

(19)



Europäisches Patentamt

European Patent Office

Office européen des brevets

(11) Publication number:

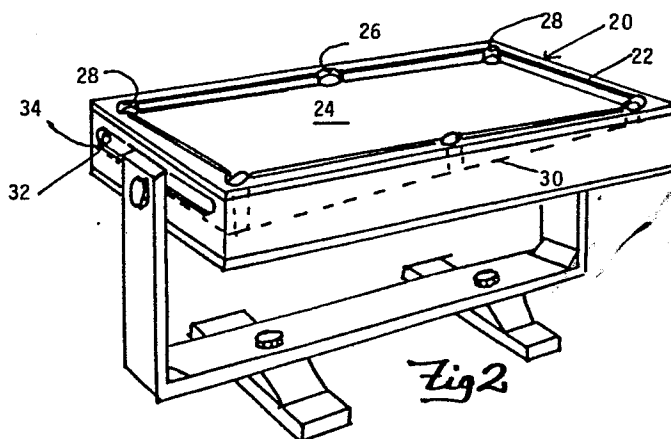
0 238 471**A2**

(12)

EUROPEAN PATENT APPLICATION(21) Application number: **87870004.6**(51) Int. Cl.³: **A 63 D 15/04**(22) Date of filing: **14.01.87**(30) Priority: **24.02.86 ZA 861344**(43) Date of publication of application:
23.09.87 Bulletin 87/39(84) Designated Contracting States:
AT BE CH DE ES FR GB IT LI NL SE(71) Applicant: **Barreto, Viriato Jorge Soares**
33 The Valley Road
Parktown Johannesburg(ZA)(72) Inventor: **Barreto, Viriato Jorge Soares**
33 The Valley Road
Parktown Johannesburg(ZA)(74) Representative: **Van Malderen, Michel et al,**
p.a. Freylinger & Associés 22 avenue J.S. Bach (bte 43)
B-1080 Bruxelles(BE)(54) **Convertible article of furniture.**

(57) A table (10) is provided with a surface member (12, 60) having a substantially planar surface (18, 62) and a playing surface (20, 64) for playing a game with balls and cues. The surface member is rotatable through at least 180° so that both sides of the surface member may be used. Locking means (48-56; 94, 96) is provided for locking the table in

predetermined positions. A space is formed between the two surfaces (18, 20; 62, 64) and provided with gullies or channels (30, 32; 66-70, 82-86) for returning balls falling through openings (26, 28; 88) in the playing surface to a collection region (34).

*Fig 2***EP 0 238 471 A2**

- 1 -

CONVERTIBLE ARTICLE OF FURNITURE

This invention relates to a convertible article of furniture comprising a surface member having a substantially planar surface on one side; support means for supporting the surface member at a desired height above a floor; swivel means mounting the surface
5 member on the support means to permit the surface member to be rotated; and locking means to lock the surface member in a desired position.

Tables with a swivel top allow the table to be adapted for a range of applications, such as a normal table or an inclined drafting or
10 drawing board or an inclined student desk. Such tables are known in many forms, illustrated by way of example only in the following patents: DE 31 11 920, US 4,502,394, US 4,437,411, and US 4,502,343 to mention but a few. Generally these tables have limited pivotal
adjustment, usually between 10° and 20°, though sometimes much
15 greater inclinations are possible. However, the same surface is always used, only the inclination being varied so that the range of applications is rather limited.

This invention seeks to provide a convertible table which can have a wider range of applications.

20 According to the invention the surface member is rotatable through at least 180° and a second suitably constructed surface is formed on the surface member opposite the planar surface.

One benefit of the invention is that both sides of the surface member can now be used. Another benefit is that a space between
25 the two surfaces can be used for various purposes as will emerge from the description below.

Preferably, the second surface is constructed for playing a game with balls and cues, such as billiards.

Preferably locking pin means is provided for locking the surface member in predetermined positions with respect to the support means. Preferred positions are when the surface member is horizontal, vertical, and at least one position between horizontal and vertical, such as for use as a drawing board. The locking means may also comprise clutch means for frictionally locking the surface member with respect to the support means.

