Oct. 20, 1931. W. DERBYSHIRE 1,827,739

BABY CRIB

Filed April 29, 1929

Fig. 1.

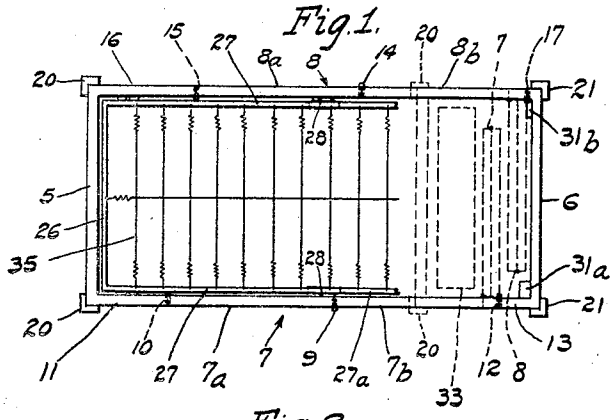


Fig. 2.

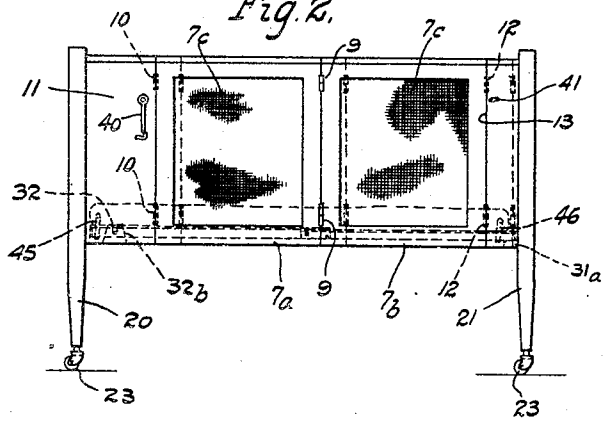


Fig. 3.

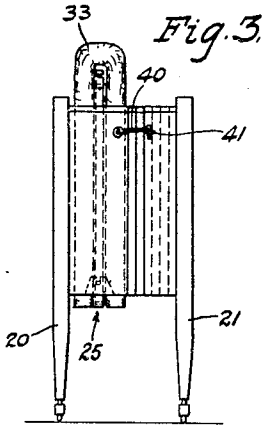
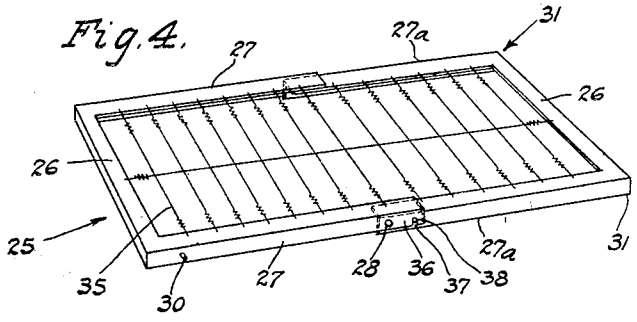


Fig. 4.



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UNITED STATES PATENT OFFICE

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BABY CRIB

Application filed April 29, 1929. Serial No. 358,890.

This invention relates to a folding bed of the rectangular frame type and which is supported by legs that are always in an upright position, parts of said frame being collapsible with relation to each other, and the pairs of legs which support said frame moving toward each other when the bed is changed from an extended position to a folded position.

Among the objects of the invention are to provide a folding bed which may, by improved means, be collapsed into a sufficiently compact form to be conveniently carried upon the running board of an automobile; or which after use during the night in a bedroom may be collapsed for being pushed upon legs provided with casters from such bedroom into an adjoining closet during the day.

Among the improved novel features of the invention is a mattress support which comprises two parts hinged together at the mid-length of such support upon a hinge having a horizontal axis so that the center portion of such mattress support is projected upwardly when the bed is folded and the mattress and bedding form a sheath for the metallic parts of the support.

The invention comprises a bed frame having side panels which may be of an ornamental appearance. In the illustrated embodiment of the invention a bed is shown suitable for use as a crib for a child's use, but it is to be understood that the invention may be embodied in a bed of any desired size which may be used either in dwelling houses or on camping excursions.

