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(54) **Manoeuvring device of an extension leaf of an extensible table**

Betätigungsvorrichtung für eine Einlegeplatte für einen ausziehbaren Tisch

Dispositif de manoeuvre d'une rallonge pour table à rallonge

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Description

[0001] The present invention relates to a manoeuvring device of an extension leaf of an extensible table, that is, a device that enables a table to assume a reduced size or an extended size.

[0002] Manufacturing of extensible tables according to different techniques is known. In particular, extensible tables are known which have one, or more commonly two, extension leaves that in rest position are housed so as to not protrude from the principal plane of the table, whereas in use position extend the principal plane itself.

[0003] In conventional devices of such type, priority was given to functionality, often to detriment of the aesthetic aspect; usually, in fact, manoeuvring devices were any way located beneath the plane of the table, thus in a scarcely visible position.

[0004] Only in relatively recent times devices have been proposed for tables with crystal planes. Due to such material, which is transparent and relatively delicate, specific devices have been proposed; an example of such a device is described in IT 1318461.

[0005] Another example is described in WO-A-2005/099514.

[0006] However, while being perfectly suitable for the purpose, such device is rather complex, also visually, and thus results in both an elevated cost and notable aesthetic constraints.

[0007] The problem at the basis of the present invention is to provide a simple device that is both easy and economical to make and has minimal visual impact, thus enabling it to be usefully employed also for glass or crystal tables.

[0008] Accordingly, the present invention relates to a manoeuvring device according to claim 1, as well as to an extensible table according to claim 9. Preferred characteristics are indicated in dependent claims.

[0009] More specifically, in a first aspect the invention relates to an extension leaf of a table extensible relative to a principal plane of the table, comprising a primary element adapted to be fixedly fastened to the principal plane of the table therebeneath, a body rotatable relative to the principal element around a pivot axis, a secondary element slidable relative to the body along a slide axis and adapted to be fixedly fastened to the extension leaf, and an actuating mechanism of the secondary element relative to the body.

[0010] Such a device enables to actuate the extension leaf both in rotation (around the vertical pivot axis) and in translation (along the vertical slide axis), so as to cause the extension leaf to assume the desired rest and use positions.

[0011] More specifically, and preferably, the body is angularly moveable around the primary element between a retracted position corresponding to the extension leaf in a rest position beneath the principal plane of the table and a protruding position corresponding to the extension leaf in a use position, and the secondary element is moveable between an upper position corresponding to the use position of the extension leaf, aligned with the principal plane of the table, and a lower position corresponding to the extension leaf completely beneath the principal plane of the table.

[0012] Preferably, an interlocking mechanism is foreseen which prevents wrong manoeuvres by the user. In a possible embodiment of the invention, the interlocking mechanism enables rotation of the body relative to the primary element only when the secondary element is in the lower position; in another possible embodiment of the invention, the interlocking mechanism enables sliding of the body relative to the secondary element only when the body is in protruding position. More preferably, the mechanism has a double functionality: it enables rotation of the body relative to the primary element only when the secondary element is in lower position and sliding of the body relative to the secondary element only when the body is in protruding position.

[0013] Thanks to such an interlocking mechanism, the user is prevented from inadvertently making manoeuvres that may cause the extension leaf and the principal plane of the table to knock against each other, with the risk of damages. Typical manoeuvres of such type are trying to rotate the extension leaf to cause it to return underneath the principal plane of the table when the extension leaf is not sufficiently lowered, as well as trying to raise the extension leaf to align it with the principal plane of the table when the extension leaf has not been correctly rotated. It should be noted that the risk of causing damages to the table with manoeuvres of such type is particularly crucial when the principal plane of the table and/or the extension piece are made of relatively delicate materials, as for example - but not exclusively- glass and crystal.

[0014] According to a preferred embodiment, the interlocking mechanism comprises a rod slidably guided in the body between a first locking position and a second locking position, a first end of the rod being turned toward the primary element and able to be inserted in a corresponding hole formed in the primary element to prevent rotation of the body relative to the primary element when the rod is in first locking position, a second end of the rod being engaged with a moveable hooking member capable of locking the actuating mechanism of the secondary element relative to the body when the rod is in second locking position. The desired double interlocking function is thus easily obtained.

[0015] The actuating mechanism of the secondary element may be made in a variety of ways. Preferably, the actuating mechanism of the secondary element relative to the body comprises a rotating shaft carried by the body, an actuating handle to rotate said shaft and a rotating eccentric fixedly connected to said shaft, and engaged in thrust with the secondary element, and the moveable hooking element is a rocker arm engaged with the second end of the rod by means of a cam profile and provided with a hooking seat adapted to engage said handle.

[0016] Preferably, the actuating mechanism of the sec-

ondary element relative to the body comprises a runner, placed between the eccentric and the secondary element; thus better controlling friction forces which arise during movement of the eccentric is made easier.

[0017] In its second aspect, the invention relates to an extensible table with a principal plane to which the primary element of a device according to the first aspect of the invention is fastened and an extension leaf on which the secondary element of the same device is fastened.

[0018] In a particularly preferred embodiment, at least one of either the principal plane or the extension leaf is of glass or crystal.

[0019] Further characteristics and advantages of the present invention will be more apparent in the following detailed description of a preferred embodiment thereof, made with reference to the attached figures. In such figures:

- Figures 1a and 1b are side and top views of a device according to the invention, respectively, under condition in which the extension leaf is retracted.
- Figures 2a and 2b are respectively side and top views of the device of figures 1a and 1b, under condition in which the extension leaf is extracted.
- Figure 3 is a partially exploded bottom perspective view of the device from the previous figures.
- Figure 5 is a view corresponding to the view of figure 4, in a different working condition.
- Figure 6 is an exploded view of the device of figures 1 a and 1 b.
- Figures 7 and 8 are prospective views of a table according to the invention, provided with extension leaves under rest and use conditions, respectively.

[0020] An extensible table 10 according to invention comprises a principal plane 11, two extension leaves 12 and a manoeuvring device 15 for each extension leaf.

[0021] Device 15 comprises a monolithic body 17 with an elongated shape, with two opposite end zones 19 and 20 connected by a median tapered zone 21. Body 17 is rotatably coupled to a primary element 23 at end 19, whereas body 17 is slidably coupled to a secondary element 24 at end 20.

