Jan. 8, 1957 S. STRÖM 2,776,441

COLLAPSIBLE CHILD'S BED

Filed Sept. 8, 1953 3 Sheets-Sheet 1

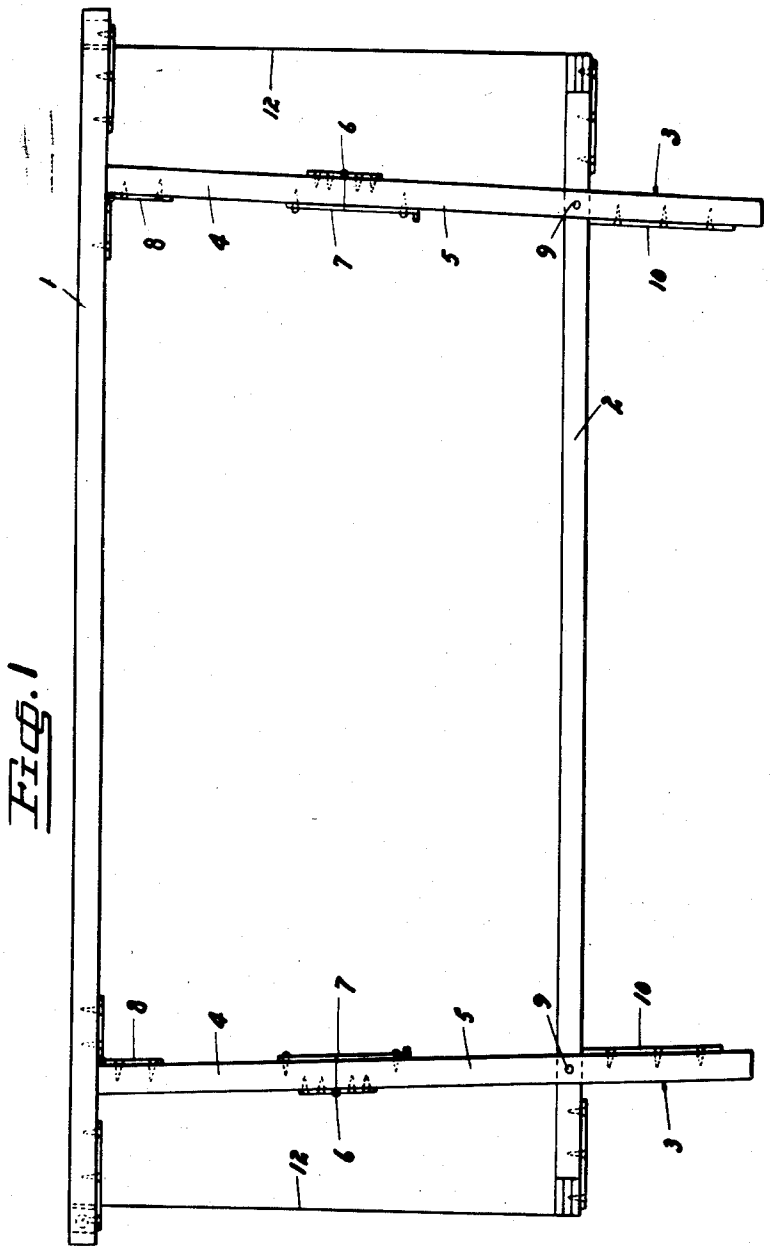


