(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) Publication number: **0 125 869**
A2

(12) EUROPEAN PATENT APPLICATION

(21) Application number: **84303095.8**

(51) Int. Cl.³: **A 47 B 17/00**

(22) Date of filing: **08.05.84**

(30) Priority: **11.05.83 GB 8312909**

(43) Date of publication of application:
21.11.84 Bulletin 84/47

(84) Designated Contracting States:
AT BE CH DE FR IT LI LU NL SE

(71) Applicant: **MINES AND WEST LIMITED**
Downley
High Wycombe Buckinghamshire HP13 5TX(GB)

(72) Inventor: **Rowbottom, Keith M.**
53 Middlebrook Road
High Wycombe Buckinghamshire HP13 5NL(GB)

(74) Representative: **Harrison, Philippa Dinah et al,**
A. A. THORNTON & CO Northumberland House 303-306
High Holborn
London WC1V 7LE(GB)

(54) Improvements in and relating to desking systems.

(57) The desking system comprises a top member (2) providing a horizontal work surface and which is supported on a pair of support means (3) one at each end. Each support means (3) comprises a pair of spaced parallel upright members (4) connected to the top member and arranged so that the space between the upright members (4) is aligned with an access opening (6) in the top member. A cable receiving member (9) is slidably engageable between the upright members (4) and is placed in position after the desking unit has been fully assembled by insertion into the space between the upright members (4) through the access opening (6). The access opening (6) is provided with a closure member (7) which defines with the opening (6) apertures (8) through which cabling can extend from the cable receiving member onto the work surface of the top member (2). The cable receiving member (9) provides laterally open elongate channels (12) for receiving cabling, the channel being closable by panels (15).

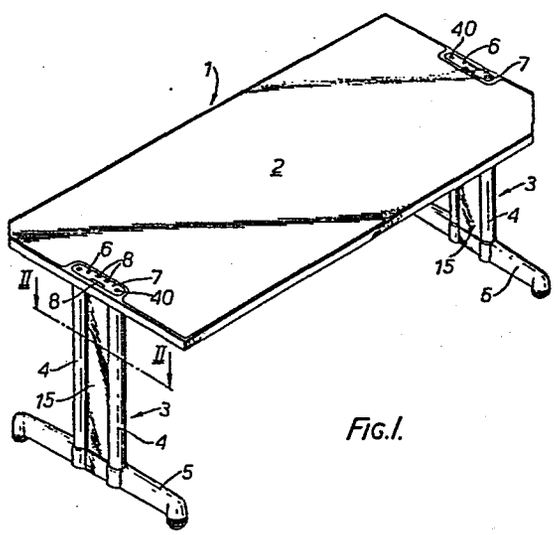

Fig.1.

EP 0 125 869 A2

Improvements in and relating to desking systems

The present invention relates to improvements in desking systems and particularly to desking systems adapted to accommodate cabling, for example electric or telephone cabling, extending on to the surface of the desking unit. By desking unit and desking system is meant any article which provides a work surface.

According to one aspect of the present invention, there is provided a desking system comprising a top member providing a work surface, support means for supporting the top member on the ground, the support means comprising a pair of spaced parallel upright members extending between the top member and the ground, and means fixing the upright members relative to the top member, access means in the top member aligned with the space between the upright members for providing access to the said space, cable receiving means for slidable engagement between the upright members, for receiving cabling extending between the ground and the work surface, and introduceable into the said space through the access means in the top member, and closure means for closing the access means and providing apertures for cabling extending therethrough on to the work surface.

Advantageously the access means is provided by an opening in the work surface and the closure means is removably located in the opening.

The upright members may terminate at their lower ends in a transverse foot member to which the lower ends of the members are fixed. At their upper ends, the members may be laterally connected to each other and to means connecting them to the top member.

The top member may be supported on the ground by two said support means each of which is associated with an access means in the top member, at least one of the support means being provided with the cable receiving means.

The cable receiving means may comprise an elongate member which extends for substantially the full extent of the upright members and defines at least one laterally open channel for cabling. The lateral-opening of the channel may be closable by a panel which is releasably engageable with the cable receiving member.

Advantageously, the cable receiving member is generally I-shaped providing two oppositely opening channels. The cross-bars or end members of the I are advantageously provided with resilient means which engage, and positively locate the cable receiving member relative to the upright members.

