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## **EUROPEAN PATENT APPLICATION**

21 Application number: 85830213.6

1 Int. Cl.4: A47B 83/02, A47C 7/68

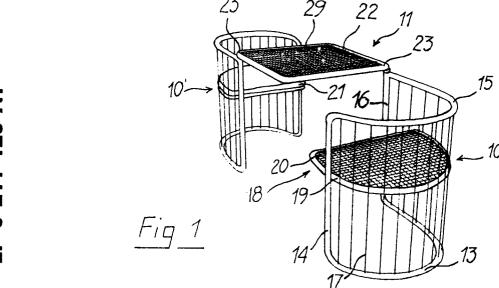
- ② Date of filing: 07.08.85
- 49 Date of publication of application: 25.02.87 Bulletin 87/09
- Designated Contracting States:

  AT BE CH DE FR GB IT LI LU NL SE
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### A furniture element.

A furniture element is described specially for use in bars, restaurants, refectories and so on. The element comprises two armchairs each having an arm extension to which is bounded and sustained a deck for service of said armchairs.

Preferably, the connections between the armchairs and deck are pivoted so that the components can be rotated in a rest position in which the armchairs completely lie under the deck.



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This invention relates to the field of furniture components, for use in furnishing houses, gardens and in particular public rooms as restaurants, bars, refectories, canteens and so on. More particularly, this invention relates to a furniture element for the intended uses and comprising at least two chairs or armchairs and one support desk for service of said chairs.

It is well known the use in restaurants, self-services, refectories and so on, of furniture elements comprising a table with legs and one or more seats, each suitably connected, for instance pivotally connected, with one of the table legs. Each seat has two positions, namely a rest position under the table and an operating position laterally to the table, in such a manner as to reduce the overall dimensions when the seats are in their rest position. However, this element requires very strong, heavy and large sized table legs, as well as suitably designed connections to support the user load on the bracket seat.

Also well known, in particular for use in schools, conference rooms and so on, are armchairs each of which carries a reading desk, for writing and so on, which is movable from a rest position to an operative position in front of the user. These armchairs cannot be used for restaurants or refectories because they do not allow two or more people to have a meal on the same table.

An object of this invention is to provide a furniture element for the described use and comprising two or more chairs or armchairs and one support desk for service of said chairs, said furniture element being able to be manufactured at low costs and without necessity of connections so sized to bear high loads.

Another object of the invention is to provide a furniture element of the type described, the components of which are able to reach a compact and size reduced configuration when in their rest position.

Accordingly, the invention relates to a furniture element comprising two or more chairs or armchairs, as well as one support desk for service of said chairs, characterized in that said desk is carried by and permanently bound to each of said chairs or armchairs.

In a preferred embodiment, the element comprises two or more armchairs, each pivotally connected with an extension of one arm thereof to a peripheral point and preferably to a vertex of a square or rectangular desk. This allows to rotate the armchairs with reference to the desk in order to obtain a compact rest configuration, as specially suitable for transport and storage.

The invention will be now described with reference to embodiments thereof, as shown in the accompanying drawings.

Fig. 1 is a perspective view of a first embodiment, comprising two armchairs with a desk pivotally connected thereof.

Fig. 2 is a perspective view of a second embodiment, comprising two armchairs with a desk fixed thereof.

Fig. 3 is a cross-sectional view showing particulars of the pivotable connection between the desk and an armchair in the embodiment of fig. 1.

Fig. 4 is a cross-sectional view showing particulars of the fixed connection between the desk and an armchair in the embodiment of fig. 2.

Fig. 5 is a diagrammatic top view of the embodiment of fig. 1, showing three possible relative positions of the components thereof.

Fig. 6 is a diagrammatic top view showing the combined use of two elements according to the embodiment of fig. 2.

Fig. 7 and 8 are a diagrammatic top view of other embodiments of this invention.

Referring first to fig. 1, the shown embodiment comprises two armchairs 10, 10' and a support desk 11. Each armchair has a frame obtained by a suitably shaped tubular element 12, forming a substantially U-shaped base 13, a first upright 14, a substantially U-shaped chair top 15, defining the seat arms, the seat back and an extension of one seat arm, as well as a second upright 16. A number of vertical rods 17 between the U-shaped base and top have an aesthetical and reinforcing task. To said tube 12 and vertical rods 17 a seat 18 is fixed, for instance by welding a semi-circumferentially shaped tube 19 which carries a support, for instance a metal net 20 and a cushion 21.

