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(54) **Multi-use anchor plate for table legs**

Multifunktionale Ankerplatte für Tischbeine

Ancrage multi-usage pour pieds de table

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Description

[0001] The present invention relates to a multi-use anchor plate for table legs, which, in particular, can also be used as a junction plate between tables.

[0002] For practical purposes, tables are generally made up of parts which can be dismantled to facilitate their transportation and storage, making them much less bulky. The leg-fixing system should enable easy dismantling without causing the quality of the connection to deteriorate over a period of time, as a result of this operation. A solution to this necessity consists of the use of an interposed connecting device, firmly applied to each corner of the table, to which the leg is connected.

[0003] Another strongly felt necessity in this area is the possibility of creating a table whose surface can be dismantled into distinct parts, practically and safely joined to each other, for example by a connecting plate.

[0004] As both of these demands relate to the assembly of tables, the use of a single connecting device capable of being adapted to both requirements, would seem most logical for making the assembly devices as uniform as possible.

[0005] A solution is already currently in use, which combines the two necessities, consisting of a metal plate, suitably shaped, on which there is a sufficient number of holes appropriately positioned, to allow use in both situations. At each corner of the table surface there are holes with a standard arrangement, to which the plate is fixed, both for joining two tables and also in assembly on the corner, for fixing the leg. For this purpose, there are devices for a reciprocal firm anchorage between plate and leg.

[0006] Document US 3,620,492 describes a table leg connector assembly which comprises a connector plate secured to an article of furniture, wherein the connector plate is provided with tabs to securely grip a mounting plate driven horizontally between the tabs, at which the table leg is welded.

[0007] Document US 3,530,804 discloses a leg connector assembly which comprises a square mounting plate fixed to a table through screws, wherein the central portion of the plate is provided with a circular recessed portion having an opening for reception of the cooperating upper end portion of an adapter stud. The upper end of the adapter extends through the opening and is welded in place in the recessed portion of the mounting plate.

[0008] Document US 3,160,381 describes a leg supporting corner plate for use with a furniture frame to which the plate is to be attached comprising a body portion adapted to be secured to the furniture frame and having a tongue which is spaced downwardly from the body portion.

[0009] An objective of the present invention is to produce an anchor plate for table legs, which can also be used in particular as a junction plate between tables, which is not bulky and reduces the risk of damaging people and objects when assembled on the table surfaces.

[0010] A further objective of the present invention is to produce a multi-use anchor plate for table legs which optimizes the holing system effected on the corner of the table surface with respect to both uses of the plate.

[0011] Yet another objective of the present invention is to produce a multi-use anchor plate for table legs which is particularly simple and functional, with limited costs.

[0012] These objectives according to the present invention are achieved by the production of a multi-use anchor plate for table legs as described in claim 1.

[0013] Further characteristics of the multi-use anchor plate for table legs are illustrated in the dependent claims.

[0014] The characteristics and advantages of a multi-use anchor plate for table legs according to the present invention are evident from the following, illustrative and non-limiting description, referring to the enclosed schematic drawings, wherein:

- figure 1 is a plan view of a first illustration of an anchor plate for table legs, which, in particular, can also be used as a junction plate between tables;
- figure 2 shows the section of the plate of figure 1 according to the line II-II;
- figure 3 shows the plate fixed to the surface in an angular position to allow the connection of the leg;
- figure 4 shows the assembly of the plate as a junction between two tables;
- figure 5 is an elevation sectional view of the table-leg connection;
- figure 6 is a plan view of a second illustration of a multi-use anchor plate for table legs;
- figure 7 shows the section of the plate of figure 6 according to the line VII-VII, in which a screw having an axial hexagonal head is positioned;
- figure 8 is a plan view illustrating the dimensioned plate of the invention; and
- figure 9 is a dimensioned representation on a reduced scale of the corner of a table indicating the anchorage holes of the plate of figure 8.

[0015] With reference to the figures, these illustrate a multi-use anchor plate for table legs, indicated as a whole with 10, in the form of a right-angle triangle and symmetrical with respect to a median axis 11 which contains the height of the triangle. The vertexes are amply rounded and the profile is curved in the central portion of the hypotenuse.