Embodiments according to the present invention will now be described, by way of example only, with reference to the accompanying drawings, in which:

Figure 1 is a perspective view of an embodiment of desking unit according to the present invention;

Figure 2 is a section on the line II-II of Figure 1;

Figure 3 is a part elevational part sectional view of a foot member shown in Figure 1;

Figure 4 is a plan view of a part of the top member of the desking unit of Figure 1 showing the access means with the closure means removed;

Figure 5 is a plan view of the closure means for closing the access means shown in Figure 4;

Figure 6 is a section on the line VI-VI of Figure 5;

Figure 7 is an end elevation of the desking unit shown in Figure 1;

Figure 8 is a plan view of a support means of the unit of Figure 1 with the top member removed;

Figure 9 is a section on the line IX-IX of Figure 8;

Figure 10 is a part sectional part elevational view of a component of the support means shown in Figure 8;

Figure 11 is a diagrammatic plan view of the unit of Figure 1 with an associated desking unit;

Figures 12 and 13 show modifications of the unit of Figure 1 and associated units;

Figure 14 is a section on the line XIV-XIV of Figure 4; and

Figure 15 is a section on the line XV-XV of Figures 4 and 5.

As shown in Figures 1 and 2 of the drawings, a desking unit 1 comprises a generally rectangular top member 2 providing the work surface and which is supported on two support means 3, one at or adjacent each end. Each support means 3 comprises a pair of parallel spaced upright members 4, which may have any suitable arcuate or polygonal section, and as shown are circular in section and provided by hollow metal tubes. The lower ends of the pairs of upright members 4 are connected together, as shown, by a transversely extending foot member 5, shown in more detail in Figure 3, which may for example be moulded of a suitable plastics material. At their upper ends, the pairs of members 4 are also connected together, as will be described here-

after, and to the underside of the top member 2.

Increasingly, there is a need to accommodate telephone and electric cabling extending to the work surface as unobtrusively as possible. For this purpose, the top member 2 is provided with at least one access means, as shown an access opening 6 (Figures 1 and 4) which is aligned with the space between the upright members 4 of at least one support means 3. As shown, an opening 6 is provided in respect of each support means 3. The opening 6 is closable by a closure member 7 (Figures 1 and 5). As shown in Figure 5, the closure member 7 defines with the opening 6 apertures 8 through which cabling can extend. Where an access opening 6 is not used for this purpose, it may be fully closed by a closure member which completely closes opening 6. The closure member 7 may be positively retained in place within opening 6. Alternatively, as shown, the periphery of recess 6 may be stepped and the periphery of closure member 7 may be correspondingly shaped, as shown in Figure 6, to seat within the opening 6 with the upper surface of closure member 7 flush with the work surface.

For the purpose of unobtrusively leading cabling up to the level of top member 2, a cable receiving member 9 (Figures 2 and 4) is slidably engageable between the upright members 4 and is engaged when and where required between the upright members 4, after the desking unit 1 has been fully assembled, through the corresponding access opening 6. The cable receiving member 9 comprises an elongate generally I-section member comprising end members 10 and a transverse member 11 which together define two cable receiving channels 12. It will be appreciated that with a different formation of member 9, it may provide a single channel. Alternatively, channels 12 may be sub-divided

by elongate members parallel to end members 10. The free ends of members 10 are provided with co-planar flanges 13. To positively engage and locate member 9 between the upright members 4, resiliently compressible strips 14, advantageously of electrically insulating material, such as a suitable plastics foam, are adhered to the outer surfaces of members 10 and provided with suitably shaped surfaces to contact the surfaces of members 4. In a modification, the pairs of strips 14 may of course be replaced by a single strip with a part cylindrical or grooved profile.

The channels 12 are closed by panels 15 which are releasably engageable with the member 9 and are designed to be put in position and removed following installation of the member 9. Conveniently, the panels 15 are made of steel and are held in place by magnetic attraction. To this end, the outer faces of flanges 13 are provided with magnetic strips 16, for example in the form of a magnetic self adhesive tape as sold by 3M under the Trade Mark PLASTIFORM. It will however be appreciated that other means may be employed for releasably engaging the panels 15 with the member 9.

In use, with the desking unit fully assembled and a member 9 introduced into one support means 3, the cabling is generally then introduced into both channels 12 from one side of the support means 3, preferably the inner side for full concealment. The member 9 preferably extends the full length of the upright 4 between the foot member 5 and the underside of the top member 2. To permit access to both channels 12 from one side of the support means 3, as shown in Figure 7, the transverse member 11 is cut away at its lower end to provide an access 17 between the channels 12. A similar access 18 may be provided by cutting away member 11 at the upper end of member 9. Advantageously access openings 17 and

18 and opening 6 are sufficiently large that a conventional three-pin plug can be passed through them so that the cable for an appliance situated on the work surface and which has already been provided with a plug can be threaded through opening 6 and member 9, without the need to remove the plug.

