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(54) **Article of furniture and assembly of parts for constructing thereof**

(57) The present invention relates to an article of furniture, comprising:

- an upper part; and
- a number of legs for placing and holding the upper part at the desired height relative to the ground,

- wherein on the underside of the upper part is arranged a fixing element for fixing a leg thereto in a desired angular position, a coupling piece for mutually coupling components of the upper part and/or one or more further accessories.

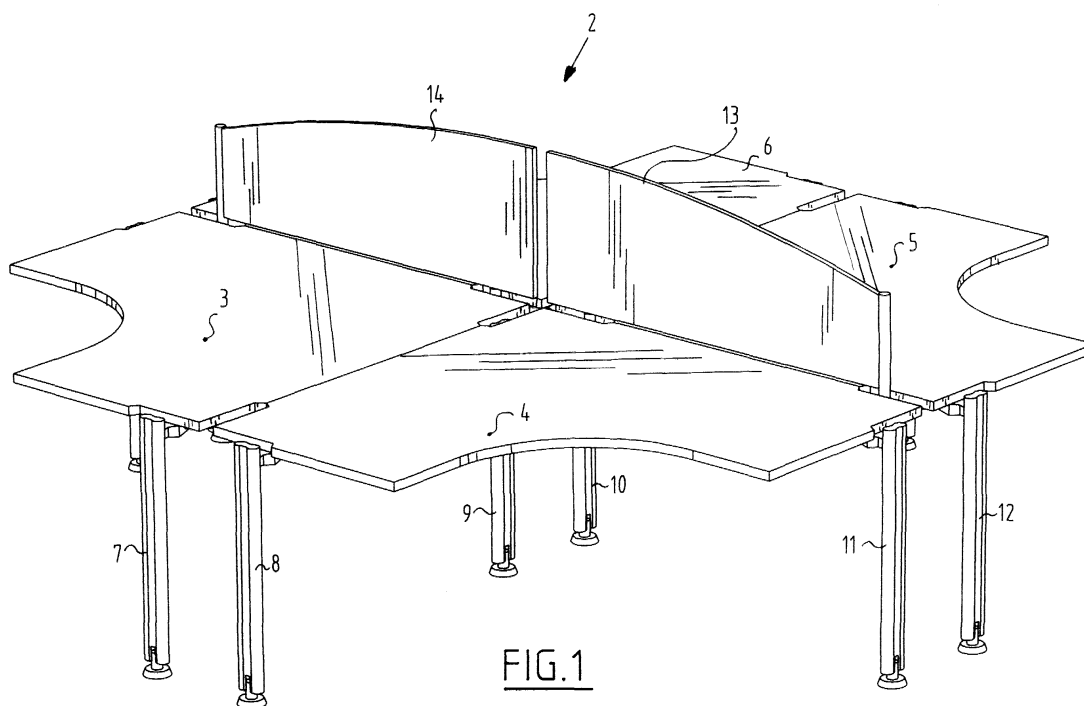


FIG.1

Description

[0001] In different (European) countries requirements in respect of office furniture vary considerably. Many manufacturers have a range of office furniture which differs per country.

[0002] There is also a need for an inexpensive furniture system which is flexible in construction and is thus suitable for so-called stand-alone furniture, cluster arrangement, wherein a number of staff sit at a tabletop consisting of one or more parts, and/or a construction for call-centers and the like, wherein a number of locations provided with a display are connected to each other and for instance screened from each other using screens.

[0003] The present invention provides an article of furniture, comprising:

- an upper part; and
- a number of legs for placing and holding the upper part at the desired height relative to the ground,
- wherein on the underside of the upper part is arranged a fixing element for fixing of a leg thereto in a desired angular position, a coupling piece for mutually coupling components of the upper part and/or one or more further accessories.

[0004] Although the present invention is not limited, a first preferred embodiment relates to an article of furniture of which the upper part comprises one or more tabletops. For instance for clustered tabletops and/or call-centers the accessories can comprise one or more screens for screening parts of the tabletops in relation to a neighboring one.

[0005] In preference the fixing element is substantially annular and of metal and provided with twenty-four openings arranged along the periphery thereof and provided with internal screw thread for arranging coupling pieces and/or accessories in the desired angular position, while the hub-shaped elements can be fixed in simple manner under the tabletop.