[0022] Primary element 23 comprises an upper plate 26 for fastening beneath principal plane 11 of table 10, a median cylindrical tubular shaft 27, fastened to plate 26 and rotatably coupled around a pivot axis A in a corresponding cylindrical seat 28 formed at end 19 of body 17, and a lower flanged edge 29 formed on shaft 27 for holding body 17 in axial direction. Two holes 31 are provided around seat 28, which are parallel to axis A, located at 180° one to the other relative to axis A and open towards flanged edge 29. A push rod 33 and a thrust spring 35 are mounted in each hole 31 to force each push rod 33 towards a slide track 37, which is formed in flanged edge 29; two sunken niches 39 are provided in track 37, which are disposed at 180° one to the other relative to the axis A, so as to define two preferential angular positions of body 17 relative to primary element 23. A lower cover 41 is placed to cover shaft 27.

[0023] Secondary element 24 comprises an upper plate 46 for fastening beneath extension leaf 12 of table 10, a median cylindrical tubular shaft 47, fastened to plate 46 and slidably coupled along a slide axis B in a corresponding cylindrical seat 48 formed at end 20 of body 17, and a lower bottom 50 for closure of shaft 47. A runner 52 is mounted inside shaft 47, and in sliding contact both against plate 46 and against bottom 50, in a direction perpendicular to slide axis B. A cylindrical hollow 54 is formed in runner 52 with an axis C perpendicular relative to axis B. An eccentric 56 is rotatably mounted in hollow 54, fixedly and eccentrically connected to rotate with a shaft 58 extended along axis C and engaged in thrust with secondary element 24 by means of runner 52; shaft 58 is rotatably supported in two opposed holes 60, which are formed passing through the wall of body 17, and through two slots 62 formed in shaft 47. Two springs 55 are housed in respective dead holes 51 formed in body 17 adjacent to seat 48, and push against plate 46, thereby tending to favour raising of plate 46 and shaft 47 together relative to body 17.

[0024] A rotation actuating handle 64 is mounted fixed in rotation on shaft 58. For this purpose, handle 64 has a "U" shape with two ends 65 turning outside of "U"-plane, each end is inserted in a respective hole 66 transversally formed (diametrically) in shaft 58. Caps 68 and washers 69 are inserted on shaft 58 and on handle 64, to axially maintain shaft 58 in holes 60. Two pins (not visible in the figures) are inserted in holes 71 formed within ends 65, to keep the same ends in holes 66 of shaft 58. Therefore, each (angular) movement of handle 64 is matched by equal angular movement of shaft 58 and thus of eccentric 56, which moves runner 52 raising or lowering secondary element 24; in particular, handle 64 is moveable from a first position (visible in figures 1a and 4), which corresponds to a lowered position of secondary element 24, and a second position (visible in figures 2a and 5), which corresponds to a raised position of secondary element 24. Therefore, all elements together indicated with reference numbers 51 to 71 form an actuating mechanism of secondary element 24 relative to body 17.

[0025] A rod 75 is mounted longitudinally in median zone 21 of body 17 with a first end 76 facing primary element 23 and a second end 77 facing secondary element 24. Rod 75 is housed in a bay 79, formed in the lower part in median zone 21 of body 17 and closed by a cover 80, and is slidably guided in a longitudinal direction in body 17 thanks to two brackets 82 fastened to body 17.

[0026] The first end 76 of rod 75 has bolt-like shape and is engageable in a corresponding hole 84 formed in

shaft 27 of primary element 23, obviously only when the angular position of primary element 23 is such that hole 84 is aligned with end 76.

[0027] The second end 77 of rod 75 is fork-shaped, with a transversal peg 86, A support 87 is mounted facing end 77, on which a moveable hooking member is mounted, formed by a rocker arm 88 pivoting around a horizontal pivot 89. Rocker arm 88 has a slit with a cam profile 91, in which peg 86 is engaged, and a hooking seat 92, in which handle 64 is engaged when in first position (shown in figures 1a and 4).

[0028] Therefore, the rod 75 is longitudinally slidable between a first locking position (figure 5) and a second locking position (figure 4).

[0029] In first locking position, end 76 is inserted in hole 84, thereby preventing rotation of primary element 23. Furthermore, such position is clearly possible only when the angular position of primary element 23 is such that hole 84 is aligned to end 76 of the 75; the angular position of hole 84 on element 23 is such that conditions of alignment between end 76 and hole 84 occur when extension leaf 12 fastened to device 15 is located exactly in an external position thereof relative to principal plane 11 of table 10 (figure 2a, 2b and 5), *i.e.* in which extension leaf 12 may be raised or lowered freely, without risking to knock against principal plane 11.

[0030] Still in first locking position, hooking seat 92 is disengaged by handle 64 at end 77, since the position of peg 86 in slit with a cam profile 91 is such that it rotates rocker arm 88 as shown in figure 5. Handle 64 can thus be freely actuated, raising or lowering secondary element 24 relative to body 17 of device 15, that is, raising or lowering extension leaf 12 relative to principal plane 11 of table 10.

[0031] In second locking position, handle 64 is in first position (figure 4) and engages hooking seat 92 imposing an angular position to rocker arm 88 such that the position of peg 86 in slit with a cam profile 91 maintains rod 75 as shown in figure 4, with end 76 being extracted from hole 84. The first position of handle 64 induces secondary element 24 into a completely lowered position relative to body 17, that is extension leaf 12 is completely lowered relative principal plane 11; at the same time, primary element 23 is free to rotate relative to body 17, i.e..extension leaf 12 is free to rotate relative to principal plane 11.

[0032] Rod 75 forms an interlocking mechanism together with handle 64 and elements 76 to 92 which enables rotation of body 17 relative to primary element 23 only when secondary element 24 is in lower position and enables sliding of body 17 relative to secondary element 24 only when body 17 is in protruding position.

[0033] The two aforementioned locking positions dictate operation of device 15, as it will now be described from condition shown in figures 1a, 1b, and 4.

[0034] As aforementioned, under such condition, rod 75 is in its second locking position, handle 64 is in its first position and extension leaf 12 is completely lowered. Body 17 of device 15 can rotate relative to primary element 23. More precisely, two push rods 33 determine two preferential angular positions with their engagement into niches 39, in which extension leaf 12 is in one case completely extracted relative to principal plane 11 (figure 4), in the other case completely retracted beneath the principal plane 11 (figure 2a, 2b*); however, a minimal force applied to extension leaf 12 is sufficient to overcome the restraining action of push rods 33 and enable rotation of extension leaf 12 itself.

[0035] Thus, free rotation of extension leaf 12 relative to principal plane 11 of table 10 is possible when extension leaf 12 is in completely lowered position.

