

July 1, 1941.

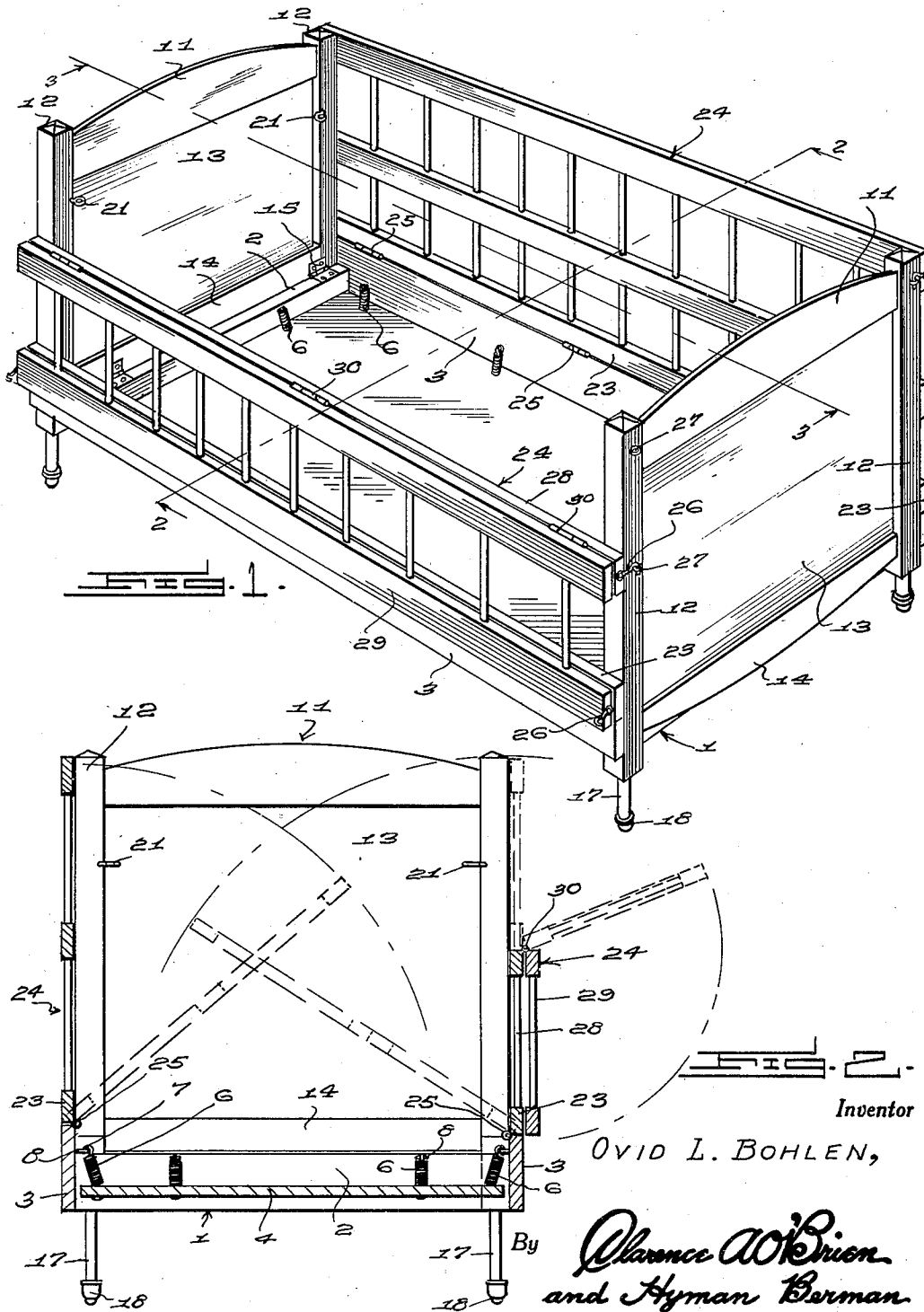
O. L. BOHLEN

2,247,598

BED

Filed Jan. 11, 1940

3 Sheets-Sheet 1



Inventor

OVID L. BOHLEN,

By

Clarence A. O'Brien
