Aug. 13, 1929. M. B. SCOTT 1,724,852

BED

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Fig. 1.

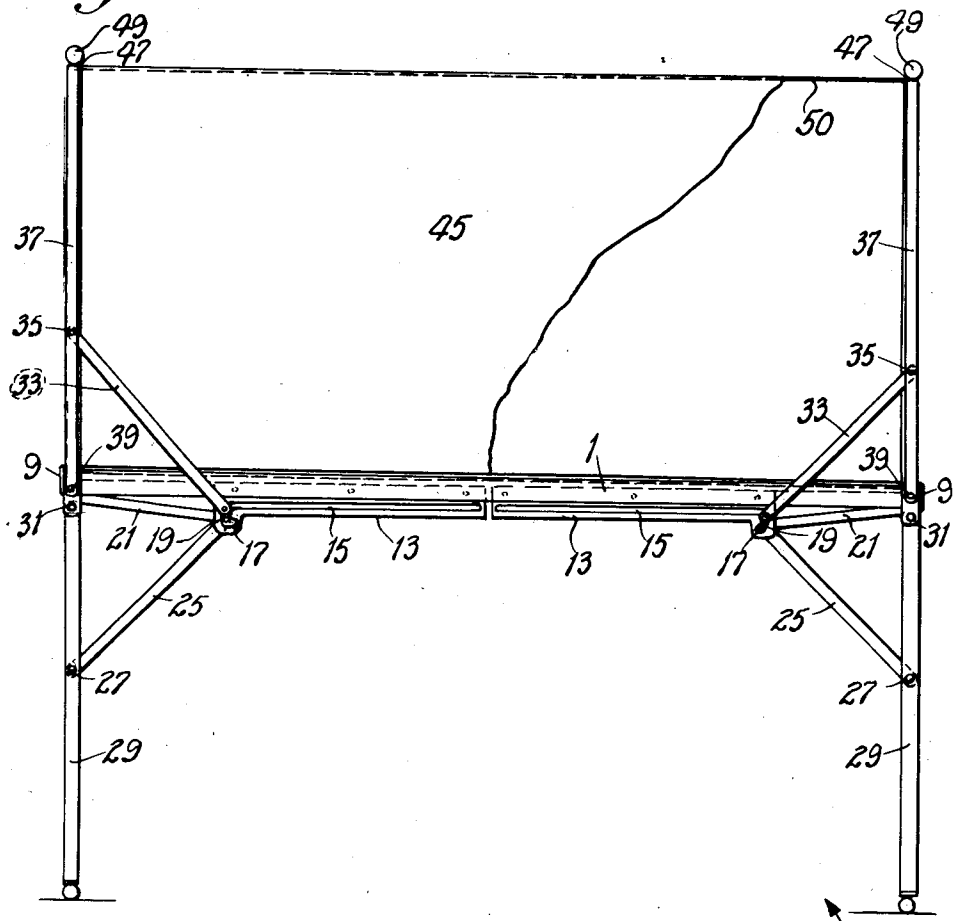

Fig. 6.

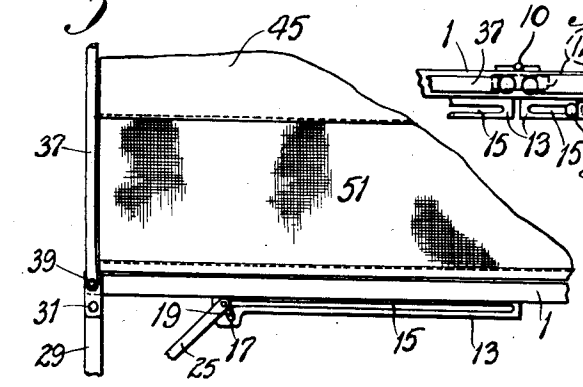

Fig. 2.

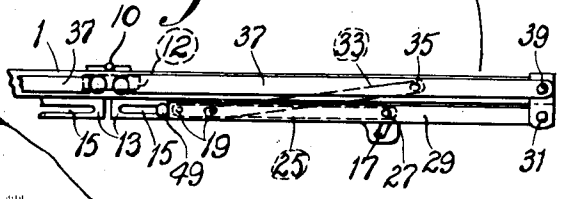

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Fig. 3.