[0016] Along each cathetus there are two buttonholes 12 at the ends and two central holes 13, in line and at the same distance. Along the hypotenuse, in addition to the two buttonholes 12 already mentioned, in correspondence with the shorter sides, there are two holes 14 in the central portion, also in a symmetrical position with respect to the median axis 11 (figure 1). At the centre of the plate there is a relief 15 or 16 substantially not altering the shape of the plate, only slightly protruding, which creates a space, for example either round or hexagonal, perforated in the centre (figures 2 and 7). A plate 10

formed as described above has the dimensions indicated in figure 8.

[0017] In a first embodiment of a multi-use anchor plate for table legs, said relief 15 is round and has a central threaded hole. The table leg, having a threaded stem, is therefore inserted in the threaded hole of the relief 15. The space between table and plate, created by said relief 15, forms a housing for receiving the threaded stem and ensures the grip of all the hole threads, without having to resort to the perforation of the table surface (figure 5).

[0018] A second embodiment is also proposed of a multi-use anchor plate for table legs (figure 6), which differs from the previous one only in that the relief 16 in the central zone, is hexagonal with a non-threaded central hole.

[0019] A hexagonal nut or a suitably sized screw having an axial hexagonal head are inserted, as an alternative, in the hexagonal housing, to ensure that they correctly fit into hexagonal form of the relief 16 when anchoring the leg. The leg can therefore be equipped with a threaded stem or threaded hole, respectively.

[0020] As can be clearly seen from figure 9, the surface T of the table used, which allows both types of assembly, is equipped with a total of 9 holes, arranged at an equidistance of 32 mm in line, at the corner. When the plate is fixed to the surface T, the holes F of the latter, with an interspacing of 32 mm, therefore exactly coincide with the buttonholes 12 and holes 13 of the plate 10, also having an interspacing of 32 mm, as can be seen in detail in figure 8. The holes 14 of the plate 10, on the other hand, have an interspacing between each other and from the buttonholes 12, in line with these, of 64 mm.

[0021] The assembly of the plate onto the corner of the table for fixing the table leg, utilizes the buttonholes 12 and holes 13 arranged on each cathetus of the triangular plate (figure 3). The assembly of the plate as a junction between two tables is effected by positioning said plate with the hypotenuse arranged along the outer edge of the two joined tables. For the assembly, the buttonholes 12 along the catheti, and the holes 14 on the hypotenuse, are used (figure 4).

[0022] The anchor plate for table legs, which, in particular, can also be used as a junction plate between tables, object of the present invention, has the advantage of being flat, without protruding connecting elements, which allows table surfaces, to whose corners said plates have been pre-applied, to be stacked up with limited bulk, thus reducing the risk of damage and accidents.

[0023] Furthermore the extremely simple shape and holing system represents an advantage in the production of the plates, holes and assembly.

[0024] The widest possible distribution of holes on the surface, allows the stress distribution on the anchoring points to be optimized.

Claims

1. A multi-use anchor plate for table legs., which can also be used as a junction plate between tables, having a specular shape with respect to a symmetry axis (11), on which there are holes (12, 13, 14) for connection to a surface and which has connecting devices for a table leg (15, 16) wherein the multi-use anchor plate is flat with a reduced height and said connecting devices (15,16) for a table leg consist of a relief (15, 16) substantially not altering the shape of the anchor plate being flat with a reduced height and which creates a space perforated in the centre, **characterized in that** the multi-use anchor plate is in the form of a right angle triangle with, said holes (12,13,14) for connection to the surface in line along its three sides, wherein along each cathetus of said right angle triangle there are two elongated holes (12) at the ends and two central non-elongated holes (13) placed between said two elongated holes (12) in line at the same distance, along the hypotenuse of said right angle triangle, in addition to said two elongated holes (12), there being two central non-elongated holes (14) placed between said two elongated holes (12) in a symmetrical position with respect to said symmetry axis (11).

2. The multi-use anchor plate for table legs according to claim 1, **characterized in that** said relief is a round relief (15) and **in that** the space perforated in the centre is a threaded hole which receives the end of the threaded stem of a leg which is inserted into said threaded hole.

3. The multi-use anchor plate for table legs according to claim 1, **characterized in that** said relief is a hexagonal relief (16) and **in that** the space perforated in the centre is a non-threaded central hole which receives and blocks a hexagonal nut or screw having an axial hexagonal head.

