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(54) **A method for assembling a leg for a piece of furniture or the like**

(57) The invention relates to a method for assembling a leg for a piece of furniture or the like comprising two leg parts which are telescopically movable relative to each other and which at least partially engage round each other. A guide member is connected to a first leg part, which guide member is provided with at least one projecting part, which projects from said first leg part in such a manner that when one leg part slides over the other leg part, said projecting part will be shaved off by a cutting edge which lies substantially in one plane with a wall part of said second leg part which bounds a gap between said leg parts.

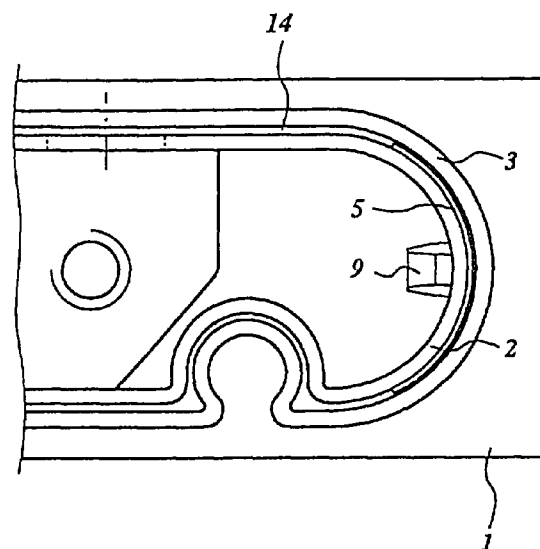


Fig. 2

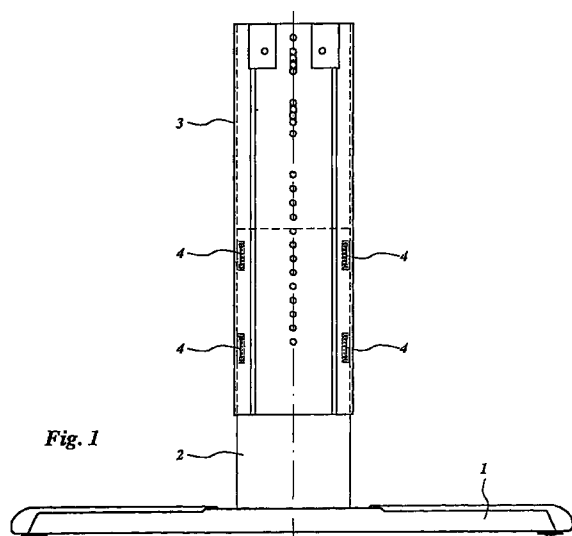


Fig. 1

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Description

[0001] The invention relates to a method for assembling a leg for a piece of furniture or the like comprising two leg parts which are telescopically movable relative to each other and which at least partially engage round each other.

[0002] Pieces of furniture, such as desks and worktables, are in many cases supported by legs, which each comprise two leg parts which are telescopically movable relative to each other so as to enable vertical adjustment of worktables or the like supported by such legs. Leg parts of this kind are generally folded from sheet material, whereby it is not possible to maintain very fine tolerances. A problem which occurs thereby is to ensure in a simple manner that the telescopically movable legs are guided without any play between them.

[0003] According to the invention this can be accomplished in that a guide member is connected to a first leg part, which guide member is provided with at least one projecting part, which projects from said first leg part in such a manner that when one leg part is slid over the other leg part, said projecting part will be shaved off by a cutting edge which lies substantially in one plane with a wall part of said second leg part which bounds a gap between said leg parts.

[0004] By using the method according to the invention, the initially oversize projection is automatically cut or shaved off when one leg part is slid over the other, in such a manner that the measure to which said projection projects with respect to one leg part corresponds with the gap which is present between the outer side of said one leg part and the inner side of the other leg part, as a result of which it can be automatically effected in a simple and quick manner during assembly that the leg parts are guided without any play between them.

[0005] The invention will be explained in more detail hereafter by means of a few embodiments of legs and parts associated therewith, which are diagrammatically illustrated in the accompanying figures.

Figure 1 is a diagrammatic view of a leg comprising leg parts which are telescopically movable with respect to each other.

Figure 2 is a larger-scale sectional view of parts of the two leg parts engaging round each other.

Figure 3 is a view of the two leg parts before they are telescoped into each other.

Figure 4 is a larger-scale view of the ends of the leg parts shown within circle IV in Figure 3.

Figure 5 is a view of a guide member.

Figure 6 is a side view of Figure 5.

Figure 7 is a side view of Figure 6.

Figure 8 is a side view of a cutting element.

Figure 9 is a plan view of Figure 8.

Figure 10 is a sectional view of Figure 9, seen along arrow X-X in Figure 9.

Figure 11 shows a further embodiment of a leg

comprising two leg parts being movable relative to each other.