and Hyman Berman
Attorneys

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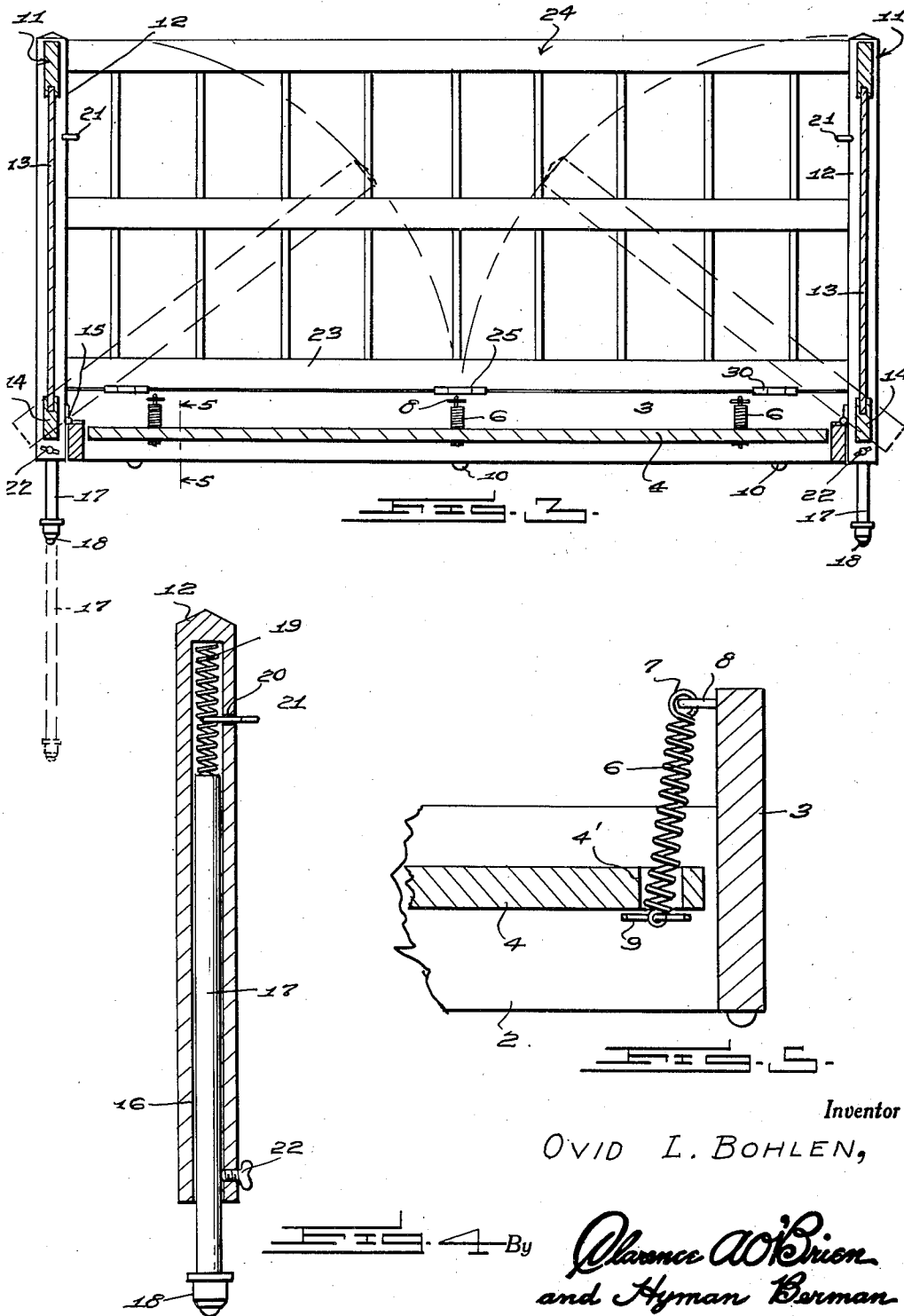
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OVID L. BOHLEN,