Panels 15 may also have portions cut away at their lower ends to accommodate cabling passing out of the lower ends of the channels. They may be similarly cut away at their upper ends where the cabling extending up one support means 3 is required to appear on the work surface not at the associated access opening but at another access opening 6. Under such circumstances, the cabling is supported by any suitable means on the underside of the top member 2 between the support means 3 and the other access opening 6. A panel 15 is shown in dash-dot lines in Figure 7 together with alternative shapes of its upper and lower ends.

So as not to obscure the path between access opening 6 and the space between the upright members 4, each pair of upright members 4 are connected together at their upper ends by a lateral bracket 20 (Figures 8 and 9). To rigidify the upper ends of the members 4, they are provided with plugs 21 (Figure 10). For convenience, each plug 21 is formed integrally with a lateral bracket 22 which is fixed to the under surface of top member 2. Brackets 20 interconnecting the members 4 are then screwed through members 4 into the plugs 21.

Where required, the top member 2 may be additionally supported by a beam 23 extending centrally between the support means 3 and this beam is conveniently bolted at its ends to the brackets 20 and may be fixed intermediate its ends to the top member 2. The beam 23 may carry transverse support members 24 (Figure 11).

While as shown in Figure 1, the desking unit is

provided with two access openings 6 each associated with a support means 3, a desking unit 1' may be provided with only one access opening 6, as shown in Figure 11. Such a unit 1' may be supported by two support means 3 but associated with a desking unit 1, for example as an extension thereof. It will also be appreciated that the top member 2 of the desking unit 1 need not be rectangular but may have a variety of different shapes. For example, as shown in Figures 12 and 13, a desking unit 1'', may have a triangular end added on to a basic rectangle. Such a desking unit 1'' may, for example, be associated with a rectangular unit similar to unit 1' of Figure 11, as shown in Figure 12, or with a desking unit of the same shape, as shown in Figure 13. With the arrangement of Figure 12, only three support means 3 may be provided, each associated with an access opening 6, the beam 23 underlying the top member of unit 1' extending between the support means 3 at the free end of unit 1' and being connected to the support means 3 at the adjacent end of unit 1'', which is provided with an appropriately arranged bracket 26 (Figure 8) which is bolted to one of the two upright members 4. A similar arrangement can be used in the arrangement of Figure 13 to provide a beam between the adjacent support means 3 of the two units 1''.

The top members 2 of the above described embodiments, may be made of any suitable material. For example they may be made of chipboard provided with suitable facing laminates and a peripheral edging strip. The opening 6 may be formed by creating openings in the chipboard and providing them with suitable edging strips. Preferably the members 2 are made, as shown in Figures 14 and 15, of chipboard 30 provided with surface laminates 31 and 32 and an edge strip 33 which is integrally moulded on to the laminated chipboard. With

such an arrangement, where an access opening 6 is provided adjacent an edge of the member 2 (Figure 4) the chipboard is cut away in the area of the access opening and the opening is defined by a moulding integral with the edge strip 33. To strengthen the moulded frame of the access opening a bar 35 of wood or metal may be screwed to the edge of the chipboard adjacent the access opening 6 and spanning the opening 6. Where the opening 6 is provided within the body of the top member 2, as for example in the unit 1'' of Figures 12 and 13, an opening is formed within the chipboard and provided with an integrally moulded frame.

For the purpose of supporting a table light or lectern on top member 2, where the table light or lectern is provided with a mounting shaft, one or more holes 40 may be provided in the closure member 7 and aligned with a hole 41 in a respective plug 21. Holes 40, 41 may be reinforced by a suitably shaped tubular plastic insert (not shown).

CLAIMS:

1. A desking system comprising a top member (2) providing a work surface, support means (3) for supporting the top member on the ground, the support means comprising a pair of spaced parallel upright members (4) extending between the top member (2) and the ground, and means fixing the upright members relative to the top member, characterised in that access means (6) are provided in the top member (2) aligned with the space between the upright members for providing access to the said space, cable receiving means (9) are provided for slidable engagement between the upright members (4), for receiving cabling extending between the ground and the work surface, and are introduceable into the said space through the access means (6) in the top member (2), and closure means (7) are provided for closing the access means and providing apertures (8) for cabling extending therethrough onto the work surface.