Figure 12 is a plan view of one of the leg parts with guide members provided therein.

Figure 13 is a larger-scale view of the encircled part XIII in Figure 12.

Figure 14 is a view corresponding with Figure 13, wherein the two leg parts engaging round each other are shown, however.

Figure 15 is a view of a guide member.

Figure 16 is a bottom view of Figure 15.

Figure 17 is a plan view of a cutting element.

Figure 18 is a sectional view of Figure 17, seen along line XVIII-XVIII.

Figure 19 shows the two facing ends of two leg parts for telescoping said leg parts into each other.

[0006] The leg which is shown in Figure 1 comprises a base 1, an upwardly extending leg part 2, which is secured to said base 1, and a leg part 3, which is slid over leg part 2 with its bottom end. As will be apparent from Figure 2, the two leg parts have a substantially elongated section with rounded ends.

[0007] Two guide members 4, one positioned above the other, which are preferably made of plastic material, are secured to each of the rounded ends of inner leg part 2. As is shown in more detail in Figures 5 - 7, such a guide member 4 comprises a dish-shaped shell part 5. Attached to opposing ends of said shell part 5 are three pairs of projecting ribs 6 and 7 respectively, whose height increases in a direction away from said ends. Ribs 8 having a constant height are furthermore attached to the centre part of the dish. As will be apparent in particular from Figure 5, each rib 8 is positioned centrally between a pair of ribs 6 and 7, seen in the longitudinal direction of the dish.

[0008] A projection 9 is formed on the inner side of dish 5 facing away from ribs 6, 7.

[0009] Guide members 4 can be fixed to leg part 2 by inserting the projections 9 into corresponding holes formed in leg part 2. The boundary wall of shell part 5 that faces away from ribs 6 - 8 is thereby placed in closely abutting relationship with the outer side of leg part 2.

[0010] When the two leg parts 2 and 3 are to be slid one over the other upon first assembly of the leg, cutting elements 10 are attached, possibly detachably, to the bottom end of outer leg part 3.

[0011] As will be apparent from Figures 8 - 10, such a cutting element comprises a dish-shaped part 11, which is provided at its lower end with a thickening 12, whose bottom edge 13 forms a cutting edge. As will be apparent in particular from Figure 4, the dish-shaped part 11 of a cutting element 10 is placed against the outer side of outer leg part 3, in such a manner that the thickened part 12 of cutting element 10 abuts against the bottom edge of said leg part 3.

[0012] When the leg is to be assembled, leg part 3 is

slided over leg part 2 in the direction indicated by arrow A, as is shown in more detail in Figures 3 and 4. The cutting edge 13, which is at least substantially in line with the inner wall of leg part 3, will shave or cut off parts of the ribs 8, which are of oversize, and possibly parts of ribs 6 and 7, in such a manner that the remaining parts of said ribs bridge the gap 14 (Figure 2) which is present between the engaging parts 2 and 3 of the leg, thus guiding the leg parts 2 and 3, which are movable relative to each other, in such a manner that there is no play between them.

[0013] Figure 11 shows a leg construction, wherein leg parts 15 and 16, which are movable relative to each other, have a substantially rectangular section. In this embodiment, guide members 17 are clamped down in recesses provided in the corner points of inner leg part 15, as is shown in Figures 12 and 13. As is shown more particularly in Figures 15 and 16, such a guide member, which is preferably made of plastic material, comprises a body 18 having a more or less rectangular section, in two corner points of which projecting ribs 19 are provided. Projecting cams 20 are furthermore provided at the ends of the body, which cams abut against the inner wall of the leg part if the guide member is present in the leg part in question.

[0014] As will be apparent in particular from Figure 13, the projecting ribs 19 project from the inner leg part 15.

[0015] As will furthermore be apparent from Figure 11, two guide members 17 are provided one above the other in each of the corner points of the inner section part in this embodiment as well.

[0016] As is shown in more detail in Figure 19, a cutting element 21 as shown in Figures 17 and 18 is provided, possibly detachably, in each of the corner points of outer leg part 16. As appears from said Figures 17 and 18, cutting element 21 comprises two legs 22 and 23 extending perpendicularly to each other, which are provided at the bottom ends with a thickening 24, whose lower edge 25 forms a cutting edge.

[0017] The cutting elements are attached to the bottom end of outer leg part 16 (Figure 19) in such a manner that said thickenings 24 abut against the lower edge of the respective leg part 16, whereby the cutting edges will at least substantially be in line with the inner wall of leg part 16.

[0018] When the leg is to be assembled, outer leg part 16 can be slided over inner leg part 15 in the direction indicated by arrow B, as is shown in Figure 19, whereby the initially oversize ribs 19 will be cut off shaved off by knife edges 25, so that the remaining parts of the ribs 19 will fill the gap 26 which is present between the two leg parts 15 and 16 (Figure 14) entirely, thus guiding the leg parts 15 and 16 relative to each other in such a manner that there is no play between them.