Other objects and advantages may hereinafter appear.

Referring to the accompanying drawings, which illustrate what is at present deemed to be a preferred embodiment of the invention,

Fig. 1 is a top plan view of the bed showing the same in an extended position, a portion of the mattress support being broken away to show more clearly the folded position of parts which are indicated in dotted lines.

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

Fig. 3 is a side elevation of the bed in the folded position.

Fig. 4 is a perspective view of the mattress support.

Referring in detail to the drawings, the bed frame comprises the end pieces 5 and 6 between which are hingedly supported the side panels 7 and 8. Each of said panels preferably comprises two rectangular wings or foldable parts of the same size and shape. The panel 7 comprises a wing *7a* which is at one end secured by hinges 9 to its other wing *7b*, while the other end of said panel *7a* is secured by hinges 10 to an extension 11 of the end piece 5 of the bed frame. The wing *7b* of panel 7 is secured by hinges 12 to an extension 13 of the bed end piece 6. At the opposite side of the bed the panel 8 has one end of its wing *8a* secured to its wing *8b* by means of hinges 14, the other end of said wing *8a* being secured by hinges 15 to an extension 16 with which the end piece 5 is provided. The wing *8b* of panel 8 has its outer end secured to the end portion of the frame end 6 by means of hinges 17.

In order that the parts of the panels which have been described may properly swing into the collapsed position as indicated in the dotted lines in Fig. 1, each of the panel wings are made of less length than the width of the bed frame and the hinges 9 and 14 are placed on the outside of the frame, but the hinges 10, 12, 15, and 17 are placed on the inside of the frame; also the end extension 16 of the end piece 5 is made longer than the extension 11 of said end piece 5, while the extension 13 of the other end piece 6 is of sufficient length to space the hinges 12 a suitable distance away from that end of the bed frame, the hinges 17 at the other end of the frame end piece 6 being located close to that end of the bed frame.

One end of the bed frame is supported by legs 20, the other end thereof being supported by legs 21. Said legs may always be maintained in the upright position whether the bed is extended or folded, casters 23 being attached to them so that the pairs of legs may be readily moved toward each other as the end pieces 5 and 6 are moved toward each

other in folding up the bed, or may be moved away from each other in extending the bed. Said casters 23 are also a convenience in moving the bed from a room where it has been used into an adjoining closet.

Fitted within the bed frame is a mattress supporting frame 25 which normally occupies a horizontal position. Said mattress support comprises end bars 26 which are united by side bar sections 27 and 27*a* at each side. Each of said side bar sections are, preferably at the mid-length of the mattress frame, united together by hinge pins or pivots 28 whereby said mattress frame may be moved upwardly at its mid-length into the folded position shown in Fig. 3. The various bars of this mattress supporting frame are shown formed of angle iron. When in the completely folded position, shown in Fig. 3, their lower ends are brought substantially into contact with each other.

Referring to Fig. 4 where the detail construction of the mattress frame is illustrated, the outer end portions of the side bar sections 27*a* terminate in the mattress frame corners 31, said frame corners being supported, when the mattress frame is in the operative position, by the bed frame blocks 31*a* and 31*b* shown in plan in Fig. 1. The block 31*b* projects only a short distance from the inner face of the frame end piece 6 and therefore does not interfere with folding the panel section 8*b* to the position shown in dotted lines in Fig. 1. The outer portion of each side bar section 27 is supported by a trunnion 30 which rests in a seat 32 of the frame bracket 32*b*. Said mattress frame supports a bed spring 35 of well known construction which is adapted to fold upon itself within the mattress 33 as shown in Fig. 3.

The inner end portion of each side bar section 27 extends beyond its hinge pivot 28 and is thus provided with an extension 36 having in its lower edge a notch 37 which seats upon a stop pin 38 carried by the other side bar section 27*a* at that side of the bed.

The panels 7*a* and 7*b* are each desirably constructed after the pattern of screen window frames and have screen sections 7*c* which afford good ventilation to a child sleeping in the bed, and enable the attendant to observe the child at all times.