[0036] If the angular position of extension leaf 12 is not the completely extracted one (figure 1a and 1b), handle 64 is not rotatable since hooking seat 92 of rocker arm 88 keeps it locked; in fact, rod 75 cannot move from second locking position since the full wall of shaft 27 faces end 76, not hole 84, and the impossibility of movement of rod 75 also keeps rocker arm 88 locked due to reciprocal engagement of peg 86 and slit with a cam profile 91.

[0037] Thus, extension leaf 12 may not be raised unless completely extracted relative to principal plane 11 of table 10.

[0038] Otherwise, if the angular position of extension leaf 12 is the completely extracted one (figure 4), then handle 64 can be rotated towards second position. In such operation, as handle 64 is moved from first position (figure 5), rocker arm 88 is rotated by the action of handle 64 itself on hooking seat 92 and consequently rod 75 is pushed (by the action of slit with a cam profile 91 on peg 86) towards its first locking position, with end 76 being inserted in hole 84, such that any reciprocal rotation between body 17 of device 15 and primary element 23 is prevented.

[0039] Thus, extension leaf 12 may be raised when completely extracted relative to principal plane 11 of table 10; furthermore, as extension leaf 12 is raised, it may not be rotated any longer.

[0040] In raising extension leaf 12 by means of actuating handle 64, two springs 55 help the user by compensating the weight of the extension leaf itself. Clearly, such springs 55 will have greater stiffness if the weight of the desired extension leaf 12 is greater; if such springs are correctly sized, the effort to actuate handle 64 required by the user will only be that imposed by the coupling friction, and thus substantially the same in raising as in lowering.

[0041] Extension leaf 12 remains spontaneously in raised position at the end of raising, since the type of mechanical coupling achieved with eccentric 56 and runner 52 is intrinsically unidirectional. In fact, each mechanical action exerted by rotation of eccentric 56 causes both vertical and horizontal movement of runner 52, thereby determining raising of secondary element 24; on the contrary, a raising or lowering action applied directly to extension leaf 12 (such as action due to its own weight) is not able to cause any movement of runner 52 and thus any rotation of eccentric 56.

[0042] On the contrary, once extension leaf 12 has been completely lowered by means of a complete rotation of handle 64, rocker arm 88 is once again rotated by action of same handle 64 on hooking seat 92 and thus pulls rod 75 with its end 76 out of hole 84. Once extension leaf 12 has been completely lowered, conditions are restored (figure 4) in which extension leaf 12 can be rotated and returned beneath principal plane 11.

[0043] It should be noted that any intermediate position of rod 75 between the two locking positions of figures 4 and 5 (due, for example to a positioning of handle 64 that only partially moves rocker arm 88) is such as to maintain nevertheless the rotation block, as end 76 of rod 75 nevertheless results at least partially engaged in the hole 84.

[0044] That is to say, positions of the rod which permit both rotation of the body relative to the primary element and translation of the secondary element relative to the body are excluded. Thus the possibility that a careless user can manoeuvre extension leaf 12 causing it to knock against principal plane 11 of table 10 is completely avoided.

[0045] The device according to invention is thus particularly suitable for tables having planes and/or extension leaves in relatively delicate materials, such as glass or crystal. Furthermore, the simplicity of embodiment makes the device according to invention particularly suitable for tables in which the device itself is clearly visible, for example, due to the presence of planes and/or extension leaves in transparent material, such as glass or crystal.

Claims

1. Manoeuvring device (15) for an extension leaf (12) of a table (10) extensible relative to a principal plane (11) of the table, comprising a primary element (23) adapted to be fixedly fastened to the principal plane (11) of the table (10) therebeneath, a body (17) rotatable relative to said primary element (23) around a pivot axis (A), a secondary element (24) slidable relative to said body (17) along a slide axis (B) and adapted to be fixedly fastened to the extension leaf (12), and an actuating mechanism (51-71) of the secondary element (24) relative to the body (17).

2. Device according to claim 1, wherein body (17) is angularly moveable around the primary element (23) between a retracted position corresponding to the extension leaf (12) in a rest position beneath the principal plane (11) of the table (10) and a protruding position corresponding to the extension leaf (12) in a use position, and wherein the secondary element (24) is moveable between an upper position corresponding to the use position of the extension leaf (12), aligned with the principal plane (11) of the table (10), and a lower position corresponding to the extension leaf (12) completely beneath the principal plane (11) of the table (10).

3. Device according to claim 2, comprising an interlocking mechanism (75-92) which enables rotation of the body (17) relative to the primary element (23) only when the secondary element (24) is in the lower position.

4. Device according to claim 2, comprising an interlocking mechanism which enables sliding of the body (17) relative to the secondary element (24) only when the body (17) is in the protruding position.

5. Device according to claim 2, comprising an interlocking mechanism (75-92) that enables rotation of the body (17) relative to the primary element (23) only when the secondary element (24) is in the lower position and which enables sliding of the body (17) relative to the secondary element (24) only when the body (17) is in the protruding position.

6. Device according to claim 5 wherein the interlocking mechanism comprises a rod (75) slidably guided in the body (17) between a first locking position and a second locking position, a first end (76) of the rod (75) being faced towards the primary element (23) and able to be inserted in a corresponding hole (84) formed in the primary element (23) to prevent rotation of the body (17) relative to the primary element (23) when the rod (75) is in the first locking position, a second end (77) of the rod being engaged with a moveable hooking member (88) capable of locking the actuating mechanism (51-71) of the secondary element (24) relative to the body (17) when the rod (75) is in the second locking position.

7. Device according to claim 7, wherein the actuating mechanism of the secondary element (24) relative to the body (17) comprises a rotating shaft carried by the body (17), an actuating handle (64) to rotate said shaft (58) and a rotating eccentric (56) fixedly connected to said shaft (58) and engaged in thrust with the secondary element (24), wherein the moveable hooking member is a rocker arm (88) engaged with the second end (77) of the rod (75) by means of a cam profile (91) and provided with a hooking seat (92) adapted to engage said handle (64).

8. Device according to claim 7, wherein the actuating mechanism of the secondary element (24) relative to the body (17) comprises a runner (52), placed between the eccentric (56) and the secondary element (24).

9. Extensible table (10), comprising a device (15) according to any one of claims 1 to 8, with a principal plane (11) to which the primary element (23) of the device (15) is fastened and an extension leaf (12) to

which the secondary element (24) of the device (15) is fastened.