[0019] Of course variations and/or additions to the shape and location of the guide members are possible, depending on the shape of the leg parts which are telescopically movable relative to each other. Furthermore it

will be possible to attach the guide members to the outer leg part rather than to the inner leg part, in which case the cutting elements will be attached to the inner leg part in a corresponding manner.

[0020] Another possibility is to design the lower edge of the leg part which is slided over or into the leg part comprising the guide members as a knife edge, so that the individual cutting elements as referred to above can be left out.

Claims

1. A method for assembling a leg for a piece of furniture or the like comprising two leg parts which are telescopically movable relative to each other and which at least partially engage round each other, characterized in that a guide member is connected to a first leg part, which guide member is provided with at least one projecting part, which projects from said first leg part in such a manner that when one leg part slides over the other leg part, said projecting part will be shaved off by a cutting edge which lies substantially in one plane with a wall part of said second leg part which bounds a gap between said leg parts.
2. A method according to claim 1, characterized in that the first leg part is provided with at least two guide members, which are positioned at different heights.
3. A method according to claim 1 or 2, characterized in that several guide members are provided, which guide members are spread over the circumference of the first leg part.
4. A method according to any one of the preceding claims, characterized in that cutting elements are mounted on one end of the leg part which cooperates with the leg part that is provided with guide members.
5. A method according to any one of the preceding claims, characterized in that guide members are used which are each provided with more than one projection.
6. A method according to any one of the preceding claims, characterized in that guide members are used which are provided with rib-shaped projections extending in the longitudinal direction of the leg parts.
7. A method according to any one of the preceding claims, characterized in that dish-shaped guide members are provided on the outer side of rounded corners of a section part, which guide members are provided with projections on their sides remote from

said section part.

8. A method according to any one of the preceding claims, characterized in that guide members positioned one above the other are provided in the corner points of an angularly bent leg part. 5
9. A leg assembled from two leg parts which is intended for a piece of furniture or the like, which is manufactured in accordance with any one of the preceding claims. 10

