FURNITURE UNIT
Inventor: Pierluigi Spadolini, Firenze, Italy
Assignee: IP Industria Chimica Per L'Arredamento S.P.A., Roma, Italy
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## References Cited

 UNITED STATES PATENTS| 433,623 | $8 / 1890$ | Hunzinger.......................... 297/140 |
| :--- | :--- | :--- | :--- |
| 475,505 | $5 / 1892$ | Hunzinger.................. 297/140 X |


| 2,145,201 | 1/1939 | Raeuber.......................... 297/142 |
| :---: | :---: | :---: |
| 2,244,531 | 6/1941 | Elder ............................. 297/143 |
| 3,230,909 | 1/1966 | Watson .......................... 108/150 |
| 3,301,590 | 1/1967 | Young ............................ 297/140 |
| 3,637,256 | 1/1972 | Harty ........................ 297/DIG. 2 |
| 3,664,275 | 5/1972 |  |

Primary Examiner-James T. McCall Attorney, Agent, or Firm-Eric H. Waters

## [57] <br> ABSTRACT

Furniture unit consisting of a table having a circular top and a central supporting column, and a plurality of chairs. The chairs are defined by a shaped continuous wall having a height less than that of the table top and having seat and back parts contained within two inclined planes. The upper edges of the back parts are arcuate and are preferably centered on a line of intersection of the inclined planes, and have a radius substantially equal to that of the table top.

5 Claims, 9 Drawing Figures


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## FURNITURE UNIT

## FIELD OF THE INVENTION

The invention relates to furniture units including a table a plurality of chairs.

## SUMMARY OF THE INVENTION

According to the present invention, there is provided a furniture unit including a table, and a plurality of chairs each having a seat part, the table comprising a circular table top, and a column supporting the table top, the cross-section of the column being reduced substantially at the level of the seat parts of the chairs, and each chair comprising a continuous wall defining the seat part, a back part, and a supporting parts, the height of the back part being less than the height of the table top, whereby the chairs can be accommodated beneath the table top, the upper edges of the back parts being arcuate and having a radius not larger than that of the table top, and the side edge of each chair being contained within two inclined planes, whereby the chairs can be arranged around the column and beneath the table top with the seat parts lying adjacent the reduced section of the column.

The upper edges of the back parts can be centered on the line of intersection of the plane and can have a radius substantially equal to the radius of the table top.

Each chair can have two flanges extending from the upper edge of the back part and lying on opposite sides of the seat part.

The supporting part of each chair can be formed by double curvature front and side wall portions, the front wall portions being concave in horizontal cross-section, and being located rearwardly with respect to the front edges of the seat parts. The double curvature of these wall portions serves to stiffen the continuous wall.

## BRIEF DESCRIPTION OF THE DRAWINGS

An embodiment of the invention will now be described, by way of example only, with reference to the accompanying schematic drawings, in which:

FIG. 1 is a side elevation of a table of a furniture unit in accordance with the invention;

FIG. 2 is a plan view of the table;
FIG. 3 is a fragmentary diametral cross-section of the table;

FIG. 4 is a front elevation of a chair of the furniture unit;

FIG. 5 is a plan view of the chair;
FIG. 6 is a side elevation of the chair;
FIG. 7 is a plan view partially in section showing several chairs in position beneath the table table (three of them being visible in the cut-away right-hand half of the table);

FIG. 8 is a section showing the arrangement of FIG. 7; and

FIG. 9 is a perspective view of the unit showing some chairs located beneath the table and one chair withdrawn from the table.

## DESCRIPTION OF THE PREFERRED EMBODIMENT

As shown in FIGS. 1 to 3, a table of the furniture unit comprises a central column 1 supporting a circular table top having a working surface 3. Externally, the column 1 has a concave profile developed so as to have
a restricted section in an intermediate position substantially at the level of the seat part of a chair 5 . The lower end portion of the column forms a base 1 A , having a circular profile, and the upper end portion of the column forms a rim 1B engageable against an annular abutment 3A on the underside of the table top to which the column can be firmly connected.