2. A desking system as claimed in claim 1, characterised in that the access means (6) is provided by an opening in the top member (2) and the closure means (7) is removably located in the opening.

3. A desking system as claimed in either claim 1 or claim 2, characterised in that the upright members (4) terminate at their lower ends in a transverse foot (5) to which the lower ends of the members are fixed.

4. A desking system as claimed in any one of the preceding claims, characterised in that at their upper ends, the upright members (4) are laterally connected to each other and to means (22) connecting them to the top member.

5. A desking system as claimed in any one of the

preceding claims, characterised in that the top member (2) is supported on the ground by two said support means (3), each of which is associated with an access means (6) in the top member, at least one of the support means being provided with the cable receiving means (9).

6. A desking system as claimed in any one of the preceding claims, wherein the or each cable receiving means comprise an elongate member (9) which extends for substantially the full extent of the upright members and defines at least one laterally open channel (12) for cabling.

7. A desking system as claimed in claim 6, wherein the lateral opening of the or each channel (12) of the or each cable receiving means (9) is closable by a panel (15) releasably engageable therewith.

8. A desking system as claimed in either claim 6 or claim 7, wherein the or each cable receiving member (9) is generally I-shaped providing two oppositely opening channels (12) for cabling.

9. A desking system as claimed in claim 8, wherein the end members of the I of the cable receiving member are provided with resilient means (14) by which the cable receiving member engages (9), and is positively located relative to, the upright members (4).

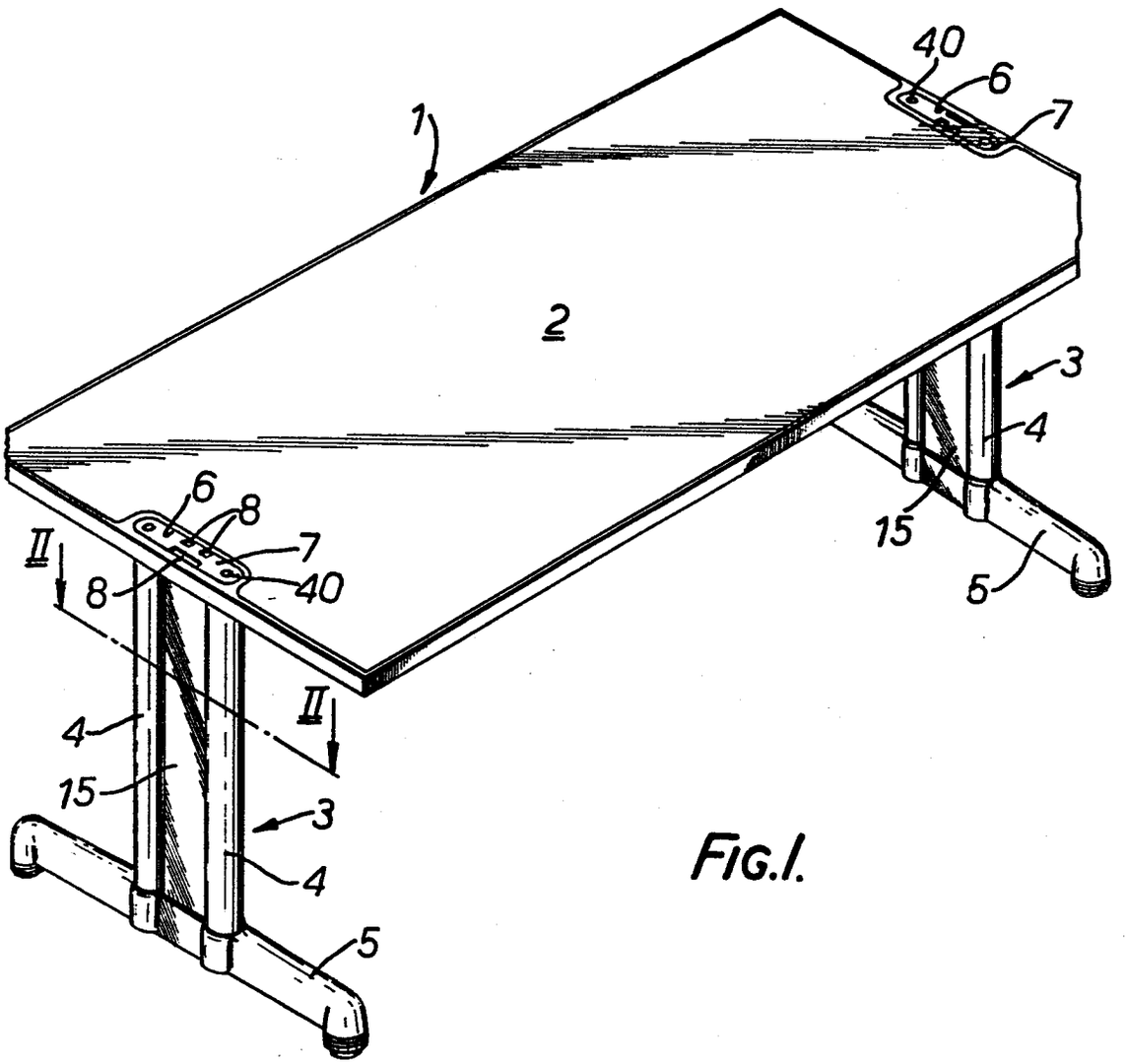
40
6
7
1
2
3
4
15
5
6
8
7
40
II
8
II
4
15
3
4
5