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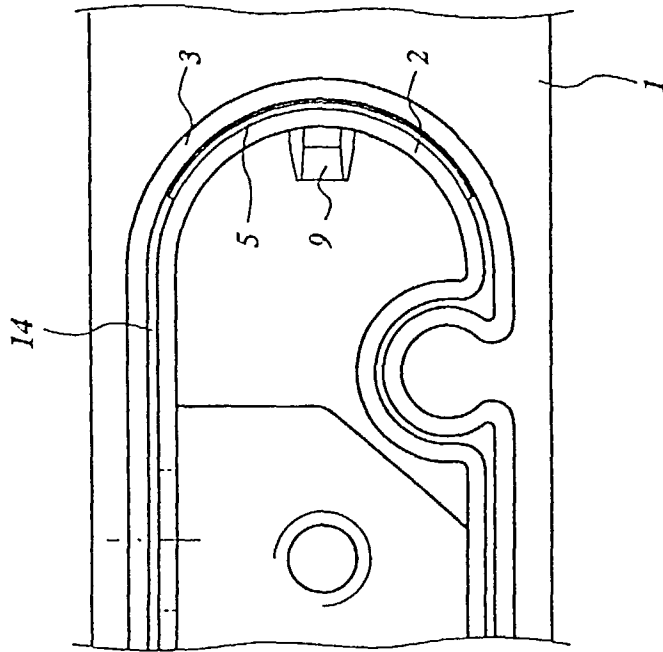
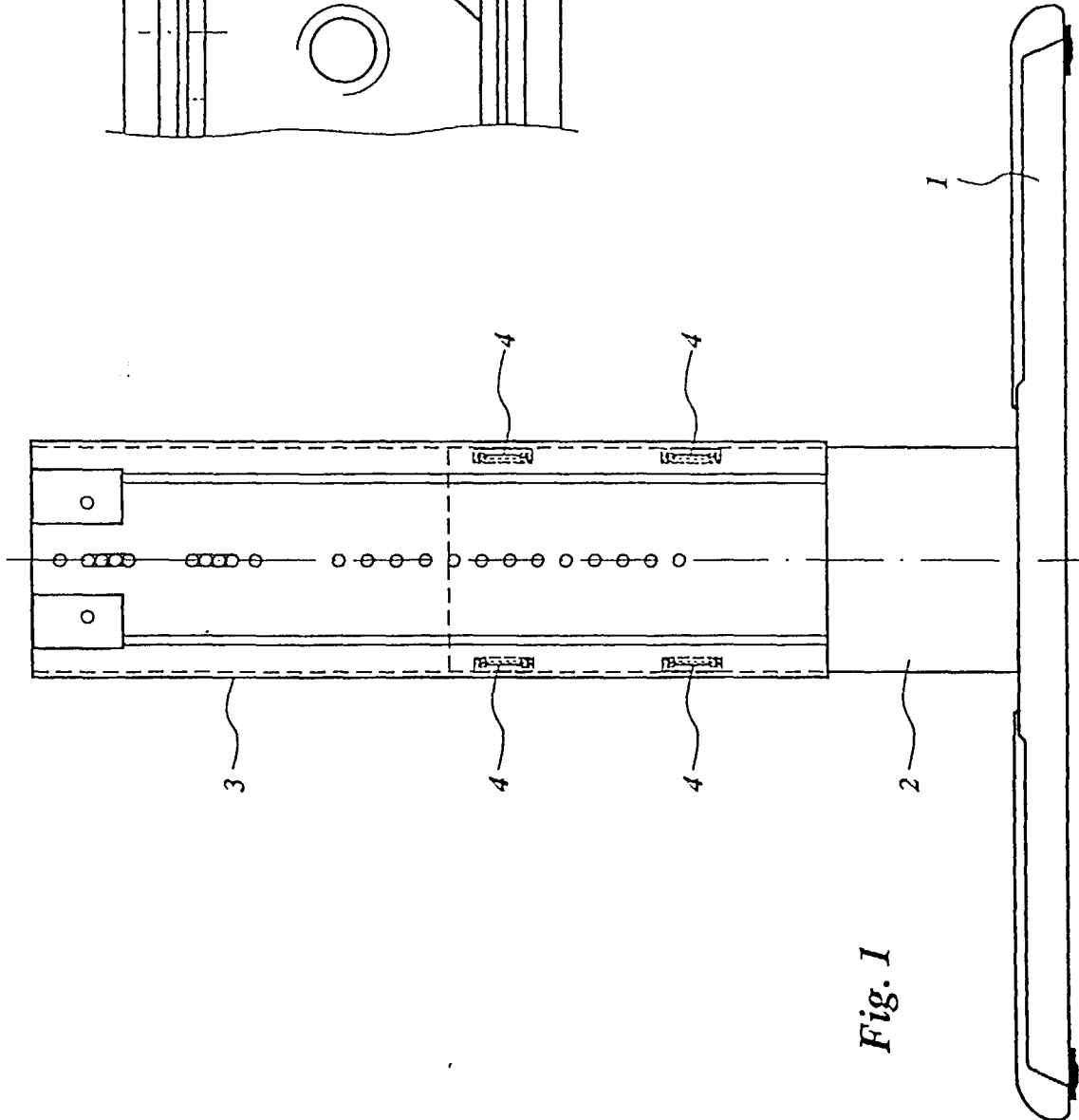
