

T. B. LAYCOCK.
PAWL AND RACK MECHANISM FOR COUCHES.
APPLICATION FILED AUG. 20, 1910.

981,287.

Patented Jan. 10, 1911.

Fig. 1.

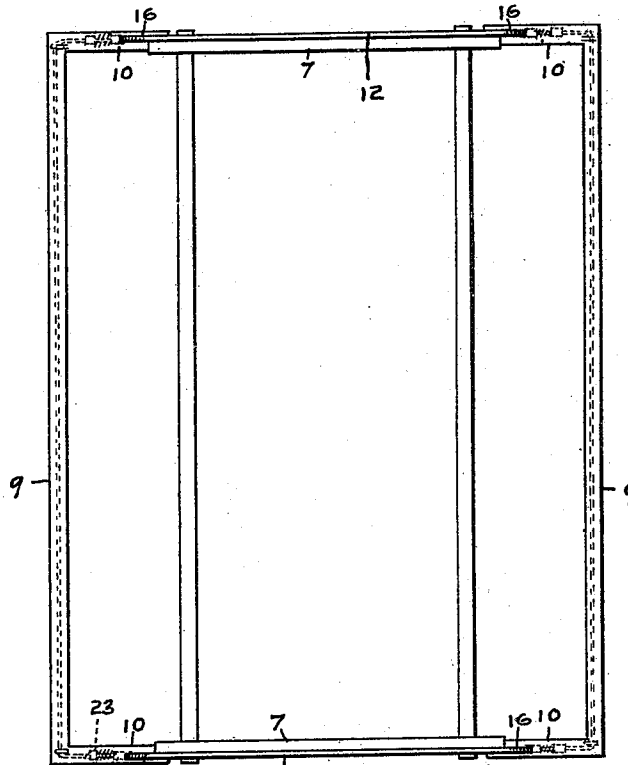


Fig. 2.

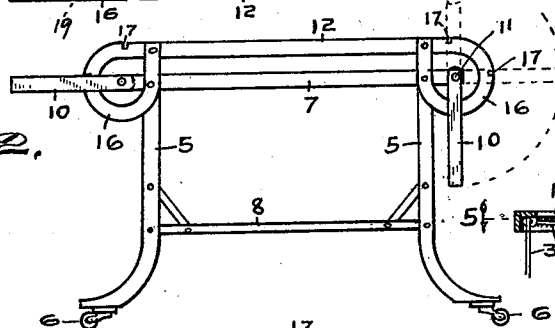


Fig. 5.

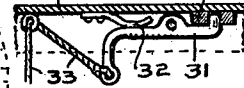


Fig. 4.

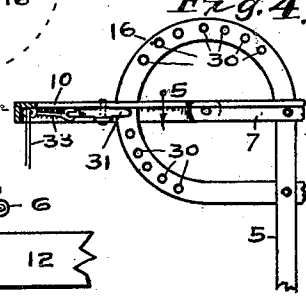
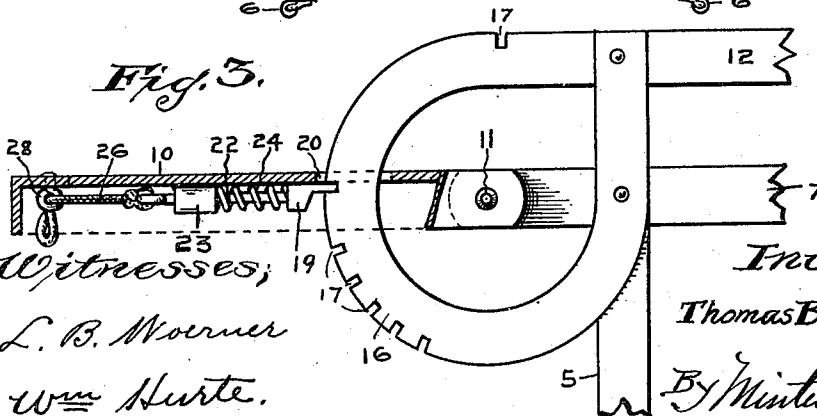


Fig. 3.



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UNITED STATES PATENT OFFICE.

THOMAS B. LAYCOCK, OF INDIANAPOLIS, INDIANA, ASSIGNOR TO T. B. LAYCOCK MANUFACTURING COMPANY, OF INDIANAPOLIS, INDIANA, A CORPORATION OF INDIANA.

PAWL-AND-RACK MECHANISM FOR COUCHES.

981,287.

Specification of Letters Patent.

Patented Jan. 10, 1911.

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To all whom it may concern:

Be it known that I, THOMAS B. LAYCOCK, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Pawl-and-Rack Mechanism for Couches, of which the following is a specification.

This invention relates to improvements in couches having folding side members which are capable of being extended to increase the width of the bed.

The object of this invention is to provide fixed pivotal points or hinges for the side members so that there will be no lateral adjustment of said side members on their hinges, and to provide notched segmental racks which are at least semi-annular in shape, and to provide means for operating dogs or pawls carried by the folding side members, to engage the notches of the segment racks to retain the raised positions of the said folding side members.

