectively, of a faceplate support which forms part of the inner receptacle;

Figures 9A, 9B, 9C and 9D show front, plan and side views, respectively, of a pivot support;

Figures 10A, 10B and 10C show front, side and plan views, respectively, of a pivot box;

Figures 11A and 11B show front and side views of a pivot plate;

Figure 12 shows a front view of a faceplate;

Figure 13 shows an exploded perspective view of an equipment bin according to a further embodiment of the present invention;

Figures 14A and 14B show front and side views, respectively, of an outer shell side plate according to the further embodiment of the invention;

Figures 15A and 15B show front and side views, respectively, of an inner receptacle side plate according to the further embodiment of the invention;

Figures 16A and 16B show front and side views, respectively, of a pivot support according to the further embodiment of the invention;

Figures 17A, 17B and 17C show plan, front and side views, respectively, of an outer shell rear wall according to the further embodiment of the invention;

Figures 18A and 18B show a front view and a corresponding side view, respectively, of an inner receptacle rear wall according to the further embodiment of the invention, in one orientation of the inner receptacle; and

Figures 19A and 19B show a front view and a corresponding side view, respectively, of the rear wall of Figures 18A and 18B, in a further orientation of the inner receptacle.

With reference to Figure 1, the equipment bin comprises an outer shell having a rear wall 2, side plates 3 and a front rail 4. The bin further comprises an inner receptacle having a rear wall 5, side plates 6, a front rail 10 and a faceplate support 7 spot welded to the front rail 10. Pivot means connecting the receptacle to the outer shell comprise pivot supports 8, pivot boxes 9 and pivot plates 11. The pivot supports 8 are welded to the inner face of the side plates 3.

As shown in Figure 2A each side plate 3 has a plurality of holes 3A and rectangular apertures 3B for receiving projections of the pivot supports. As shown in Figure 5B each side plate 6 has a plurality of holes 6A, an alignment hole 6B and a plurality of recesses 6C.

A spring (not shown) at one or each side of the equipment bin extends between studs inserted in the holes 3A and 6A. The holes in which the studs are placed and the strength of the spring or springs depends upon the balance needed which is primarily related to the weight of the equipment placed in the equipment bin.

The equipment bin is made of metal parts welded together. When the rear wall 5 is shaped, creases are formed at each change of angle and the creased metal and/or weld material fits as and where necessary into the recesses 6C.

Each pivot support 8 has a pivot hole 8A and wings 8B and 8C. The wings 8B and 8C have projections 8D and 8E to fit tightly in the apertures 3B of the side plates 3. Each pivot box has walls 9A on three sides of a baseplate 9B which has a hole 9C. Each pivot plate 11 has a baseplate 11A and a clinch stud 11B. Each pivot box is arranged between the inner receptacle and the pivot support 8 with the walls 9A facing inwards. A pivot plate is arranged within the walls 9A with its clinch stud 11B extending through the pivot support 8 using hole 8A. A plastic washer is frictionally engaged on the end of the clinch stud 11B.

A faceplate 15 has a rectangular aperture 15A to receive data management equipment such as a computer keyboard. The faceplate is supported by the inner receptacle with the outer shell providing means for fixing the equipment container to a workstation such as a dealing desk and affording fixed junction points. The design of the workstation equipment container is such that it may be fixed to the workstation in a number of different positions.

Along the top of the rear wall 5 there is fixed an aluminium extrusion 5A for frictionally receiving a projecting rail of the faceplate. The aluminium extrusion 5A also acts as a handle for adjusting the angle of the inner receptacle relative to the outer shell. The faceplate is provided with quick-release studs fitted using holes 15B for ease of removal of the faceplate from the inner receptacle.

The equipment bin cradles the equipment and the pivot joint has a smooth action which is sufficiently resistant to movement so that equipment buttons and the like can be operated without the inner receptacle tilting, but whereby the inner receptacle can be tilted when sufficient pressure is applied.

A further embodiment of the present invention is shown in Figure 13. As more clearly shown in Figures 14A and 14B each side plate 3 has two holes 3A and one hole 3B in which studs 3D are located. As shown in Figures 15A and 15B each side plate 6 has a hole 6A, a hole 6B and three holes 6C for receiving studs 6D, the hole(s) used depending on the equipment being installed. Each side plate 6 also has two small holes 6E for plastic inserts.

The pivot support 8 as shown in Figures 16A and 16B has a pivot hole 8A, an arcuate slot 8G and two holes 8H. The holes 8H receive two of the studs 3D extending from the adjacent side plate 3 and the arcuate slot allows for tilting of the inner receptacle which has a stud extending from the pivot hole 6A into the arcuate slot.

Remaining studs in the side plate 3 and 6 are used for locating the ends of balancing springs as hereinbefore described.

As shown in Figures 17A, 17B and 17C the rear wall 2 has elongate slots 2A for screws for fixing the equipment container to a workstation and an earthing stud 2B for earthing the equipment.

