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(54) **TABLE**

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(57) **ABSTRACT**

The invention relates to a table with a table top and at least one fold-in or fold-out table leg (2) which is retained on the table top by means of a hinge fitting, wherein the hinge fitting has a first hinge part fixed on the table top and a second hinge part fixed on one end of the table leg, the two hinge parts being hinged to one another so as to carry out the folding movement, and furthermore a locking device is provided for locking the table leg in the folded-out state. The locking device is constructed in the form of a locking sleeve which is held so as to slide relative to the hinge fitting between a released position and a locked position, whereby the locking sleeve is formed by an end region of the table leg.

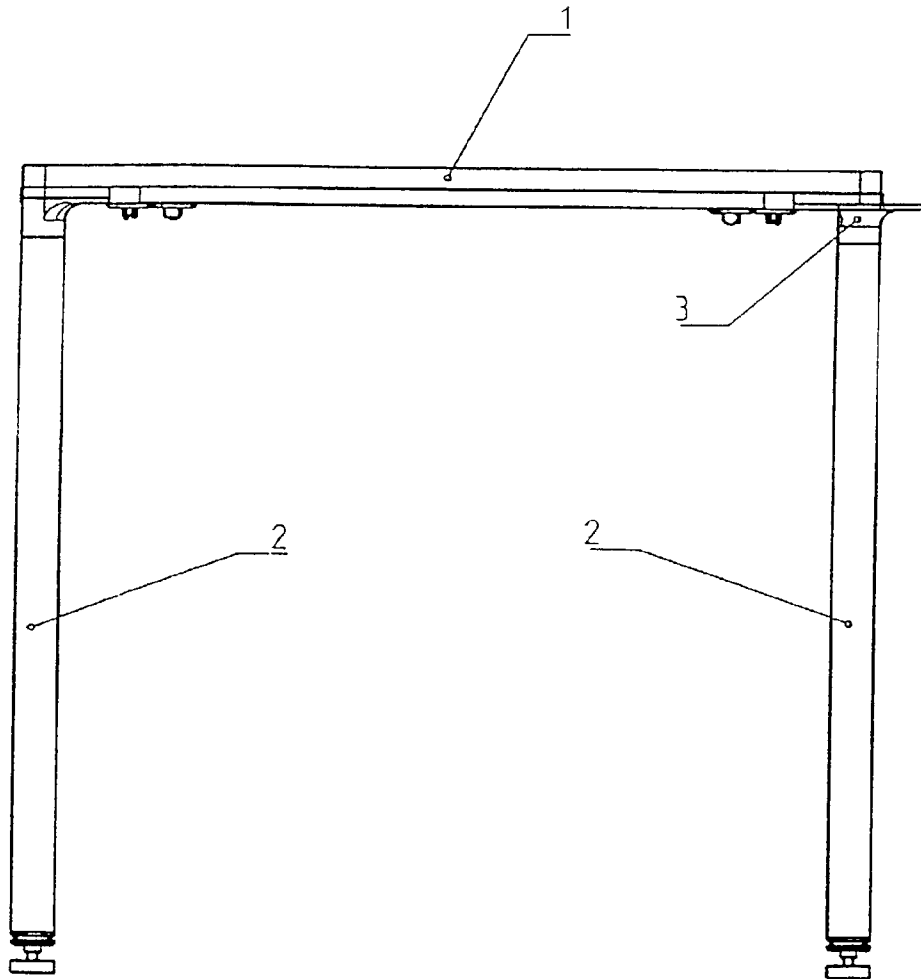
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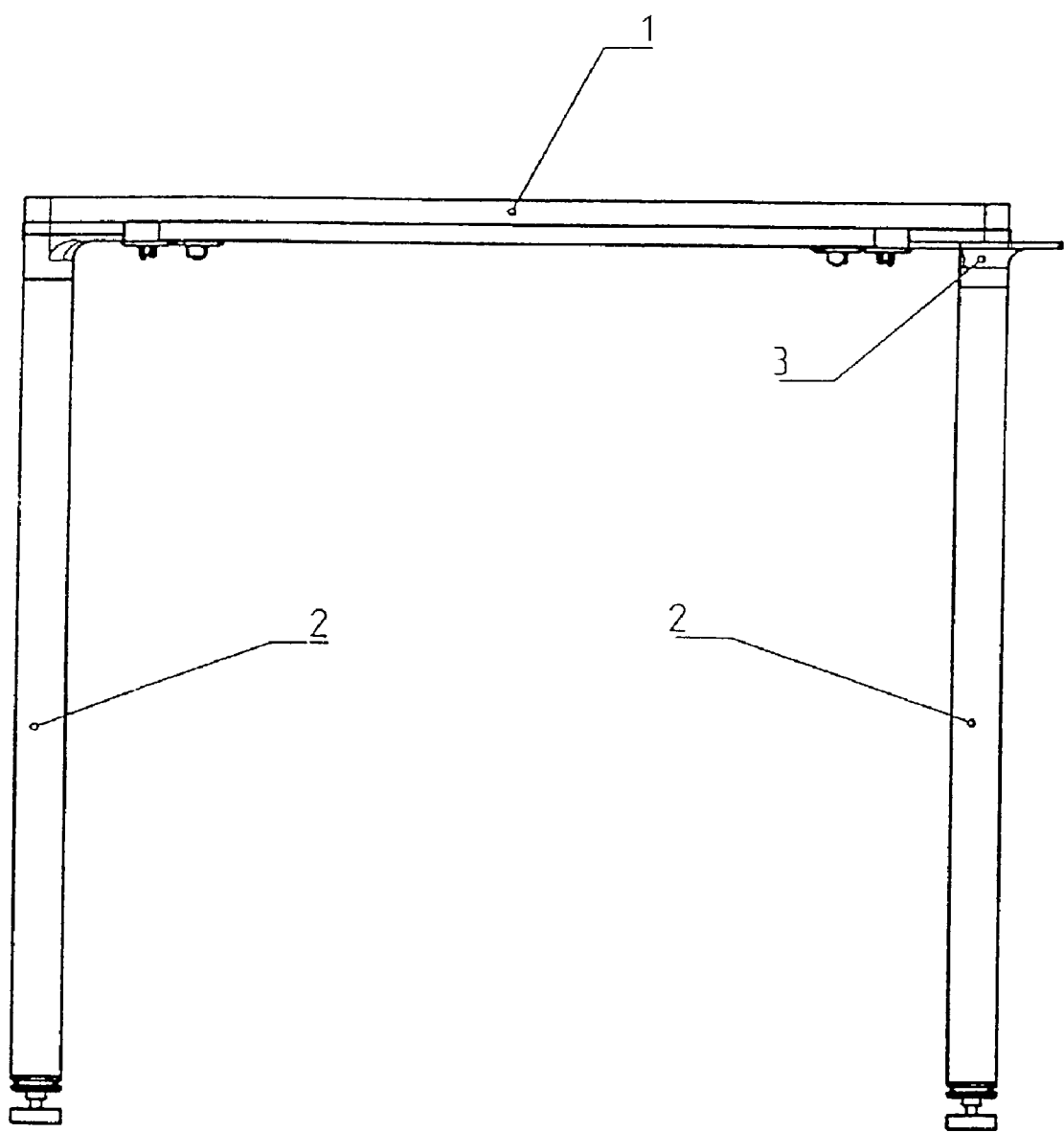
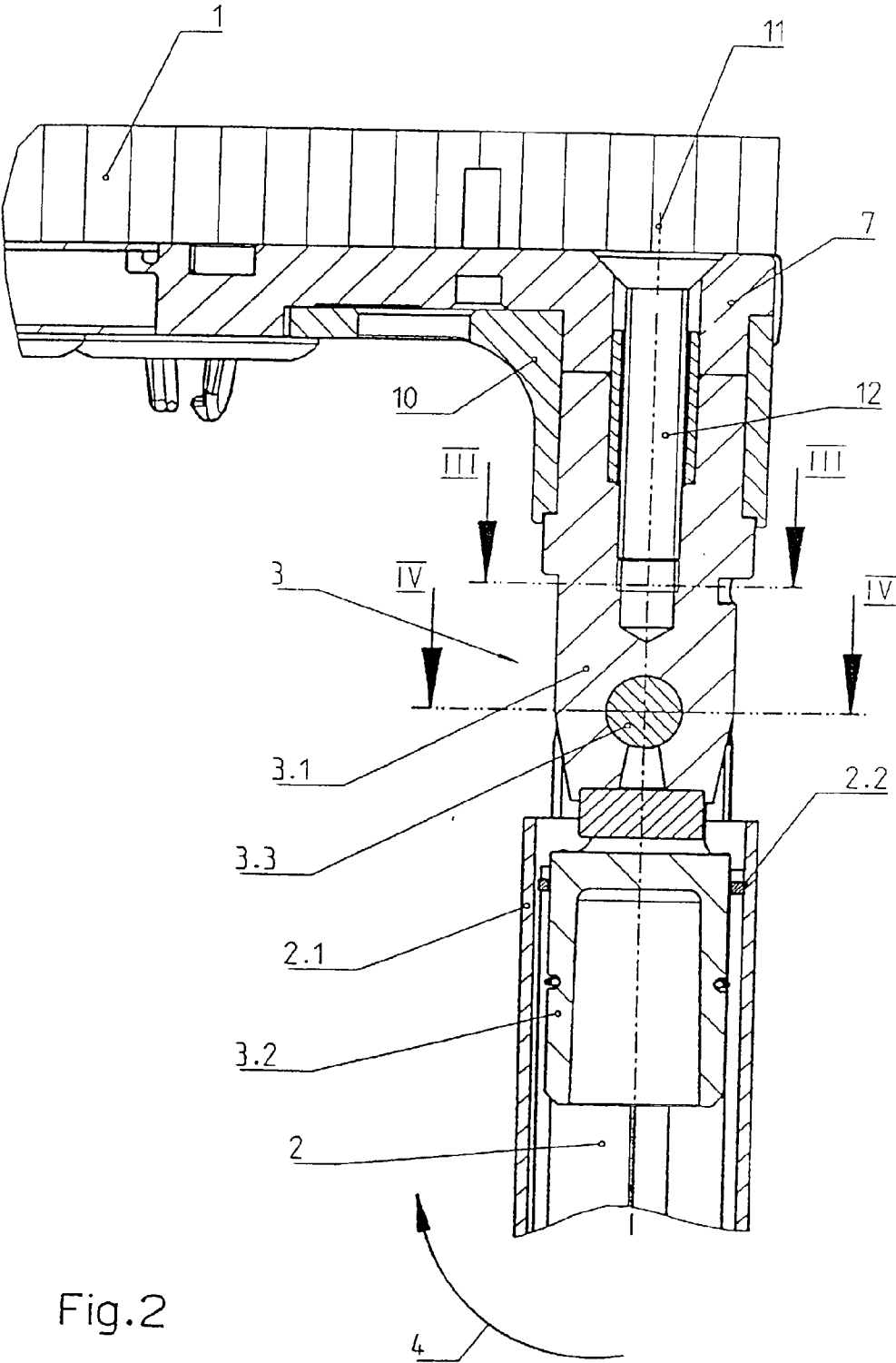