The desk 11 is formed by a square or rectangular frame, as obtained by a tube 22, carrying a supporting plate, for instance a glass, metal, resin, wood or stone plate 23. Both the armchair and desk frames are preferably made by metallic components.

Each armchair 10, 10' is connected by a pivot pin to the desk 11, in such a manner to jointly sustain the same. In particular, the opposite vertices 23 of desk 11 both carry a pin 24 downwardly extending so to be able to be inserted in a top opening 25 provided for in the upright 16, at the end of the arm extension. A bush 26 is inserted into opening 25 and houses said pin 24 in order to allow for relative rotations of the armchair and desk without any clearance in their connection.

It is be noted that the desk 11 is freely rotatable above the armchairs 10, 10' and that the shape and sizes of the arm extensions, seats and desk are so designed to allow the user to have an easy access to the seat. Moreover, it is suitable that the above sizes be so designed to allow a relative positioning of the desk 11 and armchairs 10 from an operative position, for instance as

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shown in figure 5 (a) or in figure 5 (b), to a rest position in which both the armchairs 10, 10' lie under the desk with the seats one in front of the other, as shown in figure 5 (c).

To this end, it is suitable that the distance X from the arm extension end 23 to the seat back be substantially the same as the side of the square desk 11, and that the seat depth Y be substantially one half the desk side (Y = X/2).

Fig. 2 shows another embodiment, in which two armchairs 25, 25' are substantially as those of fig. 1, with the only exception that a single rod 26 and a wire net 27 perform the structural and aesthetical functions of rods 17. In this case the frame tube 30 of desk 29 is fixedly connected to the frame tube 28 of the armchairs 25, 25'. Each connection is obtained by two pins 31, 32 (fig. 4) extending from the desk 29 and inserted into two holes 33, 34 provided for in said armchair frame tube 28 and carrying bushes 35,36 to avoid clearances.

As it can be seen from fig. 2, the armchair extensions are fixed to two aligned vertices of the desk 29 so that this desk is sustained in a bracket fashion. This embodiment, however, does not allow to reach a reduced size rest position.

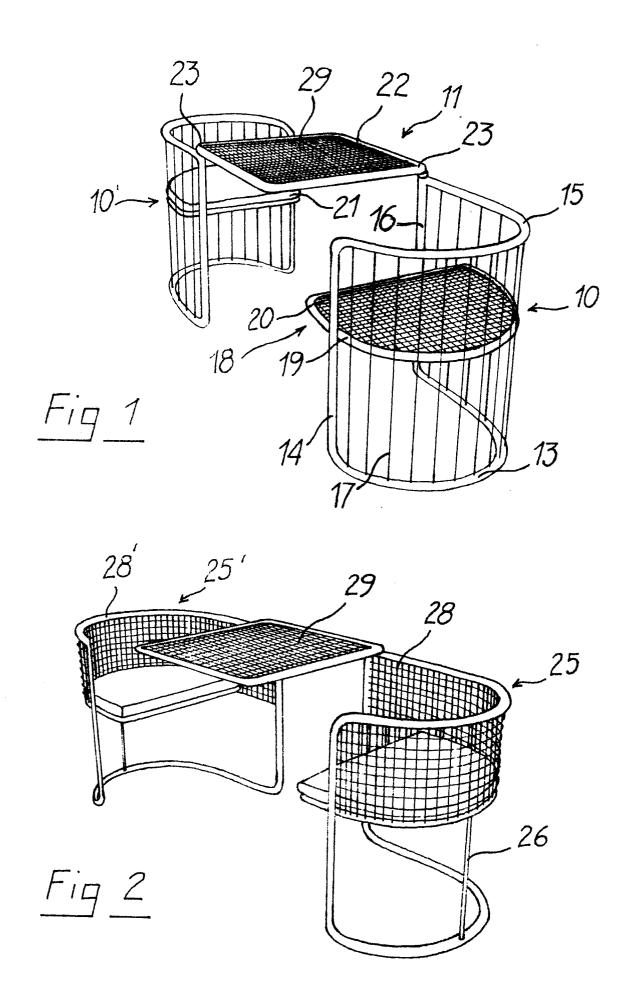
It is to be noted that in particular the embodiment of figure 2 allows to combine two elements in order to have one double desk for service of four armchairs, as it is shown in figure 6. Finally, the principles of the invention can be applied also to different shapes of the desk, as for instance to a round desk 40 (figure 7) with four armchairs 41 pivotally connected at two points 42, or to a square double desk 43 with four armchairs 44 pivotally connected at points 45.