10 Preferably, the support means comprises a substantially U-shaped frame which at least spans the surface member. Preferably the support means has a thickness which approximates the thickness of the surface member, so that the surface member and support means are substantially flush when the surface means is in the vertical position. This construction ensures that the article takes up minimal space for storage. Preferably, the frame is supported on at least two elongate feet which are rotatable with respect to the frame between a position in which they extend transversely to the frame and a position in which they are substantially aligned with the frame.

Alternatively, where storage is not a major consideration, a more conventional four-legged frame construction may be used to ensure increased stability.

Preferably the playing surface is constructed for playing a game with balls and cues such as billiards or snooker. Preferably there is a space between the planar and playing surfaces, the space communicating with openings formed at the periphery of the playing surface for balls passing through the openings to be able to pass to a collection region from where they can be extracted. Preferably ramp means is provided at least adjacent each opening for directing a ball passing through the opening towards the collection region.

The invention is now illustrated by way of non-limiting examples in the following description made with reference to the accompanying

schematic drawings, from which further features and advantages of the invention will become apparent.

- Figure 1 shows a perspective view of an embodiment of furniture article of the invention set in a position for use as a table or desk;
- 5 Figure 2 shows the article of Figure 1 with its surface member rotated through 180° to form a billiard table and schematically illustrating certain internal features;
- Figure 3 shows a partial section along III - III of Figure 1;
- 10 Figure 4 shows a partial end view of the table of Figure 1 illustrating a part of a locking means for setting the table in a desired attitude;
- Figure 5 shows a section similar to that of Figure 3 of a variant of article of the invention; and
- 15 Figure 6 shows a schematic, partially broken away, perspective view of a portion of a variant of a surface member of the type shown in Figure 5 illustrating the internal construction.

Figures 1 to 4 of the drawings show a convertible table 10 including a surface member or top 12 pivotally mounted on a U-shaped frame 14

20 provided with two feet 16.

The top 12 has a planar surface 18 for use as a table or desk and an opposite surface 20 constructed for playing a game with balls and cues such as of billiards, snooker or pool. The surface 20 has a peripheral rectangular lip 22 defining a recessed playing field 24,

25 side 26 and corner 28 pockets at the periphery of the playing field.

As shown in Figure 2 an inclined channel 30, is formed at each long side of the table top 12, the channels communicating with the pockets 26 and 28. At its lower end the channel 30 communicates with a cross-channel 32 that intersects an opening 34. In use,

30 balls which fall into the holes 26 and 28 roll down the channel 30 into the channel 32 from where they can be collected through the opening 34 by a user.

Figure 3 shows a partial section through the table top 12, which comprises the surface 18, reinforcing batons 36, a playing base 38 of solid wood or chip board connected to the surface 18 by the batons 36, a hard wearing sheet 40 which in combination with the board 38 approximates to the conventionally used slate of a billiard table, and a baize 42 covering the sheet 40. The material 40 may be a metal sheet, such as galvanized iron sheet or a plastics sheet, such as of polycarbonate. A resilient band 44 such as of foamed rubber of a suitable density and resilience is provided around the periphery of the playing field 24. A baize 46 covers the foamed rubber 44.

Figure 3 also shows how the top 12 is mounted on the frame 14. This mounting comprises a bolt 48 fixed centrally to and projecting outwardly from the top 12, a bush 50 fitted into the frame 14 and a manually engageable locking member or nut 51 which screws on to the bolt 48.

In order to set the table top in certain predetermined positions, a pair of parallel bushes 52 is provided in the table top 12 and bushes 54 are provided in the frame 14 at suitable locations (see Figure 5) such that the top 12 can be set and locked in predetermined positions by locating pins 56, that pass through appropriate registering pairs of bushes 52 and 54.

In addition to the positions shown in Figures 1 and 2, the top 12 can be aligned with the general plane of the U-shaped base 14 for storage or set in an inclined position for use as a drawing board. The feet 16 are pivotally mounted on the frame 14, so that they can be rotated into the plane of the frame 14 and top 12 for storage.