FIG.1.

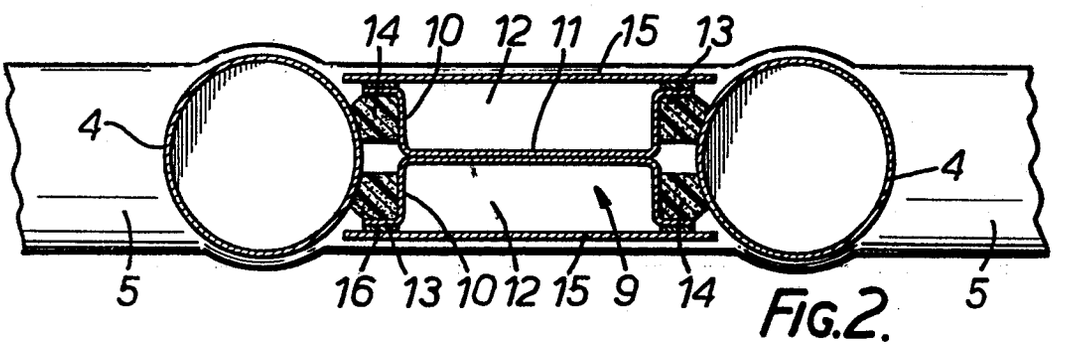
14 10 12 11 15 13
4
4
5
16 13 10 12 15 9 14
5

FIG.2.

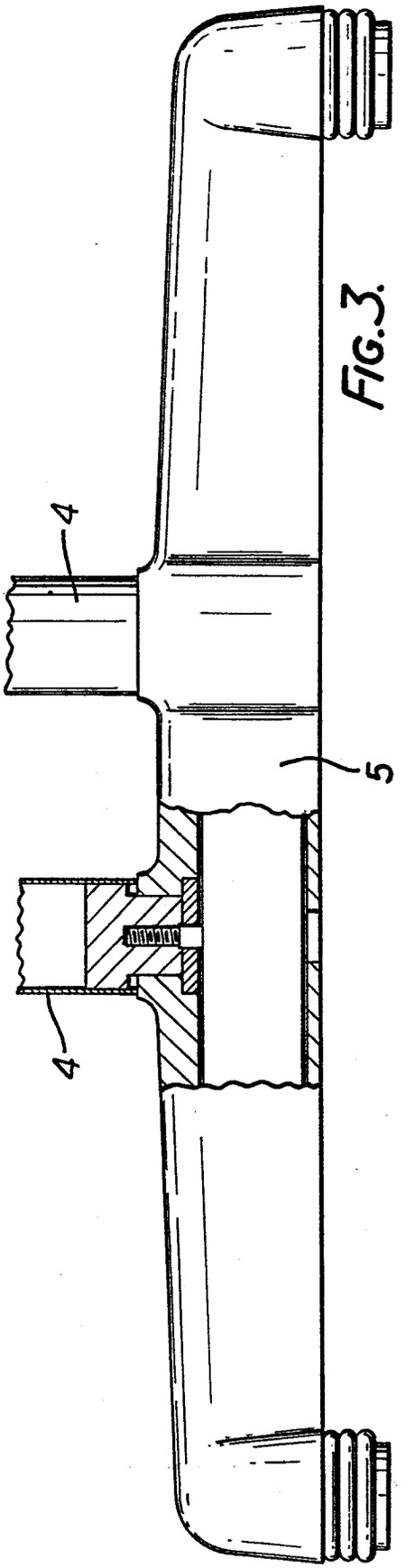

FIG.3.