Along the outer surface of the column 1 extend tapered ribs 1 C which are enlarged at their end portions to be joined with the base 1A and the rim 1B. The column, as can be seen in FIG. 3, is hollow and is formed by a relatively thin wall, which can be reinforced by means of an intermediate partition 1 E , which may be used as a container. The table top can carry a pivot for a rotatable disc-shaped tray.
The chair seatc is illustrated in detail in FIGS. 4 to 6, and is formed with a continuous wall of a substantially uniform thickness and shaped with rounded corners, projections and recesses so as to define a back part 5A with a substantially horizontal upper edge 5 B , provided with an outer arcuate convex rim $5 \mathrm{~B}_{1}$. The back part 5 A is formed with a portion of large curvature joined to a seat part 5 C , whose development in plan cambers, form of an arc also ceere long the lie $7, \mathrm{c}$ has a convex front edge portion 5 E of a relatively large curvature and lateral edges $5 \mathrm{E}_{1} .79$
From the edges $\mathbf{5 E}, 5 \mathrm{E}_{1}$ there extends a supporting and base portion of the chair, which is in the form of a continuous wall having portions of different curvature to define a front wall 5 F which is slightly concave with a double curvature, corner portions $5 \mathrm{~F}_{1}$ flanking the front wall 5 F and side walls $5 \mathrm{~F}_{2}$ also having a double curvature and being developed continuously from the edges $5 \mathrm{E}_{1}$.
The side walls $5 \mathrm{~F}_{2}$ carry, at their rear edges, relatively wide flanges 5 H which extend to the sides of the upper edge 5 B of the back part, the flanges 5 H being divergent from one another and being inclined rearwardly to ensure a firm supporting polygon for the chair.
The sides of the chair are contained within inclined lateral planes 7A which intersect along a line 7B. When the table is to be used with six chairs, as shown in one half of FIG. 7, where three of the chairs appear, the planes 7 are inclined at $60^{\circ}$; the center of curvature of the rim $5 \mathrm{~B}_{1}$ lies along the line 7 B and the lower edge of the front wall 5 F is in the form of an arc also centered along the line 7 B , the radius of curvature of this latter lower edge being not less than that of the base 1A of the column 1.
Of the described structures, at least those of the column 1 and of the chair can be formed by means of a hot molding process, using solid or expanded synthetic resins, or by means of other techniques such as a cold molding process using a polyester resin subsequently reinforced by glass fibers. The table top can also be formed using any one of the foregoing processes, or by other processes. According to the quality of the material, the thicknesses, the chambers, the flanges and ribs can be differently accentuated. The flanges 5 H also impart strength to the side walls $5 \mathrm{~F}_{2}$.

The height of the back part 5 A is such that it can be accommodated under the table top 3 , the rim $5 B$ being aligned with, or lying slightly within, the peripheral edge of the table top when the chair is inserted under the table. The front edge portion 5 E of the seat part 5 C is arranged to lie adjacent the narrowest intermediate zone of the column 1, and sid lower edge of the front
wall 5 F is arranged to lie adjacent the edge of the base 1A. said chairs 69
Under these conditions six chairs can be accommodated under and around the table, each occupying a volume contained within the planes 7A inclined at $60^{\circ}$, the planes 7A containing the lateral surfaces of the flanges $\mathbf{5 H}$ and the edges $5 \mathrm{E}_{1}$, and extending tangentially with respect to the edge 5 E .

The flanges 5 H of two adjacent chairs arranged beneath the table top are thus contiguous so as to form together a rounded rib, the bottom portion of which can extend outwardly below the edge of the table top. When the chairs are accommodated under the table top, the unit occupies a space which is practically equal to the volume bounded within the table top.

## What is claimed is:

1. A furniture unit comprising a table including a circular top and a substantially central column supporting the latter, and a plurality of chairs, each of said chairs having continuous wall means defining respective seats, backs and supports, said column having a reduced section substantially at the level of said seats, the height of said backs being less than that of said table top, whereby said chairs can be accommodated beneath said table top, the upper edges of said backs being arcuate and having a radius not larger than that of said table top, and the side edges of said chairs being contained
within two inclined planes, whereby said chairs can be arranged around said column and beneath said table top with said seats adjacent said reduced section of the column.
2. The furniture unit as defined in claim 1 , wherein said upper edges of the backs are centered on a line of intersection of said inclined planes, the radius of said upper edges being substantially equal to that of said table top.
3. The furniture unit as defined in claim 1, wherein said chairs include two flanges extending from said upper edges of the backs and lying on opposite sides of said seats, said flanges defining rear support means for said chairs, adjacent ones of said flanges of two adjacent chairs being contiguous when the latter are located beneath said table top.
4. The furniture unit as defined in claim 1 , comprising six of said chairs, said planes of the side edges being inclined by $60^{\circ}$.
5. The furniture unit as defined in claim 1, wherein said supports in the wall means of said chairs include continuous walls defining front wall portions and side wall portions, said front wall portions being concave and displaced rearwardly of the front edges of said seats, and said wall portions having a double curvature.