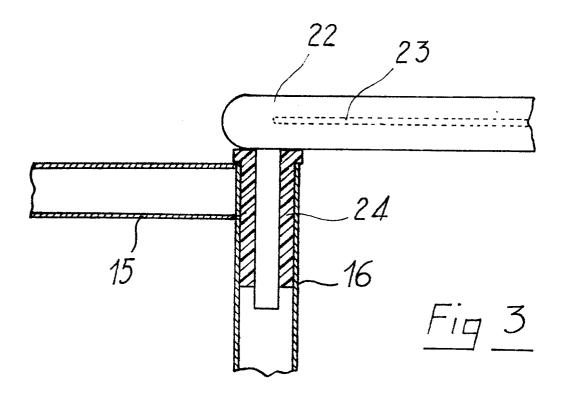
#### Claims

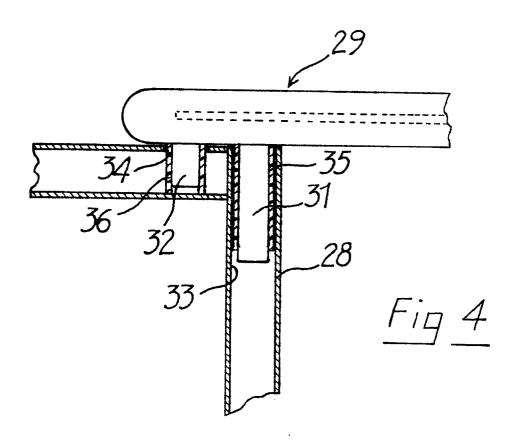
- A furniture element, comprising two or more chairs or armchairs and one support desk for service of said chairs, characterized in that said desk is carried by and permanently bound to each of said chairs or armchairs.
- 2) A furniture element according to claim 1, characterized in that one of the arms of each said armchairs has an extension, to the free end thereof is bound said support desk.

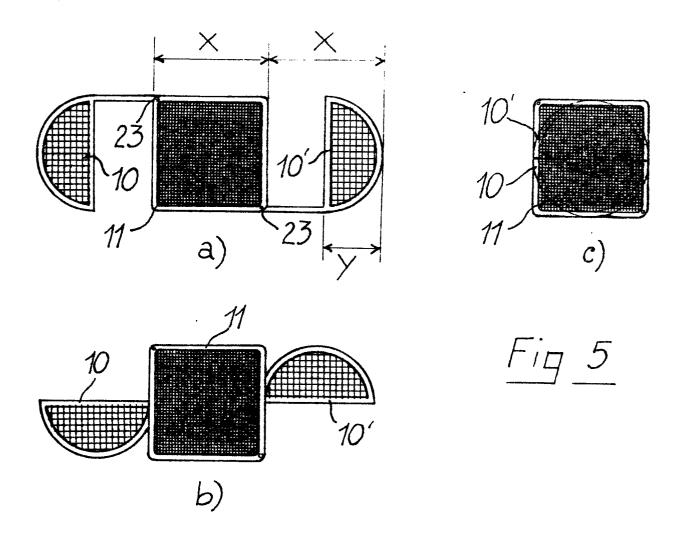
- 3) A furniture element according to claim 2, characterized in that said binding between the desk and armchairs is a rigid and fixed binding.
- 4) A furniture element according to claim 3, characterized in that said desk is a square or rectangular shaped desk, and in that two armchairs are rigidly fixed in correspondence of adjacent vertices thereof.
- 5) A furniture element according to claim 2, characterized in that said binding between the desk and armchairs is pivotable binding with a vertical axis.
- 6) A furniture element according to claim 5, characterized in that said desk is substantially square-shaped or rectangular-shaped and in that two armchairs are pivotally connected in correspondence of adjacent vertices of said desk.
- 7) A furniture element according to claim 5, characterized in that said desk is substantially square-shaped or rectangular-shaped, and in that two armchairs are pivotally connected in correspondence of diagonally opposed vertices of said desk.
- 8) A furniture element according to claim 5, characterized in that said desk in a circular or elliptic desk and in that pairs of armchairs are pivotally fixed each in a zone of said desk.
- 9) A furniture element according to claim 3 or 5, characterized in that said desk has at least one downwardly protruding pin at each binding position, and in that said arm extension of each armchair has at least a seat to forcedly house said pin or pins.
- 10) A furniture element according to claims 5 and 9, characterized in that said armchairs have a tubular frame with an upright at the free end of said arm extension, said upright housing a bush wherein one of said pins protruding from said desk is inserted without clearance.
- 11) A furniture element according to one of the claims 5 to 10, characterized in that the upper edge of each armchair is at a lower level than the desk.
- 12) A furniture element according to claim 11, characterized in that each armchair has a substantially semicircular shape with a radius of about one half the length of the square desk side, and in that said arm extension has a length substantially equal to said radius.