Fig.1



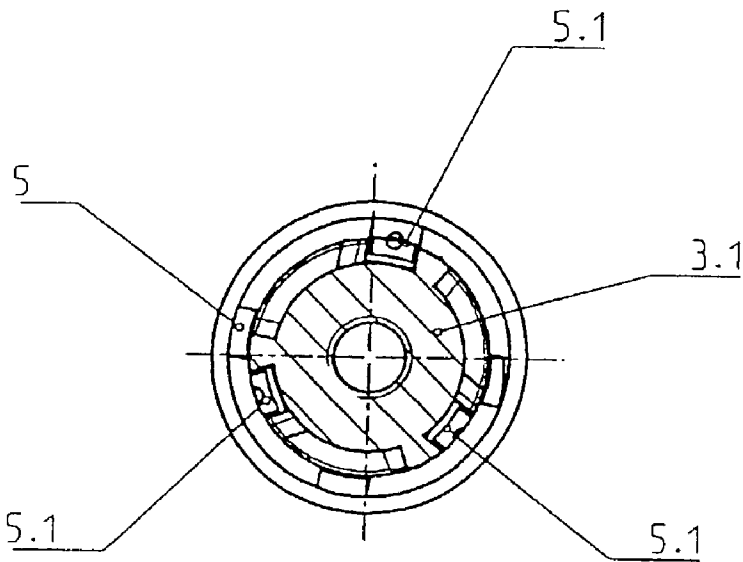


Fig.3

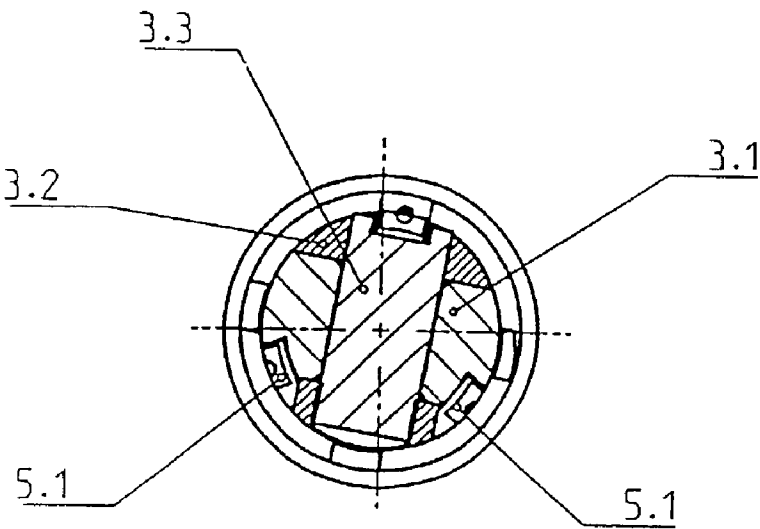


Fig.4

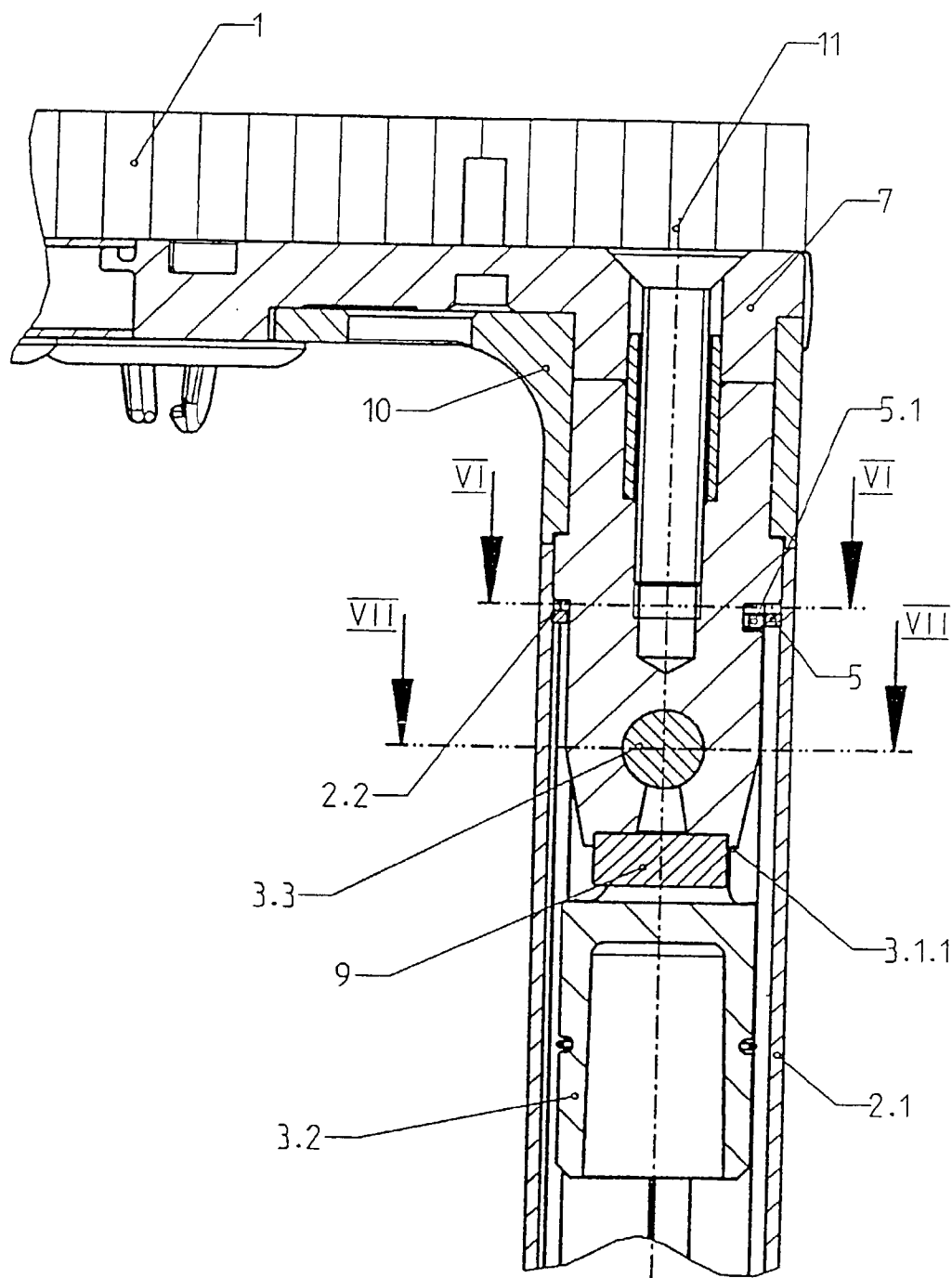


Fig.5

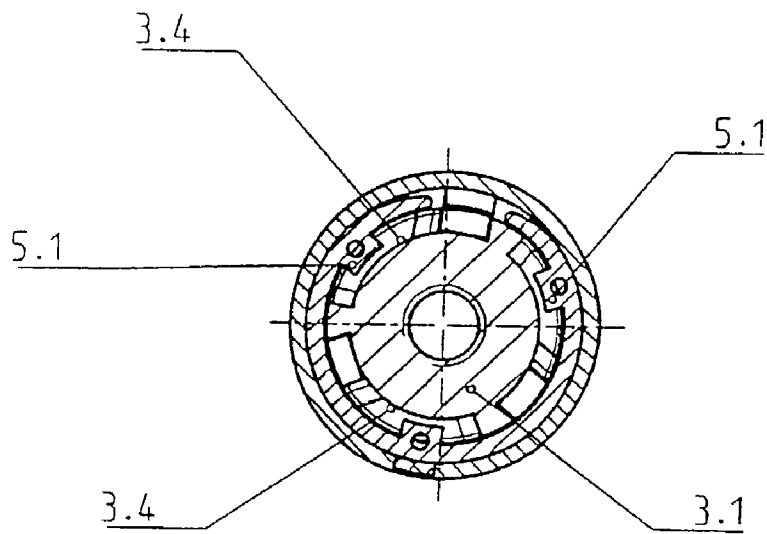


Fig. 6

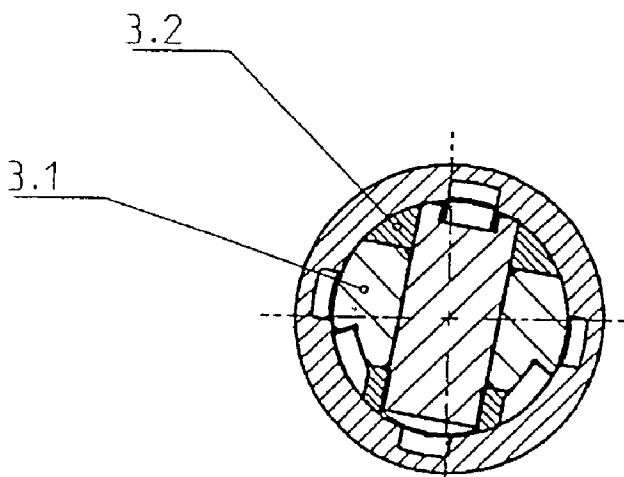


Fig. 7

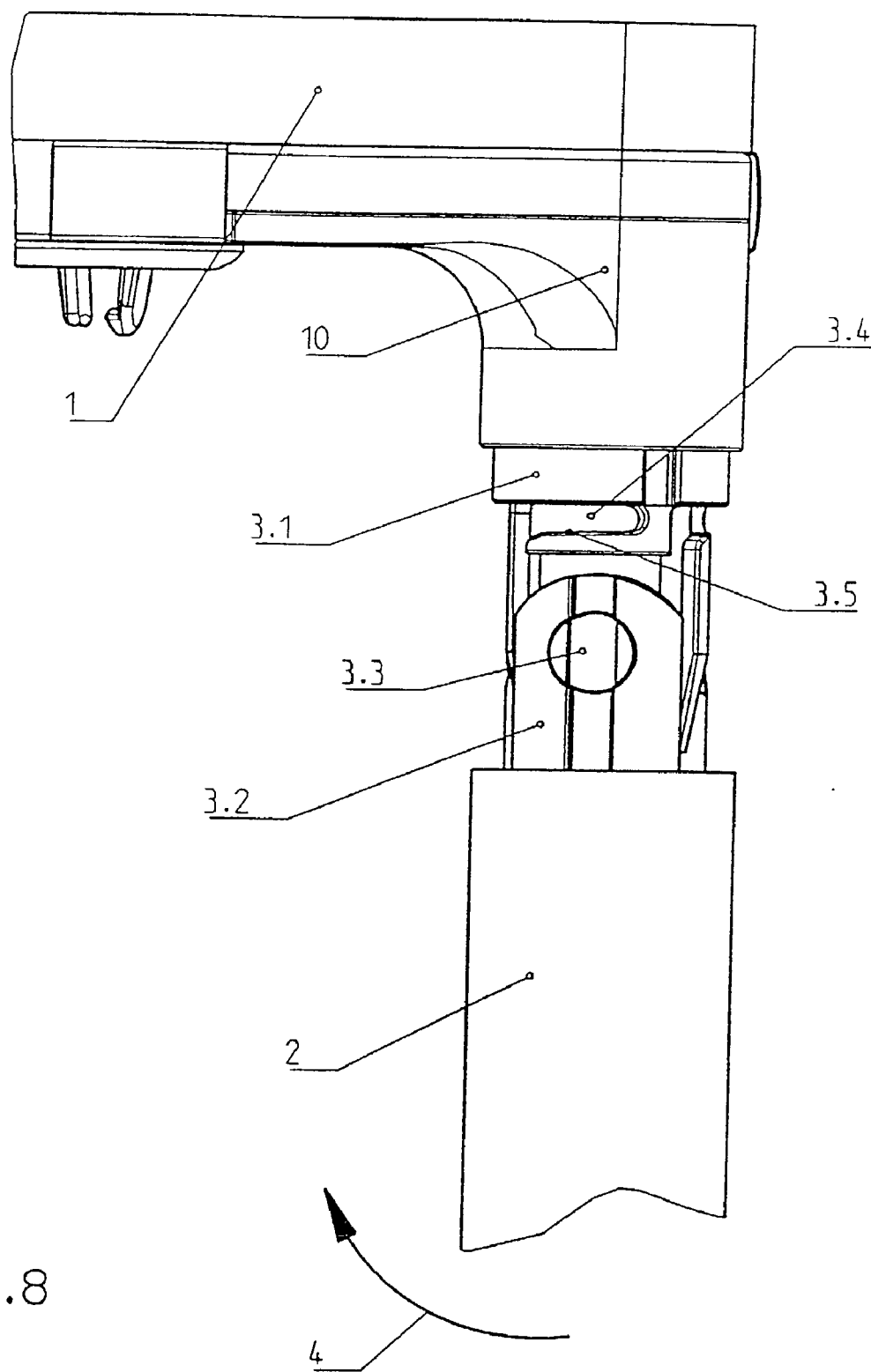


Fig.8

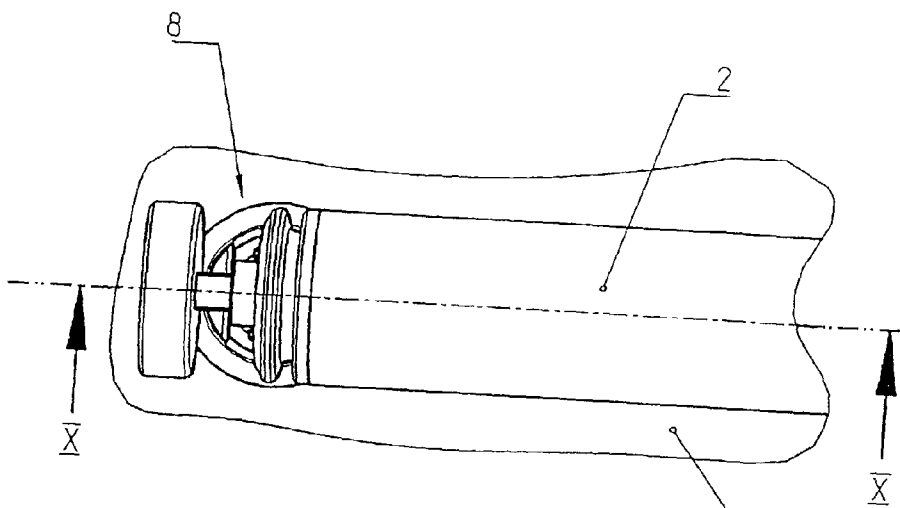


Fig.9