4. The multi-use anchor plate for table legs according to claim 1, **characterized in that** the holes used for connection to the surface are in line along the edges of the single surface, for anchoring a leg to the corner, or in line on the edges of both surfaces connected to each other.

Patentansprüche

1. Mehrzweck-Verankerungsplatte für Tischbeine, die auch als eine Anschlussplatte zwischen Tischen verwendet werden kann, mit einer gespiegelten Form in Bezug auf eine Symmetrieachse (11), an der Löcher (12, 13, 14) zur Verbindung mit einer Fläche vorgesehen sind und die Verbindungsvorrichtungen für ein Tischbein (15, 16) besitzt, wobei die Mehr-

zweck-Verankerungsplatte flach mit einer reduzierten Höhe ist und die Verbindungsvorrichtungen (15, 16) für ein Tischbein aus einer Ausnehmung (15, 16) bestehen, die die Form der Verankerungsplatte, die flach mit einer reduzierten Höhe ist, im Wesentlichen nicht ändert und die einen Raum erzeugt, der in dem Zentrum durchbrochen ist, **dadurch gekennzeichnet, dass** die Mehrzweck-Verankerungsplatte in der Form eines rechtwinkligen Dreiecks vorgesehen ist, wobei die Löcher (12, 13, 14) zur Verbindung mit der Fläche ausgerichtet entlang ihrer drei Seiten vorgesehen sind, wobei entlang jeder Kathete des rechtwinkligen Dreiecks zwei längliche Löcher (12) an den Enden und zwei zentrale nichtlängliche Löcher (13), die zwischen den beiden länglichen Löchern (12) angeordnet sind, unter derselben Distanz ausgerichtet vorgesehen sind, wobei entlang der Hypotenuse des rechtwinkligen Dreiecks zusätzlich zu den zwei länglichen Löchern (12) zwei zentrale nicht längliche Löcher (14), die zwischen den beiden länglichen Löchern (12) angeordnet sind, in einer symmetrischen Position in Bezug auf die Symmetrieachse (11) vorgesehen sind.

2. Mehrzweck-Verankerungsplatte für Tischbeine nach Anspruch 1, **dadurch gekennzeichnet, dass** die Ausnehmung eine runde Ausnehmung (15) ist und das der in dem Zentrum durchbrochene Raum ein mit Gewinde versehenes Loch ist, das das Ende der mit Gewinde versehenen Stange eines Beines aufnimmt, das in das mit Gewinde versehene Loch eingesetzt wird.

3. Mehrzweck-Verankerungsplatte für Tischbeine nach Anspruch 1, **dadurch gekennzeichnet, dass** die Ausnehmung eine sechseckige Ausnehmung (16) ist und dass der in dem Zentrum durchbrochene Raum ein zentrales Loch ohne Gewinde ist, das eine sechseckige Mutter oder Schraube, die einen axialen sechseckigen Kopf besitzt, aufnimmt und blokkiert.

4. Mehrzweck-Verankerungsplatte für Tischbeine nach Anspruch 1,
dadurch gekennzeichnet, dass die zur Verbindung mit der Fläche verwendeten Löcher entlang den Rändern der einzelnen Fläche ausgerichtet sind, um ein Bein an der Ecke zu verankern, oder an den Rändern beider Flächen, die miteinander verbunden sind, ausgerichtet sind.

Revendications

1. Plaque d'ancrage multi-usage pour pieds de table, qui peut aussi servir de plaque de jonction entre des tables, ayant une forme d'image miroir par rapport à un axe de symétrie (11), sur laquelle se trouvent des trous (12, 13, 14) pour son montage sur une surface et qui possède des dispositifs de montage pour un pied (15, 16) de table, la plaque d'ancrage multi-usage étant plane, avec une hauteur réduite, et lesdits dispositifs de montage (15, 16) pour pied de table étant constitués par un évidement (15, 16) qui ne modifie sensiblement pas la forme de la plaque d'ancrage, laquelle est plane avec une hauteur réduite, et qui crée un espace perforé au centre, **caractérisée en ce que** la plaque d'ancrage multi-usage se présente sous la forme d'un triangle rectangle, lesdits trous (12 13,14) pour le montage sur la surface étant alignés sur ses trois côtés, sachant que sur chaque côté de l'angle droit dudit triangle rectangle se trouvent deux trous allongés (12) aux extrémités et deux trous centraux non allongés (13) situés entre lesdits deux trous allongés (12) alignés à la même distance, que sur l'hypoténuse dudit triangle rectangle, en plus desdits deux trous allongés (12), se trouvent deux trous centraux non allongés (14) situés entre lesdits deux trous allongés (12) en position symétrique par rapport audit axe de symétrie (11).

