July 17, 1928.

1,677,218

G. SHAND

BED

Filed April 28, 1926

Fig. 1.

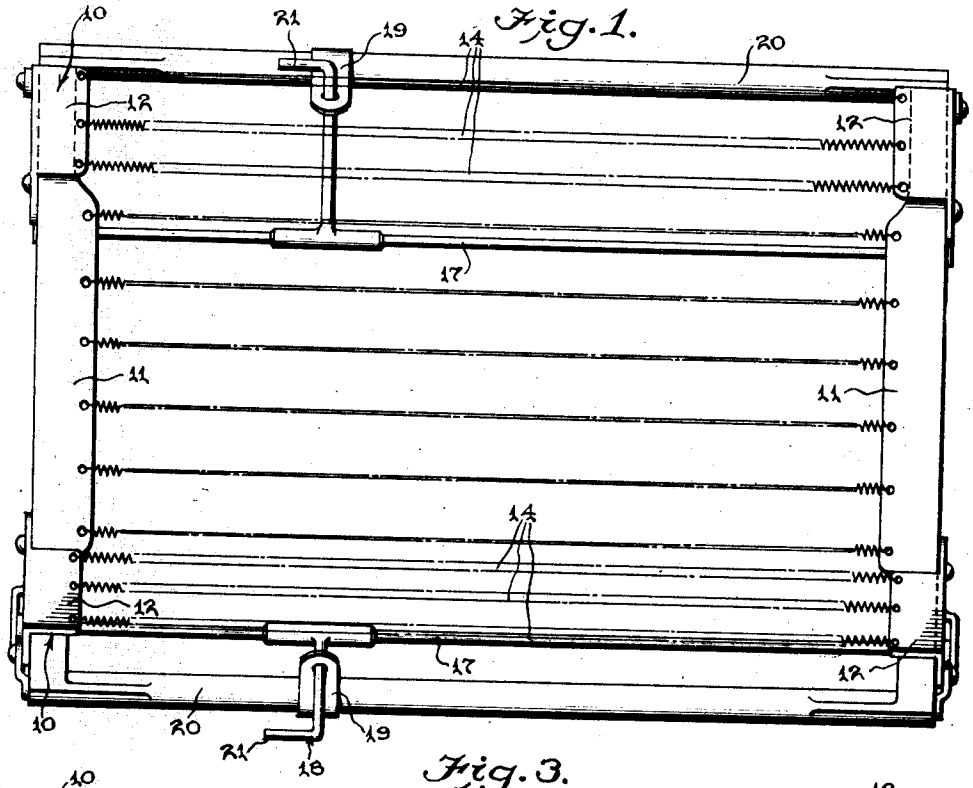


Fig. 3.

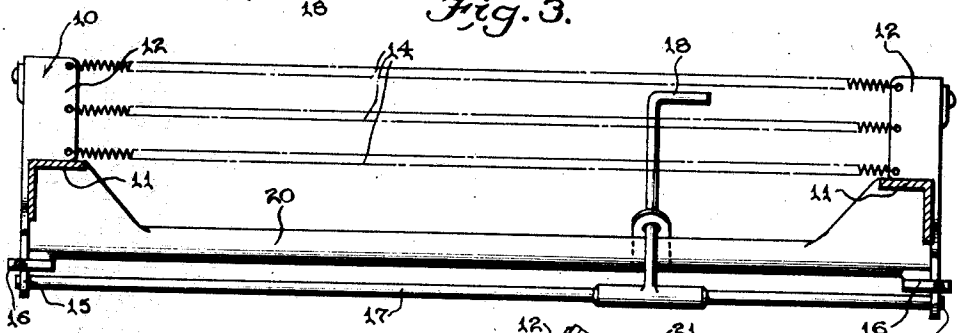
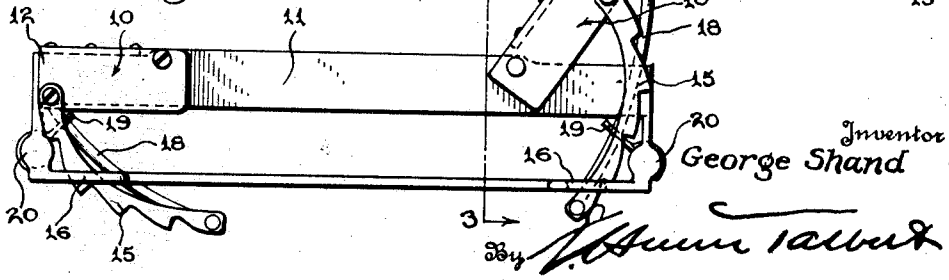