As shown in Figures 18A and 19A the rear wall 5 has elongate slots 5A for aesthetic and/or ventilation purposes.

The equipment bin can be made in various depths and widths depending upon the equipment to be housed.



CLAIMS

1. A workstation equipment container comprising an outer shell adapted to be fixed to a desk or other workstation, an inner receptacle adapted to support data management equipment and pivot means for pivotally mounting the receptacle in the outer shell in such a manner that the inner receptacle is stationary when the data management equipment is used but can be pivoted within the outer shell by a force which is substantially greater than the force required to operate the data management equipment.

2. A workstation equipment container according to claim 1, wherein the outer shell has a rear wall, side plates and a front rail, the upper face of the shell being substantially open.

3. A workstation equipment container according to claim 2, wherein the rear wall of the outer shell is provided with a plurality of elongate slots for enabling the equipment container to be secured to a workstation by means of screws or like fastening elements passing through said elongate slots.

4. A workstation equipment container according to claim 2 or claim 3, wherein the inner receptacle comprises a rear wall, side plates, a front rail and a faceplate support secured to the front rail.

5. A workstation equipment container according to claim 4, wherein the pivot means comprise a pair of pivot supports each of which is secured to a respective side plate of the outer shell, a pair of pivot boxes and a pair of pivot plates.

6. A workstation equipment container according to claim 5, wherein each side plate of the outer shell is provided with at least one hole and with a number of rectangular apertures which are adapted to receive projections on the pivot supports and wherein each side plate of the inner receptacle is provided with at least one hole, an alignment hole and a plurality of recesses.

7. A workstation equipment container according to claim 6, wherein a respective stud is fitted into each of the or a respective one of the holes in the side plates of the outer shell and inner receptacle and a respective spring extends between said studs on each of the sides of the receptacle and shell.

8. A workstation equipment container according to claim 6 or claim 7, wherein each pivot plate is secured to a respective one of the side plates of the inner receptacle and is provided with a stud which is engageable in a pivot hole in the associated pivot support, each pivot box being located between a respective pivot support and the associated side plate of the inner receptacle.

9. A workstation equipment container according to claim 8, wherein each stud is frictionally engaged by a plastic washer to create friction between the pivot plates and the pivot supports.

10. A workstation equipment container according to any preceding claim, wherein the inner receptacle is provided with a face plate having a rectangular aperture for receiving data management equipment, the inner receptacle having a strip for engaging and supporting a rail on the face plate and said strip preferably acting as a handle for adjusting the angle of the inner receptacle relative to the outer shell.

* C L M S *

11. A workstation equipment container according to claim 10, wherein the rear wall of the inner receptacle is provided with an elongate member which is adapted to receive and engage with the rail which projects from the face plate.

12. A workstation equipment container according to claim 10 or claim 11, wherein the faceplate is provided with quick-release studs which are adapted to engage in respective aligned holes in the inner receptacle.

13. A workstation equipment container according to any preceding claim, wherein the inner receptacle has a rear wall which is provided with a series of elongate apertures or slots.

14. A workstation equipment container substantially as described herein with reference to the drawings.

ABSTRACT

Title: WORKSTATION EQUIPMENT CONTAINER

A workstation equipment container comprises an outer shell having a rear wall (2), side plates (3), a front rail (4) and an open top in which an inner receptacle is pivotally mounted. The inner receptacle comprises a rear wall (5), side plates (6), a front rail (10) and a support (7) for supporting a faceplate (15) which is adapted to receive data management equipment such as a computer keyboard. The outer shell is adapted to be fixed to a desk or similar workstation and the pivotal connection (8, 9, 11) between the inner receptacle and the outer shell is such that the inner receptacle is normally stationary when the data management equipment is used but can be pivoted within the outer shell to adjust the angle of the receptacle relative to the shell when subjected to a force which is substantially greater than the force required to operate the data management equipment.

(Figure 1)

