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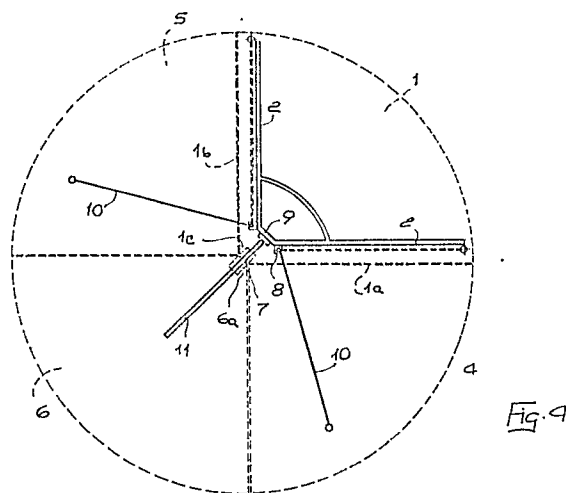
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54 Extendable table with a sectored surface.

57 The extendable table with a sectored surface according to the invention comprises a pair of elongated supports (2) disposed in two convergent vertical planes to carry a first horizontal surface portion (1) of sector shape, to the convergent straight edges (1a, 1b) of which there are hinge-connected two further surface portions (4, 5) of sector shape which are rotatable between a hanging vertical position and a horizontal raised position aligned with the first portion (1), there being also provided a fourth surface portion (6), also of sector shape, which is hinged to the first portion (1) at the mutual vertices (6a, 1c) and is overturnable between a position superposed thereon and a position aligned and coplanar therewith. There are also provided for the surface portions mobile support members (10) which can be folded into a gathered state when the surface portions are in their closed position.



Description

Extendable table with a sectored surface

This invention relates to an extendable table with a sectored surface.

Tables of various kinds are used in furnishing, a widespread characteristic being the facility for increasing the useful surface area of the table when necessary.

In this respect, it is often convenient to have available a table with a normally small working surface so as not to consume too much furniture space, but which can be extended when necessary, for use for example as a dining table, games table or the like.

In particular, tables are known possessing a surface divided into two equal hinge-connected portions, one of which can be kept hanging or superposed on the other when the table is not in use, but can be brought into alignment with the other and supported in various ways when it is required to completely extend the table.

However, such constructions do not allow considerable variation in the table area, i.e. they do not allow this area to be more than doubled. In addition, the shape of the surface is usually determined by the type of structure chosen for the articulation system.

The problem therefore arises of providing a table the surface of which can be extended and enlarged considerably compared with its closed state, and in which said surface can be of freely chosen shape.

These results are attained according to the present invention by an extendable table comprising a pair of elongated supports disposed in two convergent vertical planes to carry rigid with them a first horizontal fixed surface portion of sector shape with a pair of convergent straight edges, to said edges there being hinge-connected two further sector shaped surface portions which are rotatable between a vertical hanging position and a horizontal raised position aligned with the first portion, there being also provided a fourth surface portion, also of sector shape, which is hinged to the first portion at the mutual vertices and is overturnable between a position superposed thereon and a position aligned and coplanar therewith.

Hinge-connected to the elongated supports for the fixed surface portion, there are provided for the surface portions mobile support members which are movable into an open position in which they are distanced from the supports and lie below the mobile surface portions, and foldable into a gathered state close to the supports when the surface portions are in their closed position.

Conveniently, the sector-shaped surface portions have contained angles at their centre of 90°, the surface portions being identical in shape and dimensions.

In a particular preferred embodiment the sector-shaped surface portions consist of circle sectors with contained angles of 90° at their centre.

However, in other alternative embodiments only the fourth portion is identical to the first, whereas the two sector-shaped surface portions hinge-con-

nected to the first can be of different shape therefrom.

The members for supporting the surface portions connected to the first when in their open position can be for example gate-type members hinged to the elongated supports in proximity to the region in which they are connected together and each comprising a vertical upright provided with a foot for resting on the ground and an element for bearing on the underside of the relative surface portion.

The members for supporting when in its open position the fourth surface portion connected to the vertex of the first can consist for example of a rod hinged to the elongated supports below the first surface portion at the position in which the elongated supports are joined together, and raisable into a horizontal position, it being provided with a mobile strut which bears against the elongated supports in order to keep the rod raised in a horizontal position.