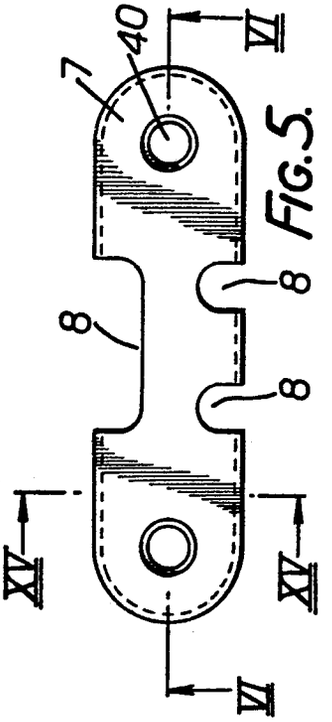

FIG.5.

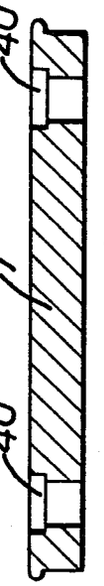

FIG.6.

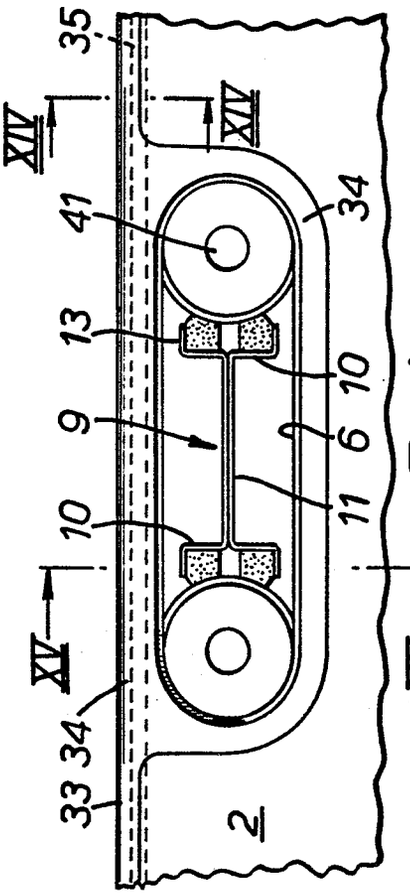

FIG.4.

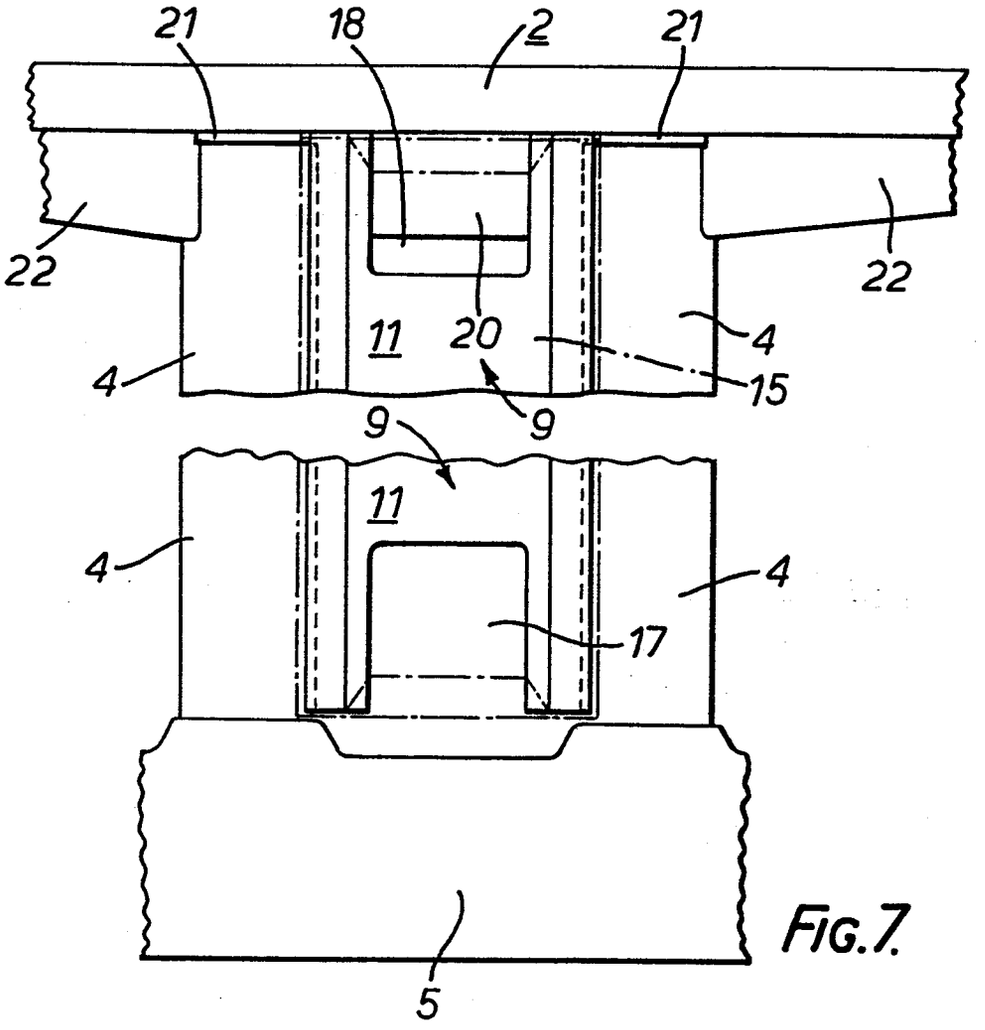
21
18
2
21
22
22
11
20
4
4
15
9
9
11
4
4
17
5