By *Clarence A. O'Brien*
and Hyman Berman
Attorneys

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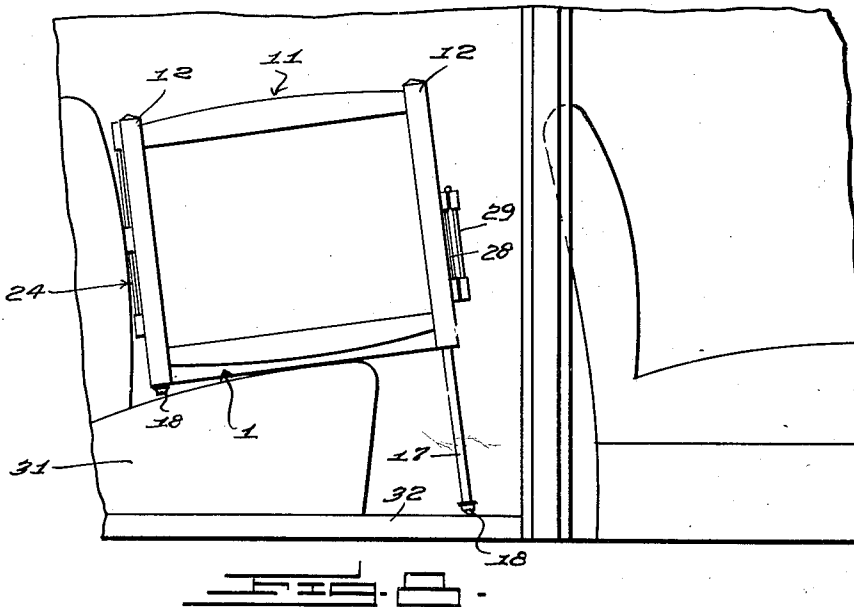
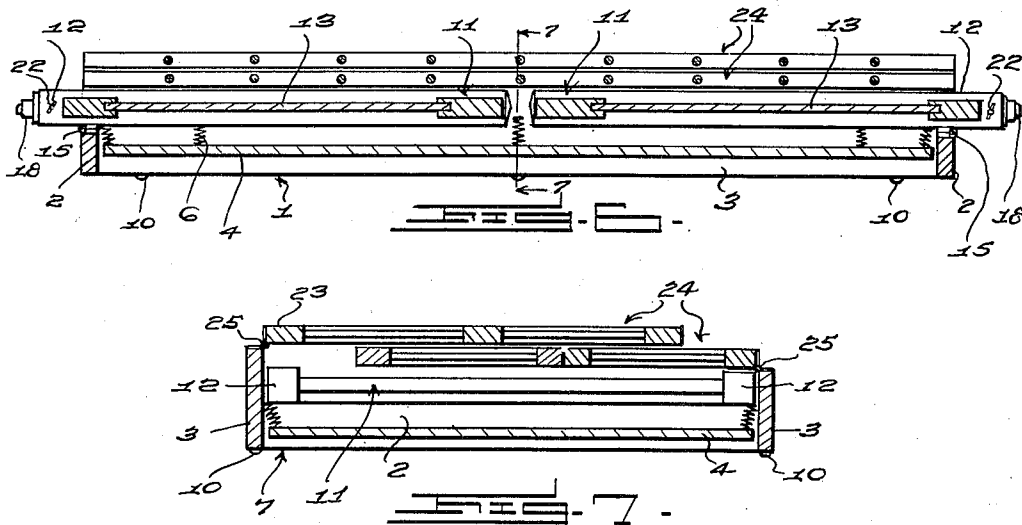
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Inventor

OVID L. BOHLEN,

By *Charles W. O'Brien*
and Hyman Berman
Attorneys

UNITED STATES PATENT OFFICE

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BED

Ovid L. Bohlen, Los Angeles, Calif.