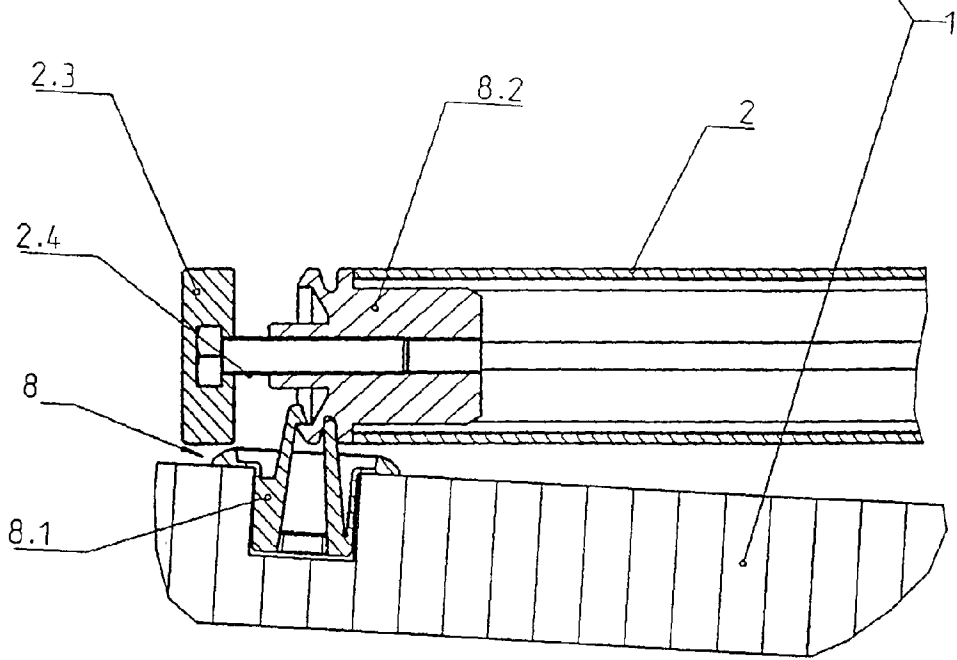


Fig.10

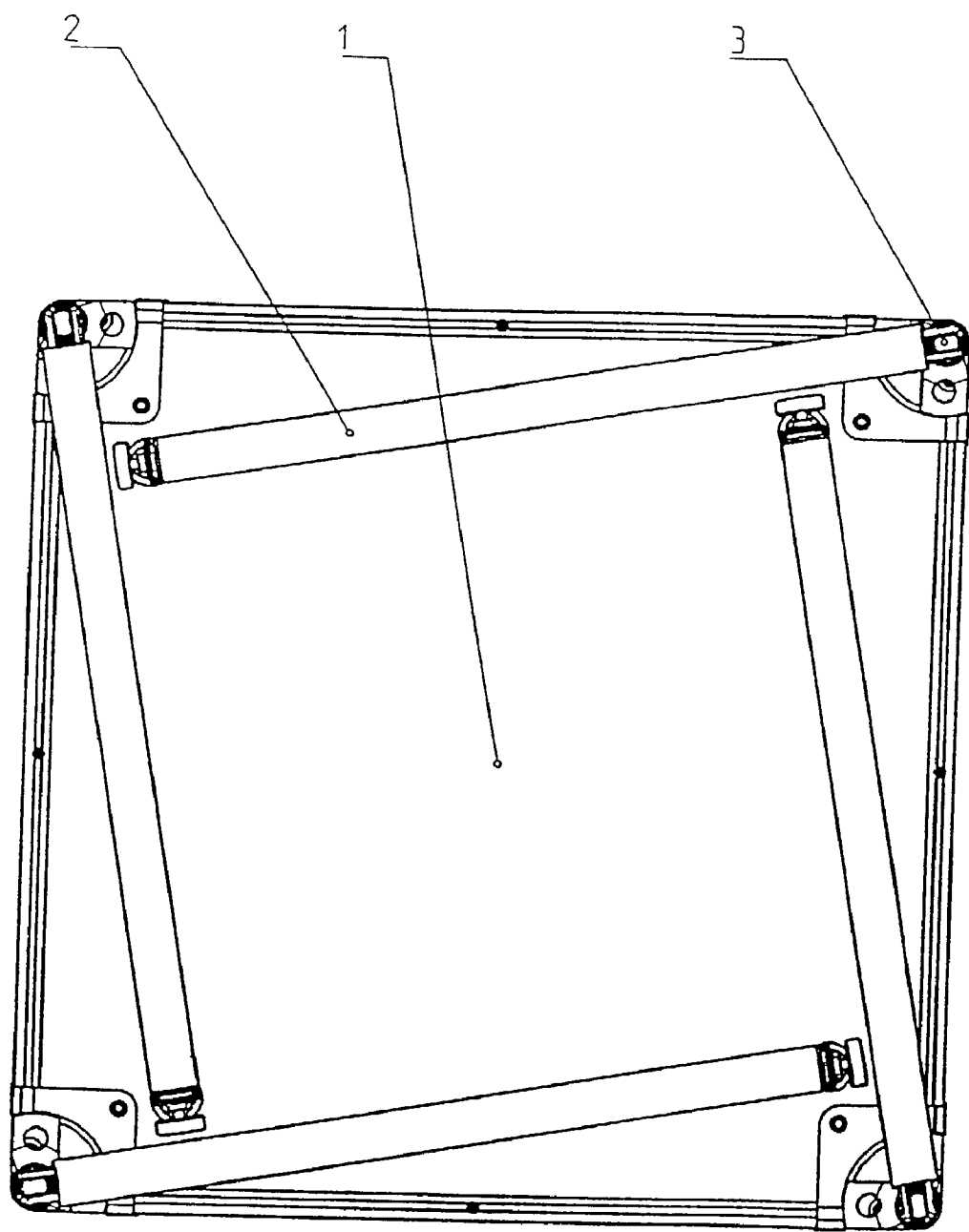


Fig.II

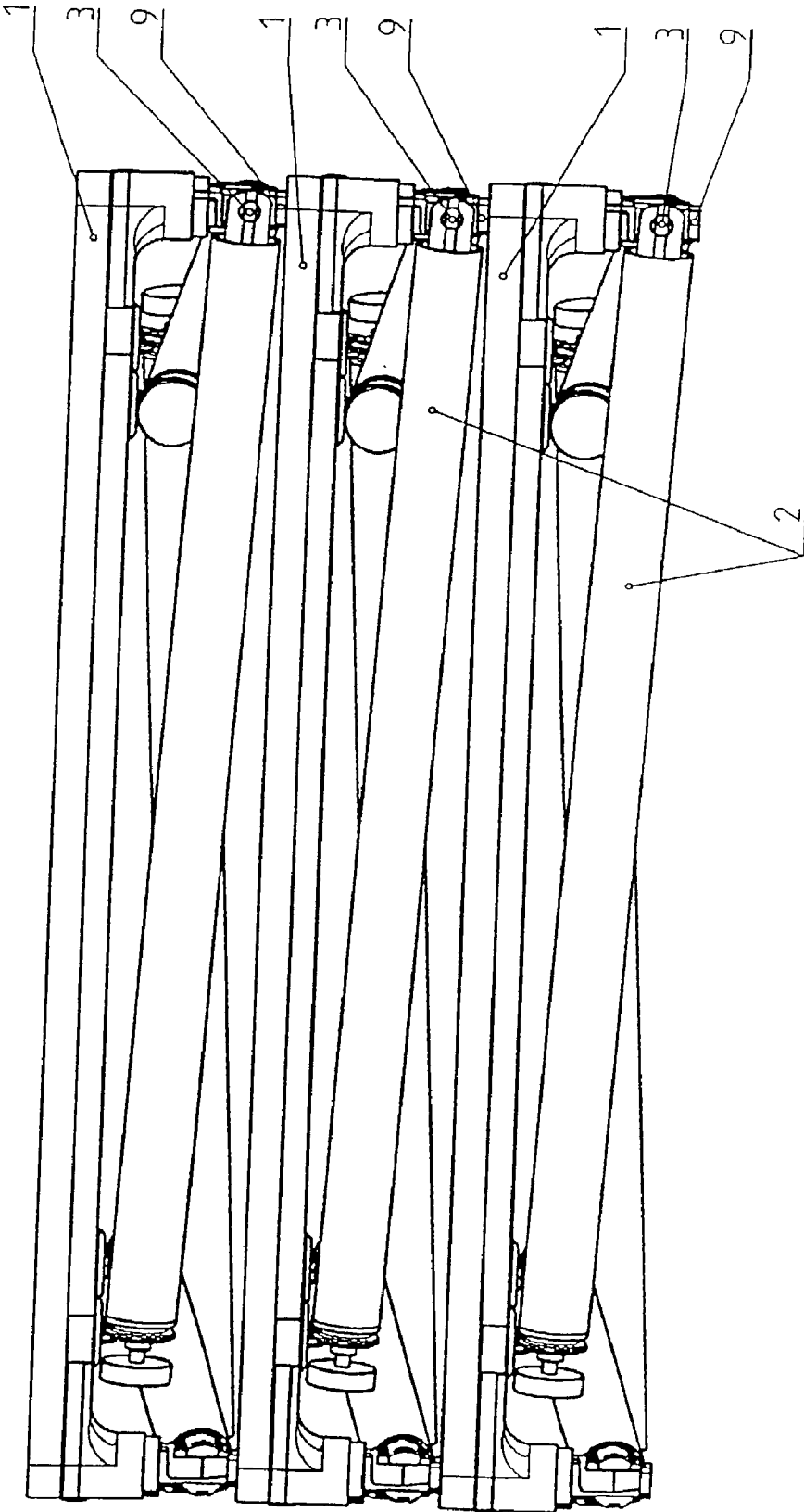


Fig.12

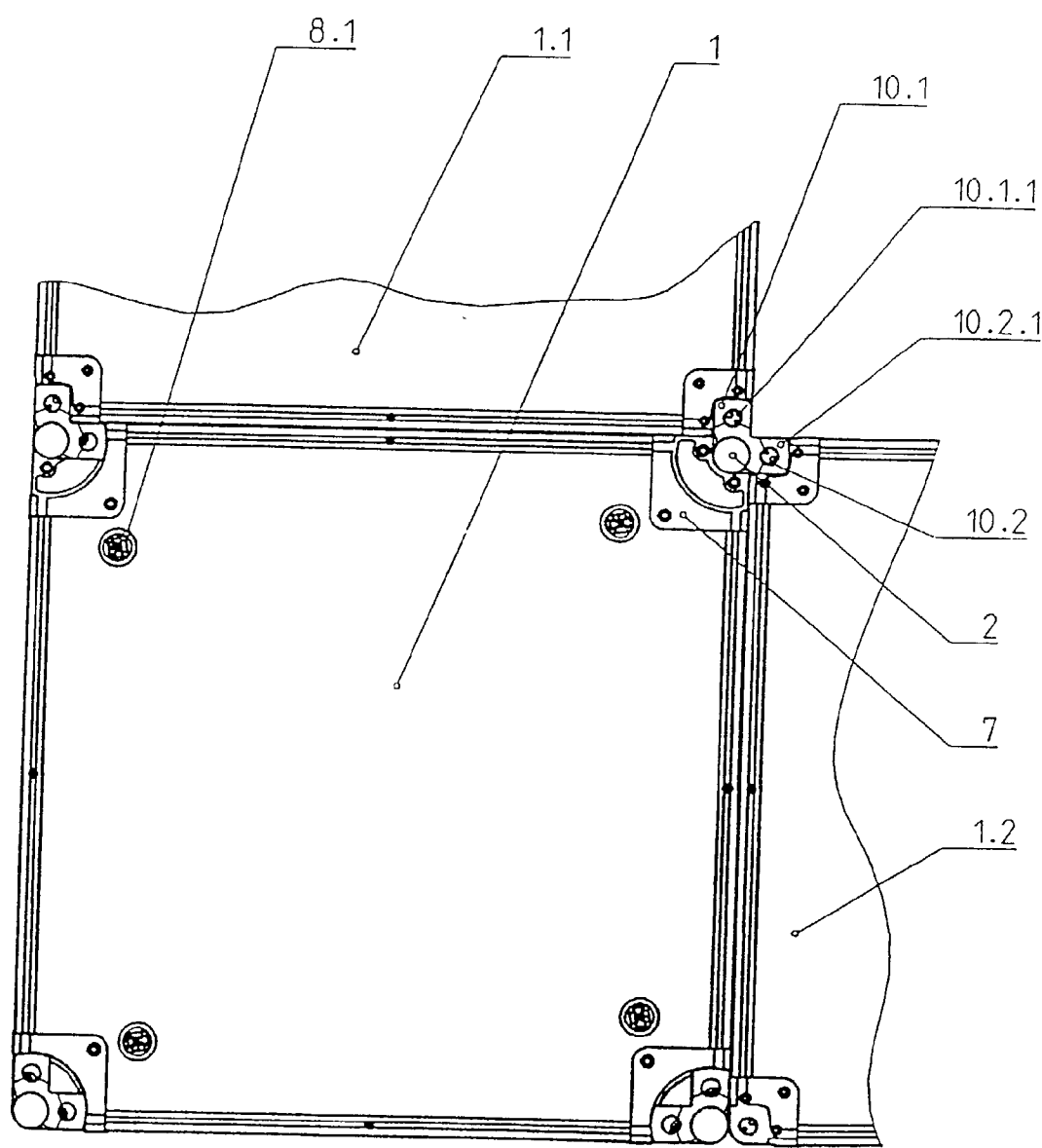


Fig.13

TABLE

FIELD OF THE INVENTION

[0001] The invention relates to a table with a table top and at least one fold-in or fold-out table leg.

BACKGROUND OF THE INVENTION

[0002] A large number of table constructions are already known in which a fold-down table leg is attached to the underside of a table top.

[0003] It is quite generally known in the art to use and combine tables and table systems for conferences, large meetings, major parties and the like so that variable sizes and shapes of tables can be achieved to meet the particular requirements. If the tables are not required they can be stacked in a suitable manner to save space. For this purpose it is known for table legs to be completely removed from a table top or for a table to be constructed so that it folds up, with the table legs being disposed so as to fold down on the underside of the table top.

