Apr. 17, 1923. 1,451,846

C. O. ROBINSON

COLLAPSIBLE SUPPORTING DEVICE

Filed March 8, 1922

Fig. 1.

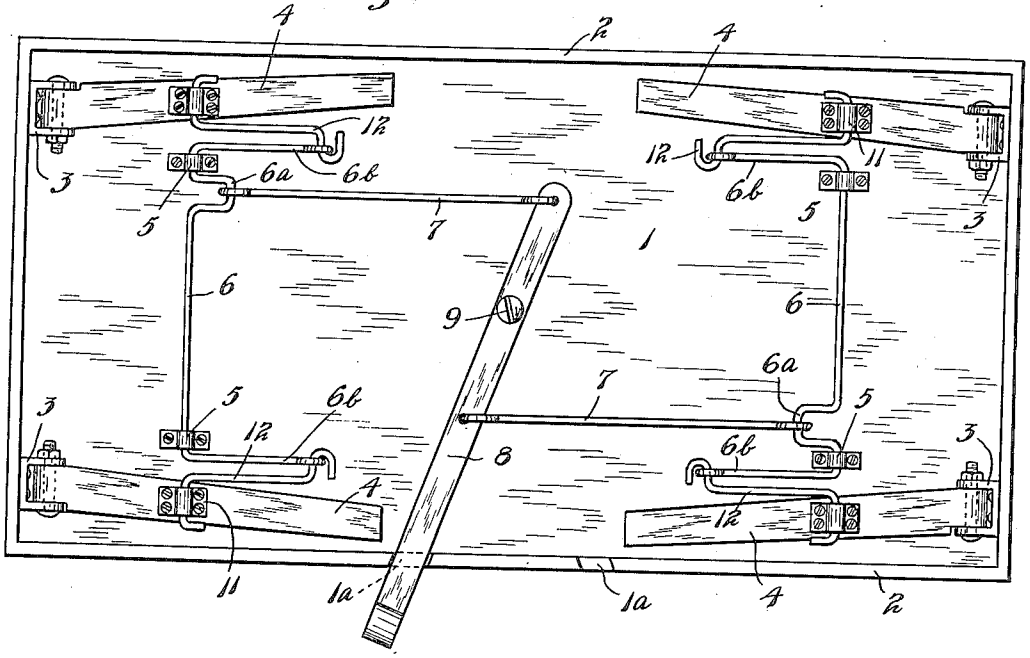
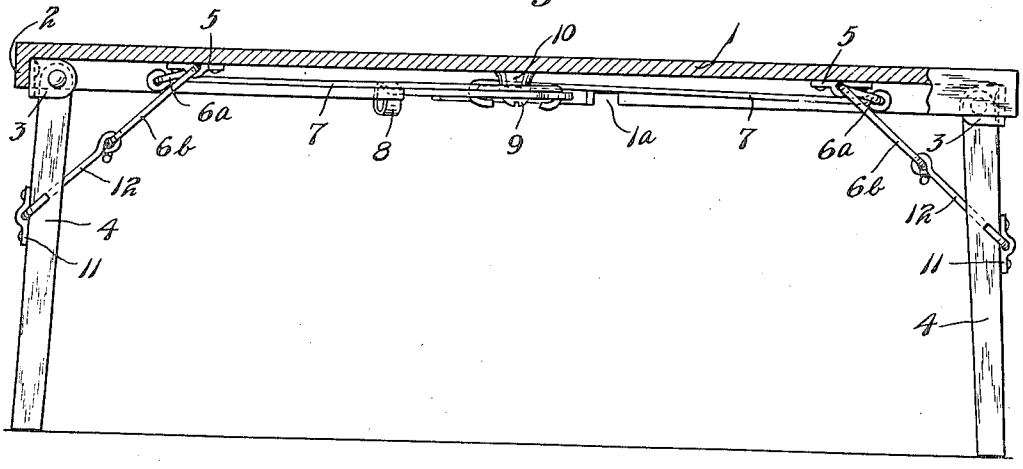


Fig. 2.



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COLLAPSIBLE SUPPORTING DEVICE.

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To all whom it may concern:

Be it known that I, CHARLES O. ROBINSON, a citizen of the United States, residing at Bismarck, in the county of Burleigh and State of North Dakota, have invented certain new and useful Improvements in Collapsible Supporting Devices; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to a supporting device such as a table, chair, bassinet stand, or similar article, and particularly to such a device equipped with a plurality of supporting legs adapted to be moved to operative supporting position and also to be moved to closed or folded position. Where storage room is scarce and where a device is only used at intervals, it is often desirable to have the same constructed so that it can be closed into small space, to be conveniently put away when not needed.

It is an object of this invention, therefore, to provide such a supporting device having simple and efficient means for quickly and simultaneously moving its supporting legs to operative or inoperative position.