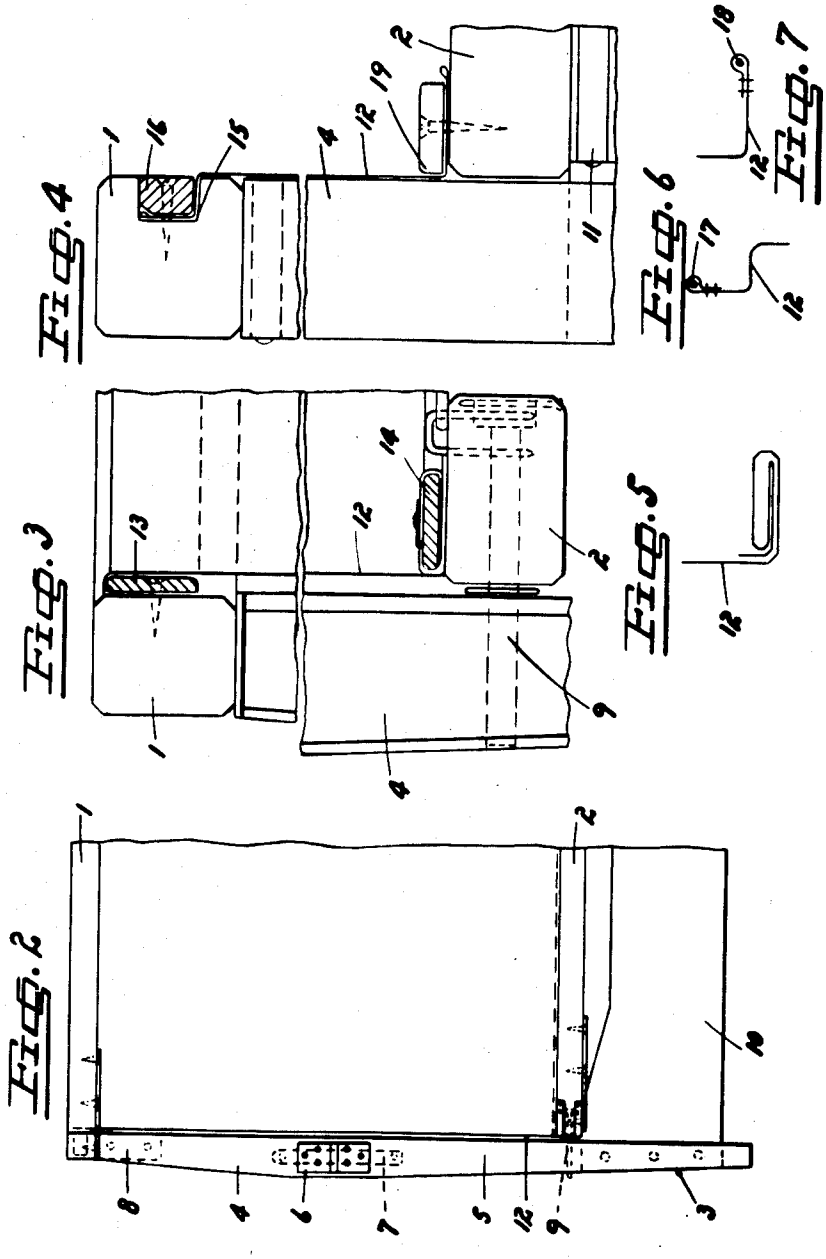

Fig. 1

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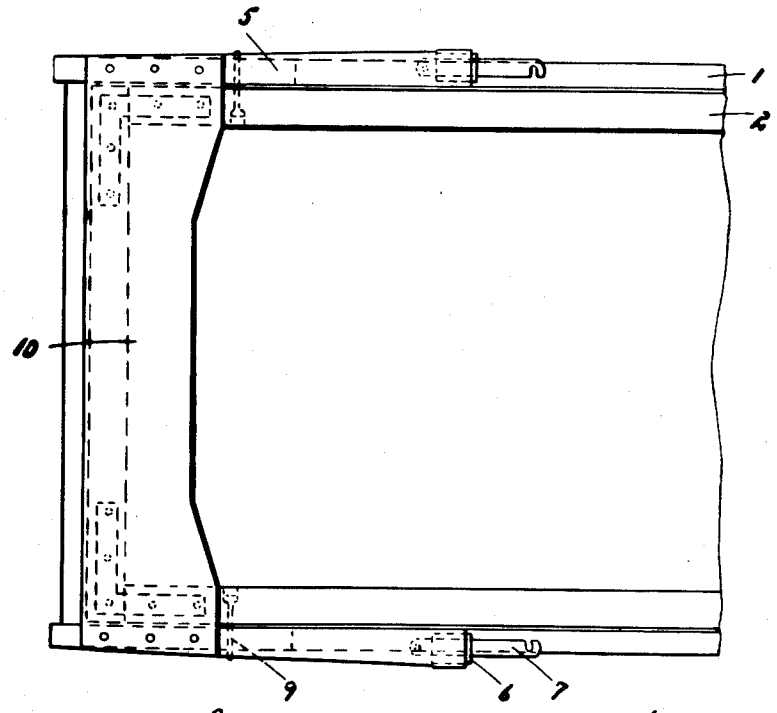