In other embodiments of the table according to the invention the fourth surface portion can be supported in any convenient manner. For example, the fourth surface portion can be free, i.e. not hinged to the first, and simply be supported by the two surface portions hinged to the first by suitably shaping their respective connecting edges.

Further details will be apparent from the description of a particularly preferred embodiment of the invention given hereinafter by way of non-limiting example, with reference to the accompanying drawings, in which:

Figure 1 is a side view of a table according to the invention in its open position;

Figure 2 shows the table of Figure 1 in its closed position;

Figure 3 is a plan view of the table of Figure 2; and

Figure 4 is a plan view of the table of Figure 1, i.e. in its open position.

As shown in the figures, the table according to the invention comprises a surface portion 1, with a right circular sector profile in the embodiment illustrated, resting on the ground via a pair of elongated supports 2 disposed parallel to the straight edges of the surface portion 1.

Further lateral surface portions 4 and 5 of shape similar to the portion 1 are connected to the straight edges 1a, 1b of the surface portion 1 by hinge means 3, shown schematically in Figure 2, such that when in their closed position they hang vertically under their own weight parallel to the elongated supports 2, a fourth surface portion 6 being secured by a hinge 7 to the portion 1 at the respective vertices 6a and 1c, and superposed on it when the table is in its closed position.

A pair of gate-type supports 10 provided with elements 10a for bearing on the surface portion and elements 10b for resting on the ground are connected to the elongated supports 2 by hinges 8 in proximity to the region in which the elongated supports are joined together. When the table is in its

closed position these gate-type supports are enclosed between the elongated supports 2, to which they adhere, and the surface portions 4 and 5.

A further support rod 11 is hinged to the top of the elongated supports 2 in the region in which they are joined together, and lies vertical when the table is in its closed position. A strut 12 is connected to the rod to keep it horizontally raised when the table is in the open position.

As shown in Figure 1, the table is opened by raising the surface portions 4 and 5 laterally to the portion 1 and resting them on the gate-type supports 10, which have been rotated and distanced from the elongated supports 2, the portion 6 then being turned over, as shown by dashed lines in Figure 1 and indicated by the arrow F, until it lies coplanar with the remaining portions 1, 4 and 5, it resting on the support rod 11 which is itself supported by the strut 12.

In this manner a table can be obtained which when in its closed position is of very limited overall size, substantially equal to about one quarter of the size of the table when open, but which when required can be quickly opened to make the whole of its surface area available.

The surface portions 1, 4, 5 and 6, shown by dashed lines in Figures 3 and 4 to indicate by transparency the underlying support structures, can be in the form of sectors of a circle, as shown, with a contained angle at their centre of 90°, or can have a differently shaped profile provided that in any event the two portions 1 and 6, hinged together at their vertex, can be superposed one on the other and the contact edges between the various surface portions are straight and, preferably, of equal length to ensure contour continuity.

The elongated supports 2 can consist of rectangular panels as illustrated, or be of a different shape. The gate-type supports 10 and the support rod 11 can also be of any shape dictated by aesthetic requirements, provided their structural function is unaltered.

Claims

1. An extendable table with a sectored surface, characterised by comprising a pair of elongated supports (2) disposed in two convergent vertical planes to carry rigid with them a first horizontal fixed surface portion (1) of sector shape with a pair of convergent straight edges (1a, 1b), to said edges there being hinge-connected two further sector-shaped surface portions (4, 5) which are rotatable between a vertical hanging position and a horizontal raised position aligned with the first portion (1), there being also provided a fourth surface portion (6), also of sector shape, which is hinged to the first portion (1) at the mutual vertices (6a, 1c) and is overturnable between a position superposed thereon and a position aligned and coplanar therewith, there being provided for the surface portions mobile support members which are hinge-connected to

the elongated supports for the fixed surface portion, to be movable into an open position in which they are distanced from the supports and lie below the mobile surface portions, and foldable into a gathered state close to the supports when the surface portions are in their closed position.

2. An extendable table according to claim 1, characterised in that the sector-shaped surface portions have contained angles at their centre of 90°.

3. An extendable table according to claim 1, characterised in that the surface portions are identical in shape and dimensions.

4. An extendable table according to any of claims 2 and 3, characterised in that the sector-shaped surface portions consist of circle sectors with contained angles of 90°.