It is more specifically an object of the invention to provide a means disposed intermediate the ends of the table for so moving the supporting legs and also having means to hold the legs in the position to which they have been moved.

These and other objects and advantages of the invention will be fully set forth in the following description made in connection with the accompanying drawings in which like reference characters refer to the same parts throughout the different views, and in which

Fig. 1 is a bottom plan view of the device; and

Fig. 2 is a central vertical longitudinal section thereof.

Referring to the drawings, the device comprises a supporting member 1 having a substantially flat top surface. While this member may be made of any desirable shape, in the embodiment of the invention illustrated, it is shown as of rectangular form and as having a depending flange 2 at its edge portion. Secured to the inside of said flange, at the end portions thereof and adjacent the side of the device, are U-shaped brackets or clips 3 to which are pivoted the legs 4 shown as diverging slightly from a longitudinal center line of the member 1. These legs are pivoted by suitable headed and nutted bolts extending through alined apertures in the arms of the brackets 3. Secured to the underside of the member 1 in small bearing brackets 5 is a pair of crank shafts or rods 6. These rods are rotatable or oscillatable in the bearings 5 and disposed between each end pair of legs 4 and at a point intermediate the length of said legs. These rods 6 are provided with crank portions 6^a at reverse sides adjacent one of the bearings 5 and to these crank portions are pivotally connected links 7, the other ends of which extend toward the center of member 1 and are pivotally connected to a lever 8 at substantially equal distances at each side of the fulcrum thereof. This lever 8 is fulcrumed or rotatably supported on a screw 9 secured at substantially the central point of the member 1, the screw being provided with a bearing portion adapted to receive the lever 8 and with a nut 10 adapted to engage the threaded portion thereof and hold the same in firm relation to the underside of member 1. This lever is extended at one side of the table and notches 1^a are cut in the flange 2 with which the lever engages and by which it is held in place in its two positions. The legs 4 are provided with small bearing brackets 11 secured to the outer sides thereof and crank arms 12 have laterally extending portions journaled in said brackets, the outer ends of which portions are upturned to prevent a withdrawal from said brackets. The inner ends of the arms are extended some distance parallel to the side of the member 1 and are provided with hooked ends adapted to form a pivotal connection with arms 6^b forming extensions of the crank shafts or rods 6 immediately outside of the bearings 5.

With the described structure it is seen that the legs 4 can be swung to the supporting position shown in Fig. 2 or to a position as shown in Fig. 1, in which they lie quite close to the undersurface of the member 1 and substantially parallel thereto. In the latter position, the lever 8 will occupy the position shown in Fig. 1 and be disposed in one of the notches 1^a. When it is desired to extend the legs the end of lever 8 will be sprung out of the notch and swung about this pivot. The crank shafts 6 will be ro-

tated by the links 7 and the arms 6^b will then swing the arms 12, whereupon the legs 4 will be swung about their pivots and brackets 3 and moved to extended position. When the legs are in this position, the lever will be engaged in the other notch 1^a. The lever 8 is made, preferably of a flat bar having some resiliency so that the end of the same will snap into the slots 1^a and be retained therein. The positions occupied by the respective parts with the legs in the two positions are clearly shown in Figs. 1 and 2.

It is thus seen that applicant has provided an extremely simple and efficient mechanism for quickly and easily collapsing and extending the legs of a supporting device. The parts are few and easily made and the device can be made at small expense.

While the device has been particularly designed to form a stand or bassinet for a baby carriage, as previously stated, it is equally applicable to a table structure, chair structure or similar supporting device. The parts may, of course, be made of any desired shape and ornamented in various ways.

It will, of course, be understood that various changes may be made in the form, details and arrangement of the parts without departing from the scope of applicant's invention, which, generally stated, consists in the matter shown and described and set forth in the appended claims.

What is claimed is:

1. A supporting device having in combination a supporting member, a plurality of legs swingingly mounted thereon and attached beneath said member adjacent each end thereof, separate oscillating means mounted adjacent corresponding pairs of said legs and in bearings on said supporting member and connected thereto adapted to swing said legs to and from operative position, and means mounted between said means and connected thereto for actuating the same.

2. A supporting device having in combination a supporting member, a pair of legs pivoted at each end of the same and extending downward therefrom, links pivoted intermediate said legs, rotatable means mounted beneath said table including crank arms connected to said links, and means for rotating said rotatable means to swing said legs to and from operative position.

3. A supporting device having in combination a supporting member, a pair of legs pivoted thereto at each end and depending from the underside thereof, a crank member pivoted to the underside of said member adjacent each pair of legs, links connecting said legs to said crank arms and a single means mounted on the underside of said table for reversely swinging said crank members to swing said legs to and from operative position.

4. The structure set forth in claim 3, said single means comprising a lever and link connected thereto at each side of the fulcrum and to said crank arms.

In testimony whereof I affix my signature.

CHARLES O. ROBINSON.