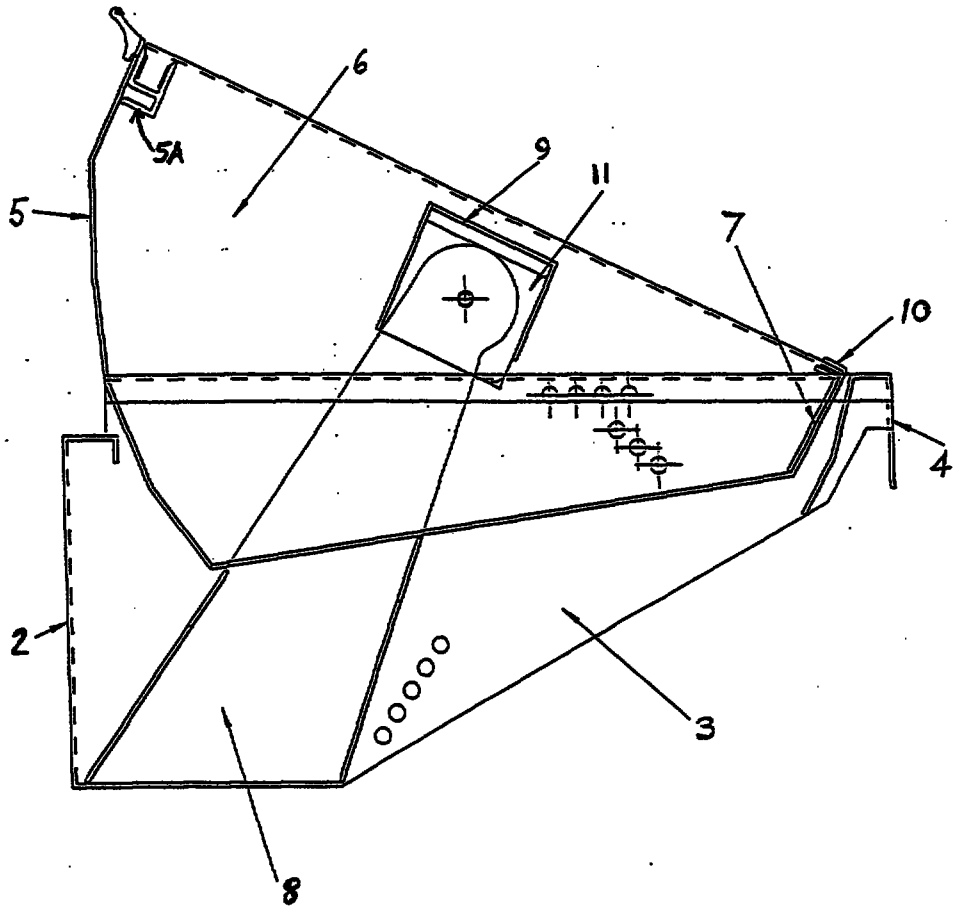

FIG. 1

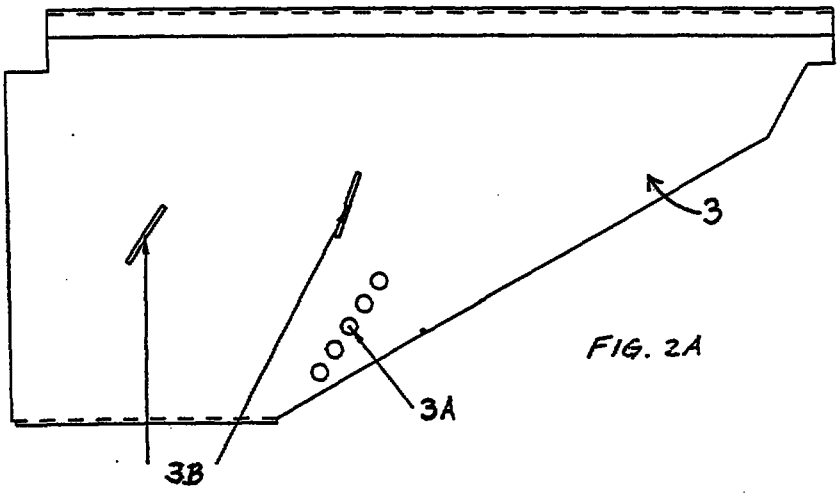

FIG. 2A

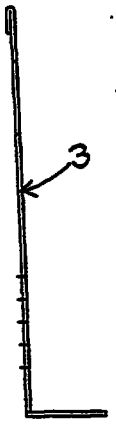

FIG. 2B

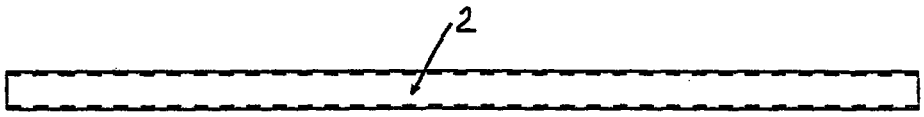

FIG. 3A

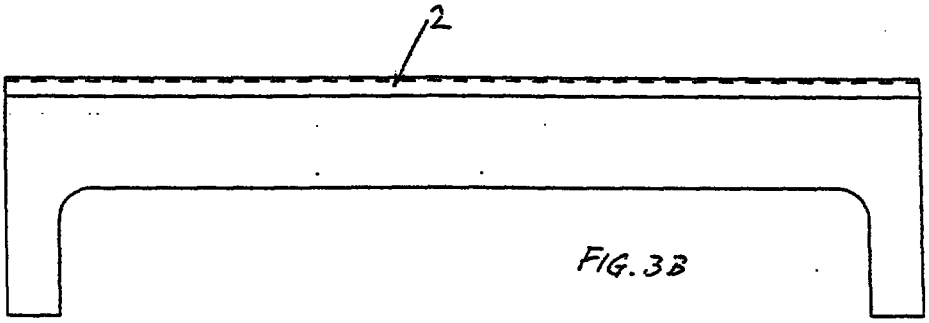

FIG. 3B

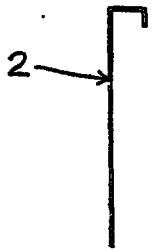

FIG. 3C



FIG. 4A