At each side of the bed frame a hook 40 cooperates with an eye 41 to prevent accidental extension of the folded bed. The end portions of the mattress may be secured to the mattress frame by means of connections 45 and 46.

In operation, in order to change the bed from the extended to the folded position, the mattress frame 25 and mattress 33 are first folded to the position shown in Fig. 3, but the bed frame is not folded until after the mattress has been brought up snugly to the left end of the bed frame as viewed in the various figures of the drawings. Next the panels 7 and 8 are deflected toward the center of the bed by flexing them upon their respective hinges 9 and 14 and the end pieces 5 and 6 are then moved toward each other until the bed frame assumes the collapsed position shown in Fig. 3. After this movement has been completed the hooks 40 are brought into engagement with the eyes 41 to prevent accidental extension of the bed frame.

To unfold the bed the hooks 40 are first released from the eyes 41, the bed frame is then fully extended and after its parts have been moved to the full line position of Figs. 1 and 2 the mattress frame 27 is extended, the attendant taking care to see that its corners 31 are fitted snugly into the corresponding corners of the bed frame in proper position to be supported by the blocks 31*a* and 31*b*. The extended mattress frame forms a sufficiently close fit within the lower portion of the bed frame to keep the various frame parts in the fully extended position and thus stabilizes the bed as a whole while in use.

The space economizing features of the invention are well illustrated in Fig. 1 of the drawings where it will be seen that, as indicated in dotted lines, when the bed is folded up the mattress 33 folds snugly up against one end piece of the bed frame, and the space between the mattress and the other end piece 6 is, with respect to the length of the bed, completely occupied by the folded frame sections.

Claims:

1. In a folding bed, a frame end piece supported upon upright legs, a second frame end piece supported upon upright legs, foldable frame side pieces at each side of the bed formed in sections which are hingedly connected with each other and with said frame end pieces each of said frame end pieces having at each end an extension to which the hinged sections at one side of the bed are hingedly connected, said extensions being of unequal length, supporting means on said bed frame, and a vertically foldable mattress supporting frame resting upon said supporting means and adapted for folding into the space encompassed by the bed frame and opposite to the shorter of said unequal extensions at one end of the bed frame, said mattress supporting frame being formed in sections which are foldable upon each other, one of these sections being pivotally connected with the aforesaid mattress support close to one end of the bed frame, said mattress, its supporting frame and the recited foldable frame side pieces all, when folded, coming substantially into contact with each other from end to end of the bed.

2. In a folding bed of the rectangular frame type, a frame end having extensions of

unequal length which project from its inner face toward the opposite end of the bed, said extensions each being constructed and arranged to form a part of the sides of the bed frame, horizontally foldable frame portions consisting of sections hingedly connected with each other and with said extensions to fold upon each other to occupy the space immediately adjacent to that end of the bed frame, a vertically foldable mattress supporting frame which when the bed is extended occupies a horizontal position, means in the lower portion of said bed frame to support said mattress supporting frame, said mattress supporting frame being vertically foldable into a position wherein it occupies one end portion of the folded bed frame, and the recited horizontally foldable frame portions occupy the opposite end portion of said bed, one end of said mattress supporting frame resting slidably upon and the other end thereof being pivotally related to said means whereby it is supported.

3. In a folding bed of the rectangular frame type, a main bed frame having side portions foldable horizontally to shorten the bed, a mattress supporting frame which when the bed is extended occupies a substantially horizontal position therein, a flexible mattress overlying said mattress supporting frame, said mattress supporting frame having hinges at substantially its mid-length whereon its end portions swing when its middle portion is raised for the purpose of folding up said mattress supporting frame together with the flexible mattress carried thereby, a support occupying the lower portion of said bed frame wherewith one end of said mattress supporting frame is pivotally related, and means to slidably support the other end of said mattress supporting frame, the ends of said mattress supporting frame when in the folded condition being brought into substantial contact with each other transversely of the bed with the mattress folded thereover.

In testimony whereof I hereunto affix my signature.

WILLIAM DERBYSHIRE.