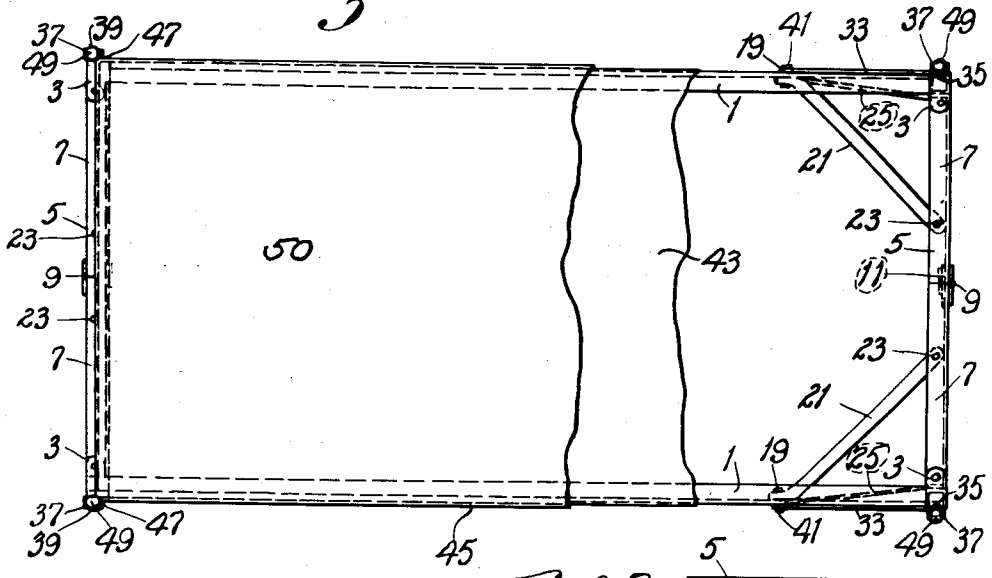


Fig. 7.

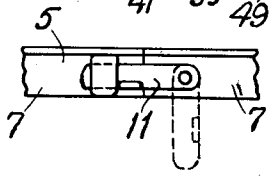
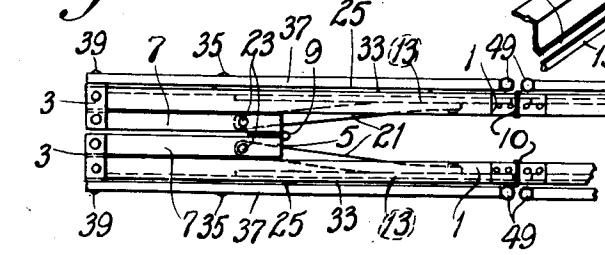


Fig. 4.

Fig. 5.

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Patented Aug. 13, 1929. 1,724,852

UNITED STATES PATENT OFFICE.

MARIE B. SCOTT, OF ST. LOUIS, MISSOURI.

BED.

Application filed April 13, 1928. Serial No. 269,699.

This invention relates to beds and with regard to certain more specific features, to a folding bed construction adapted to be used for infant beds, camp beds and the like.

Among the several objects of the invention may be noted the provision of an improved type of folding or collapsible bed, wherein a three-way corner strut construction is used for bracing and control purposes in such a way that with four simple movements the bed may be brought into substantially a single bundle of parallel elements, or with four similar movements unfolded; and the provision of a device of the class described which is economical in construction, yet ample in strength. Other objects will be in part obvious and in part pointed out hereinafter.

The invention accordingly comprises the elements and combinations of elements, features of construction, and arrangements of parts which will be exemplified in the structure hereinafter described, and the scope of the application of which will be indicated in the following claim.

In the accompanying drawings, in which is illustrated one of various possible embodiments of the invention,

Fig. 1 is a side elevation of the bed in open position, certain portions being broken away;

Fig. 2 is a fragmentary side elevation showing the bed in closed position with the canopy removed;

Fig. 3 is a plan view of Fig. 1, certain portions being broken away;

Fig. 4 is a perspective view showing certain portions of the bed framework;

Fig. 5 is a plan view of Fig. 2;

Fig. 6 is a fragmentary view similar to Fig. 1 but showing an alternate form of canopy; and

Fig. 7 is a detail elevation showing a latch.

Similar reference characters indicate corresponding parts throughout the several views of the drawings.

Referring now more particularly to Figs. 1 and 4, there is illustrated at numeral 1 a pair of side rails which, by means of hinges 3, are hinged at each end to an end rail 5. Each end rail 5 is made in two sections 7 hinged at hinge 9 to break inwardly as illustrated in Fig. 5. Inwardly of each hinge 9 is provided a latch 11 (see Figs. 3 and 7) adapted to brace and hold the sections 7 in alignment after they have been opened. When the bed is to be closed, the latch 11 is dropped into the dotted line position shown in Fig. 7, whereby it is made possible to break said sections 7 inwardly.