Application January 11, 1940, Serial No. 313,448

1 Claim. (Cl. 5—93)

My invention relates to improvements in folding beds of the crib type for infants.

The invention is designed with the particular purpose in view of providing a light-weight, crib type bed of sturdy construction which may be readily converted into a play pen for a child and collapsed into compact folded form for storage or other purposes.

Another object is to provide a bed of the type and for the purposes above set forth which is adjustable as regards height from the floor, adapted for vertical vibratory movement to quiet a child, and designed to be partially supported on the back seat of an automobile and partially on the floor thereof so that it may be used in such a vehicle without danger of upsetting therein.

To the accomplishment of the above, and subordinate objects presently appearing, a preferred embodiment of my invention has been illustrated in the accompanying drawings, set forth in detail in the succeeding description, and defined in the claim appended hereto.

In said drawings:

Figure 1 is a view in perspective of the preferred embodiment of my invention,

Figure 2 is a view in transverse section taken on the line 2—2 of Figure 1 looking in the direction indicated by the arrows and illustrating in broken lines the manner in which the sides are foldable,

Figure 3 is a view in longitudinal section taken on the line 3—3 of Figure 1 looking in the direction indicated by the arrows and illustrating the manner in which the ends are foldable,

Figure 4 is a view in vertical section of one of the corner posts and legs drawn to an enlarged scale,

Figure 5 is a detail view in transverse section drawn to an enlarged scale and taken on the line 5—5 of Figure 3 looking in the direction indicated by the arrows,

Figure 6 is a view in longitudinal section of the bed completely folded,

Figure 7 is a similar view in transverse section taken on the line 7—7 of Figure 6 looking in the direction indicated by the arrows, and

Figure 8 is a diagrammatic view illustrating the use of the bed in an automobile.

Referring to the drawings by numerals, the bed, as illustrated therein comprises a box-like, rectangular base frame 1, preferably of wood, and rectangular form and including flat end bars 2 and side bars 3. The side bars 3 are higher than the end bars 2 for a purpose presently clear.

A bottom 4 of suitable size to fit with a slight clearance in the frame 1 is yieldingly suspended from the bars 2 and 3 by coil springs 6 so as to play up and down between said bars. The springs 6 are spaced along the bars 2, 3, at suitable locations and provided with upper hooked ends 7 detachably secured in eye screws 8 extending from the inner faces of said bars. The lower ends of the springs 6 may be extended through apertures 4' in the bottom 4 and with pins 9 extending through the lower ends thereof to secure said springs to said bottom.

The side bars 3 are provided on the bottom edges thereof with button-like skids 10, of any suitable material, spaced apart along the same as desired and facilitating sliding of the frame along a floor or the like when the bed is used as a pen or folded.

The ends 11 of the bed each comprise a pair of preferably square corner posts 12 of wood, or other suitable material, with a panel structure 13 extending between the same, said panels preferably comprising base rails 14 opposed to the end bars 2 exteriorly thereof. Each end 12 is attached to one of the end bars 2 exteriorly thereof by a pair of hinges 15 suitably secured to the base rail 14 and the top edge of the adjacent end bar 2, the arrangement in this respect being such that said ends may be folded from upright position inwardly and downwardly over the end bars 2 and below the top edges of the side bars 3, and unfolded into upright position with the lower ends of the posts 12 opposed flat against the outer faces of the end bars 2 thereby establishing their unfolded positions. In this connection, the posts 12 are so designed that when the ends 11 are unfolded, the base ends of said posts do not extend below the frame 1. Thus, as will presently be seen, the overall length of the bed when folded is reduced to a minimum.