2. Plaque d'ancrage multi-usage pour pieds de table selon la revendication 1, **caractérisée en ce que** ledit évidement est un évidement rond (15) et **en ce que** l'espace perforé au centre est un trou fileté qui reçoit l'extrémité de la tige filetée d'un pied qui est inséré dans ledit trou fileté.

3. Plaque d'ancrage multi-usage pour pieds de table selon la revendication 1, **caractérisée en ce que** ledit évidement est un évidement hexagonal (16) et **en ce que** l'espace perforé au centre est un trou central non fileté qui reçoit et bloque un écrou hexagonal ou une vis à tête axiale hexagonale.

4. Plaque d'ancrage multi-usage pour pieds de table selon la revendication 1, **caractérisée en ce que** les trous servant au montage sur la surface sont alignés sur les bords de la surface unique, pour ancrer un pied dans l'angle, ou alignés sur les bords des deux surfaces reliées l'une à l'autre.

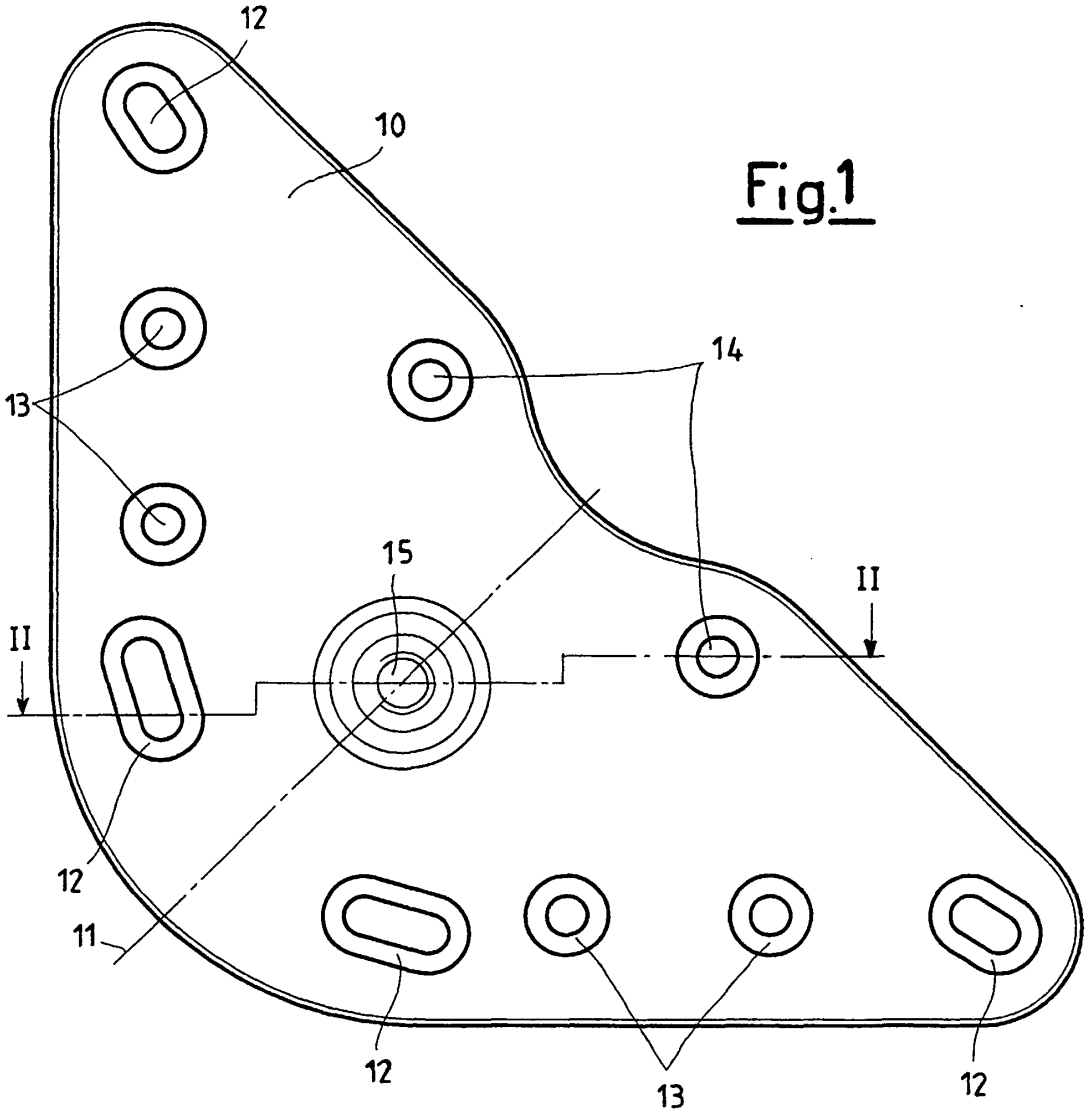


Fig.1

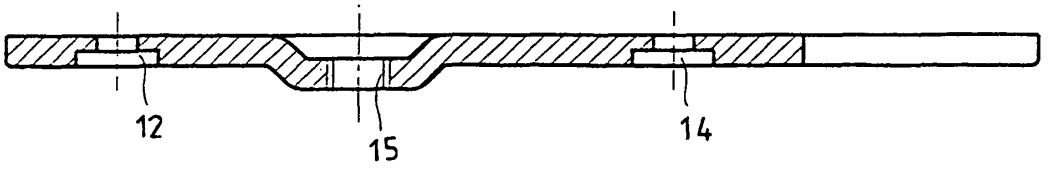


Fig.2

Fig.3

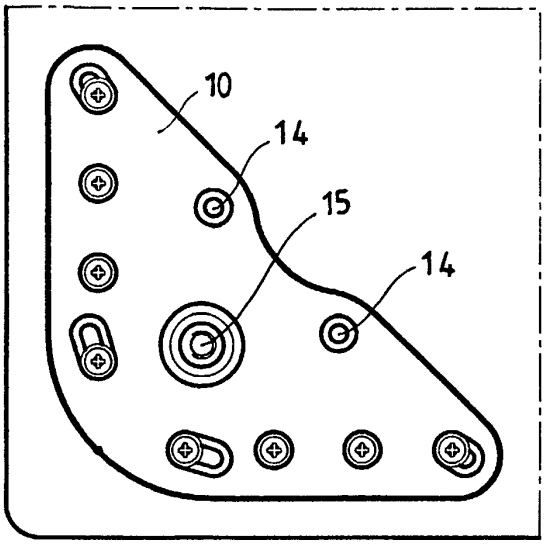
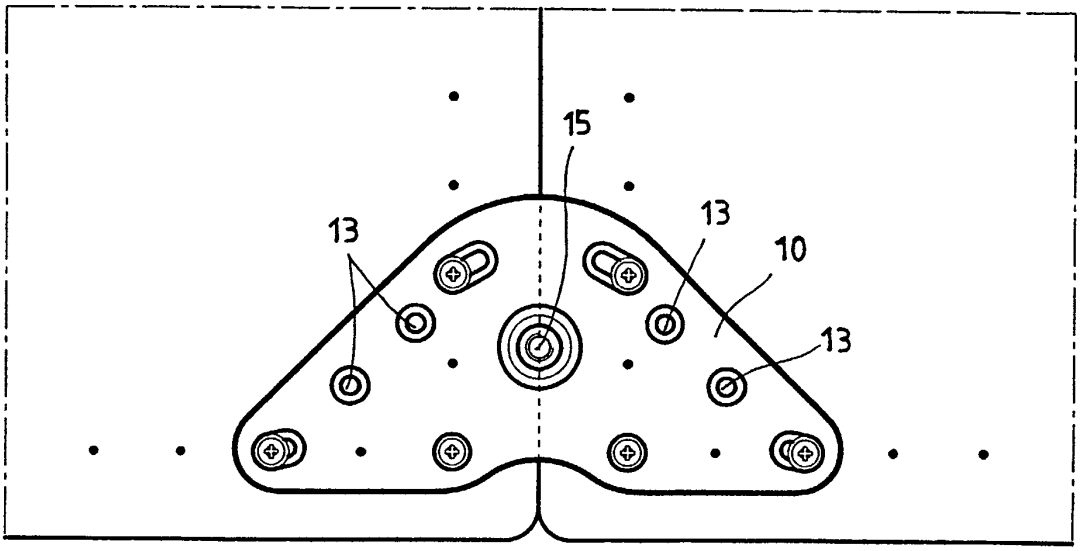


