Dec. 31, 1940. H. L. GILES 2,226,606

FOLDABLE BED

Filed Sept. 12, 1939

Fig. 1.

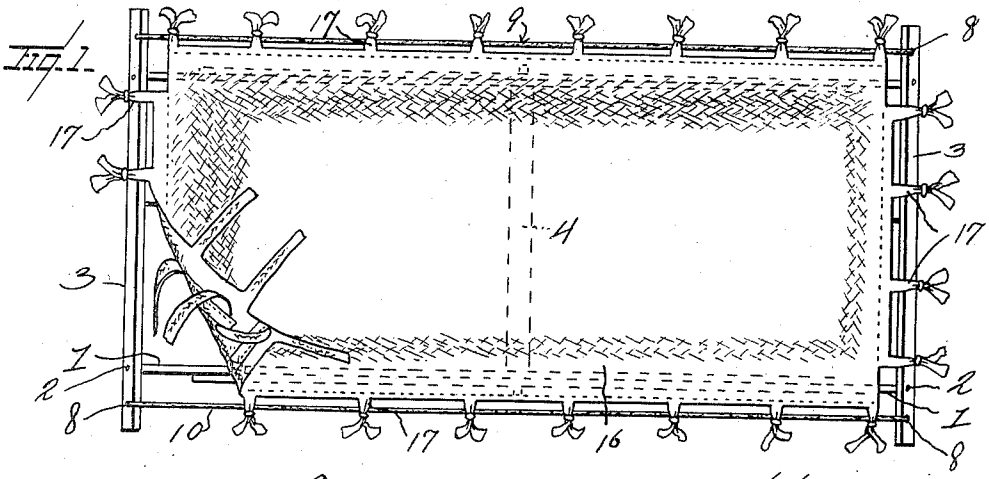


Fig. 2.

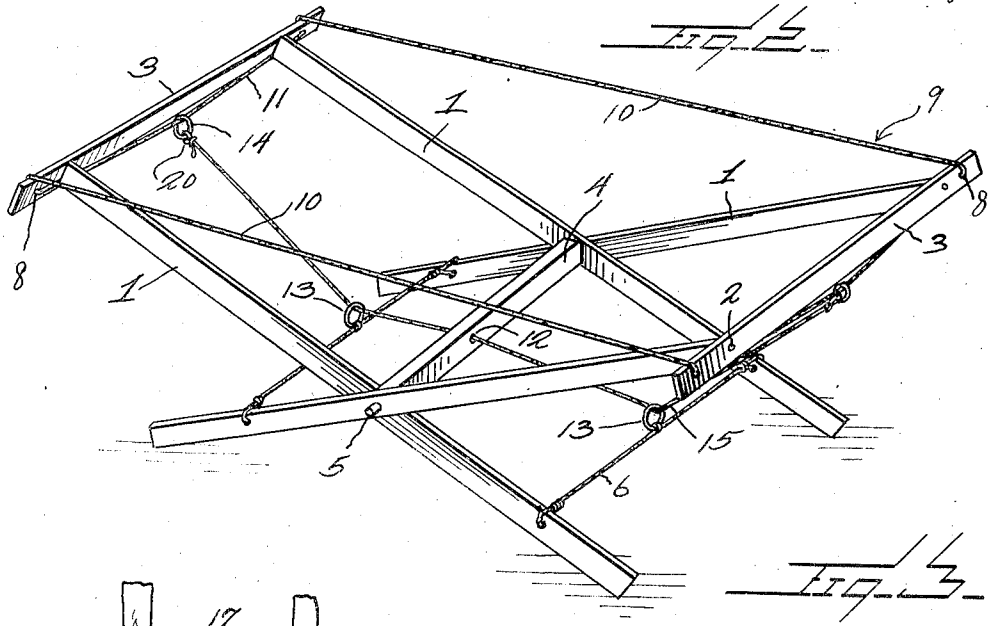


Fig. 4.