[0004] A folding table with a table top and fold-down table legs disposed below it can be seen for example from DE-OS 23 09 576. In the connection region between the underside of the table top and the upper end of each table leg a folding hinge is provided in each case approximately in the manner of a hinge link with slot/hinge pin connections. In this case, on a rectangular table two legs on each of the narrow sides are connected to one another in pairs and can be pivoted jointly.

[0005] Also in another table construction (according to DE 298 03 651) in each case two legs are firmly connected to one another by a connecting element which is rotatably mounted on the underside of the table top and constructed for example in the form of a tube, so that they can be pivoted or folded as a unit and can be locked with the aid of a latch mounted on the underside of the table top.

[0006] A table with a table top and at least one fold-in or fold-out table leg which is retained on the table top is known from U.S. Pat. No. 2,127,981 and U.S. Pat. No. 1,905,219. In the table, the locking device is constructed in the form of a locking sleeve formed by an end region of the table leg which is held so as to slide relative to the hinge fitting between a released position and a locked position.

SUMMARY OF THE INVENTION

[0007] The object of the invention is to provide a table in which the table legs can fold in or out in a simple manner and can be latched in the fold-out state.

[0008] This object is achieved according to the invention defined by the attached claims.

[0009] The table consists of a table top and at least one fold-in or fold-out table leg which is retained on the table top by means of a hinge fitting, wherein the hinge fitting has a first hinge part fixed on the table top and a second hinge part fixed on one end of the table leg, the two hinge parts being hinged to one another so as to carry out the folding movement, and furthermore a locking device is provided for locking the table leg in the fold-out state. In this case the locking device is constructed in the form of a locking sleeve

which is held so as to slide relative to the hinge fitting between a release position and a locked position.

[0010] In this case the locking sleeve is formed by one end of the table leg and can be latched in the locked position by twisting in the manner of a bayonet catch.

[0011] In a further embodiment a latching mechanism is provided which latches the locking sleeve in the locked position. In this case the latching mechanism can be constructed for example in the manner of a bayonet catch.

[0012] In a variant the table is designed so that it can be stacked with the legs folded in, whereby the end face of the first hinge parts remote from the table top forms a support region. In this case the end face advantageously has a slide element for protection of the contact surface.

[0013] If a plurality of tables are set up to form a cohesive table arrangement, it is advantageous not only to place individual tables adjacent to one another but also to provide a so-called inset panel between two tables. For this purpose the tables must have connection devices for releasable connection of the table to the inset panel.

[0014] In a preferred embodiment this connection device is provided in the region of the first hinge part and consists of a bearing element which is pivotable about an axis perpendicular to the table top.

BRIEF DESCRIPTION OF THE DRAWINGS

[0015] Further embodiments and advantages of the invention are explained with reference to the description of an embodiment and the drawings, in which:

[0016] **FIG. 1** shows a side view of the table,

[0017] **FIG. 2** shows a sectional representation in the region of the mounting of the table leg on the table top in the release position of the locking device,

[0018] **FIG. 3** shows a sectional representation along the line III-III in **FIG. 2**,

[0019] **FIG. 4** shows a sectional representation along the line IV-IV in **FIG. 2**,

[0020] **FIG. 5** shows a sectional representation in the region of the mounting of the table leg on the table top in the locked position of the locking device,

[0021] **FIG. 6** shows a sectional representation along the line VI-VI in **FIG. 5**,

[0022] **FIG. 7** shows a sectional representation along the line VII-VII in **FIG. 5**,

[0023] **FIG. 8** shows a side view in the region of the mounting of the table leg on the table top in the release position of the locking device,

[0024] **FIG. 9** shows a plan view of a table leg at the end remote from the hinge part,

[0025] **FIG. 10** shows a sectional representation along the line X-X in **FIG. 9**,

[0026] **FIG. 11** shows a view from below of the table with legs folded down,

[0027] **FIG. 12** shows a side view of a plurality of tables stacked one above the other, and

[0028] FIG. 13 shows a view from below of a table arrangement.

DETAILED DESCRIPTION OF THE INVENTION

[0029] The table shown in the drawings consists essentially of a table top 1 and at least one fold-in or fold-out table leg 2 which is retained on the table top 1 by means of a hinge fitting 3.

[0030] As can be seen in particular from FIGS. 2 to 8, the hinge fitting 3 has a first hinge part 3.1 fixed on the table top 1 by way of a mounting element 7 and a second hinge part 3.2 fixed on one end of the table leg 2. In order to carry out the folding movement, both hinge parts are hinge-connected to one another via a pin 3.3 which extends parallel to the table top and forms a pivot axis.

[0031] A locking device is also provided for locking the table leg in the fold-out state. This locking device is constructed in the form of a locking sleeve 2.1 which is held so as to slide relative to the hinge fitting 3 between a released position (see FIG. 2) and a locked position (see FIG. 5).

[0032] In the illustrated embodiment the locking sleeve is formed by an end region of the tubular table leg.

[0033] As can be seen in particular from FIG. 5, the outer peripheral surfaces of the first and second hinge parts 3.1 and 3.2 in the fold-out state of the table leg form a sliding surface for the locking sleeve 2.1.

[0034] In the unlocked position according to FIGS. 2 and 8 the leg 2 can fold down in the direction of the arrow 4 around the pin 3.3.

[0035] The locking sleeve 2.1 has an inner peripheral groove 2.2 into which a ring 5 made from spring steel is snapped, this ring having three projections 5.1 protruding into the locking sleeve.

[0036] In order to ensure that the locking sleeve 2.1 can slide relative to the hinge parts 3.1 and 3.2, corresponding cut-outs are provided which allow the locking sleeve 2.1 to slide in the axial direction but prevent twisting between the released position and the locked position.

[0037] In the illustrated embodiment the locking sleeve 2.1 can be latched in the locked position so that, on the one hand, the locking sleeve does not slide inadvertently into the released position during lifting of the table and, on the other hand, the locking sleeve 2.1 is held as free from play as possible on the table top 1 in order to avoid wobbling of the erected table.

[0038] For this purpose a latching mechanism in the manner of a bayonet catch is provided.

[0039] The latching mechanism consists of an annular groove provided on the first hinge part 3.1, or in the illustrated embodiment three annular groove segments 3.4, and of the projections 5.1 from the ring 5 fixed on the locking sleeve 2.1 which come into engagement with the annular groove. In order to latch the locking sleeve 2.1 it is twisted in the manner of a bayonet catch in the locked position. The projections 5.1 are thereby turned into the annular groove segments 3.4. The annular groove segments 3.4 have oblique run-on surfaces 3.5 which come into contact with the projections 5.1 so that the locking sleeve 2.1

and thus the table leg 2 is tightened against the first hinge part 3.1. This results in a largely play-free coupling of the leg which is folded out.