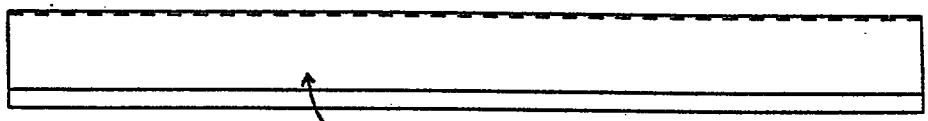

FIG. 4B



FIG. 4C

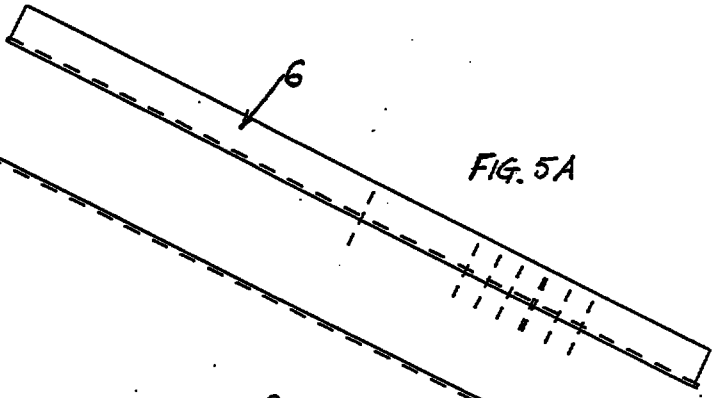

FIG. 5A

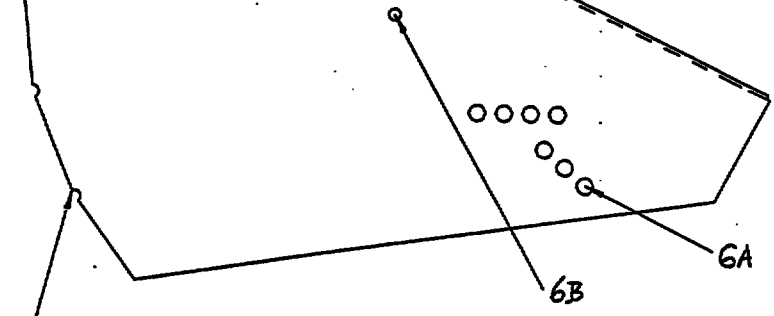

FIG. 5B

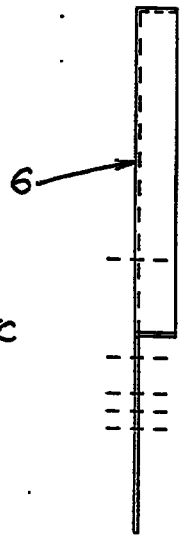

FIG. 5C

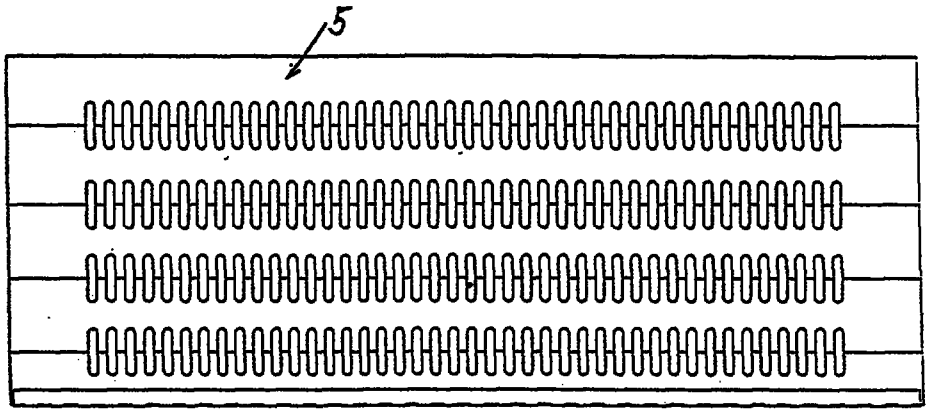

FIG. 6A

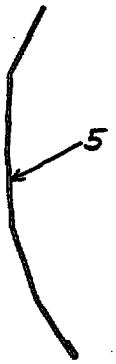

FIG. 6B

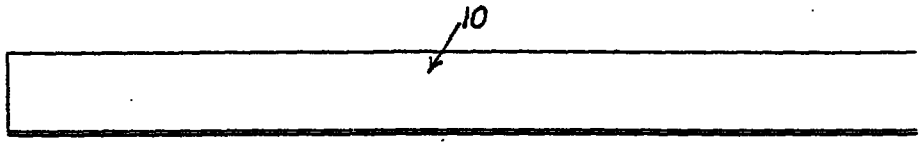