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Fig. 8



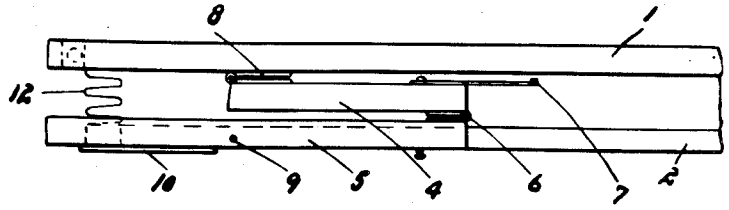




Fig. 9

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# COLLAPSIBLE CHILD'S BED

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Application September 8, 1953, Serial No. 378,941

6 Claims. (Cl. 5—174)

This invention relates to a collapsible child's bed.

An object of this invention is to provide a collapsible child's bed which in the collapsed position thereof can receive the bedding.

Another object is to provide a child's bed which can readily be collapsed and brought into position of use and which is of small weight as compared to its size so that one person can carry it without inconvenience. As such a child's bed occupies but little space in the collapsed position thereof, it may readily be put aside and be packed for train, bus and car travels into a suitable cardboard container together with the bedding so that it is always ready for use.

A further object of the invention is to provide a collapsible child's bed which has a web preferably formed into an endless belt and so united at its edges with an upper level frame and a lower frame for the bed bottom that said web forms the side walls of the bed in the position of use thereof, while in the collapsed position of the bed it forms the side walls of a space which can receive the bedding.

The characterizing feature of the invention is that the two frames which are both planar are so interconnected by means of hinged supports that in the collapsed position of the bed the frames will be situated at a distance from each other which substantially corresponds to the height of the bedding.

Further objects and features of the invention will be described in the following, reference being had to the accompanying drawings illustrating some preferred embodiments of the bed according to the present invention. In the drawings:

Fig. 1 is a side view of the bed in its position of use.

Fig. 2 is a partial end view of the bed in its position of use.

Figs. 3 and 4 show in detail how the web is attached to the bed according to two embodiments.

Figs. 5 to 7 show details of the web in the embodiments according to Figs. 3 and 4.

Fig. 8 shows a part of the bed in its collapsed position, as seen from below.

Fig. 9 is a side view of the bed in its collapsed position.

The child's bed comprises an upper frame 1 and a lower frame 2 on which the bed bottom is arranged, and four legs 3. The legs 3 are constituted by two portions 4 and 5 which are hingedly interconnected by means of hinges 6 or the like. At the joint a hasp 7 or the like is arranged for locking the two portions 4 and 5 together in the position of use of the bed so that they form a rigid unit. At the underside of the upper frame 1 which is wider and longer than the lower frame 2, the upper ends of the leg portions 4 are pivotally connected thereto by means of hinges 8 or the like. At some distance from their free ends the leg portions 5 are pivotally connected to the sides of the lower frame 2. For this purpose the lower frame 2 is provided with pins, rivets 9 or the like which constitute the pivots for the leg portions 5.