[0006] According to a further aspect the present invention provides an article of office furniture, comprising:

- a tabletop; and
- a number of legs for placing and/or holding the tabletop at desired height relative to the ground; and
- a soft covering with which at least a very considerable part of the tabletop is covered on the upper side.

[0007] This aspect is based on the insight that in many applications, such as call-centers and computer environments, wherein increasingly less is written on paper, a tabletop which is embodied for instance with a covering as soft as the covering of a seat can reduce illness and incapacity for work to a considerable extent.

[0008] Further advantages, features and details of the present invention will be elucidated on the basis of the following description of preferred embodiments thereof with reference to the annexed drawings, in which:

Fig. 1 shows a view in perspective of a first embodiment of an arrangement of an article of furniture according to the present invention;

Fig. 2 shows a bottom view in perspective of the arrangement of fig. 1;

Fig. 3 is a view in perspective of detail III of fig. 2;

Fig. 4 is a bottom view in perspective of detail IV of fig. 2;

Fig. 5 shows an exploded bottom view in perspective of a detail of a further preferred embodiment of an article of furniture according to the present invention; and

Fig. 6 shows a view partly in section of a further preferred embodiment of a table top of a article of furniture according to the present invention.

[0009] An article of furniture 2 (fig. 1) comprises a number of coupled tabletops 3, 4, 5 and 6 with legs 7, 8, 9, 10, 11, 12, 22, 23, 24 and 25 which are preferably height-adjustable. Screens 13 respectively 14 are further arranged between tabletops 4 and 5 and 3 and 6. It will be apparent that screens can likewise be arranged in similar manner between tabletops 3 and 4 and between tabletops 5 and 6 so as to form for instance four separate workplaces.

[0010] On the underside of tabletops 3-6 (fig. 2) are arranged hub-shaped fixing elements 21, in addition to coupling pieces 26 for coupling the tabletops via the hub-shaped elements.

[0011] Legs can also be arranged in a desired angular position on the hub-shaped elements, see fig. 3, since the hub-shaped elements 21 are provided with a number of holes 31 with internal screw thread, for instance twenty-four along the periphery, so that a screw bolt 32 can be fastened thereto in the desired angular position. It is likewise possible to provide a bayonet fitting or other type of fastening, as long as the legs can be arranged in a random angular position. In the same manner the coupling pieces 26 are fastened to the hubs with (socket) screw bolts 33. Close to a coupling piece a recess is also arranged in the tabletops so that the screen 13 can be fastened to a coupling piece using a further screw bolt 34.

[0012] For further strengthening and stiffening thereof, the tabletops are provided on the underside with profiled metal parts 41 which preferably remain clear of hub parts 21.

[0013] In the centre of the assembled table (fig. 4) leg coupling pieces 45 are provided between hub parts 21 in addition to coupling pieces 26, which leg coupling pieces 45 are fixed to the hubs using screw bolts 46. Leg coupling pieces 45 are fixed using screw bolts to holders 47 which are welded on the legs. The leg cou-

pling pieces with holders are provided for further strengthening of the assembled table.

[0014] In a further embodiment, for instance for people working in call-centers and the like, who are telephoning practically continuously and/or who are working on a computer with their hands, the whole workplace is provided with a soft tabletop. Such a soft tabletop can be formed from an overlay, at least a large part of which consists of soft material and which is provided with preferably slightly extending edges which can be placed around the relevant tabletop. It is likewise possible to provide (practically) the whole external surface of the tabletop with "soft" material, for instance by applying polyurethane foam to the top. It is also possible to fix covering 51 to tabletops 54, 55 using for instance screw bolts 52 and legs 53 or to glue the covering thereto. The material is for instance so soft that RSI syndrome (Repetitive Strain Injury) cannot occur, or hardly so, for instance comparable to the softness of a seat covering.

[0015] In terms of Shore A hardness this means that the table top has a Shore A hardness of a value between 30-70. Below a value of 30 the table top will become too soft for writing. Above a value 70 the table top will not be very soft. In the embodiment of a table top 60 as shown in fig. 6 a layer 61 of polyurethane foam was formed on the upper side and around the edge of a multilayer wooden plate 62 in a mould, showing a smooth outer surface at the upper face of layer 61 which was formed against the mould wall. The layer has a thickness of about 10 mm or more to obtain a Shore A hardness of about 35-40. In this manufacturing process it proved difficult to obtain a Shore A hardness of below 35. A hardness above a value of 40, e.g. up till 45 or 50, Shore A value will provably also be satisfactory. The layer 61 preferably also extends around the edge of the plate 62, so that strain injuries for a person having his arms against the edge are prevented.

