FOLDING TABLE WITH PAIRED LEGS

H. ROSEN

Filed Sept. 5, 1950

2 Sheets - Sheet 2

Hans Rosen

INVENTOR.

BY

Harvey B. Jackson

Attorneys
UNITED STATES PATENT OFFICE

2,671,000

FOLDING TABLE WITH PAIRED LEGS

Hans Rosen, Sioux City, Iowa

Application September 5, 1950, Serial No. 185,117

1 Claim. (Cl. 311—34)

This invention relates to improvements in articles of furniture and is the primary object of the present invention to provide an improved article of furniture characterized by a locking assembly which is very simple to operate, yet positive. In its embodiment, the locking assembly is adapted for use primarily for holding the legs of the article of furniture in the extended position.

Ancillary objects and features of importance will become apparent in following the description of the illustrated forms of the invention.

In the drawings:

Figure 1 shows an assembly including a table and chair made in accordance with the principles of the invention;

Figure 2 is a bottom view of the table showing one set of legs in the collapsed condition and the other set in the extended position;

Figure 3 is a fragmentary sectional view showing one pair of legs extended prior to latching them;

Figure 4 is a sectional view taken on the line 4—4 of Figure 2 and showing the same pair of legs as in Figure 3 but in the latched position;

Figure 5 is a transverse view taken substantially on the line 5—5 of Figure 4 and in the direction of the arrows;

Figure 6 is an enlarged fragmentary view taken substantially on the line 6—6 of Figure 2;

Figure 7 is a view somewhat similar to that of Figure 6 but showing the cam latch bar located in a notch in a guideway;

Figure 8 is an exploded perspective view showing one end of the cam latch bar separated from its guideway; and,

Figure 9 is a fragmentary bottom view of a part of the device showing a holding strap used for carrying the device from one place to another.

In carrying out this invention I have illustrated two articles of furniture namely, the bench generally indicated at 10 and the table generally indicated at 12. Other articles of furniture may employ the principles of the invention as found desirable. The bench is made in the same manner as the table and, therefore, a description of the structural detail and operation of the table necessarily leads to a full understanding of the bench.

There is a top panel 14 provided with a peripheral flange 16. As noted in Figure 2 the flange includes ends 18 and 20 as well as sides 21 and 22. There is a guideway 24 provided in the inner surface of the side 22 of the flange and this guideway has a recess or notch 26 at one end thereof. A guideway or guide slot 28 is provided in the inside surface of the flange side 21 and it has a similar recess or notch therein.

A leg 30 together with an identical leg 32 cooperate to form one assembly to support one end of the upper panel 14. These legs are connected together at their upper ends by means of the cross member 34 which has trunnions 36 and 38 at the ends thereof mounted for rotation in apertures in the flange sides 21 and 22. A brace 40 connects the legs 30 and 32 intermediate their upper and lower ends and has reduced portions therein constituting spindles, to which the links 44 and 46 are attached by means of straps 47 and 48 which constitute bearings.

The opposite ends of the links 44 and 46 are attached by means of straps 49 and 50 also constituting bearings, to the shaft 56 which has cylindrical end portions disposed in the guideways 24 and 28. Accordingly the shaft 56 is arranged for sliding movement parallel to the longitudinal axis of the upper panel 14 and when it so moves, the pair of legs is pivoted about a horizontal axis transverse to the longitudinal axis of the table. This arranges the legs so that they are capable of being folded or extended.

The shaft 56 is provided with a cam 58, extending longitudinally thereof, and adapted to bear against the bottom surface of the upper panel 14 in order to press the end portions of the shaft 56 into the notches 26. This cam 58 has handle 60 fixed thereto for facility in rotation thereof.

As is apparent from inspection of Figure 2 there are two identical assemblies, one assembly having been fully described in connection with the legs 30 and 32 and the other assembly employed to hold the legs 64 and 65 in the extended and retracted position. In operation the legs 30 and 32 are pulled to the extended position as disclosed in Figure 1. This includes either the legs for the table 12 or the bench 10 which incidentally, may be made of more inexpensive construction inasmuch as the straps forming the bearings may be omitted in favor of a simple dial or rung with links attached thereto as disclosed in Figure 1.

When the legs are extended to the position disclosed in Figure 3, the handle 60 is rotated thereby rotating the cam 58 and its shaft to which it is attached. This will press the shaft 56 downwardly into the notches 26 thereby preventing the legs from collapsing under normal or even abnormal use.
In order to transport the table or the bench from one location to the other a holding strap 68 is attached to suitable members behind the flange 18 and this strap may be of any chosen or selected material.

Having described the invention, what is claimed as new is:

In an article of furniture, a panel, spaced, parallel flanges secured to and depending from said panel, a pair of legs, a cross bar interconnecting the upper ends of said legs, the ends of said cross bar being rotatably journaled in opposite portions of said flanges for rotation about a horizontal axis upon said panel, a cross member connecting said legs together intermediate their upper and lower ends, said opposite flange portions having elongated guide slots therein remote from said legs, a shaft carried in said guide slots and extending between said flange portions, links interconnecting said cross member and said shaft said links being pivotally connected at one end to said shaft, said links being pivotally connected at the other ends thereof to said cross member, said flanges having notches in said guide slots, the ends of said shaft seating in said notches when the legs are extended, said shaft being rotatable in said notches, and a cam member fixed to and coextensive with said shaft and engaging the under surface of said panel to move the shaft ends into engagement with the notches upon rotation of the cam member and the shaft.

HANS ROSEN.

References Cited in the file of this patent

UNITED STATES PATENTS

<table>
<thead>
<tr>
<th>Number</th>
<th>Name</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>171,145</td>
<td>Lambie</td>
<td>Dec. 14, 1875</td>
</tr>
<tr>
<td>606,370</td>
<td>Adams</td>
<td>June 7, 1898</td>
</tr>
<tr>
<td>764,359</td>
<td>Huffman</td>
<td>July 5, 1904</td>
</tr>
<tr>
<td>1,155,991</td>
<td>Maggs</td>
<td>Dec. 28, 1915</td>
</tr>
<tr>
<td>1,269,008</td>
<td>SedaJ</td>
<td>June 11, 1918</td>
</tr>
<tr>
<td>2,260,478</td>
<td>Peter</td>
<td>Oct. 20, 1941</td>
</tr>
<tr>
<td>2,514,061</td>
<td>Hood</td>
<td>July 4, 1950</td>
</tr>
</tbody>
</table>

FOREIGN PATENTS

<table>
<thead>
<tr>
<th>Number</th>
<th>Country</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>21,781</td>
<td>Great Britain</td>
<td>1911</td>
</tr>
</tbody>
</table>