The distance of the pivotal axis of the hinge 8 from the pivotal axis of the hinge 6 is as great as the distance from the pivotal axis of the hinge 6 to the rivet 9 so that when the bed is collapsed the frames 1 and 2 will be moved together without displacement. The hinges 8 and rivets 9 are disposed a distance from the end walls of the bed such that when the bed is collapsed the legs 3 will be situated substantially inside the surface of the upper frame 1.

To give the bed the desirable stability in the position of use thereof the hinges 8 at the upper frame 1 are disposed somewhat closer to the end walls of the bed than are the rivets 9 at the lower frame 2, so that the legs 3 will converge somewhat towards the base. Furthermore, the leg portions 5 are united at each end wall of the bed by means of plates 10 of plywood or the like which in the position of use of the bed bear against the lower frame 2. One part of hinges 11 can be secured to the plates 10 if the latter have been given sufficient strength, while the other parts of the hinges 11 are secured to the underside of the lower frame 2, as will appear from Fig. 4, in which case the hinges 11 replace the rivets 9.

A web 12 of plastic material or the like is attached to the frames 1 and 2. This web which is preferably given the form of an endless belt is of such a width that in the position of use of the bed it will be expanded between the frames. Due to the fact that the upper frame 1 is both wider and longer than the lower frame 2 the web 12 will extend vertically in the position of use of the bed, provided that it has been secured to the inside of the upper frame 1 and to the outside of the lower frame 2. It is advantageous to secure the web to the frames by means of strips. According to Fig. 3 the web 12 is folded about the strip 13 which is screwed to the inside of the upper frame 1, and folded—in the manner apparent from Fig. 5—about the strip 14 which is screwed to the upper side of the lower frame 2. In the embodiment according to Fig. 4 the upper frame 1 is provided on its inner side with a recess 15 in which a strip 16 is inserted and screwed fast. The web 12 lies between the strip 16 and the recess 15 and is retained in that it is provided with a cord 17 in its margin, as will be apparent from Fig. 6. In the lower margin of the web 12, see Fig. 7, there is also mounted a cord 18 which cooperates with the inner edge of a strip 19 screwed fast to the upper side of the lower frame 2.

For collapsing the bed the hasps 7 are first released from their locking position. Then the legs 3 are acted upon in such a way that the pivotal connections at the hinges 6 are moved inwardly towards the middle of the bed. As a result of this the frames 1 and 2 are moved together so that they finally occupy the position shown in Figs. 8 and 9. The leg portions 4 and 5 are thereby made parallel with the frames 1 and 2. As the legs 3 are mounted at the underside of the upper frame 1 the leg portions 4 will be situated substantially between the two frames 1 and 2, and a space is thus formed between the frames 1 and 2 and the folded web 12, which space is large enough to receive the bedding so that the bed can be ready for use in the collapsed position thereof.

The collapsible child's bed according to the present invention has, inter alia, the following essential advantages:

1. It can receive beddings in its collapsed position.

2. It can be readily collapsed and brought into position of use.

3. It is of little weight as compared to its size and can be carried by one person without trouble.

4. It occupies in its collapsed position a very small space and it is therefore easy to put it aside and to pack it for train, bus and car travels into a suitable cardboard container together with the bedding so that it is always ready for use.

5. The web walls of the bed protect the child from draughts and direct sun light when the bed is spaced out-of-doors. By putting a frame of fine-mesh netting over the top of the bed insects and the like will be prevented from disturbing and hurting the child.

6. The soft web walls of the bed which are of such a height that a small child cannot climb out of the bed cannot hurt the child as ribs or the like do.

Of course, the invention is not limited to the embodiments described above and shown in the drawings, but can be varied in different ways within the scope of the appendant claims.

