

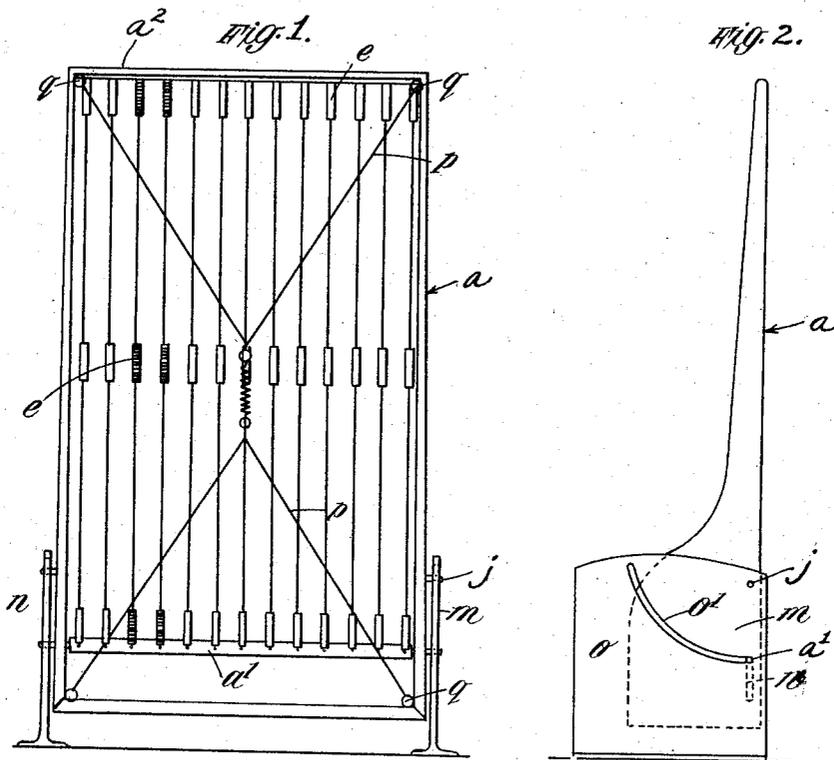
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FOLDING BED OR CHAIR

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# UNITED STATES PATENT OFFICE

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## FOLDING BED OR CHAIR

Application filed September 27, 1928, Serial No. 308,842, and in Great Britain October 7, 1927.

This invention relates to beds or chairs of the kind that are adapted to be folded into a vertical position when not in use, the beds or chairs being of the kind provided with spring mattresses.

The principal object of this invention is the provision of means whereby when the bed is in its horizontal position, that is the position in which it is to be used, the springs of the mattress are subjected to a maximum tension, whereas when the bed is being folded into its vertical position this tension is gradually reduced. This construction causes a considerable increase in the life of the springs as they would normally be under full tension for less than 12 hours per day, even if the bed was in regular use, and has the further advantage that the springs of the mattress, when under tension, assist in the movement of the bed when the latter is being raised or lowered.

The invention as applied to a bed is illustrated in the annexed drawings, in which:—

Fig. 1 is an elevation of a bed in its folded position, and

Fig. 2 is a side elevation of the bed in its folded position.

The bed bottom is formed preferably of a plurality of substantially parallel flexible members such as wires or cords, each connected at its opposite ends to the head portion  $a'$  and foot portion  $a^2$  of the framework  $a$ , preferably by springs  $e$ . The flexible members may be divided between their ends, and the divided portions may be connected together by additional springs.

The two side members  $m$  of the bed frame are formed with substantially longitudinal slots  $n$ , and the two brackets  $o$  between which the bed frame is mounted to swing on a horizontal axis  $j$  adjacent their rear upper corners have each an arcuate cam slot  $o'$  eccentric to the pivot  $j$ , the member  $a'$  passing through all the slots. To avoid weakening the brackets  $o$ , by forming cam slots in them curved trackways may be secured to the brackets.

If the foot of the bed be pulled down the draw bar  $a'$ , having a roller at each of its ends extending through one of the cam slots

$o'$ , follows the curvature of the slots and extends the springs. When the bed is raised the reverse action takes place. In order to retain the bed clothes in position when the bed is not in its horizontal position, cords  $p$  having hooks  $q$  at their ends are secured to the corners of the bed and to a central spring.

Having thus described the nature of my said invention and the best means I know of carrying the same into practical effect, I claim:—

A folding bed, comprising a pair of spaced vertical brackets each having an arcuate guideway extending upwardly from a point adjacent its forward edge toward its upper end, a pair of side members each having a longitudinal slot adjacent its head end and each pivoted at a point between said slot and its foot end to one of said brackets on a horizontal axis eccentrically to the arcuate guideway of such bracket, a foot member connecting the other ends of said side members, a bed bottom having one end connected to said foot member, and a head bar connected to the other end of said bed bottom, said head bar having means projecting from each of its ends through the longitudinal slot of one of said side members into constant engagement with the arcuate guideway of one of said brackets.

In testimony whereof I have signed my name to this specification.

CHARLES VALE.