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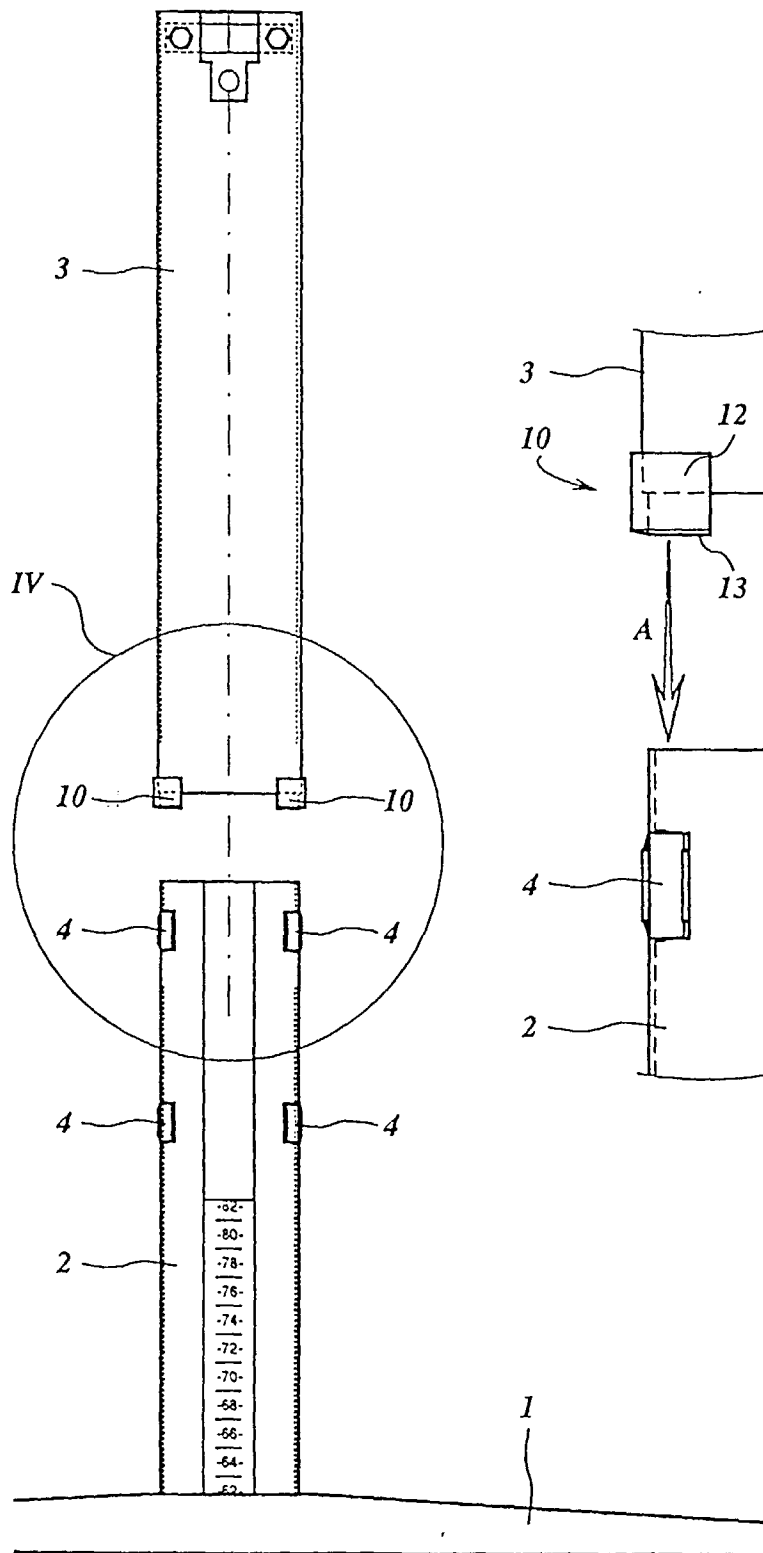