FIG.7.

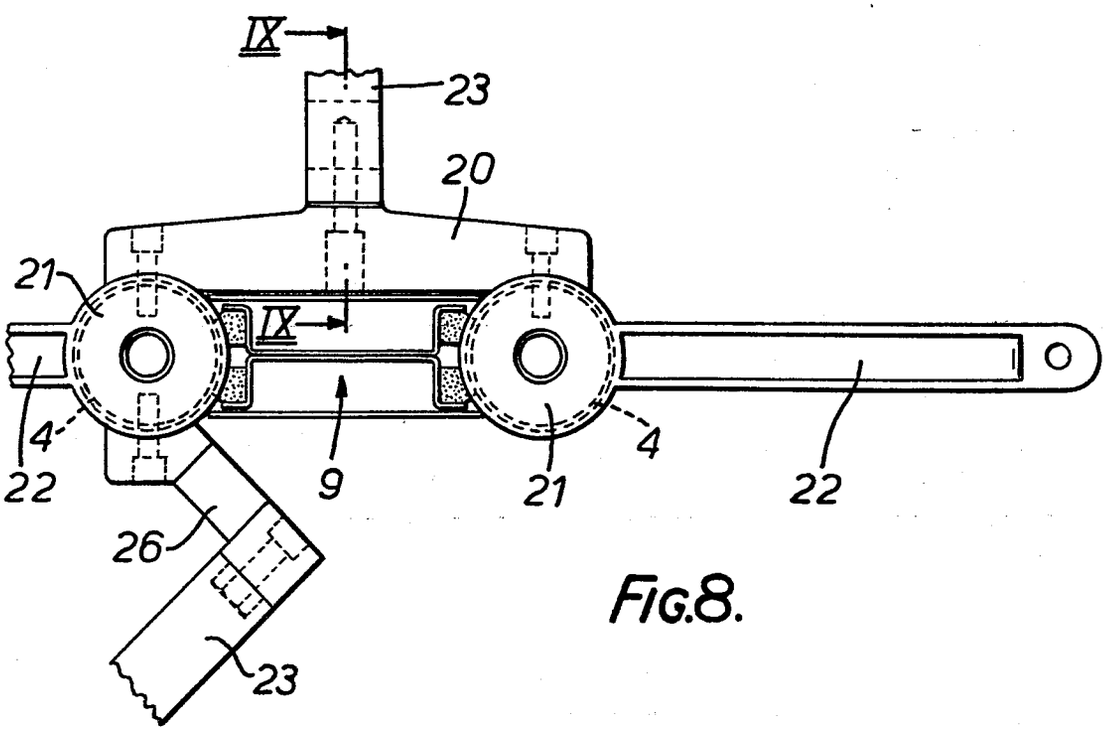
IX
23
20
21
IX
4
4
22
9
21
22
26
23

FIG.8.

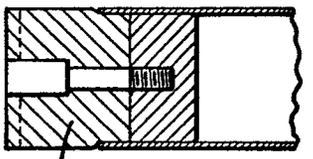

FIG.9.