Each side rail 1 carries a pair of symmetrically arranged guides 13 having slots 15 and notches 17, the purpose of which is to slidably receive lateral bearing pins 19 of a set of struts, to be described.

One of the struts 21 is pivoted at 23 to a section 7 of the end rail 5, so that when the pin 19 thereof slides in a slot 15, then said section 7 is foldable, but when the pin 19 is in the notch 17, then the said section 7 is in open position and locked against collapse.

Another strut 25, having a pin 19, has the same action in regard to the slot 15 and notch 17, but it is pivoted at 27 to one of the legs 29 of the bed. Each leg 29 is hinged to a side rail 1 as shown at numeral 31.

A third strut 33 at each corner, also having a pin 19 sliding in the slot 15 and engaging the notch 17 is pivoted at 35 to a canopy post 37, the latter being hinged to said side rail at 39.

It will be noted that each post 37 and each leg 29 swings substantially in the same plane, but that each section 7 of the end rail swings in a plane at right angles to the plane of action of said plane of the post and leg.

Reference to Fig. 4 shows that the pin 19 of the strut 33 is so arranged in the slot 15 and notch 17, that upon opening the bed, said pin rakes the other pins 19 of struts 21 and 25 ahead of it. Therefore, by one movement in pulling open each canopy post 37, the leg 29 and one end section 7 of an end rail are also opened. As each pin gets to the notch 17 it drops in to prevent subsequent collapse.

If it is desired to close the bed, it is only necessary to manipulate the lower strut 25 with a leg 29, the pin 19 of the strut 25 raking the other pins 19 ahead of it to effect a collapse. This occurs at each corner. The curvature at the inner section between the slot 15 and notch 17 is such that the train of pins 19 will follow around easily when the rear one is pushed. Button ends 41 of said pins 19 serve to aid in controlling the pins in the guide pieces, should they catch, due to rusting or the like.

It is clear from the above that by controlling one element at each corner of the bed, that corner has all other elements thereof put into either open or closed position. Therefore, with substantially four movements, one

at each corner of the bed, the whole bed may be opened or closed. Upon collapsing the bed all parts go into the positions illustrated in Figs. 2 and 5. Upon opening the bed the latch 11 is closed so as to hold the sections 7, 7 in straightened position.

The feature of simultaneously folding three parts at each corner by controlling only one part at each corner provides utmost simplicity in operation.

The bed may be made of metal, wood, or other suitable material. The weight of a reclining person is held by the sheet of canvas or other fabric 43 suitably fastened around or on the side rails 1, but it is preferable that this sheet be not fastened to the end rail sections 7.

The purpose of the canopy posts 37 is to support a canopy piece 45 adapted to shield an infant or the like from drafts. The canopy may be opened or closed at the top. It is provided with rings or openings 47 at the upper four corners so that it may be held to said posts 37 by ornamental devices 49, said devices being screwed into the upper ends of said post 37. For camping purposes it is desirable to have the upper covering to the canopy, such as is illustrated at 50 in Fig. 3, and also to have a side strip 51 of mosquito netting or the like to permit air circulation (see Fig. 6). It is preferable that the canopy be sewed to the mattress portion 43 at the lower edges.

It is to be understood that the canopy sheet or piece may or may not be loosened from the posts as folding is accomplished.

The side rails 1 may each be made of a single piece, but, if desired, hinges, such as those shown at numeral 10 (Figs. 2 and 5) may be used for permitting a secondary end-for-end folding of one end of the bed over on the other end of the bed, as illustrated by arrow in Fig. 2. Latches 12, similar to latches 11 on the end rails are used for holding the side rails in stiffened position when the hinges are used.

In view of the above, it will be seen that the several objects of the invention are achieved and other advantageous results attained.

As many changes could be made in carrying out the above constructions without departing from the scope of the invention, it is intended that all matter contained in the above description or shown in the accompanying drawings shall be interpreted as illustrative and not in a limiting sense.

I claim:

The bed comprising side rails, end rails each comprising two inwardly collapsible hinged sections, said sections also being hinged to the side rails, a post and a leg hinged for movement at each end of each side rail, a strut pivoted to each section, post and leg, notched guide slots associated with the side rails, means at the free end of each strut engaging one of said slots, the section strut, post strut and leg strut at each corner of the bed engaging a single slot so that opening or closing movement at a corner may be effected by movement of a certain one of said struts.

In testimony whereof, I have signed my name to this specification this 11th day of April, 1928.

MARIE B. SCOTT.