10. Table according to claim 9, wherein at least one of the principal plane (11) or the extension leaf (12) is of glass or crystal.

Patentansprüche

1. Betätigungsvorrichtung (15) für eine Erweiterungsplatte (12) für einen Tisch (10), der bezüglich einer Hauptplatte (11) des Tischs erweiterbar ist, umfassend ein Hauptelement (23), das eingerichtet ist, fest an der Hauptplatte (11) des Tischs (10) darunter befestigt zu werden, einen Körper (17), der zu dem Hauptelement (23) drehbar um eine Drehachse (A) ist, ein Nebenelement (24), das relativ zu dem Körper (17) entlang einer Gleitachse (B) gleiten kann und eingerichtet ist, fest mit der Erweiterungsplatte (12) verbunden zu werden und ein Bestätigungsmechanismus (51 - 71) des Nebenelements (24) relativ zu dem Körper (17).

2. Vorrichtung nach Anspruch 1, wobei der Körper (17) winklig um das Hauptelement (23) zwischen einer zurückgezogenen Position, die einer Ruheposition der Erweiterungsplatte (12) unter der Hauptplatte (11) des Tischs (10) entspricht und einer hervorstehenden Position, die einer Nutzungsposition der Erweiterungsplatte (12) entspricht beweglich ist und wobei das Nebenelement (24) zwischen einer oberen Position, die der Nutzungsposition der Erweiterungsplatte (12) entspricht, in der sie mit der Hauptplatte (11) des Tischs (10) bündig ist und einer unteren Position, die der Erweiterungsplatte (12) vollständig unter der Hauptplatte (11) des Tischs (10) entspricht, beweglich ist.

3. Vorrichtung nach Anspruch 2, umfassend einen Sperrmechanismus (75 - 92), der eine Rotation des Körpers (17) relativ zu dem Hauptelement (23) nur dann erlaubt, wenn sich das Nebenelement (24) in der unteren Position befindet.

4. Vorrichtung nach Anspruch 2, umfassend einen Sperrmechanismus, der ein Gleiten des Körpers (17) relativ zu dem Nebenelement (24) nur dann erlaubt, wenn sich der Körper (17) in der hervorstehenden Position befindet.

5. Vorrichtung nach Anspruch 2, umfassend einen Sperrmechanismus (75 - 92), der eine Rotation des Körpers (17) relativ zu dem Hauptelement (23) nur dann erlaubt, wenn sich das Nebenelement (24) in der unteren Position befindet und welcher ein Gleiten des Körpers (17) relativ zu dem Nebenelement (24) nur dann erlaubt, wenn sich der Körper (17) in der hervorstehenden Position befindet.

6. Vorrichtung nach Anspruch 5, wobei der Sperrmechanismus eine Stange (75) umfasst, die gleitend in dem Körper (17) zwischen einer ersten Sperrposition und einer zweiten Sperrposition gelagert ist, wobei ein erstes Ende (76) der Stange (75) zu dem Hauptelement (23) gerichtet ist und geeignet ist, in eine entsprechende Öffnung (84) eingeführt zu werden, die in dem Hauptelement (23) geformt ist, um eine Drehung des Körpers (17) relativ zu dem Hauptelement (23) zu verhindern, wenn sich die Stange (75) in der ersten Sperrposition befindet, ein zweites Ende (77) der Stange im Eingriff mit einem beweglichen Hakenelement (88) ist, das geeignet ist, den Betätigungsmechanismus (51 - 71) des Nebenelements (24) relativ zu dem Körper (17) zu verriegeln, wenn sich die Stange (75) in der zweiten Sperrposition befindet.

7. Vorrichtung nach Anspruch 7 , wobei der Betätigungsmechanismus des Nebenelements (24) relativ zu dem Körper (17) eine drehbare Achse umfasst, die von dem Körper (17) getragen wird, einen Betätigungsgriff (64), um die Achse (58) zu drehen und einen drehbaren Exzenter (56), der fest mit der Achse (58) verbunden ist und unter Druck mit dem Nebenelement (24) in Kontakt ist, wobei das bewegliche Hakenelement ein Kipphebel (88) ist, der mit dem zweiten Ende (77) der Stange (75) mittels einer Kurvenlaufbahn (91) in Kontakt ist und mit einem Hakensitz (92) versehen ist, der eingerichtet ist, den Griff (64) einzuklinken.

8. Vorrichtung nach Anspruch 7, wobei der Betätigungsmechanismus des Nebenelements (24) relativ zu dem Körper (17) einen Gleiter (52) umfasst, der zwischen dem Exzenter (56) und dem Nebenelement (24) angeordnet ist.

9. Ausziehbarer Tisch (10), umfassend eine Vorrichtung (15) nach einem der Ansprüche 1 bis 8, mit einer Hauptplatte (11), an der das Hauptelement (23) der Vorrichtung (15) befestigt ist und eine Erweiterungsplatte (12), an der das Nebenelement (24) der Vorrichtung (15) befestigt ist.

10. Tisch nach Anspruch 9, wobei mindestens die Hauptplatte (11) oder die Erweiterungsplatte (12) aus Glas oder Kristall ist.

Revendications

1. Dispositif de manoeuvre (15) pour une rallonge (12) d'une table (10) extensible par rapport à un plan principal (11) de la table, comprenant un élément principal (23) conçu pour être fixé fermement au plan

principal (11) de la table (10) en dessous de celle-ci, un corps (17) pouvant tourner par rapport audit élément principal (23) autour d'un axe de pivot (A), un élément secondaire (24) pouvant coulisser par rapport audit corps (17) le long d'un axe de coulissement (B) et conçu pour être fixé fermement à la rallonge (12), et un mécanisme d'actionnement (51 à 71) de l'élément secondaire (24) par rapport au corps (17).

2. Dispositif selon la revendication 1, dans lequel le corps (17) peut être déplacé de façon angulaire autour de l'élément principal (23) entre une position rétractée correspondant à la rallonge (12) dans une position d'appui en dessous du plan principal (11) de la table (10) et une position protubérante correspondant à la rallonge (12) en position d'utilisation, et dans lequel l'élément secondaire (24) peut être déplacé entre une position supérieure correspondant à la position d'utilisation de la rallonge (12), alignée avec le plan principal (11) de la table (10), et une position inférieure correspondant à la rallonge (12) totalement en dessous du plan principal (11) de la table (10).

3. Dispositif selon la revendication 2, comprenant un mécanisme d'interverrouillage (75 à 92) qui permet la rotation du corps (17) par rapport à l'élément principal (23) uniquement lorsque l'élément secondaire (24) se trouve dans la position inférieure.