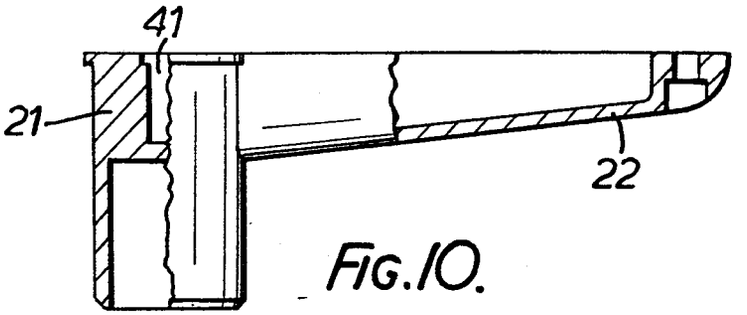

FIG.10.

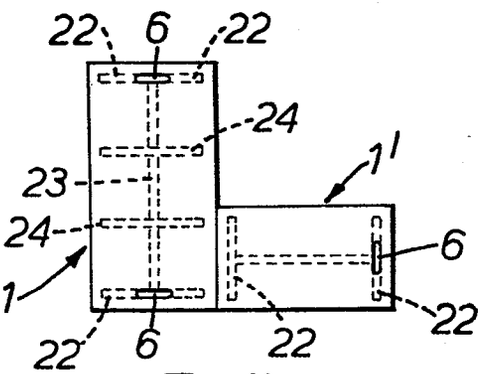

FIG.11.

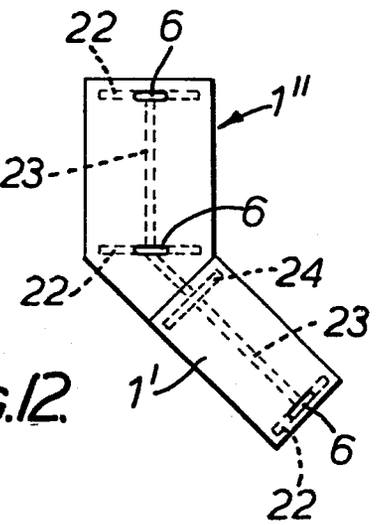

FIG.12.

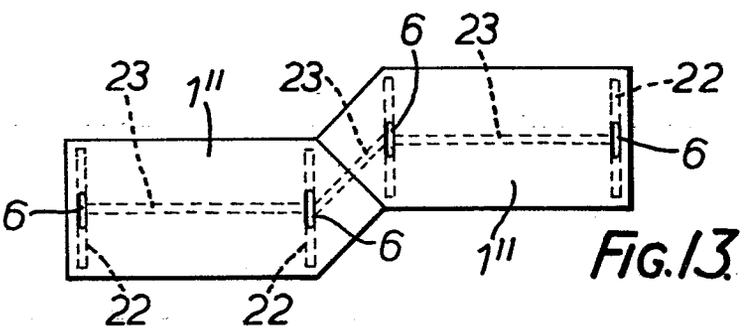

FIG.13.

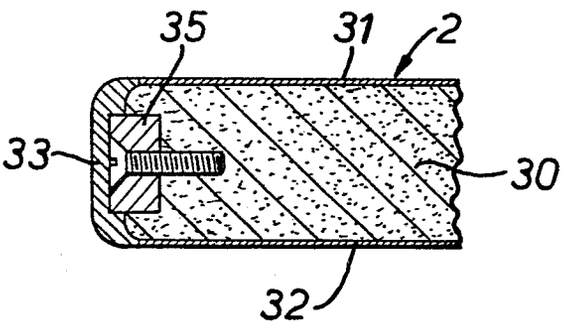

FIG.14.

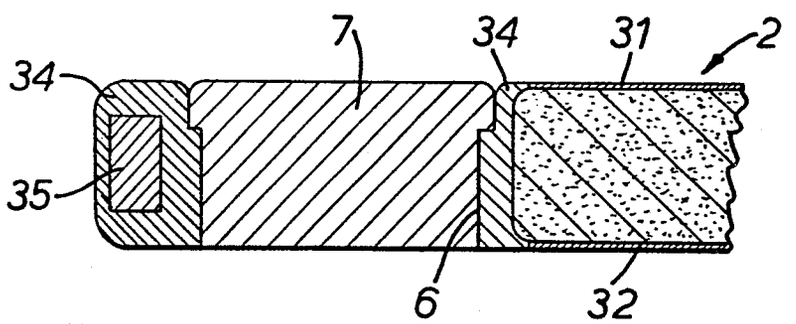

FIG.15.