Fig. 2.



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UNITED STATES PATENT OFFICE.

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BED.

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The object of the invention is to provide a bed structure in which the frame comprises adjustable elements extending throughout the length thereof, so that the side edge of the bed may be elevated or set at any desired inclination within a reasonable range of adjustment, so that an occupant lying on his side may be supported at the back throughout the length of the body; and to provide a structure of this sort in which the adjustment may be made from within the bed by the occupant without difficulty on the part of the latter.

With this object in view, the invention consists in a construction and combination of parts of which a preferred embodiment is illustrated in the accompanying drawings, wherein:

Figure 1 is a top plan view of a bed frame embodying the invention, one side being shown adjusted at an inclination.

Figure 2 is an end elevational view of the structure of Figure 1.

Figure 3 is a longitudinal sectional view on the plane indicated by the line 3—3 of Figure 2.

To carry out the invention, it is only necessary to modify the conventional form of bed frame to the extent of removing the usual spring or supporting wire or structure at either side to make room for the adjustable side wings 10. The head and foot rails 11 of the frame, in the illustrated embodiment of the invention, are depressed on the upper face to permit the top flanges of the angle plates 12 lying flush with the rails when the wings are in flat position—that is, when they lie in the same parallel plane with the bed bottom.

Each wing comprises a pair of angle plates 12 of which one is pivotally connected with the head rail and the other with the foot rail, the top or horizontal flanges being connected by springs 14 constituting resilient supporting means for the superposed mattress. With each angle plate is connected an arcuate toothed rack 15, the rack being pivotally connected with the angle plate at the extremity of the former and at the outer or free end of the latter, the rack extending through a guide 16 in the frame and being terminally connected with a longitudinal rod 17. The rod connects the racks of both angle plates of a wing and at an intermediate point, preferably adjacent the head rail, is connected with an arcuate hand bar 18 extending through a guide 19 mounted on the side rail 20 of the frame, the bar 18 terminating in a hand-hold 21 by means of which it may be actuated by the occupant of the bed.

The operation of adjusting either wing, assuming that they lie in a position in the same plane with the bed bottom, consists merely in applying force in the direction of the length of the hand bar 18. The angle plates 12 are then rocked on their pivotal connections with the head and foot rails because of their operative connections with the hand bar through the arcuate racks and rod 17. The wing is thus elevated to the desired position and this having been secured, a rocking movement is imparted to the hand bar, when the guide 19 functions as a fulcrum and the rack bars are rocked to engage a selected tooth with the guide 16 and the adjusted position is thus maintained. The cycle of operations is reversed in restoring a wing to the neutral position or in changing the angle of inclination.

The invention having been described, what is claimed as new and useful is:

A bed bottom embodying a frame comprising head, foot and side rails, angle plates pivotally mounted on the head and foot rails, a mattress supporting spring spanning said plates, guides carried by the head and foot rails, arcuate toothed rack bars pivotally connected with said plates and movable through said guides, a hand bar having a mounting on said side rail to permit rocking and longitudinal movement of said hand bar, and operative connections between said hand bar and the arcuate rack bars.

In testimony whereof he affixes his signature.

GEORGE SHAND.