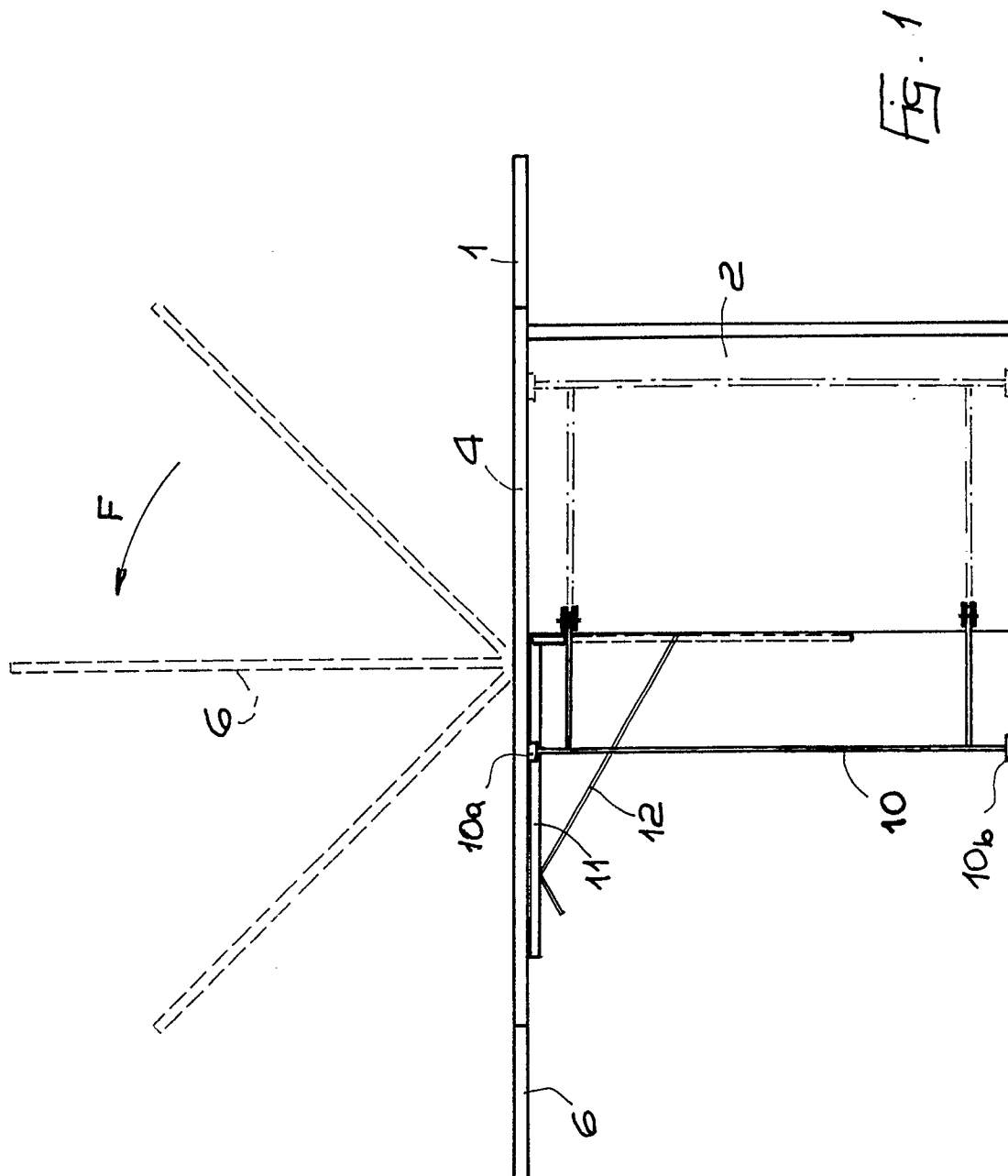
5. An extendable table according to claim 1, characterised in that the fourth surface portion is identical to the first.