What I claim and desire to secure by Letters Patent is:

1. A collapsible child's bed comprising a level upper frame and a level lower frame, a bed bottom supported on said lower frame, a web in the form of an endless belt having its edges united with said upper and lower frames so as to form stretched side walls in the position of use of the bed to stabilize the bed and to form the side walls of a space for receiving the bedding in the collapsed position of the bed, hinged support means pivotally connected to said upper frame on the lower surface thereof and to said lower frame and supporting said upper and lower frames in the position of use of the bed and so uniting said level upper and lower frames that in the collapsed position of the bed said frames will be spaced from one another to provide a space for receiving the bedding.

2. A collapsible bed as claimed in claim 1 having hinge means intermediate the pivotal connections of said support means to said two frames, whereby the support means may be collapsed to lie parallel to the planes of the said two frames and a space will be formed between said two frames for receiving the bedding.

3. A collapsible child's bed comprising a level upper frame and a level lower frame, said upper frame being wider and longer than said lower frame, a bed bottom supported on said lower frame, a web in the form of an endless belt having its edges united with the said upper and lower frames so as to form stretched side walls in the position of use of the bed to stabilize the bed and to form side walls of a space for receiving the bedding in the collapsed position of the bed, hinged support means pivotally connected along an edge thereof to the lower surface of the upper frame and to the lower frame on the outer side thereof and supporting said upper and lower frames in the position of use of the bed, hinge means intermediate the pivotal connections of said support means to the said two frames, whereby in the collapsed position of the bed the support means pivotally mounted on the upper frame will lie between the upper frame and the support means pivoted to the lower frame to form a bedding receiving space between the upper and lower frames.

4. A collapsible bed as claimed in claim 3 in which said support means are pivotally mounted on said frames a distance from the end walls of the bed so that in the collapsed



position of the bed the legs will be situated substantially inside the periphery of the upper frame.

5. A collapsible child's bed comprising a level upper frame and a level lower frame, a bed bottom supported on said lower frame, a web in the form of an endless belt having its edges united with said upper and lower frames so as to form stretched side walls in the position of use of the bed to stabilize the bed and to form the side walls of a space for receiving the bedding in the collapsed position of the bed, upper leg members adapted to serve as support means in the position of use of the bed and as spacing means in the collapsed position of the bed hinged to the lower surface of said upper frame, lower leg members pivoted to the lower frame and hinged to the upper leg members, locking means adapted to lock said upper and lower leg members in an aligned position to support said upper and lower frames in the position of use, whereby when said locking means are released said upper and lower frames may be moved toward each other to collapse said upper and lower leg members upon each other and said upper leg members serve as spacing means between said upper and lower frames to leave space for said bedding when said bed is in the collapsed position.

6. A collapsible child's bed comprising a level upper frame and a level lower frame, said upper frame being wider and longer than said lower frame, a web in the form of an endless belt having its edges united with said upper and lower frames so as to form stretched side walls in the position of use of the bed to stabilize the bed and to form side walls of a space for receiving the bedding in the collapsed position of the bed, upper leg members adapted to serve as support means in the position of use of the bed and as spacing means in the collapsed position of the bed hinged to the lower surface of said upper frame, lower leg members pivoted to the outside of said lower frame and hinged to the upper leg members to permit the leg members to collapse inwardly toward the center of said bed, locking means adapted to lock said upper and lower leg members in an aligned position to support said upper and lower frames in the position of use, whereby when said locking means are released, said upper and lower frames may be moved toward each other to collapse said upper and lower leg members upon each other and the thickness of said upper leg members serves as spacing means between said upper and lower frames to leave space for said bedding when said bed is in the collapsed position.

**References Cited** in the file of this patent

UNITED STATES PATENTS

| | | |
|---|---|---|
| 36,768 | Day | Oct. 28, 1862 |
| 734,701 | Hale | July 28, 1903 |
| 1,435,251 | Moore | Nov. 14, 1922 |
| 1,551,026 | Greek | Aug. 25, 1925 |
| 2,099,621 | Prescott | Nov. 16, 1937 |