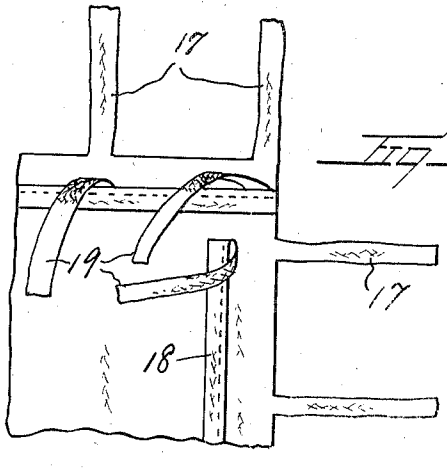
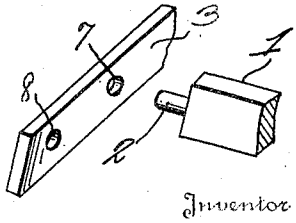


Fig. 3.



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Patented Dec. 31, 1940 2,226,606

UNITED STATES PATENT OFFICE

2,226,606

FOLDABLE BED

Hugh L. Giles, Bristow, Okla.

Application September 12, 1939, Serial No. 294,542

1 Claim. (Cl. 5—112)

This invention relates to the class of beds and pertains particularly to an improved folding bed.

The principal object of the present invention is to provide a novel type of folding bed, designed particularly for infants or children, which is constructed in such manner that it may be easily and quickly secured against any possibility of collapsing after it has been set up for use.

Another object of the invention is to provide a novel folding bed having a readily detachable body supporting sheet which not only facilitates the easy folding of the bed, but makes it possible, through its ready detachability to keep the bed in a clean and sanitary condition.

Another object is to provide a folding bed having a main body supporting sheet, wherein the sides of such sheet are supported by yieldable or flexible side rails which make it possible for the bed to be used by children without danger of the children injuring themselves against the side rails.

Still another object is to provide an improved folding bed having a novel means for securing the bed in set up position whereby the possibility of it accidently collapsing is avoided.

The invention will be best understood from a consideration of the following detailed description taken in connection with the accompanying drawing forming part of this specification, with the understanding, however, that the invention is not to be confined to any strict conformity with the showing of the drawing but may be changed or modified so long as such changes or modifications mark no material departure from the salient features of the invention as expressed in the appended claim.

In the drawing:

Fig. 1 is a view in top plan of the bed embodying the present invention, showing a portion of the body sheet thrown back.

Fig. 2 is a view in perspective of the frame structure illustrating the means for maintaining the frame against folding.

Fig. 3 is a detail view illustrating the manner of coupling an end of a leg bar with a cross bar.

Fig. 4 is a view in bottom plan of a portion of the body sheet.

Referring now more particularly to the drawing, it will be seen upon reference to Fig. 2 that the frame of the bed embodying the present invention comprises two pivotally coupled units each of which units is made up of a pair of leg bars 1 which at their outer ends terminate in longitudinally extending pins 2, which are engaged in suitably formed apertures in a head bar or cross bar 3, which couples together the outer ends of a pair of leg bars. Each of the leg bars of each unit is disposed in crossed relation with a leg bar of the other unit and extending between the crossed leg bars is a center pivot bar 4 which has at each end a longitudinally extending pivot trunnion 5, which passes through alined apertures in the adjacent crossed pair of leg bars 1. Thus it will be seen that the two units of the bed frame are pivotally joined together by the central pivot bar 4, so that these units may be folded up into side by side relation or may be oscillated relatively so as to swing the head bars 3 away from one another to the set up position for the bed.

Below the pivot center for the leg bars, each pair of leg bars is connected together by a cross bracing strand 6 of flexible material.