Figures 5 and 6 show a variant of table top 60 and pivotal mounting therefor. The top 60 comprises a table surface 62 and a playing surface 64 connected to and spaced from each other by edge rails 66 and 68 and internal support rails 70. The table surface 62 is flush with an edging profile 72, while the playing surface 64 is recessed with respect to its edging profile 74 and a reflector profile 76 having a foamed rubber strip 78. The profiles 76 and 78

and the outer side of the surface 64 have a baize cover 80 and 81, respectively.

5 A gully 82 for balls is formed between the edge rails 68 and support rails 70. Ramps 84 and 86 are provided below openings 88 formed at the periphery of the playing surface, to direct balls towards a recovery opening, not shown, at one end of the top 60. The base of the gully 82 is stepped, as shown in Figure 6, to assist movement of balls therealong.

10 Figure 5 also shows that the top 60 is pivotally connected by trunnions 90 to an upright 92 of a base. Two horizontally aligned, thumb screws 94, only one of which is visible, are provided for locating the top 60 in either of a table and a playing surface position. Each pin 94 engages in a screw block 96.

15 It is to be understood that the invention is not limited to the precise constructional details shown in the drawings and described above and many modifications may be made thereto as well as will other embodiments become apparent without departing from the spirit of the invention. For example other suitable locking means, such as a clutch may be used. When a clutch is used, then locating
20 detent and spring loaded locating member formations may be provided for setting the top 12 in predetermined positions with respect to the frame 14. A bubble level may be provided on the table to ensure that the playing surface is level. Castor wheels may be provided on the feet 16 to facilitate moving of the table. The
25 hole and ball returning constructions may be replaced with suitable pocket formations. If only two positions are required for the table top, then a four-legged frame may be used. In this event the locking pins may be provided at one or more of, preferably at each of, the four corners for locating the top for use.

CLAIMS

- 05 1. A convertible article of furniture comprising a surface member having a substantially planar surface on one side; support means for supporting the surface member at a desired height above a floor; swivel means mounting the surface member on the support means to permit the surface member to be rotated; and locking means to lock the support member in a desired position, characterized in that the surface member (12, 60) is rotatable through at least 180° and a second suitably constructed surface (20, 64) is formed on the surface member opposite the planar surface (18).
- 15 2. An article as claimed in claim 1, characterized in that the locking means comprises locking pin means (56,94) provided for locking the surface member (12,60) in predetermined positions with respect to the support means (14).
- 20 3. An article as claimed in either of claims 1 or 2, characterized in that the locking means includes clutch means (48,51) for locking the surface member frictionally with respect to the support means.
- 25 4. An article as claimed in either of claims 2 or 3, characterized in that the predetermined positions in which the support member can be locked are when it is substantially horizontal, substantially vertical, and at least one position between horizontal and vertical (Fig.4).
- 30 5. An article as claimed in any of claims 1 to 4, characterized in that the support means comprises a substantially U-shaped frame (14,92) which at least spans the surface member (12,60).
- 35 6. An article as claimed in claim 5, characterized in that the U-shaped frame (14,92) is supported on at least two elongate feet (16) which are rotatable with respect to the frame (14,92) between positions in which they extend transversely to the frame and positions in which they are substantially aligned with the frame.

7. An article as claimed in any of claims 1 to 6, characterized in that the second surface (20,64) is a playing surface constructed for playing a game with balls and cues.

05 8. An article as claimed in claim 7, characterized in that there is
a space formed between the planar and playing surfaces, the space
communicating with openings (26,28; 88) formed at the periphery
(22,80) of the playing surface (20,64) and having guide means
10 (30,32; 70,82,84,86) for guiding balls passing through the openings
to pass to a collection region (34) where they can be extracted.

9. An article as claimed in claims 8, characterized in that ramp
means (30; 84,86) is provided at least at each opening (26,28; 88)
for directing balls towards the collection region (34).