4. Dispositif selon la revendication 2, comprenant un mécanisme d'interverrouillage qui permet le coulissement du corps (17) par rapport à l'élément secondaire (24) uniquement lorsque le corps (17) se trouve dans la position protubérante.

5. Dispositif selon la revendication 2, comprenant un mécanisme d'interverrouillage (75 à 92) qui permet la rotation du corps (17) par rapport à l'élément principal (23) uniquement lorsque l'élément secondaire (24) se trouve dans la position inférieure et qui permet le coulissement du corps (17) par rapport à l'élément secondaire (24) uniquement lorsque le corps (17) se trouve dans la position protubérante.

6. Dispositif selon la revendication 5 dans lequel le mécanisme d'interverrouillage comprend une tige (75) guidée avec possibilité de coulissement dans le corps (17) entre une première position de verrouillage et une deuxième position de verrouillage, une première extrémité (76) de la tige (75) étant orientée vers l'élément principal (23) et pouvant être insérée dans un trou correspondant (84) formé dans l'élément principal (23) pour empêcher une rotation du corps (17) par rapport à l'élément principal (23) lorsque la tige (75) se trouve dans la première position de verrouillage, une deuxième extrémité (77) de la tige étant engagée avec un élément d'accrochage mobile (88) pouvant verrouiller le mécanisme d'actionnement (51 à 71) de l'élément secondaire (24) par rapport au corps (17) lorsque la tige (75) se trouve dans la deuxième position de verrouillage.

7. Dispositif selon la revendication 7, dans lequel le mécanisme d'actionnement de l'élément secondaire (24) par rapport au corps (17) comprend un axe rotatif supporté par le corps (17), une poignée d'actionnement (64) pour faire tourner ledit axe (58) et un excentrique de rotation (56) raccordé fixement audit axe (58) et engagé par poussée avec l'élément secondaire (24), dans lequel l'élément d'accrochage mobile est un bras oscillant (88) engagé avec la deuxième extrémité (77) de la tige (75) au moyen d'un profil de came (91) et doté d'un siège d'accrochage (92) conçu pour recevoir ladite poignée (64).

8. Dispositif selon la revendication 7, dans lequel le mécanisme d'actionnement de l'élément secondaire (24) par rapport au corps (17) comprend une glissière (52), placée entre l'excentrique (56) et l'élément secondaire (24).

9. Table extensible (10), comprenant un dispositif (15) selon l'une quelconque des revendications 1 à 8, ayant un plan principal (11) auquel l'élément principal (23) du dispositif (15) est fixé et une rallonge (12) à laquelle l'élément secondaire (24) du dispositif (15) est fixé.

10. Table selon la revendication 9, dans laquelle au moins l'un du plan principal (11) ou de la rallonge (12) est en verre ou en cristal.

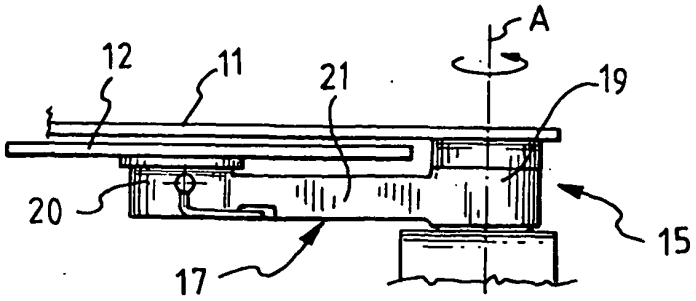


Fig. 1a

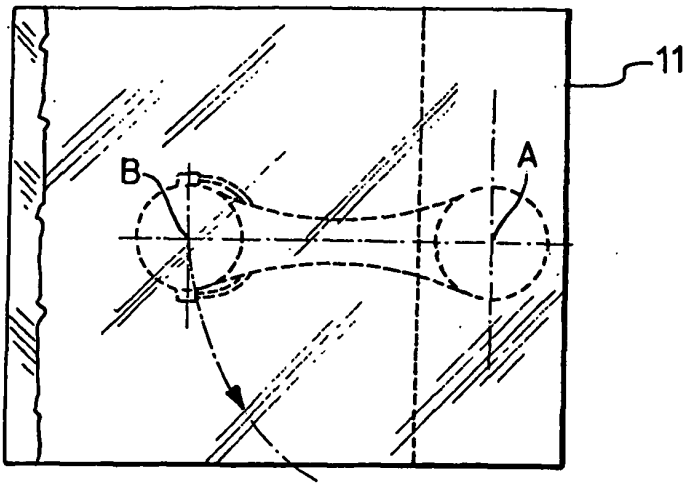


Fig. 1b

Fig. 2a

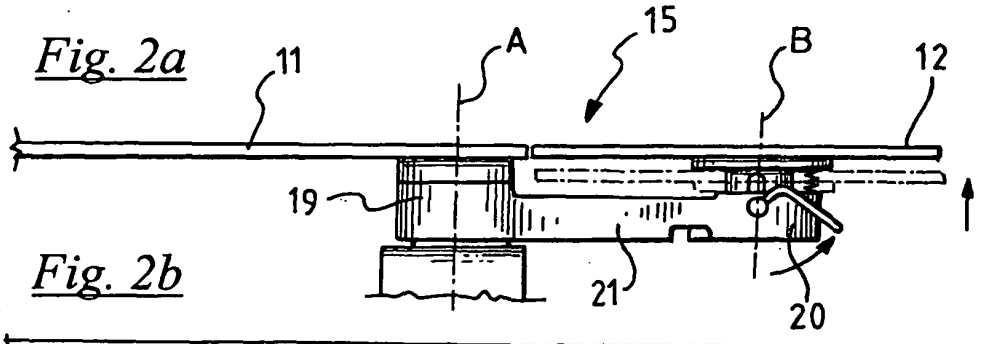
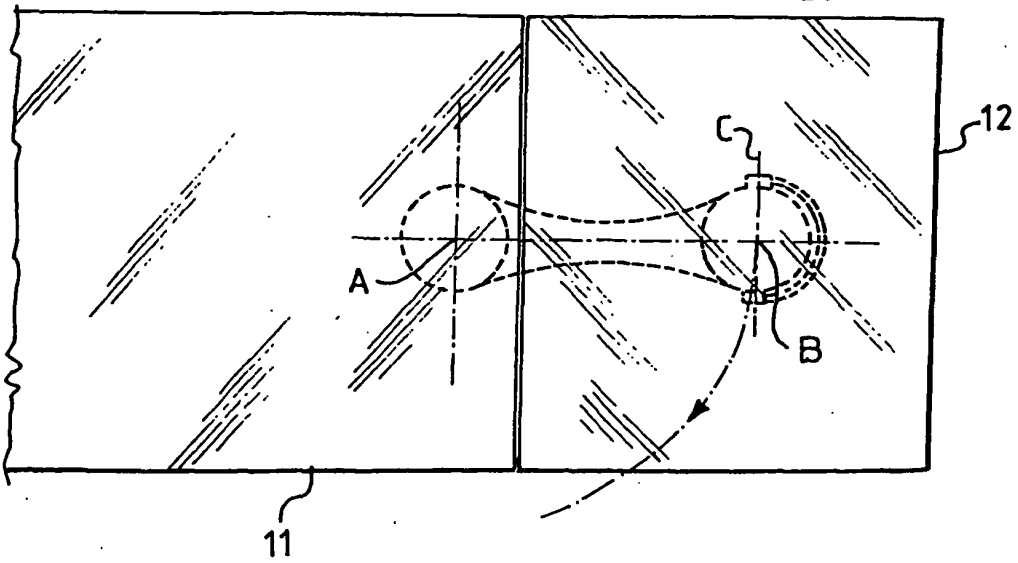