Fig. 3

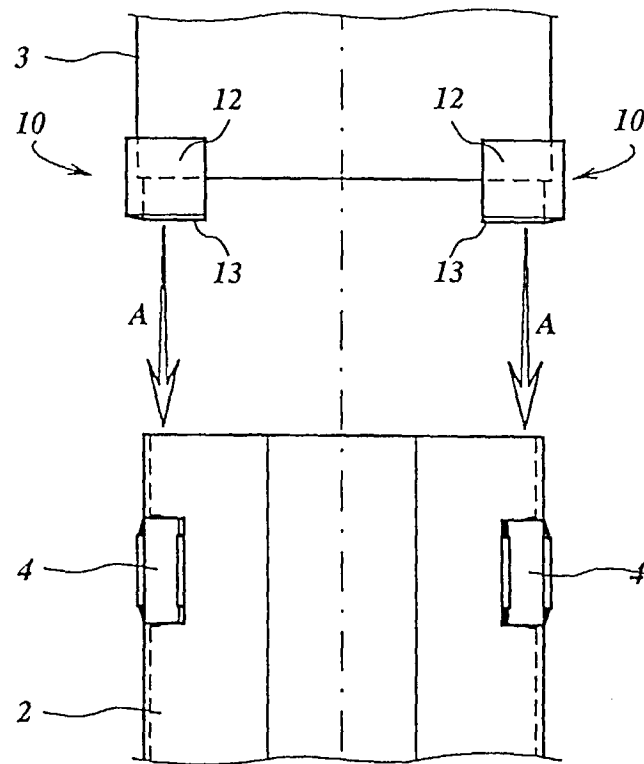


Fig. 4

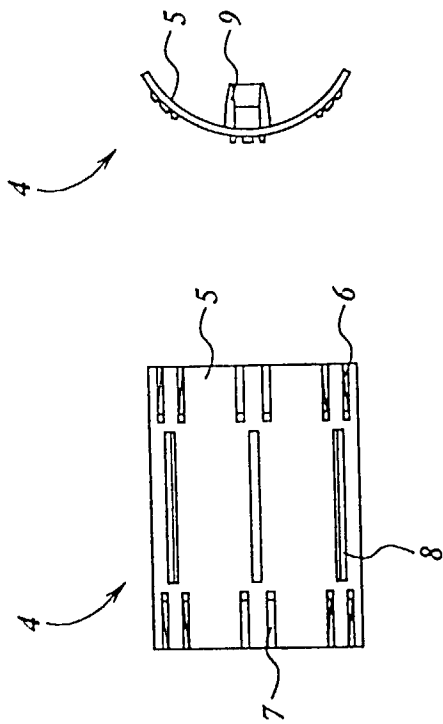


Fig. 5

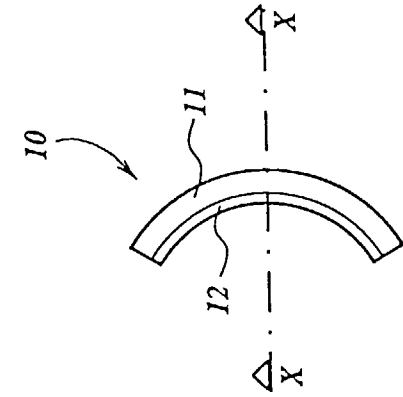


Fig. 9