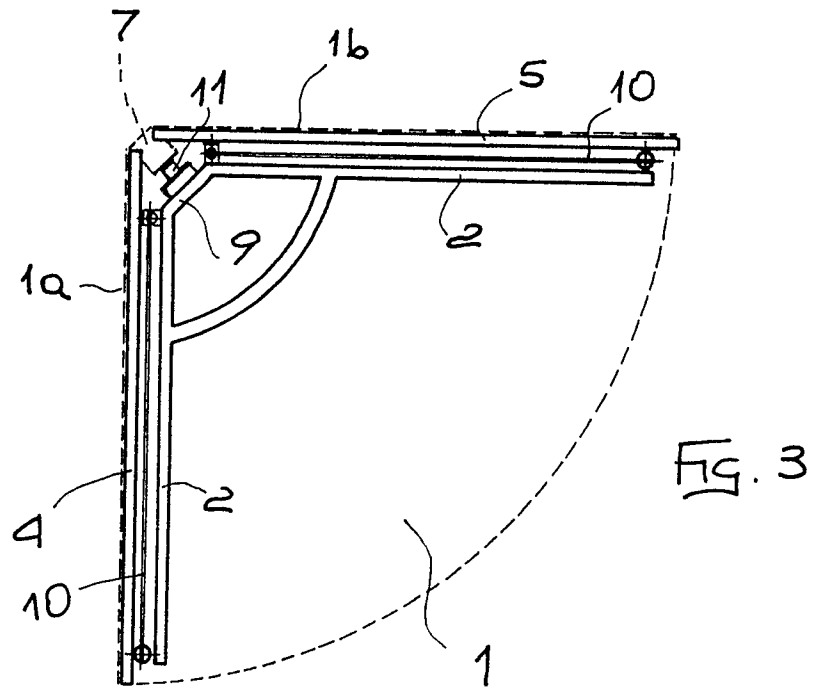
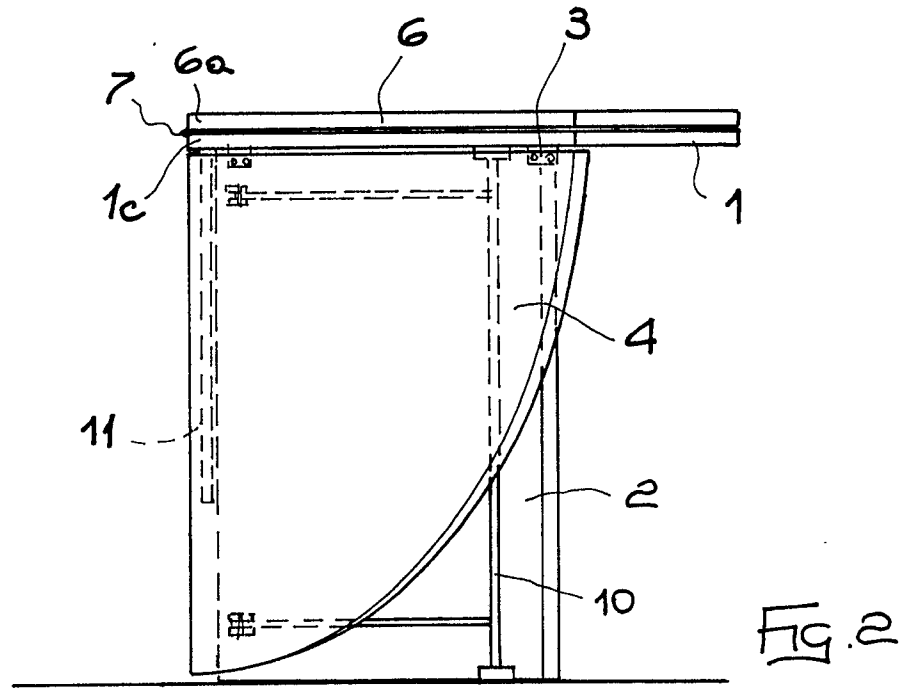
6. An extendable table according to claim 1, characterised in that the two sector-shaped surface portions hinge-connected to the first have a different shape therefrom.