[0016] The present invention is not limited to the above described preferred embodiment thereof; the rights sought are defined by the following claims, within the scope of which many modifications are possible.

Claims

1. Article of furniture, comprising:

- an upper part; and
- a number of legs for placing and holding the upper part at the desired height relative to the ground,
- wherein on the underside of the upper part is arranged a fixing element for fixing a leg thereto in a desired angular position, a coupling piece for mutually coupling components of the upper part and/or one or more further accessories.

2. Article of furniture as claimed in claim 1, wherein

the upper part comprises one or more tabletops.

3. Article of furniture as claimed in claim 1 or 2, wherein the accessories comprise a screen for placing between two tabletops.

4. Article of furniture as claimed in claim 1, 2 or 3, wherein the fixing element comprises a predetermined number of fixing positions along the periphery thereof to enable placing of the legs, coupling pieces and/or accessories in a corresponding number of desired angular positions.

5. Article of furniture as claimed in claim 4, wherein the fixing element is substantially annular and provided with twenty-four fixing positions for connecting legs, accessories and/or coupling pieces at angular positions with a mutual difference of 15°.

6. Article of furniture as claimed in any of the foregoing claims, provided with one or more profiles for fixing to the underside of the upper part.

7. Article of office furniture, comprising:

- a tabletop; provided with
- a number of legs for placing and/or holding the tabletop at desired height relative to the ground; and
- a soft covering with which at least a very considerable part of the tabletop is covered on the upper side.

8. Article of office furniture as claimed in claim 7, wherein the covering comprises foam arranged over substantially the whole outer surface of the tabletop.

9. Article of office furniture as claimed in claim 8, wherein the foam comprises polyurethane.

10. Article of office furniture according to claim 8 or 9 wherein the layer of foam has a thickness of 10 mm or more.

11. Article of office furniture as claimed in claim 7, wherein the covering comprises an overlay of soft material arranged over the upper surface.

12. Article of furniture as claimed in any of the claims 7-10, wherein the soft material has a cushion-like softness.

13. Article of furniture as claimed in any of the claims 7-11, wherein the soft material is glued to the upper side of the tabletop.

14. Article of furniture according to any of the claims

7-13, wherein the soft covering has a Shore A hardness of 30-70, preferably 35-50 and more preferably 35-40.