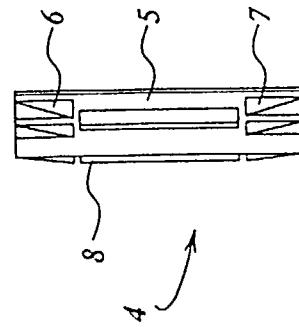


Fig. 7

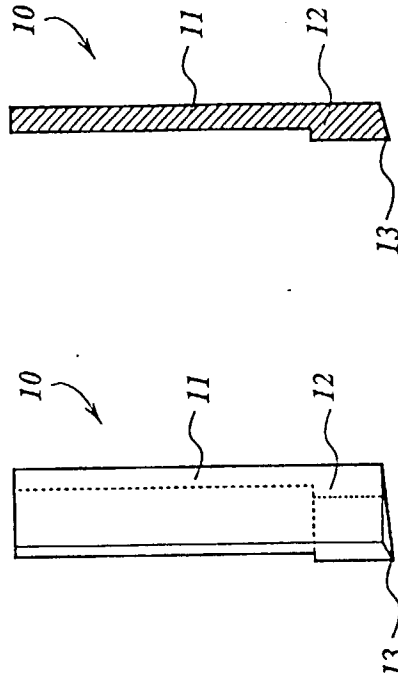
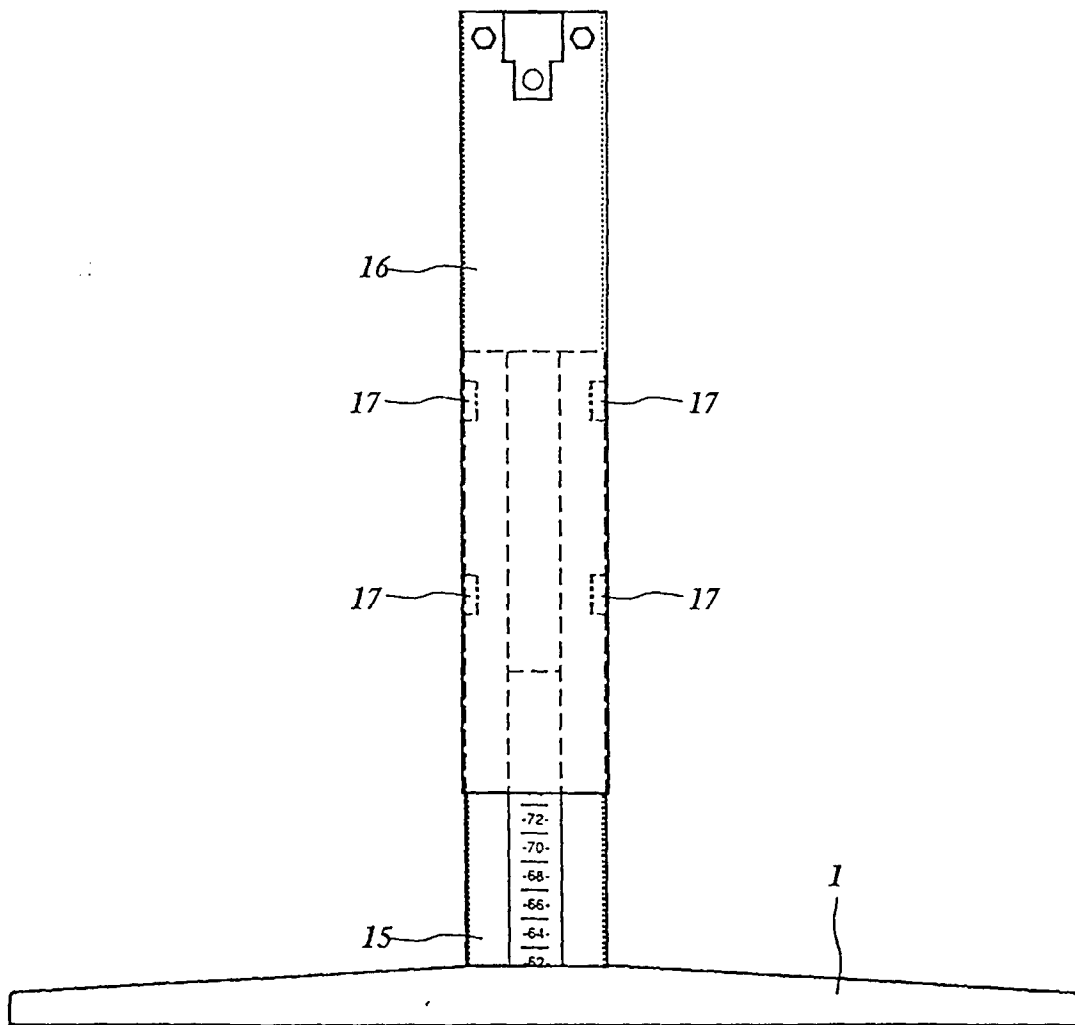
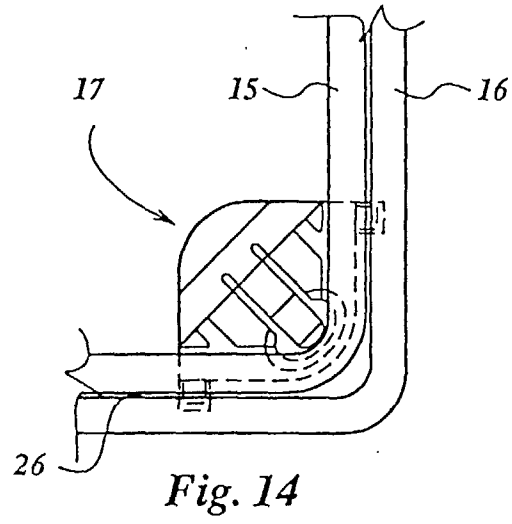