Fig.4



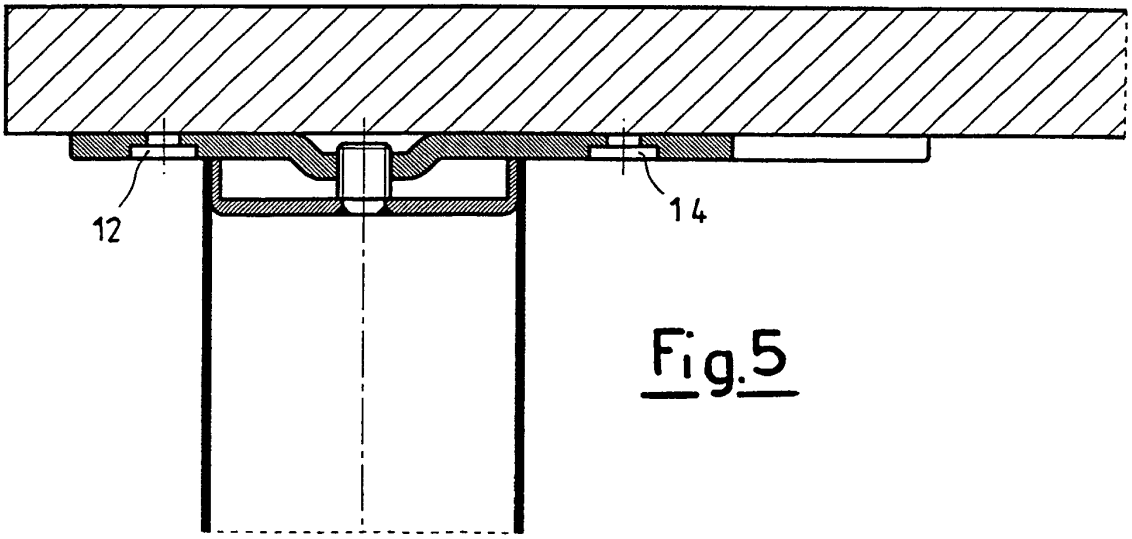


Fig.5

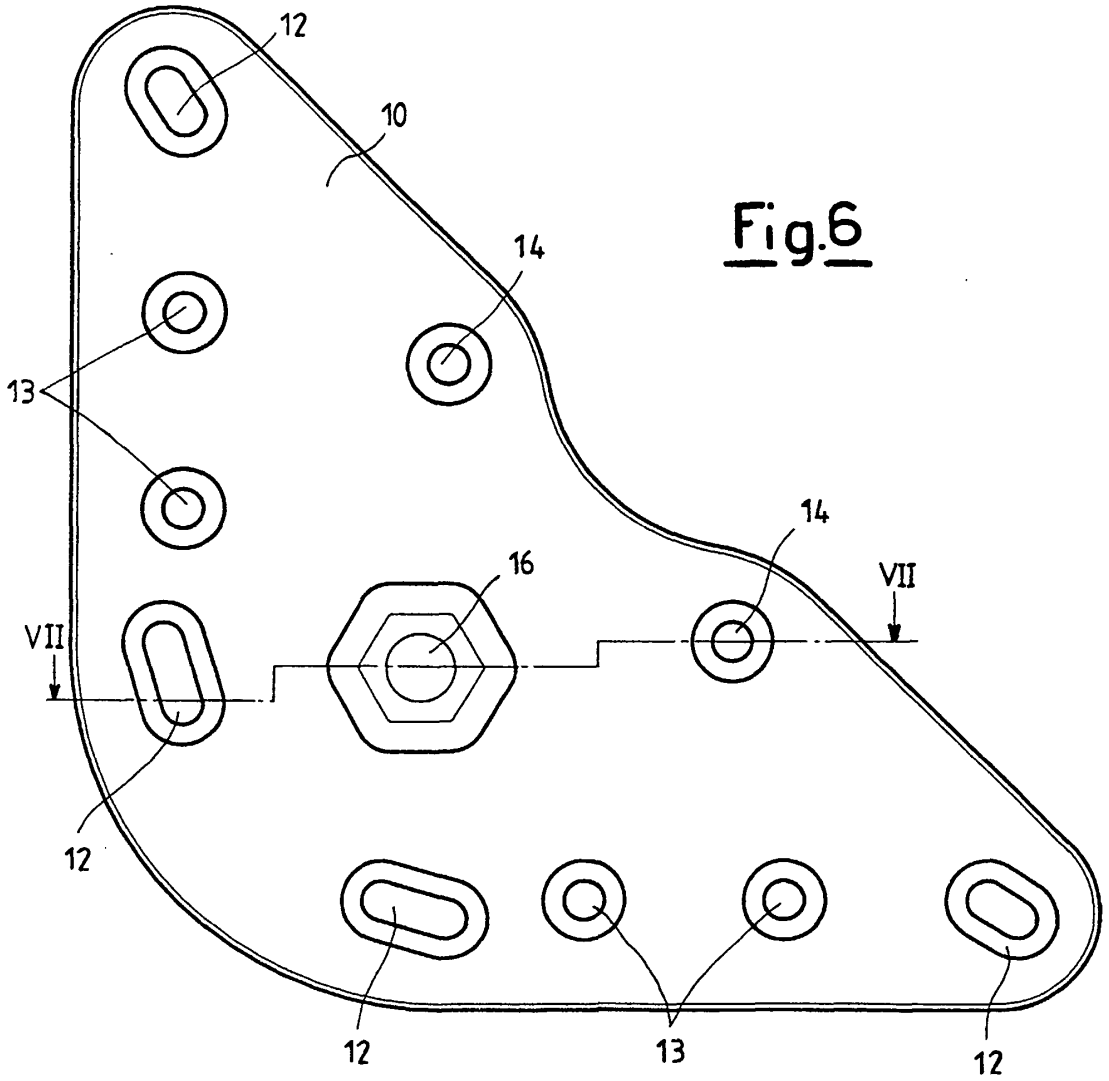