FIG. 7A

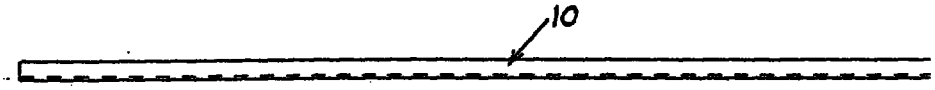

FIG. 7B



FIG. 7C

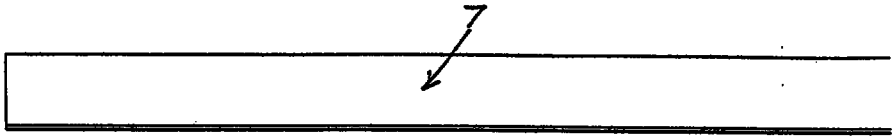

FIG. 8A

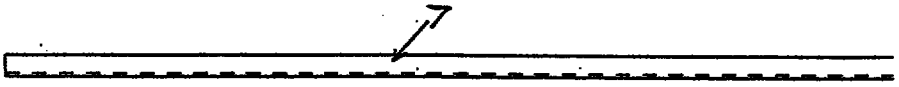

FIG. 8B

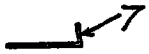

FIG. 8C

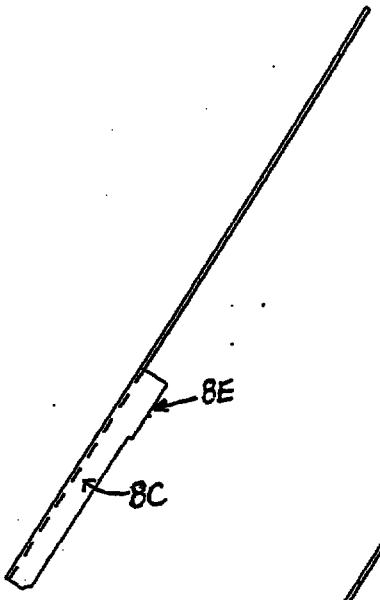

FIG. 9C

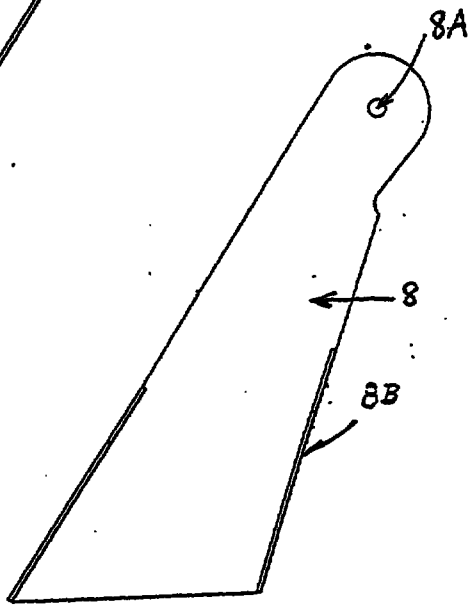

FIG. 9A