Fig. 10

Fig. 8



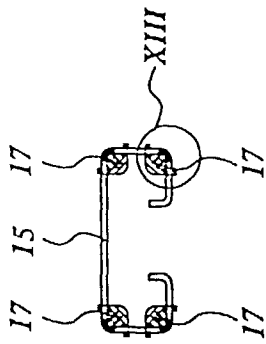


Fig. 12

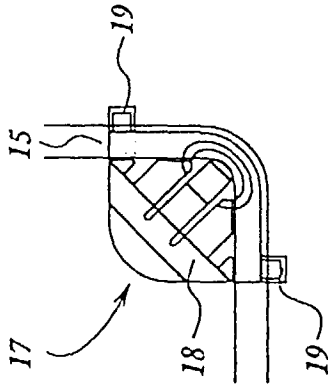


Fig. 13

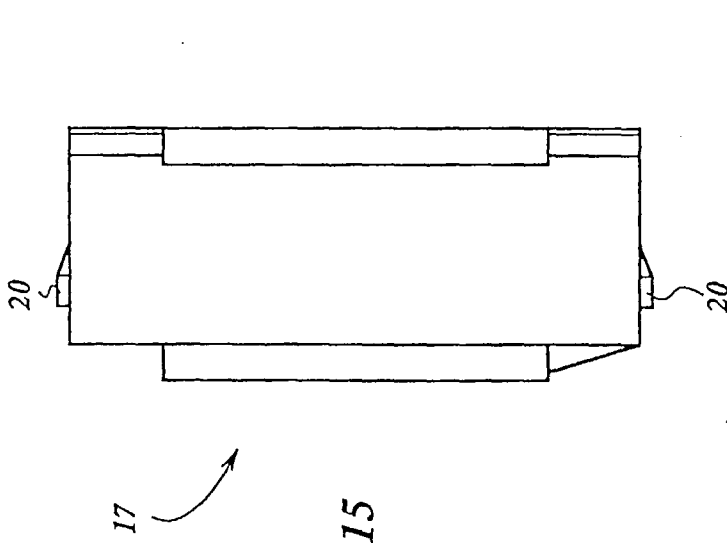


Fig. 15

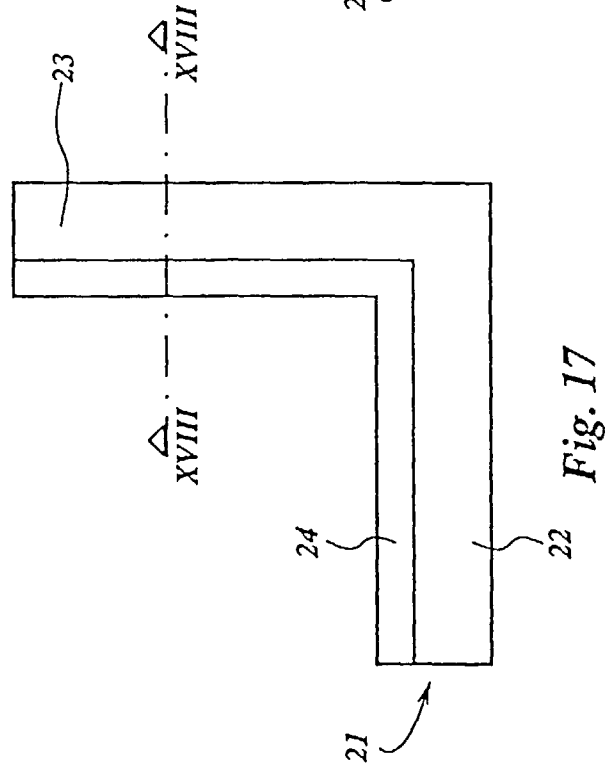


Fig. 17

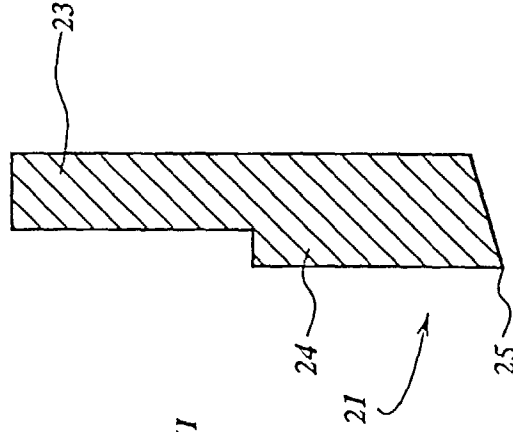


Fig. 18

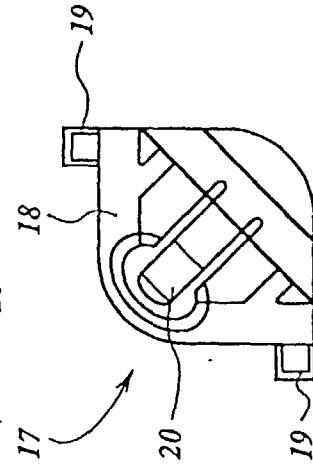


Fig. 16

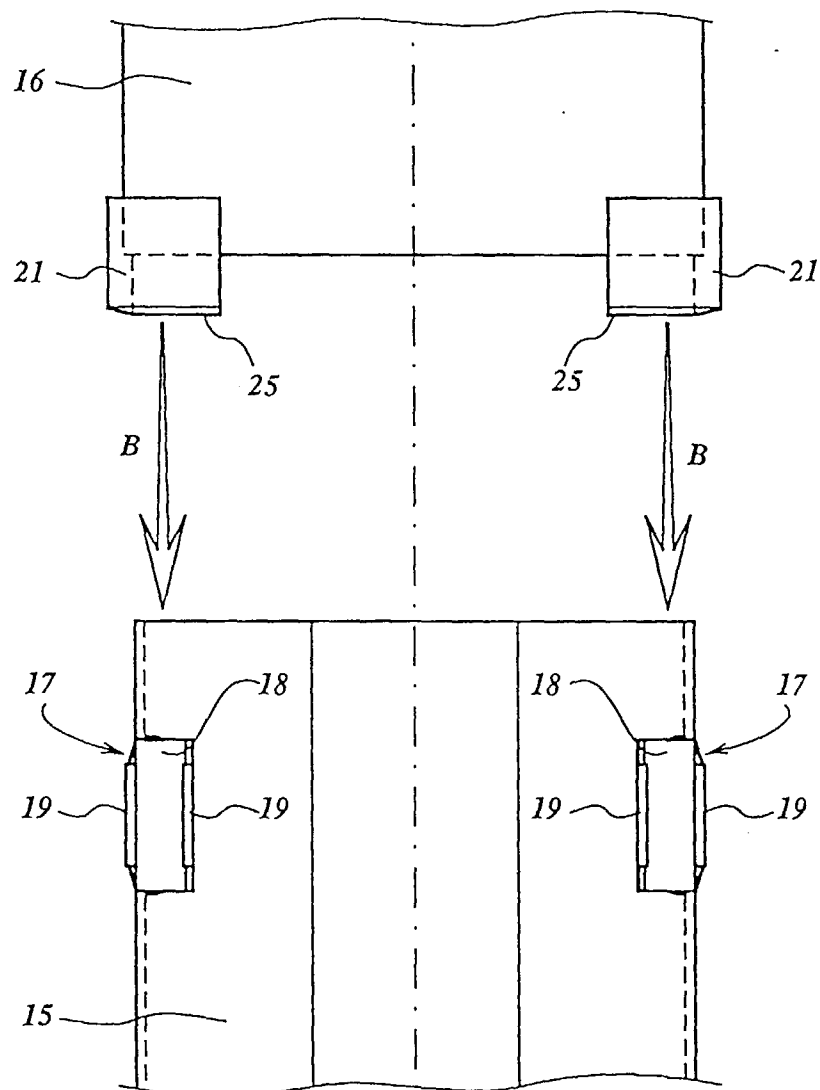


Fig. 19



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EUROPEAN SEARCH REPORT

Application Number
EP 98 20 2973

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
X	FR 1 374 258 A (EMÜ-TISCHE) 15 January 1965 * the whole document *	1,9	A47B9/20
A	DE 34 22 447 A (REPPISCH-WERKE AG) 17 January 1985 * figures 5,6 *	1-3,8	
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The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int.Cl.6) A47B
Place of search THE HAGUE		Date of completion of the search 5 March 1999	Examiner Noesen, R
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EPO FORM 1503 03/82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 98 20 2973

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05-03-1999

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