[0040] In order for the table legs which are folded in according to FIGS. 11 and 12 to be fixed in this position to a sufficient extent, catch means 8 which co-operate with the table top are provided on the underside of the table top 1 for each table leg on the end remote from the hinge fitting, these catch means being illustrated in greater detail in FIGS. 9 and 10. For this purpose clips 8.1 are provided in this region in the table top 1 and these clips co-operate with means 8.2 of complementary construction provided on the end of the table leg in such a way that on the one hand the table leg is securely held but on the other hand it can be easily released again.

[0041] Each table leg is advantageously provided with feet which permit adaptation of the length of the table leg. In the illustrated embodiment the complementary means 8.2 are formed by a stopper which closes the leg 2 and has an axial internal thread into which the foot 2.3 can be screwed by way of an external thread 2.4.

[0042] In the folded-in position the table legs can be fixed to the table top as required either parallel to the outer edges of the table tops or, as in the illustrated example according to FIG. 11, turned slightly inwards. The variant shown in FIG. 11 is particularly appropriate when the table legs 2 are too long to be folded down parallel to the outer edges of the table top.

[0043] As FIG. 12 shows, the table is stackable with the table legs folded in. In this case the end face 3.1.1 of the first hinge part 3.1 remote from the table top 1 forms a support region which is provided with a slide element 9 to protect the contact surface. Apart from the lowest table, the contact surface is formed in each case by the table top 1 of the table previously put down. The slide element is made for example from felt, so that scratching or damage to the contact surface can be reliably avoided.

[0044] The embodiment illustrated in the drawings offers not only the previously described possibility of folding the table legs in or out, but also has a connecting device for releasable connection of the table to an adjacent table element, for example an insert panel.

[0045] The first hinge part 3.1, the connecting device and the mounting plate 7 form a unit attached to the underside of the table top 1. The connecting device has a bearing element 10 which is pivotable about an axis 11 perpendicular to the table top 1. According to FIG. 13 the bearing element 10 provides two bearing arms 10.1 and 10.2 which are oriented at an angle to one another and rigidly connected to one another, and as required one or both of the bearing arms can be pivoted out over the table top 1. The angle between the two rigidly connected bearing arms 10.1 and 10.2 can for example be 90° or 135°. In a preferred embodiment the bearing element 10 can be latched in one or more pivoted-out positions.

[0046] The bearing arms have bores 10.1.1 and 10.2.1 respectively into which lugs provided on corresponding inset panels 1.1 and 1.2 respectively can be introduced for connection.

[0047] By simple pivoting out of the bearing elements 10, larger table configurations can also be set up quickly and securely.

[0048] As can be seen in particular from **FIGS. 2 and 5**, the first hinge part **3.1** is firmly connected to the mounting plate **7** by way of a screw **12**, whilst the bearing element **10** is pivotably mounted on the mounting plate **7**. The mounting plate **7** is in turn firmly fixed on the underside of the table top **1**.

[0049] The mounting plate **7**, the hinge fitting **3** and the bearing element **10** form a compact fitting which on the one hand facilitates folding down of the table legs and on the other hand facilitates the attachment of further table elements. Naturally, within the scope of the invention constructions without the bearing element which can be pivoted out are also conceivable. The first hinge part **1** is then either directly connected to the underside of the table top **1** or is connected thereto by way of a mounting plate.

1. Table with a table top (**1**) and at least one fold-in or fold-out table leg (**2**) which is retained on the table top by means of a hinge fitting (**3**), wherein the hinge fitting has a first hinge part (**3.1**) fixed on the table top and a second hinge part (**3.2**) fixed on one end of the table leg, the two hinge parts being hinged to one another so as to carry out the folding movement, and furthermore a locking device is provided for locking the table leg in the folded-out state, whereby the locking device is constructed in the form of a locking sleeve (**2.1**) which is formed by an end region of the table leg (**2**) and is held so as to slide relative to the hinge fitting (**3**) between a released position and a locked position, characterised in that the locking sleeve (**2.1**) can be latched in the locked position by twisting in the manner of a bayonet catch.

2. Table as claimed in claim 1, characterised in that the two hinge parts (**3.1**, **3.2**) are connected to one another by way of a pivot pin (**3.3**) extending parallel to the table top.

3. Table as claimed in one of the preceding claims, characterised in that the outer peripheral surfaces of the first and second hinge parts (**3.1**, **3.2**) form a sliding surface for the locking sleeve (**2.1**) in the folded-out position of the table leg (**2**).

4. Table as claimed in one of the preceding claims, characterised in that the table can be stacked with the table legs (**2**) folded in, whereby the end face (**3.1.1**) of the first hinge part (**3.1**) remote from the table top (**1**) forms a support region.

5. Table as claimed in claim 4, characterised in that the end face (**3.1.1**) has a slide element (**9**) for protection of a contact surface.

6. Table as claimed in claim 1, characterised in that a latching mechanism is provided which latches the locking sleeve (**2.1**) in the locked position.

7. Table as claimed in claim 6, characterised in that the latching mechanism is formed by a bayonet catch.

8. Table as claimed in claim 7, characterised in that the latching mechanism has an annular groove (**3.4**) provided on the first hinge part (**3.1**) and at least one projection (**5.1**) on the locking sleeve (**2.1**) which comes into engagement with the annular groove.

9. Table as claimed in one of the preceding claims, characterised in that the locking sleeve is guided so that it is secure against twisting between the released position and the locked position.

10. Table as claimed in one of the preceding claims, characterised in that each table leg (**2**) has on the end remote from the hinge fitting (**3**) catch means (**8**) which co-operate with the table top (**1**) for temporary fixing of the table leg (**2**) in the folded-in position.

11. Table as claimed in one of the preceding claims, characterised in that in the region of the first hinge part (**3.1**) a connecting device is provided for releasable connection of the table to an adjacent table element (**1.1**, **1.2**).

12. Table as claimed in claim 11, characterised in that the first hinge part (**3.1**), the connecting device and a mounting plate (**7**) form a unit attached to the underside of the table top (**1**).

13. Table as claimed in claim 11 or **12**, characterised in that the connecting device has a bearing element (**10**) which is pivotable about an axis (**11**) perpendicular to the table top.

14. Table as claimed in claim 13, characterised in that the bearing element (**10**) has two bearing arms which are oriented at an angle to one another and rigidly connected to one another, whereby as required one or both bearing arms can be pivoted out over the table top (**1**) for the attachment of one or two table elements (**1.1**, **1.2**).

15. Table as claimed in claim 13, characterised in that the bearing element (**10**) can be latched in one or more pivoted-out positions.

16. Table as claimed in claim 12, characterised in that the first hinge part (**3.1**) is firmly fixed to the mounting plate (**7**) and the bearing element (**10**) is pivotably fixed on the mounting plate (**7**).

* * * * *