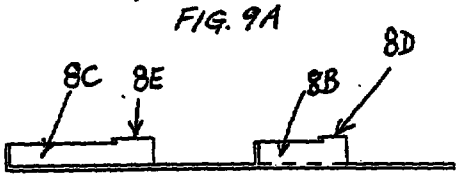

FIG. 9B

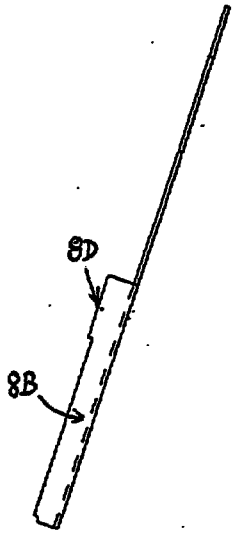

FIG. 9D

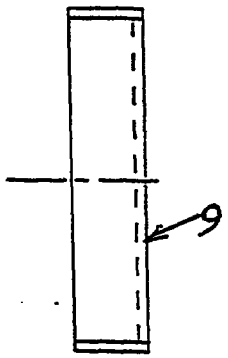

FIG. 10C

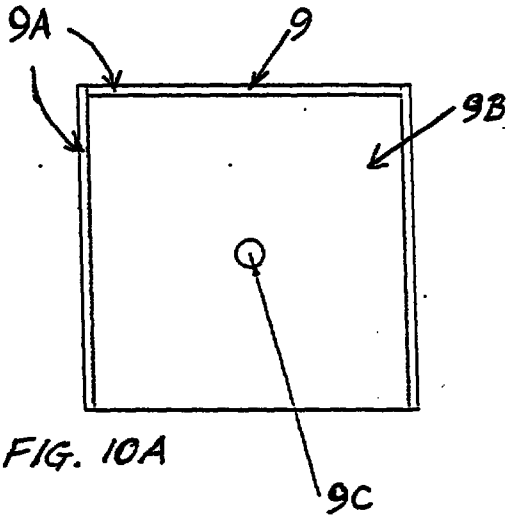

FIG. 10A

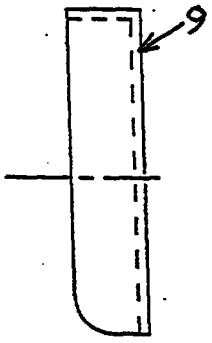

FIG. 10B

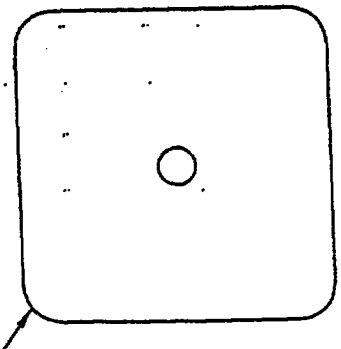

FIG. 11A

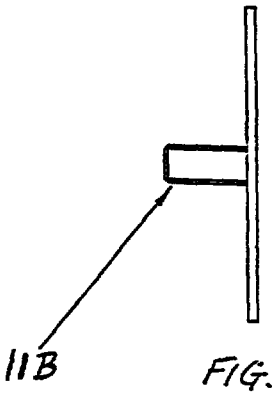