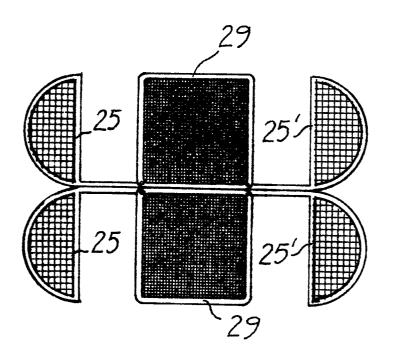
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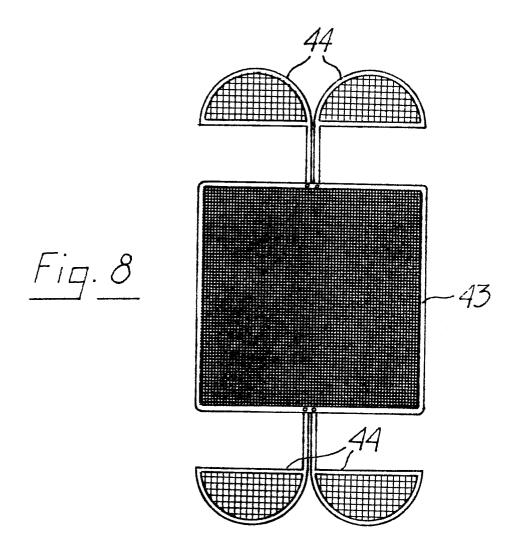


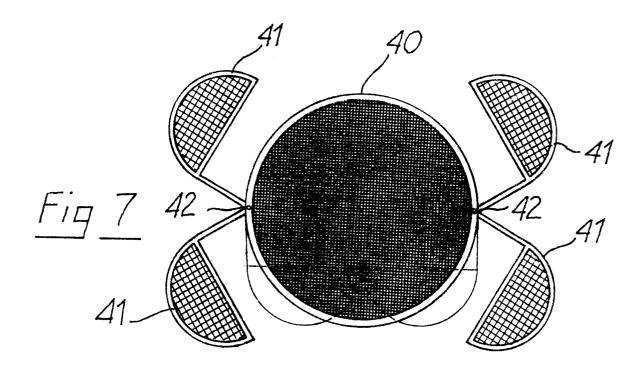






Fig\_6







#### **EUROPEAN SEARCH REPORT**

EP 85 83 0213

Category	DOCUMENTS CONSIDERED TO BE RELEVAN  Citation of document with indication, where appropriate, of relevant passages		Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.4)	
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X	US-A-3 212 815 * Column 2, line	(WARDLAW) es 4-64; figures *	. 1,2	A 47 B A 47 C	83/02 7/68
A			4-7,9, 10		
х	US-A-4 358 866 * Column 3, 1: line 49; figure:	ine 44 - column 5.	1-3		
A			8		
A	FR-A- 957 708 * Page 2, lines	(BOURNE) 27-74; figures *	11,12		
A	 FR-A- 414 245 (HÜTTNER) * Figures *		12	TECHNICAL FIELDS SEARCHED (Int. Cl.4)	
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Y: par	CATEGORY OF CITED DOCL ticularly relevant if taken alone ticularly relevant if combined w sument of the same category thological background h-written disclosure	E : earlier pafter the ith another D : docume L : docume	or principle underloatent document, is filing date ant cited in the appent cited for other of the same pate	but published o olication reasons	n, or