Fig. 2b



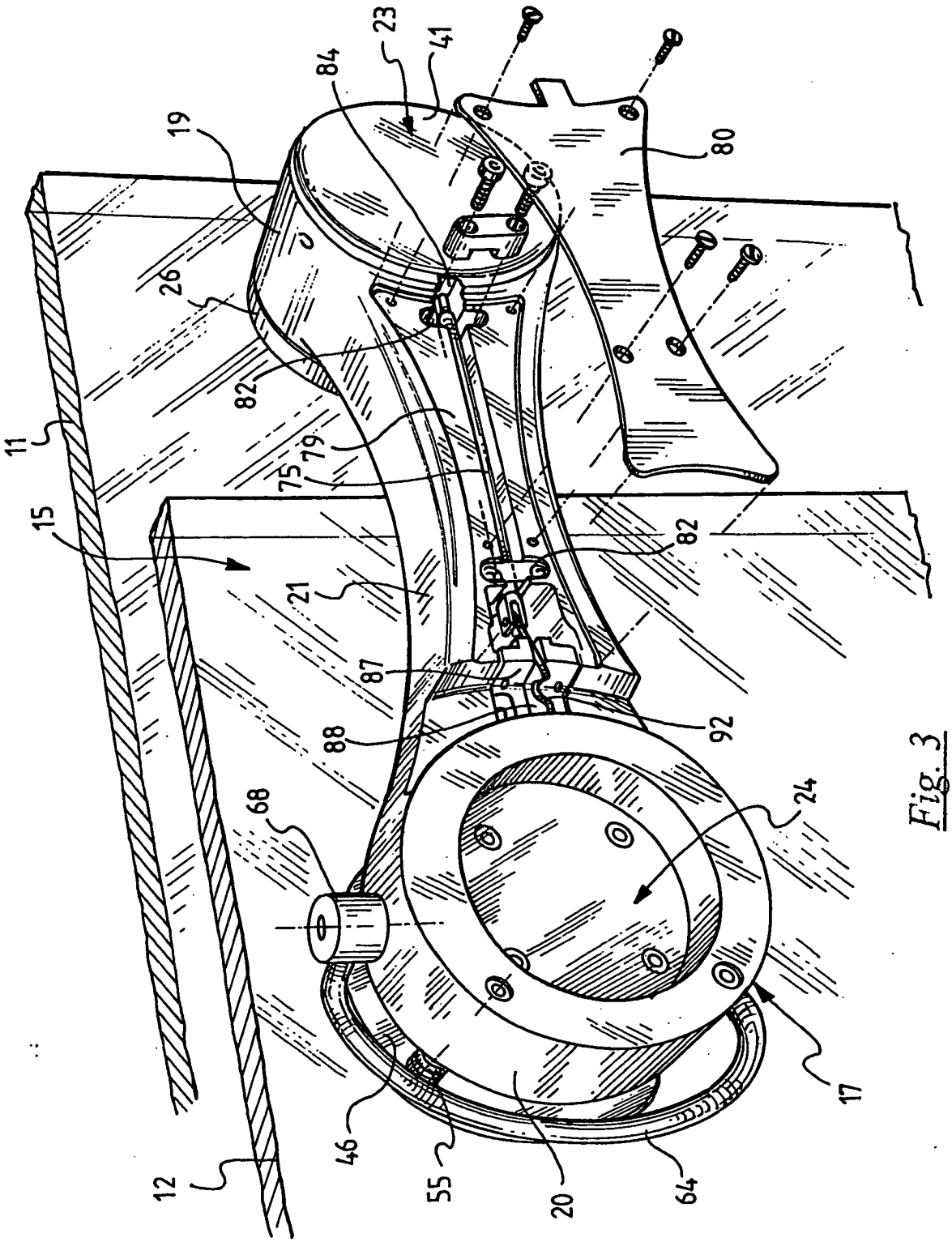


Fig. 3

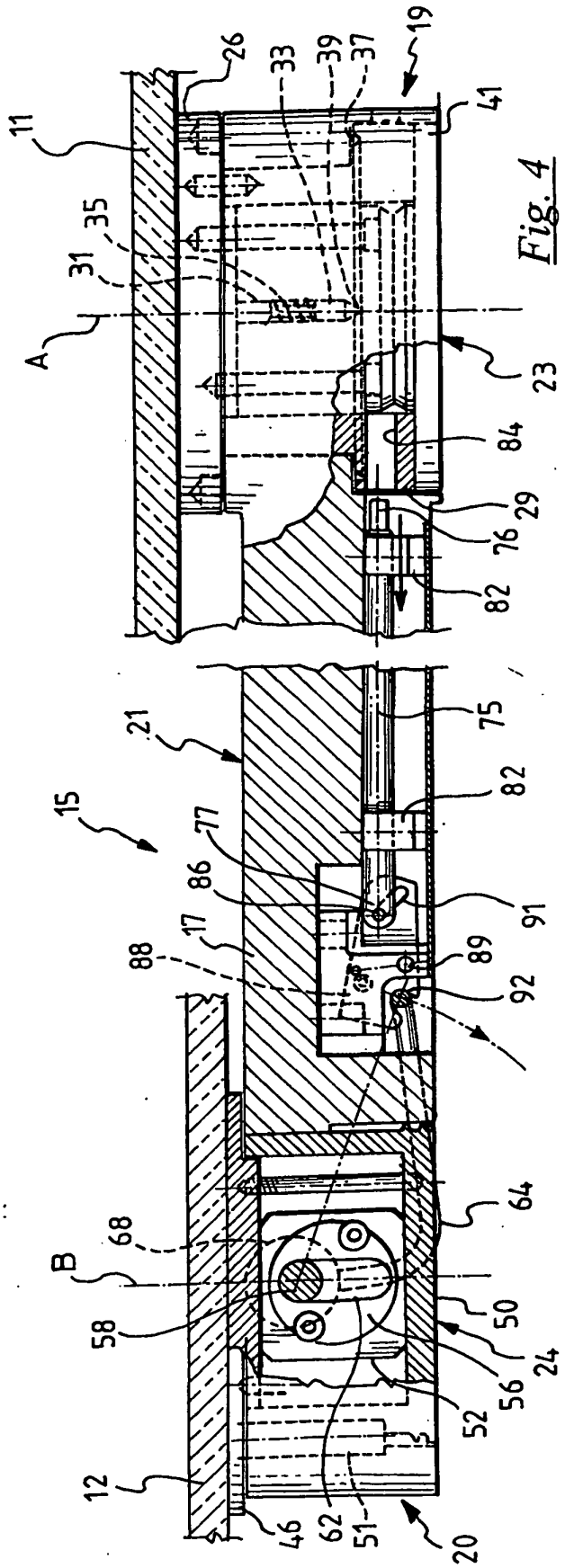

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Fig. 4

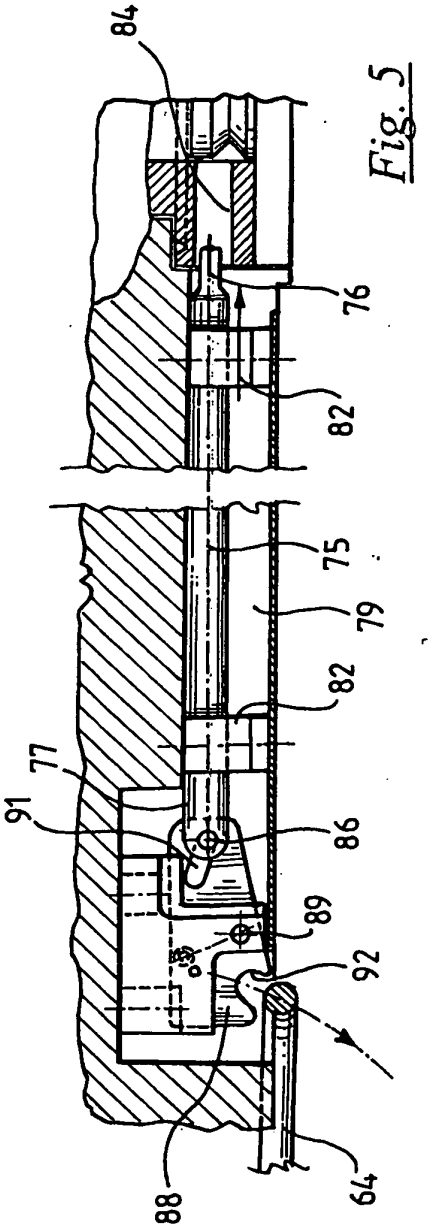