FIG. 11B

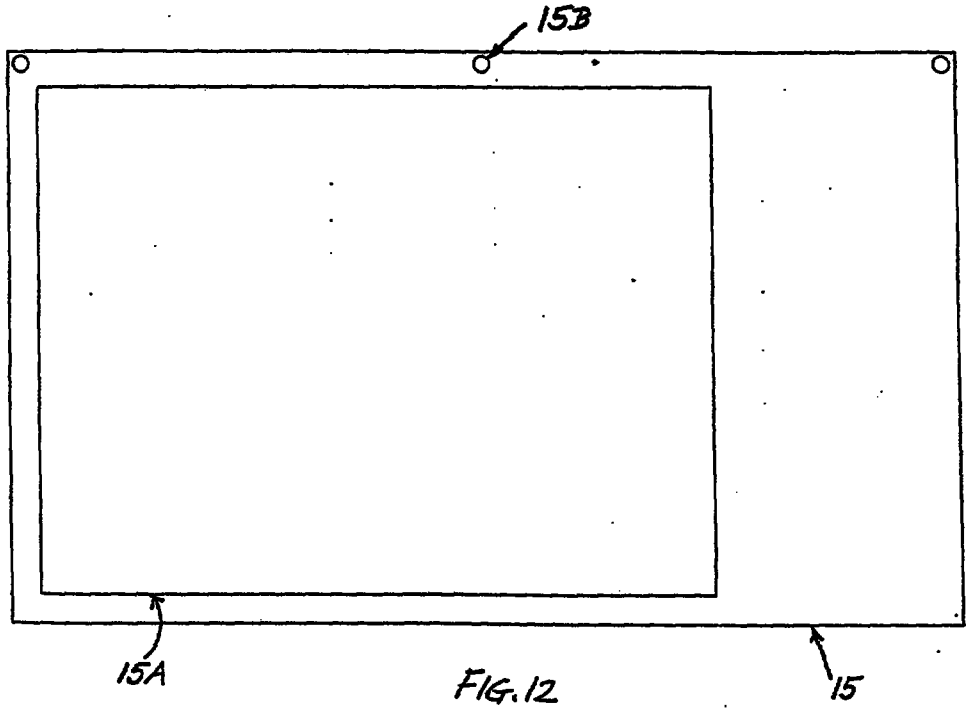

FIG. 12

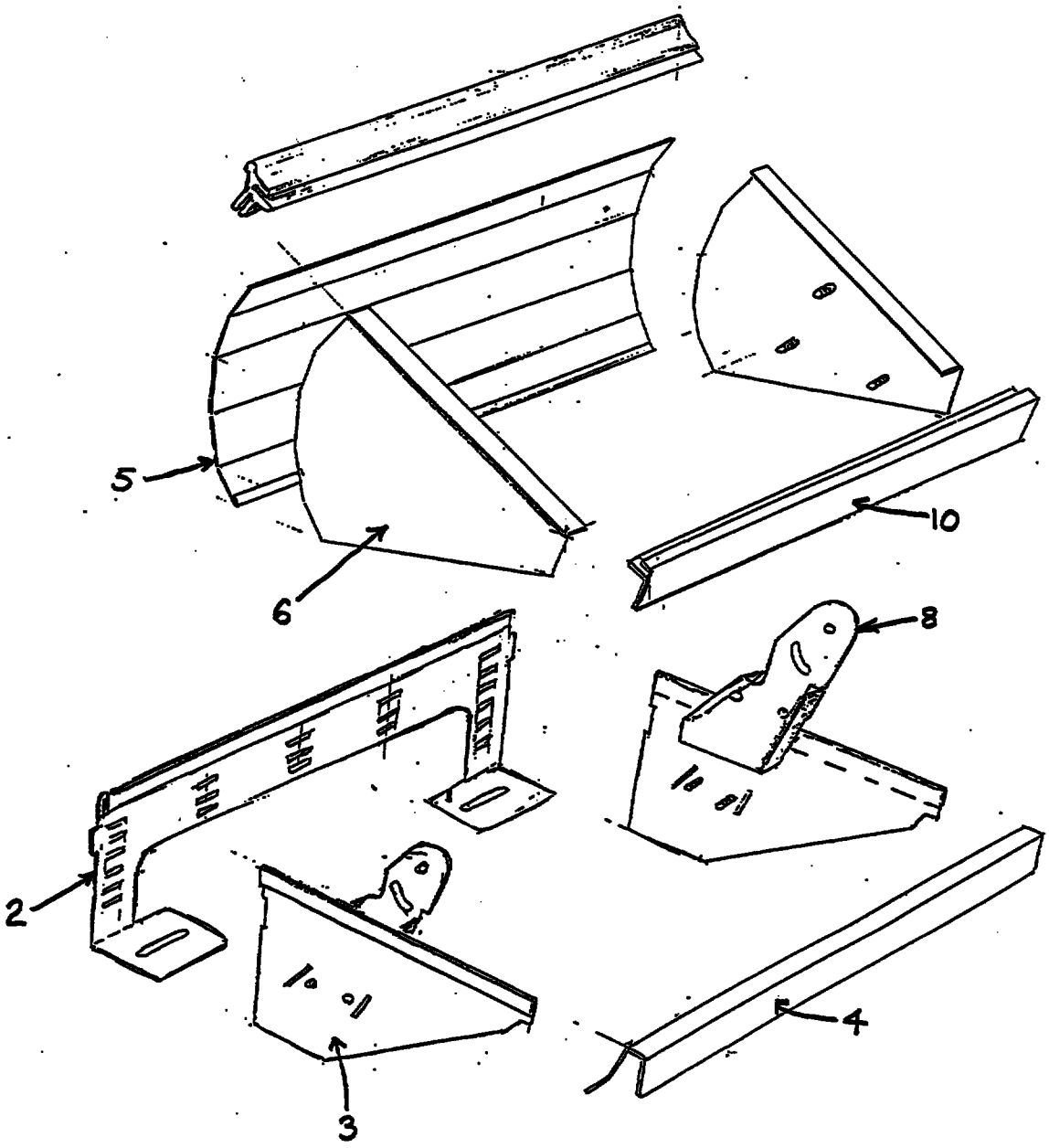

FIG. 13

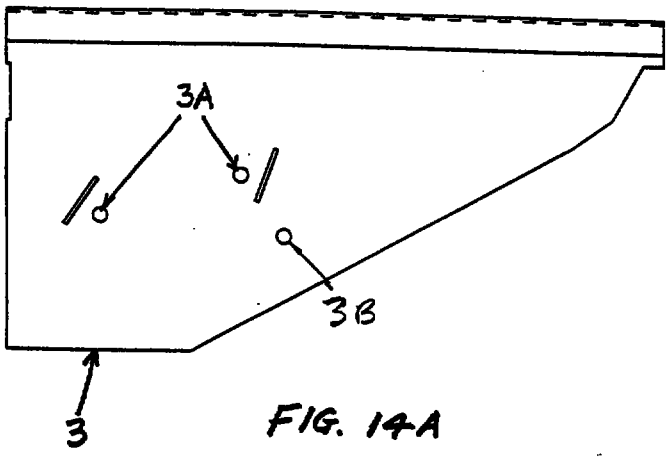

FIG. 14A

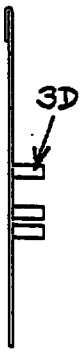

FIG. 14B

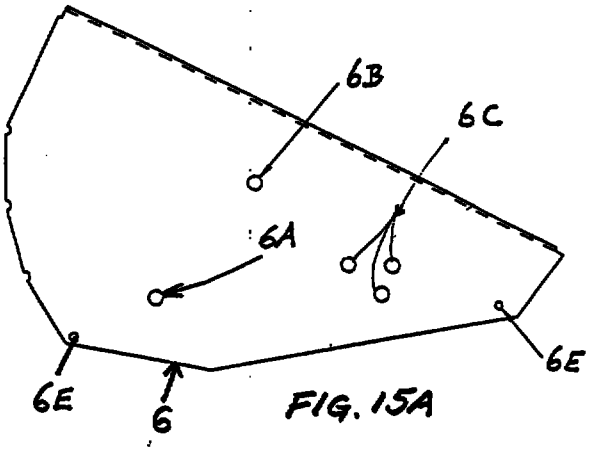

FIG. 15A

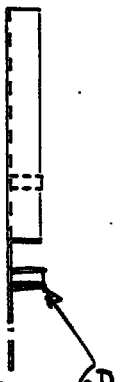

FIG. 15B