15. Article of furniture as claimed in any of the claims 1-6 and as claimed in any of the claims 7-12. 5

16. Table top for an article of office furniture according to any of the claims 7-15.

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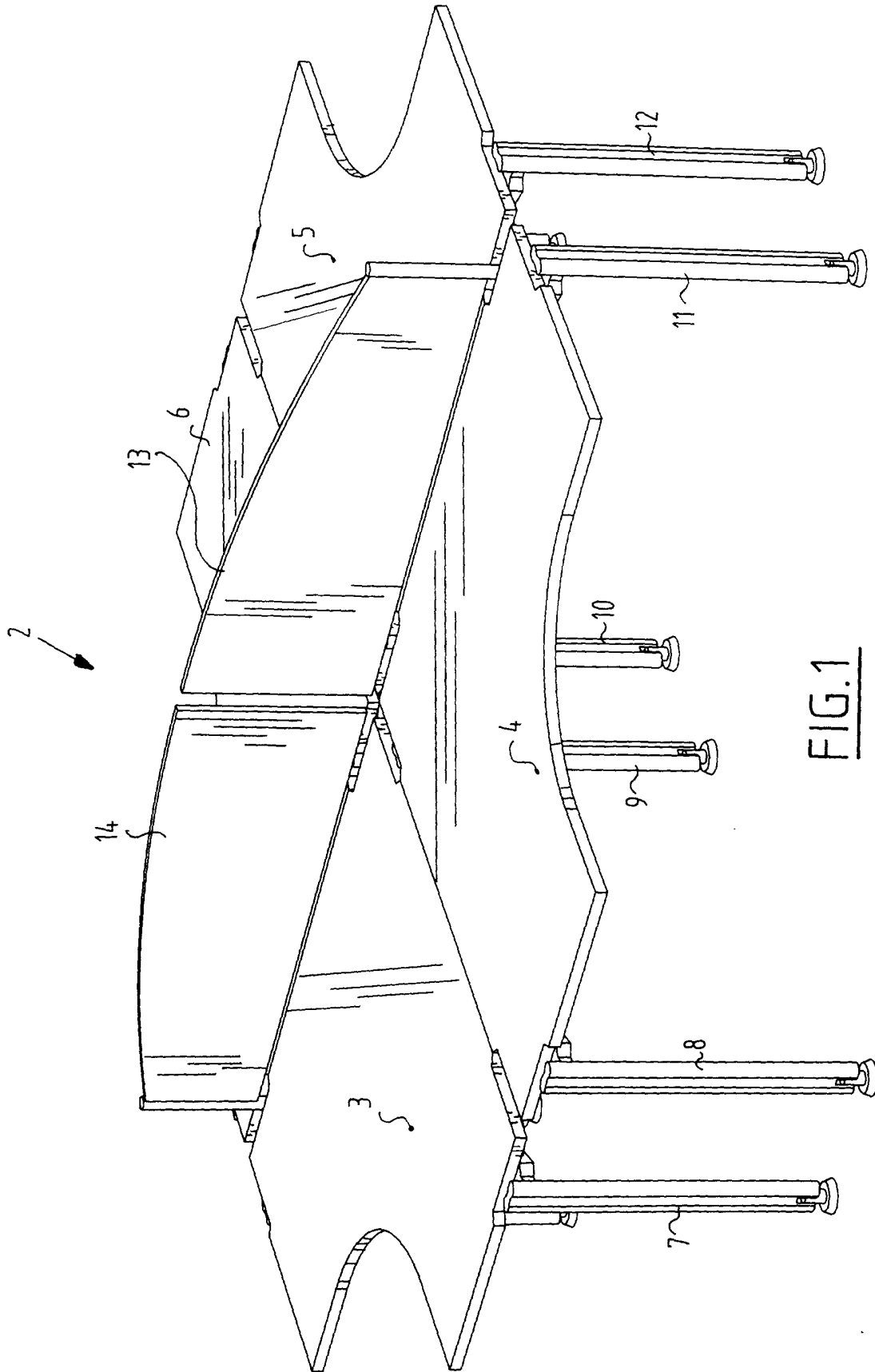