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Fig. 5

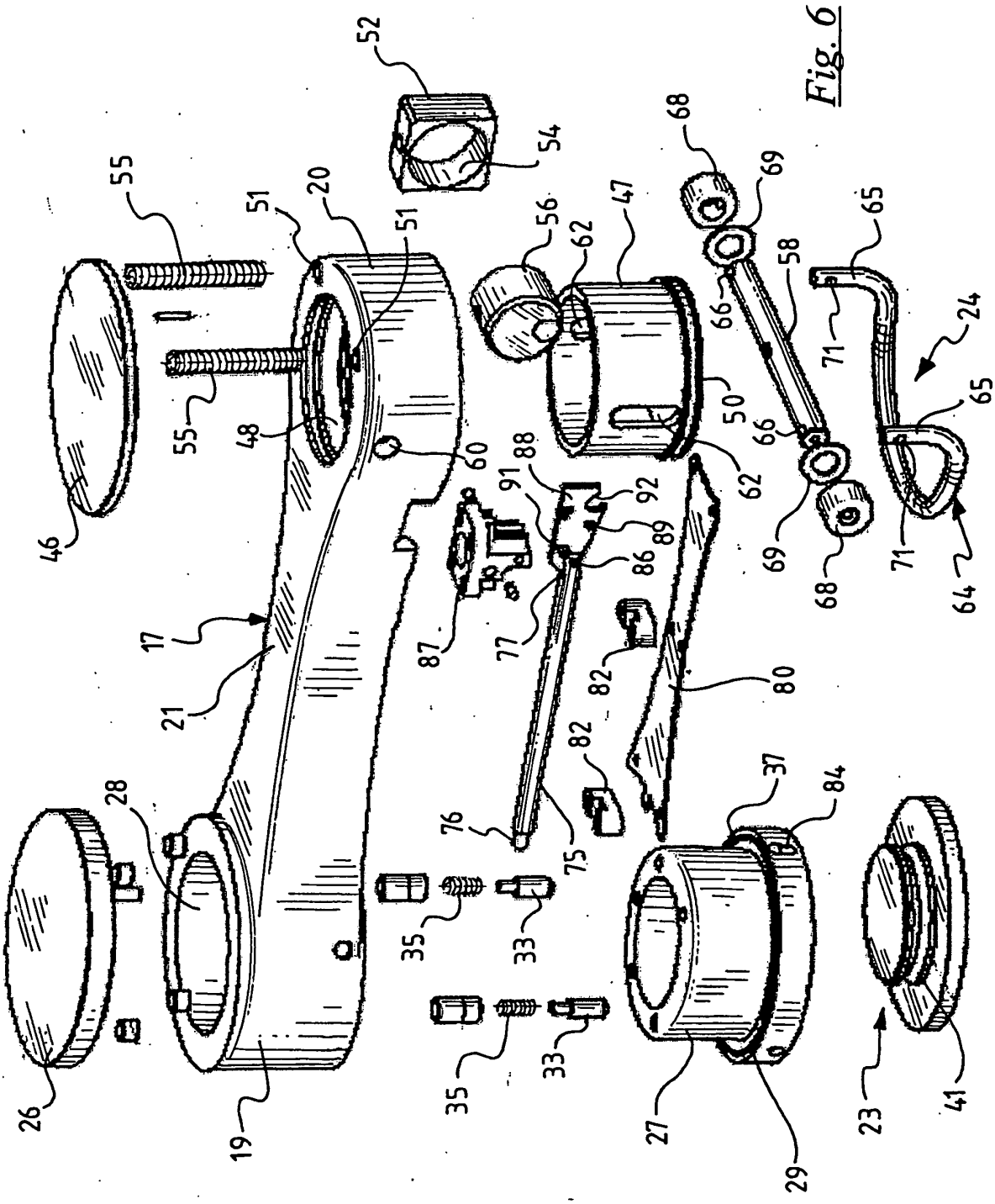

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Fig. 6