Each post 12 is provided with an axial bore, as at 16, extending inwardly from the lower end thereof and in which is slidably mounted for extension and retraction a tubular leg 17 of light strong metal equipped at the lower end thereof with a suitable caster 18. A coil spring, as at 19, in the bore 16 of each leg 12 and interposed between the inner end of the bore and the leg urges the latter outwardly and cushions retraction thereof. Each post 12 is provided opposite the spring 19 with an aperture 20 for the extension therethrough and into the bore 16 of a pin 21 to be inserted between convolutions of the coil spring 19 and thereby shortening the effective length thereof so as to correspondingly

vary the cushioning action of the spring against the leg. A thumb screw 22 is provided in each post 12 adjacent the lower end thereof for clampingly engaging the post to retain the latter in selected set positions and thereby vary the height of the bed as will be clear. By leaving the thumb screws 22 loose, the coil springs 19 may be utilized to yieldingly support the weight of the body of the bed so that said body may be vibrated vertically on the legs 17.

The sides 24 of the bed are of lattice-like form, each including a lower flat bar 23. The lower bars 23 are hinged, as at 25, to the side bars 3 to extend along the upper edges thereof, so that said sides may be folded from upright position inwardly and downwardly. In this connection the length of the sides 24 is such that in the unfolded upright position thereof they engage flat against the corner posts 12, whereby their unfolded position is established and folding thereof prevented until the ends 11 of the bed have been folded. Also, as best shown in Figure 7, one side bar 3 is higher than the other so that the side 24 hinged thereto may fold flat down on the other side of the bed. Hooks 26 on the sides 24, at the ends thereof and eye screws 27 on the posts 12 provide inexpensive means for connecting the sides and ends of the bed together in the unfolded position thereof and thereby preventing the same from collapsing. One of the sides 24 of the bed preferably comprises upper and lower sections 28, 29 hinged together, as at 30, so that the upper section 28 may be swung outwardly and downwardly on the lower one for easy access to the interior of the bed.

The manner in which the bed is collapsed, or folded, will be readily understood. The legs 17 are first retracted into the posts 12 to the limit of such movement in that direction and against the tension of the springs 19, the pins 21 having been first removed. The thumb screws 22 are next turned against said legs 17 to hold the same in retracted position. The hooks 26 are next disengaged from the eye screws 27. The ends 11 are then folded inwardly and downwardly over the bottom 4, as indicated by broken lines in Figure 3, edge to edge, it being understood that said ends 11 are of the proper dimension to be so folded. In the folded positions of said ends 11 the leaves of the hinges 15 abut and limit folding movement of said ends so that they are

maintained in a common plane as shown in Figure 6. The sides 24 are next folded inwardly and downwardly, the one hinged on the side bar 3 of reduced height being folded first, and the other side 24 next folded whereby said sides are disposed in overlapping relation flat one upon the other. The manner in which the parts are unfolded will be readily apparent and need not be entered into.

When it is desired to convert the bed into a pen, the legs 17 are removed from the posts 12 in a manner which will be clear, and the bottom 4 detached by uncoupling the springs 6 from the eye screws 7. The ends 11 and sides 24 may be unfolded either before or after removal of the legs. The bed is next disposed on the floor, with the frame 1 supported by the skids 10 and a closed pen is thereby provided for the child. By virtue of the skids 10 the pen may be easily slid from place to place as desired.

As shown in Figure 8, with the legs 17 on one side of the bed removed and those on the other side appropriately extended into set position, the frame 1 may be disposed on the rear seat 31 of an automobile with the extended legs 17 resting on the floor 32, it being of course understood that the bed, in this instance, is made of appropriate length to fit into the automobile. In this position of the bed, it cannot tilt off the seat 31, and upset, the extended legs 17 preventing such tilting from occurring.

The foregoing will, it is believed, suffice to impart a clear understanding of my invention without further explanation.

Manifestly the invention, as described, is susceptible of modification without departing from the inventive concept and right is herein reserved to such modifications as fall within the scope of the subjoined claim.

What I claim is:

In a bed including a body, hollow corner posts on said body, legs extending from said posts and endwise slidable therein, coil springs in said posts cushioning the posts against the legs whereby the body may be vibrated vertically on said legs, means on said posts for varying the cushioning action of said springs from the outside of said posts, and set screws in said posts for locking the legs thereto to prevent vibration of said body at will.

OID L. BOHLEN.