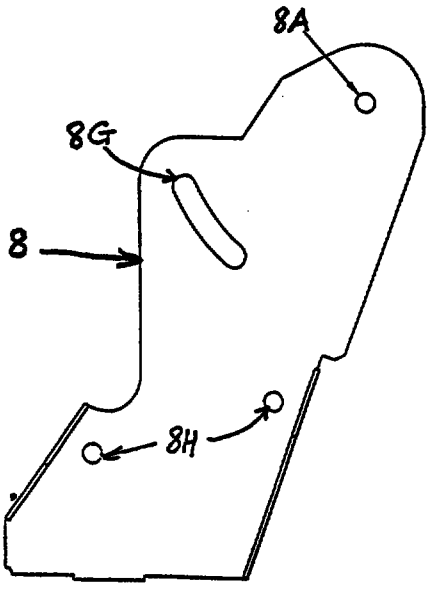

FIG. 16A



FIG. 16B

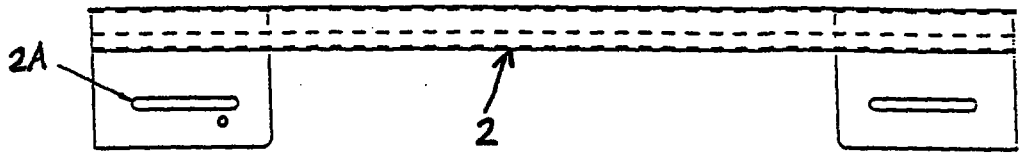

FIG. 17A

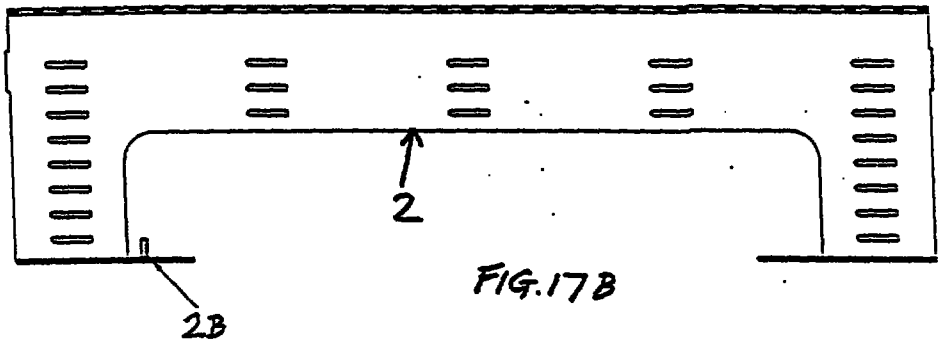

FIG. 17B

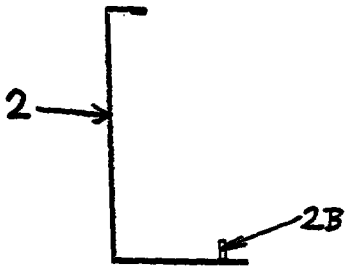

FIG. 17C

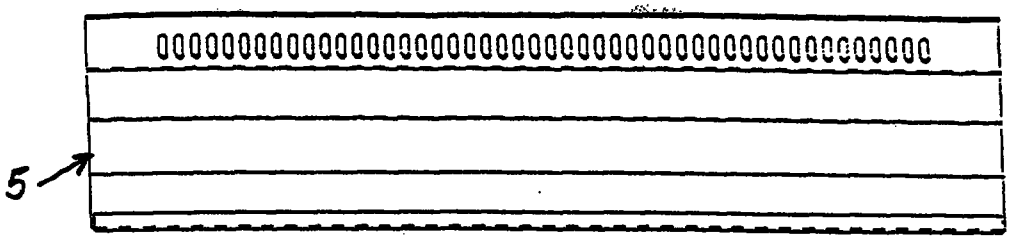

FIG. 18A

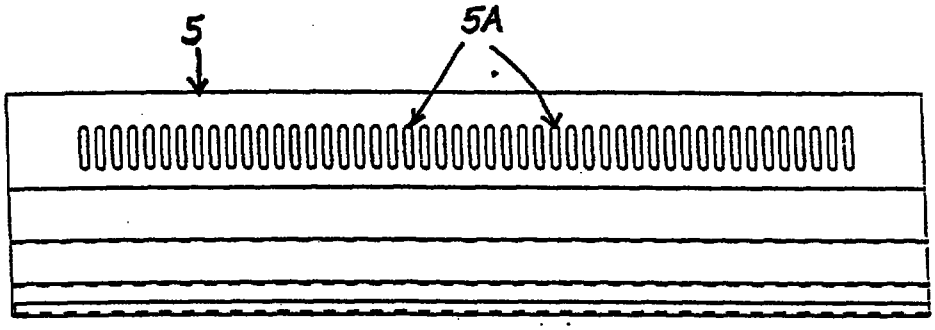

FIG. 19A



FIG. 18B



FIG. 19B