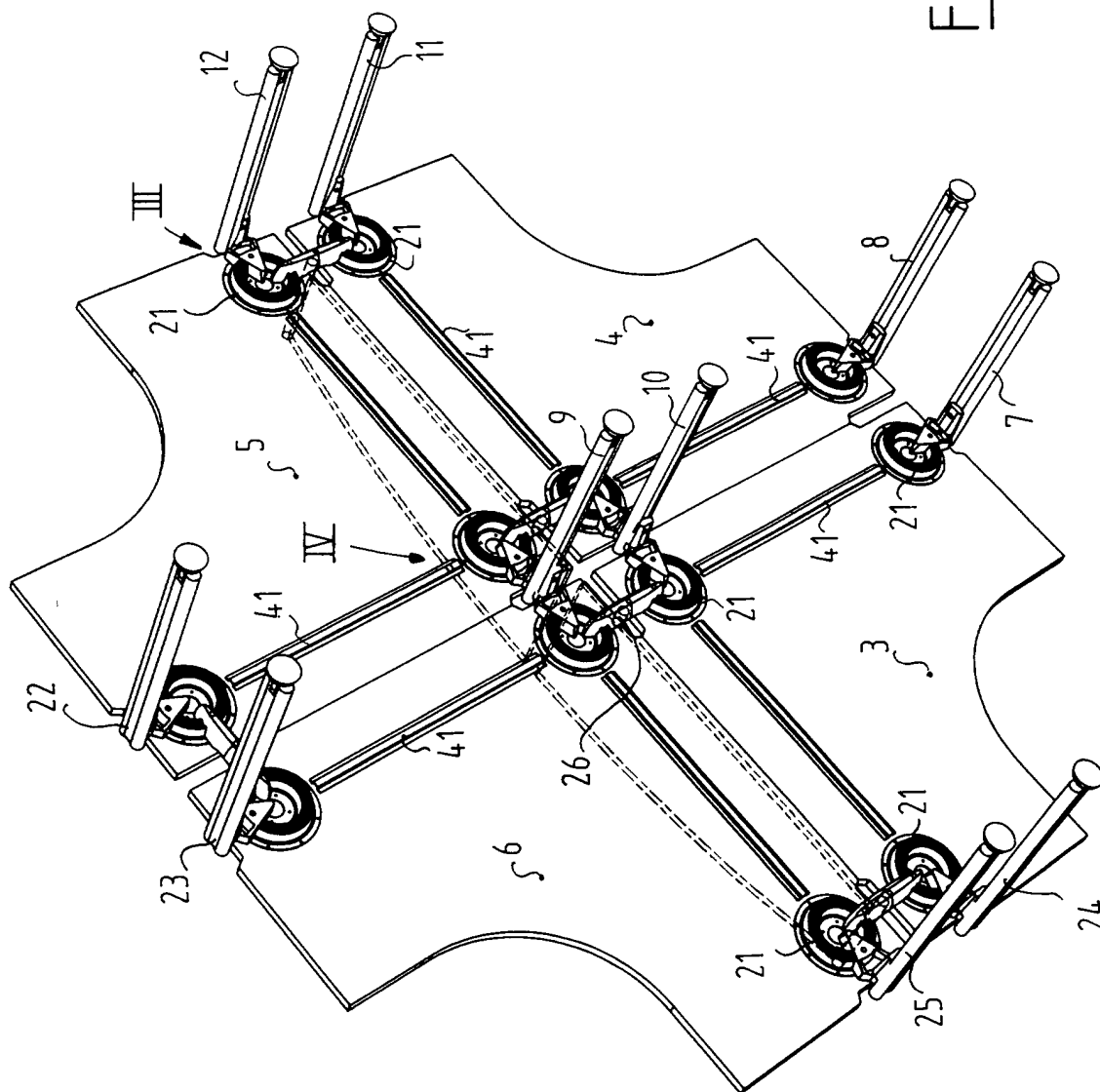
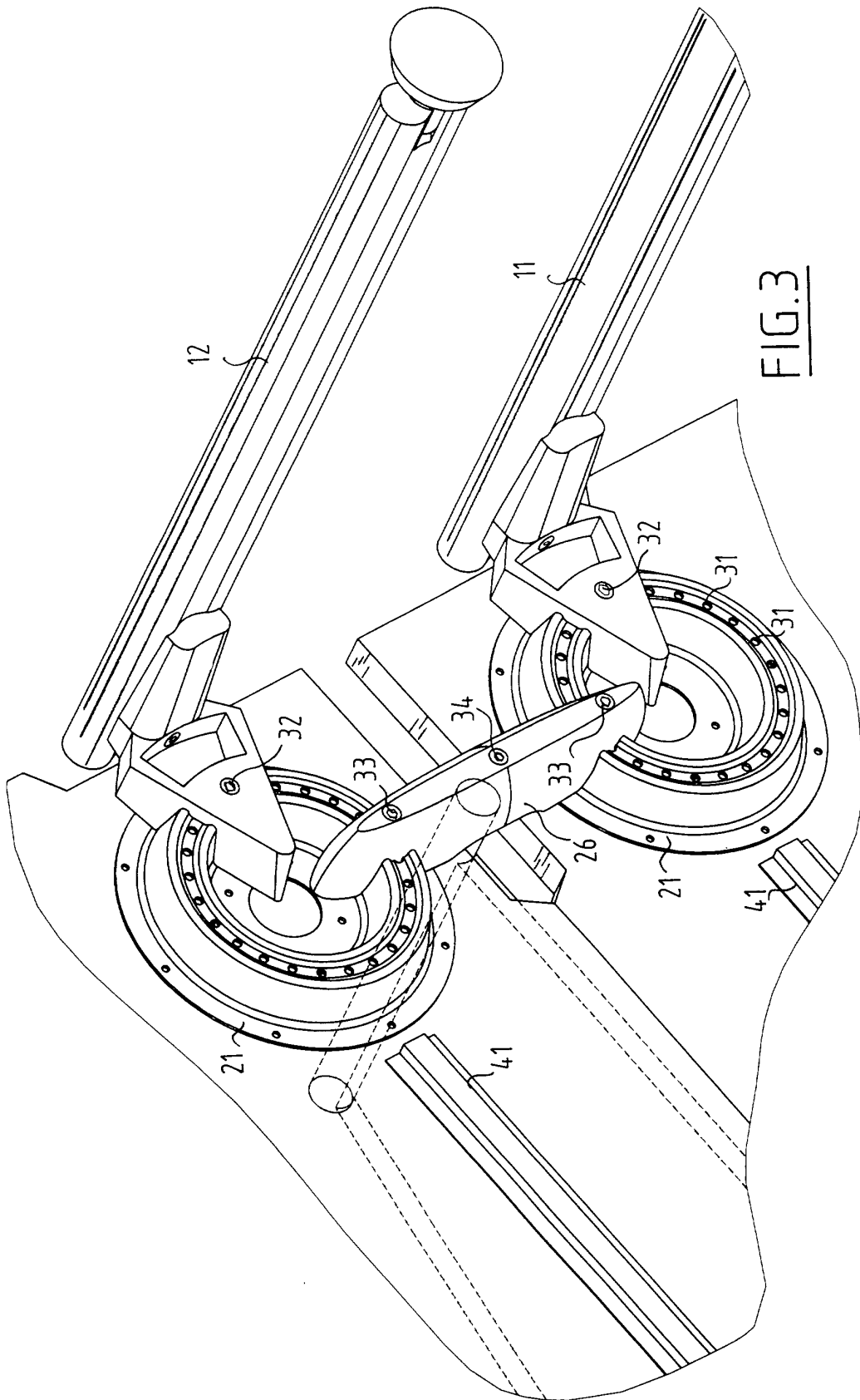
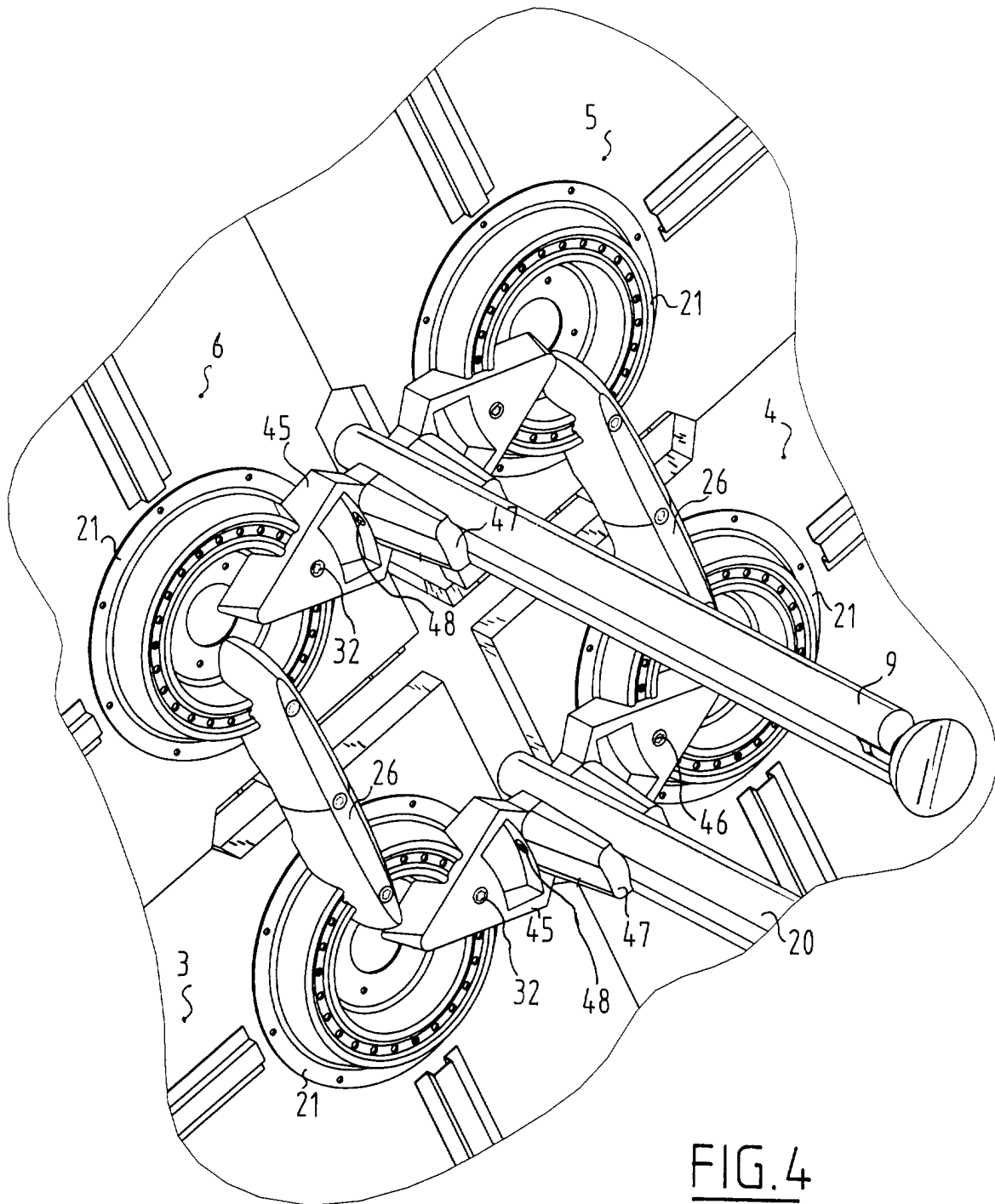