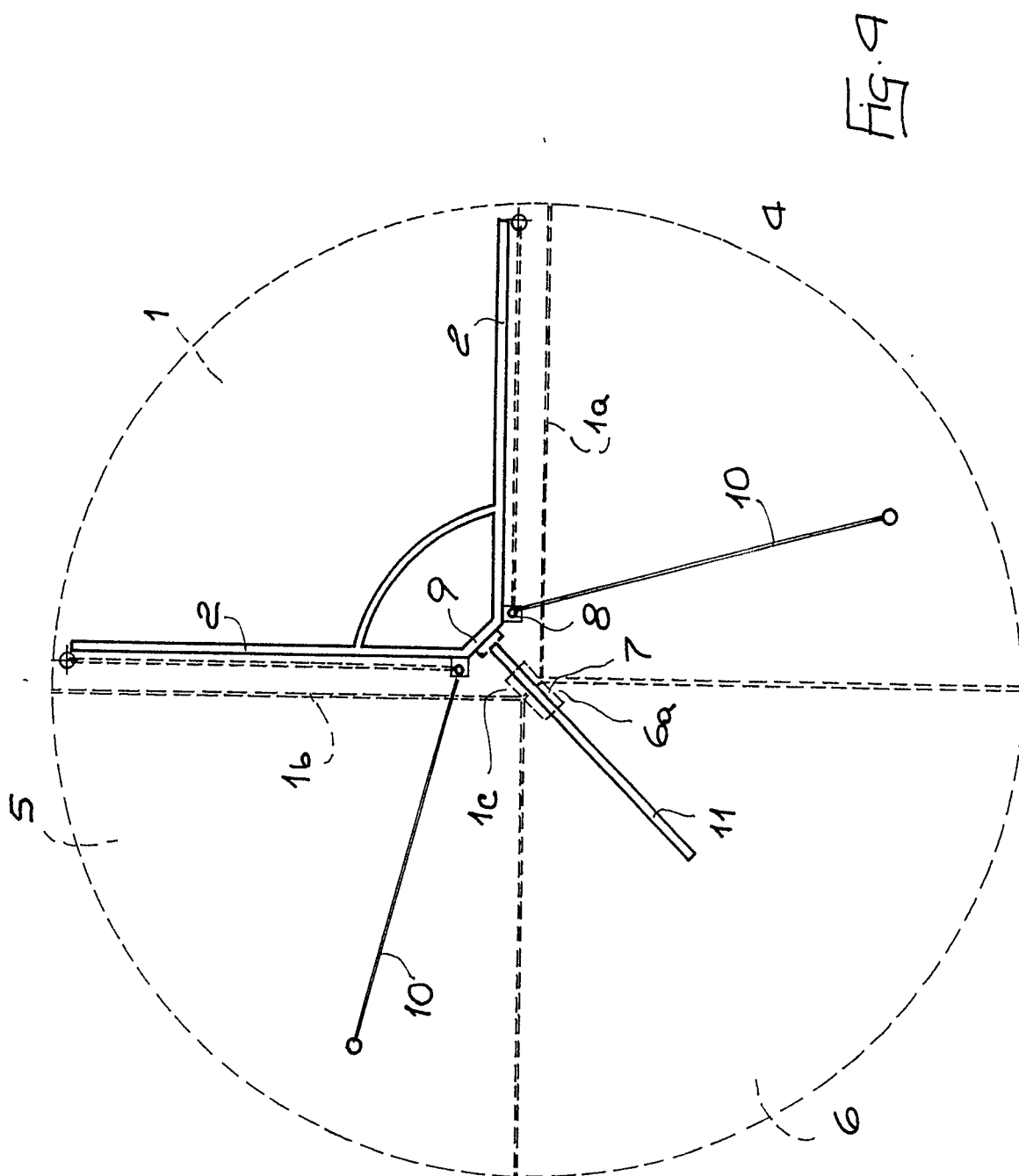
7. An extendable table according to claim 1, characterised in that the members for supporting the surface portions connected to the first when in their open position consist of gate-type members (10) hinged to the elongated supports (2) in proximity to the region in which they are connected together and each comprising a vertical upright provided with a foot (10b) for resting on the ground and an element (10a) for bearing on the underside of the relative surface portion.

8. An extendable table according to claim 1, characterised in that the members for supporting when in its open position the fourth surface portion (6) connected to the vertex of the first (1) consist of a rod (11) hinged to the elongated supports (2) below the first surface portion (1) at the position in which the elongated supports (2) are joined together, and raisable into a horizontal position, it being provided with a mobile strut (12) which bears against the elongated supports (2) in order to keep the rod (11) raised in a horizontal position.

9. An extendable table according to claim 1, characterised in that the fourth sector-shaped surface portion (6) is not hinged to the first (1), but is free and is supported by the two surface portions (4, 5) hinged to the first (1) by suitably shaping their respective connecting edges.









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.5)		
X	US-A-3 303 797 (MUELLER) * Figures 1-12; columns 1-3 * -----	1-9	A 47 B 3/083		
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)		
			A 47 B		
The present search report has been drawn up for all claims					
Place of search THE HAGUE		Date of completion of the search 04-12-1989	Examiner NOESEN R.F.		
<table><tr><td>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</td><td>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</td></tr></table>				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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