Fig.6

Fig.7

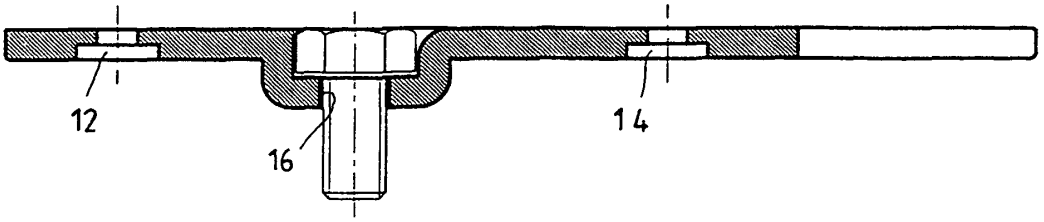
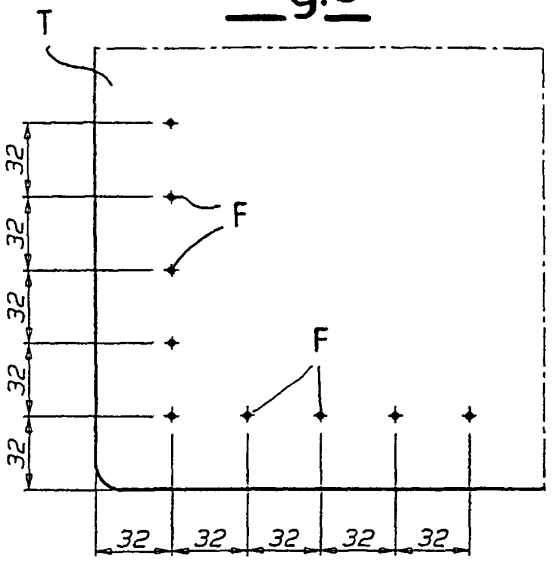