FIG.1

FIG. 2







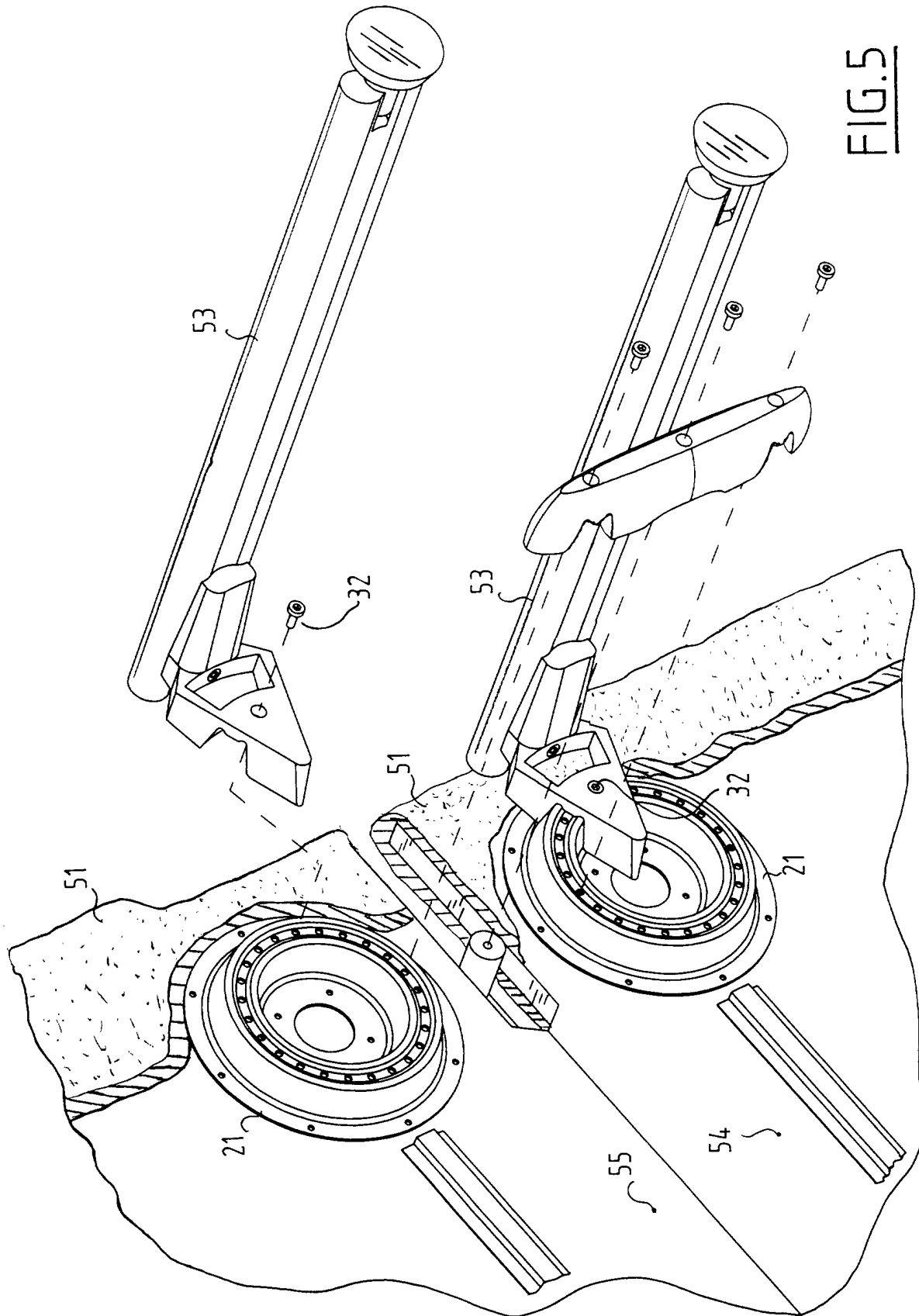


FIG. 5

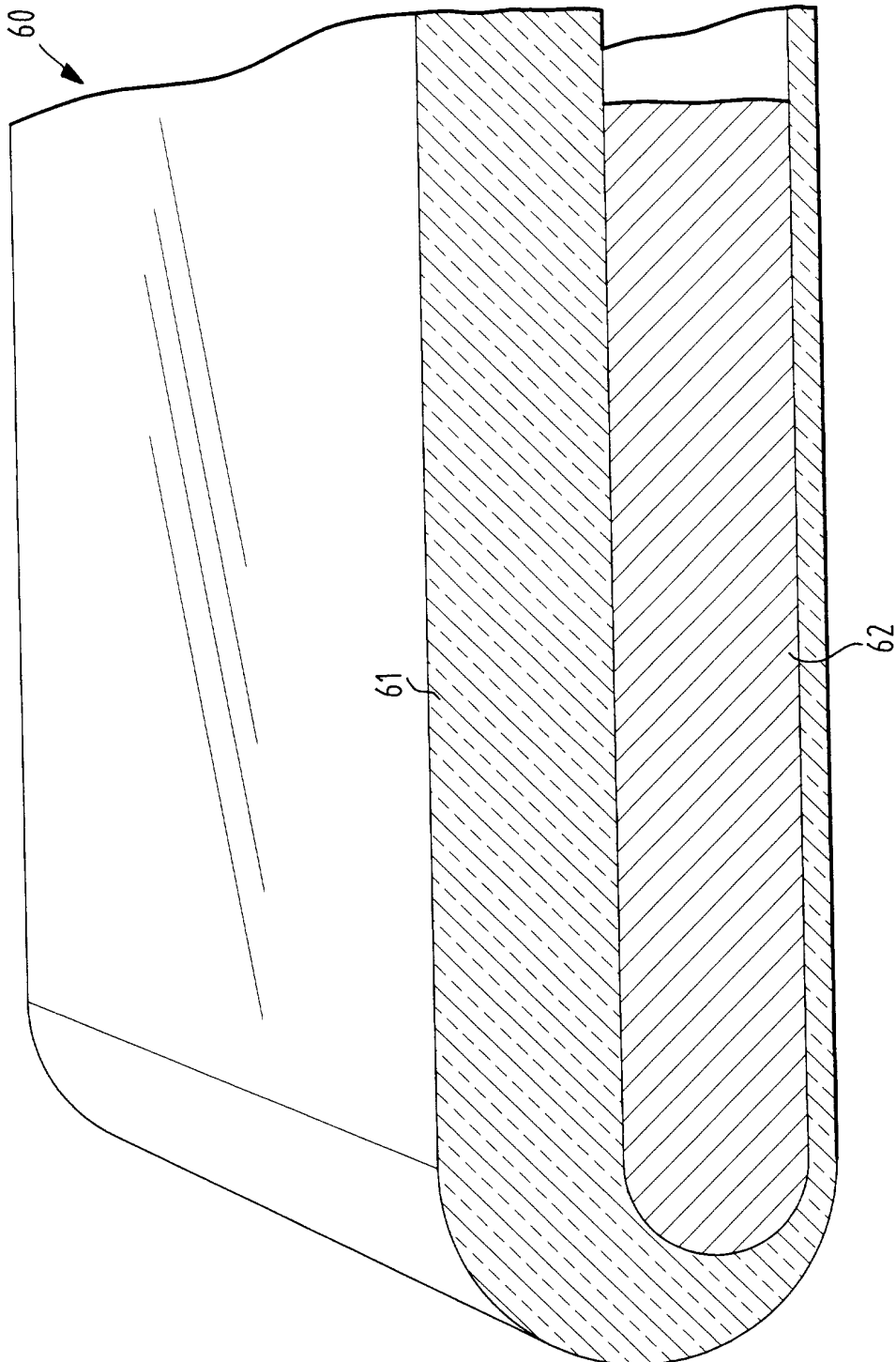


FIG. 6



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EUROPEAN SEARCH REPORT

Application Number
EP 01 20 1675

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Place of search THE HAGUE		Date of completion of the search 9 October 2001	Examiner Noesen, R
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
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