Each of the head bars in addition to having the apertures 7 for the reception of the coupling pins 2 at the upper ends of the leg bars, has the apertures 8, each of which lies outwardly with respect to the aperture 7 and these apertures 8 at the ends of the head bars have passed therethrough a rope or cable 9 which is continuous along the sides and across the ends of the bed frame, as shown in Fig. 2, thereby providing the flexible or yieldable side portions 10 corresponding with the side rails of a standard type of bed and the transverse portions 11 which pass beneath the leg bars 1, as shown in Fig. 2.

The center of the pivot bar 4 has an aperture 12 therethrough and each of the brace strands or cords 6 carries centrally of its ends a guide ring 13. One of the cross portions 11 also carries a guide ring which is indicated at 14. To the central part of the other cross strand 11, that is, the strand opposite the one carrying the ring 14, there is attached one end of a brace rope 15 which passes through the nearest guide ring 13, through the aperture 12 and through the other guide ring 13, and up to the ring 14 to which it is tied when the frame is opened out or set up for use as a bed. Thus it will be seen that when the frame is opened and the tie rope 15 is secured between the cross strands 11, passing through the rings 13 and the aperture 12, the frame cannot be folded up as the tie rope will prevent this action. The numeral 16 generally designates the body supporting sheet for the bed which corresponds with a mattress or springs of the ordinary non-folding type of bed. This sheet may consist of a body of woven material of suitable character such as canvas or the like, and in accordance with the present invention, it is cut to have along

each of its four edges the integral straps or tapes 17.

To the underside of the body sheet there is secured along each of its four edges a strap 18 which in turn secures to the body sheet the ends of tie straps 19, each of the latter being disposed adjacent an integral tie strap 17, as shown in Fig. 4.

When the body sheet 16 is disposed in position between the head bars 3 and the side rails 10, the adjacent coacting straps 17—19 will be passed about the adjacent bars or side rails as the case may be and tied at the outer sides of the same, as shown in Fig. 1, thereby securing the body sheet relatively flat within the rectangle defined by the bars 3 and side strands or rails 10.

When the bed is to be folded, it will be readily apparent that this may be accomplished by untying the end of the tie rope 15 from the ring 14 where it is tied, as indicated at 20, when the bed is set up for use. This will permit the pivotally connected units of the frame to be relatively oscillated on the ends of the pivot bar 4, bringing the head bars 3 together and folding the body sheet 16 between the head bars and the pivotally coupled legs of the unit.

From the foregoing, it will be readily apparent that there has here been disclosed a novel type of folding bed which is particularly desirable for use by children or infants because of the fact that, even though it is of light construction and may be readily folded up when not in use, it cannot be accidently folded or made to collapse when in use because of the novel arrangement by which the legs are secured in opened condition. It will also be readily appreciated that by reason of the novel method disclosed of attaching the body supporting sheet 16 to the frame, the sheet may be readily removed for washing or for repair or replacement, when desired.

What is claimed is:

A foldable bed, comprising a pair of leg units, each unit consisting of two leg bars disposed in spaced parallel relation and a transverse head bar connecting each pair of legs at one end, said head bars being provided adjacent each end with a pair of apertures and each of the leg bars at the said one end thereof having a longitudinally extending dowel engaging in the inner one of the adjacent pair of head bar apertures, each head bar having a portion of its end and the outer one of the pair of apertures therein disposed outwardly of the adjacent leg bar, the leg bars of one of the units being in crossed relation with those of the other unit, a pivot bar extending between the crossed leg bars and pivotally coupling the crossed bars together, a brace means between each pair of leg bars at a level below the pivot bar, a cable threaded through those apertures of the head bars lying outwardly of the leg bars and extending lengthwise of the head bars and between the outwardly extending ends of one head bar and the outwardly extending ends of the other head bar and forming with the head bars a rectangular unit, said rectangular unit being designed to enclose and support a body supporting sheet, and a brace rope for securing said frame in opened condition, having one end connected to said cable at substantially the transverse center of the adjacent head bar and extending to and coupled with said brace means and pivot bar, the other end of the brace rope being secured to the cable adjacent the transverse center of the other head bar.

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