Fig.9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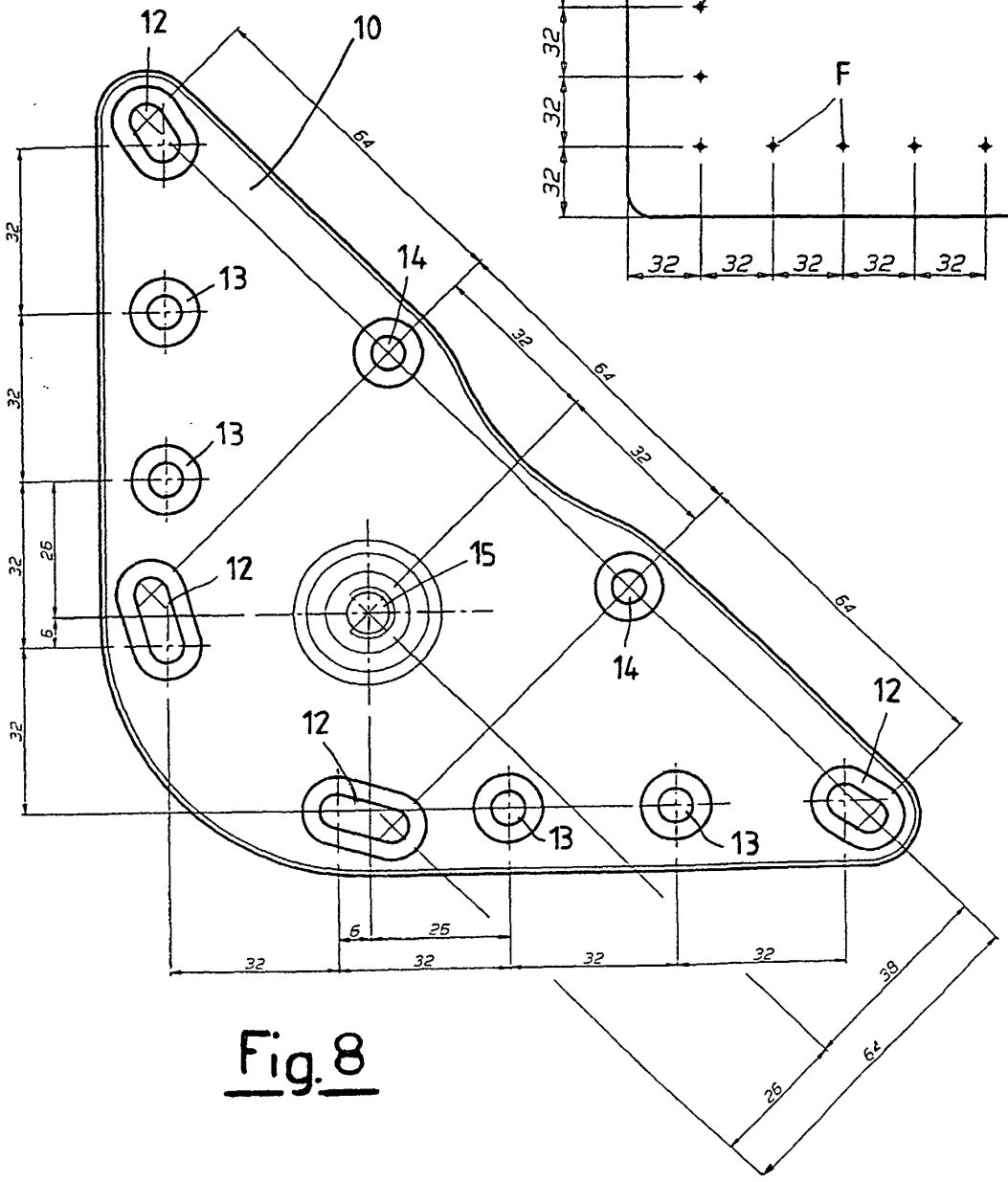
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Fig.8

REFERENCES CITED IN THE DESCRIPTION

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