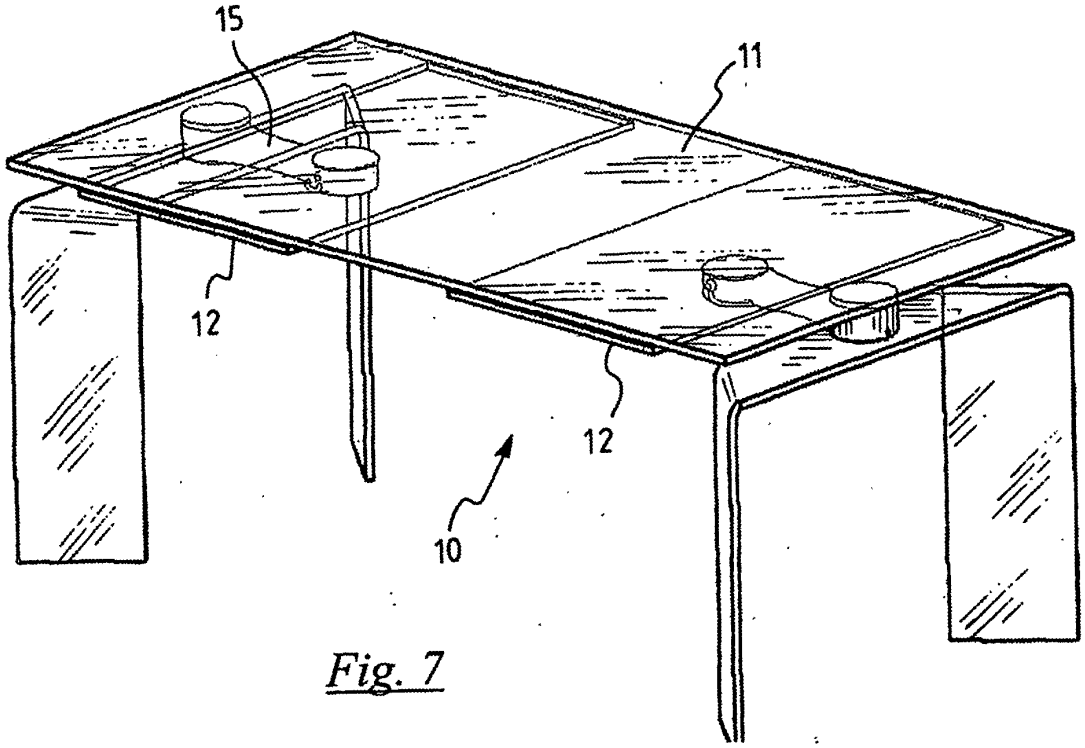


Fig. 7

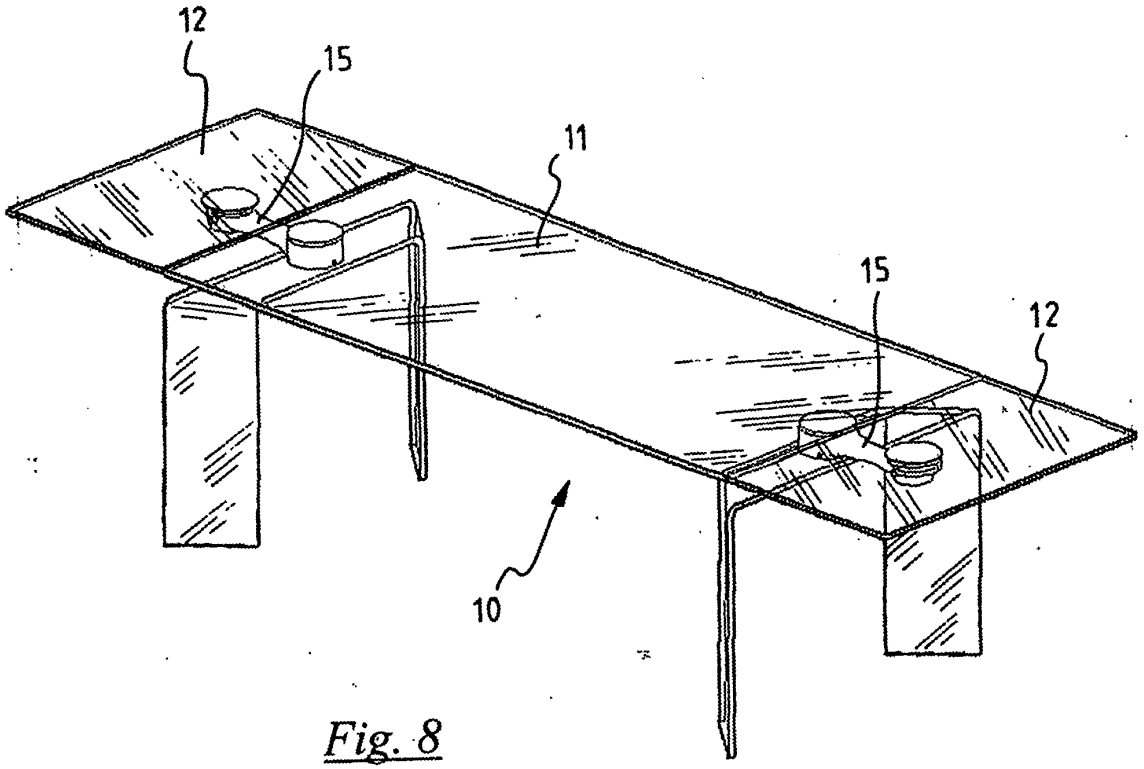


Fig. 8

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

- IT 1318461 **[0004]**
- WO 2005099514 A **[0005]**