The invention will be better understood by reference to the accompanying drawing which is made a part hereof, and in which—

Figure 1 is a top plan view of a couch frame with folding side members made in accordance with this invention, the side members being both shown in horizontal position, making a full extension bed. Fig. 2 is an end elevation of same looking at the lower end of the device illustrated in Fig. 1. Fig. 3 is a detail in side elevation and partial vertical section of the mechanism illustrated in the upper left corner of Fig. 2, but on a larger scale than is used in Fig. 2. Fig. 4 is a view looking at the inside of a leg showing a modified locking construction, and Fig. 5 is a horizontal section on the line 5—5 of Fig. 4.

Like characters of reference indicate like parts throughout the several views of the drawing.

The principal or main frame of the device is comprised of four vertical corner posts 5 of angle iron bent outwardly at their lower ends to increase the base area, and terminating with roller casters 6. These posts are connected at their upper ends by horizontal angle bars 7, the ends of which are continued past the posts 5 for the convenient attachment thereto of the folding side members. The posts 5 are further connected in pairs at each end of the couch by bars 8 which are

parallel with the bars 7 but are lower down on the posts and the posts and bars are suitably braced as shown.

The folding side members each comprise a frame preferably made out of angle iron 60 and consisting of outside longitudinal bars 9 and inturned end bars 10. The ends of the bars 10 are pivotally attached by bolts or rivets 11 to the corresponding projecting ends of the bars 7 whereby the said side members may be freely folded into the several positions represented at the right side in Fig. 2.

Supported above the bars 7 and parallel therewith are the bars 12 of flat or strap iron turned edge up. The ends of these bars project beyond the limits of the posts 5 and are bent in the segment of a circle, edgewise and downwardly, the pivot 11 securing the adjacent side member to the body of the couch, being at the center of the circle or segmental rack thus formed. The end of the bar is extended vertically from post 5, to the body of the bar 12 above and is riveted to post 5 and bar 12 in the manner as shown. This construction is carried out at both ends of the bar 12 and the bar therefore is formed into two opposite segmental racks and these are connected by the body of the bar which forms a head and foot piece for the couch. The outer edges of the segmental racks 16 thus formed, are provided with notches 17 at such positions as may be deemed necessary to form a holding means for the folding side members. The principal positions for these folding side members is horizontal, and raised and lowered vertical positions, but as the lowered vertical position requires no fastening device to maintain it a holding notch is not made in the lower edge of the segment rack for lowered vertical positions, but notches are shown in Fig. 3 for lowered oblique positions.

Mounted under the horizontal flange or member of the ends 10 are dogs or pawls 19 which are adapted to enter the notches 17 of the adjacent segment rack. The segment racks pass through slots 20 in ends 10, and the dogs 19 are pressed normally against the outer edges of the adjacent rack and into the first notch that comes opposite said dog at the raising or lowering movement of the folding side members of the couch. The dog 19 is provided with an outwardly ex-

tended stem 22 which passes through an opening in lug 23 on the under side of the end bar 10 and a spring 24 between the lug and dog presses the latter constantly against the edge of the segment rack as above described. The outer end of stem 22 terminates in an eye to which a cable 26 is fastened. This cable passes through an eye 28 at the corner of the folding side member and is extended thence along and under the bar 9 to the dog on the other end of the folding side member. By this means both dogs at each end of the folding side member may be simultaneously withdrawn by pulling on the cable 28, and the cable is so disposed under the bar 9 as to be within easy reach of the operator in raising or lowering said side member. The dogs being withdrawn by a pull on the cable 28 the side member will be moved up or down as may be desired a little way to cause the dog to miss the notch in the segment rack and then the cable may be released which will leave the dogs free to engage and lock the side member at the next set of notches reached by the movement of said member and thereupon the member will be automatically locked.

In the modification shown in Figs. 4 and 5 indentations 30 are formed in the side of segment rack 16 and a pawl 31 pivoted under the top flange of frame member 10 has a bent end which is pressed by a spring 32 against the side of rack 16 and will enter the first indent that it comes to, when the folding side member is moved on its hinges. This pawl is bent at its outer end and to this end a cable 33 is connected. A pull on

the cable will disengage the pawl from the indent in the rack.

Various forms of dogs or pawls may be employed and these may be inserted into the notches or indents of the segment racks by different means than here shown and described and also withdrawn by different means, without departing from the spirit of this invention. It is not desired, therefore, to limit the invention to the mechanism here shown but

What is desired to be claimed, and to be secured by Letters Patent, is—

The combination of a couch frame, folding side members hinged to said frame, said side members having slots, segment racks rigidly secured to the couch frame and extending concentrically of the hinges connecting said frame and side members outside of said hinges and extending through the slots in said side members, said racks having indents, pawls carried by the folding side members springs to press them normally against their respective segment racks into engagement with the indents of said racks and means for simultaneously withdrawing all of the pawls of the folding side member.

In witness whereof, I have hereunto set my hand and seal at Indianapolis, Indiana, this 15th day of August, A. D. one thousand nine hundred and ten.

THOMAS B. LAYCOCK. [L. s.]

Witnesses:

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