July 12, 1949. J. W. BOREN 2,475,775

BASSINET

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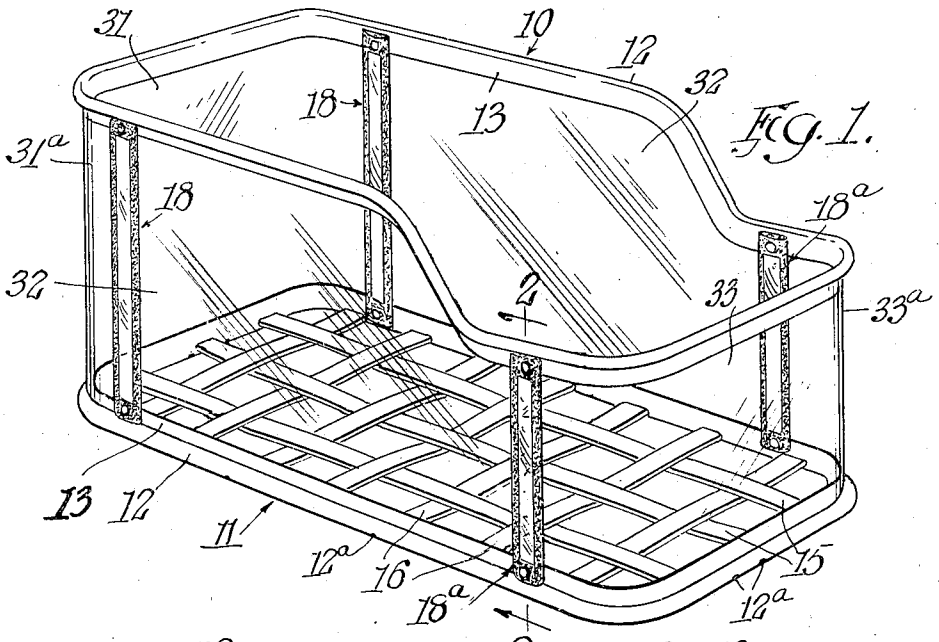


FIG. 1.

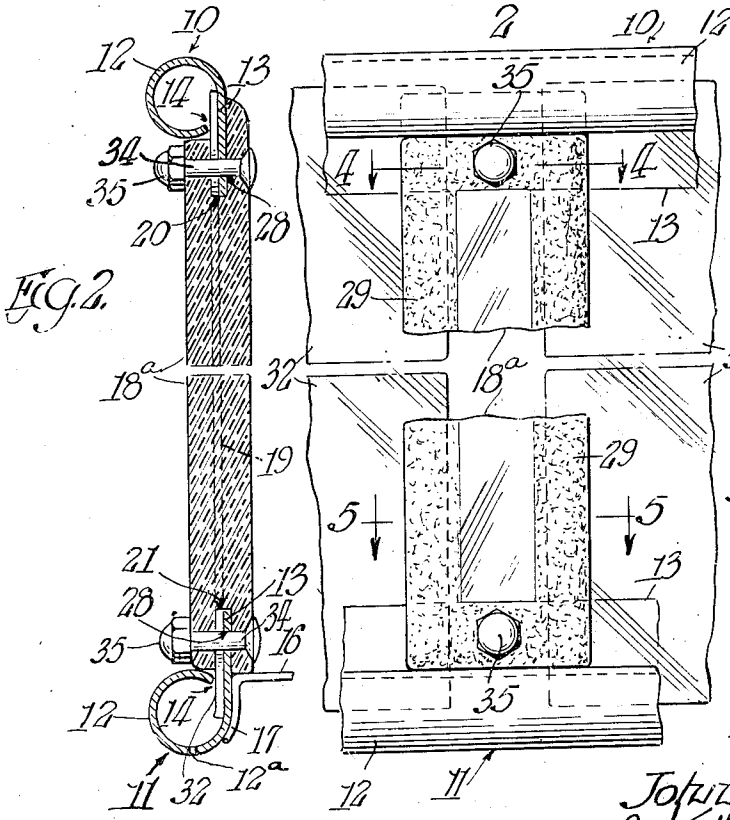


FIG. 2.

FIG. 3.

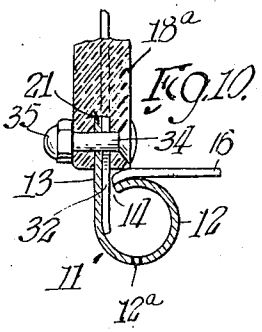


FIG. 10.

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July 12, 1949. J. W. BOREN 2,475,775

BASSINET

Filed March 24, 1944 2 Sheets-Sheet 2

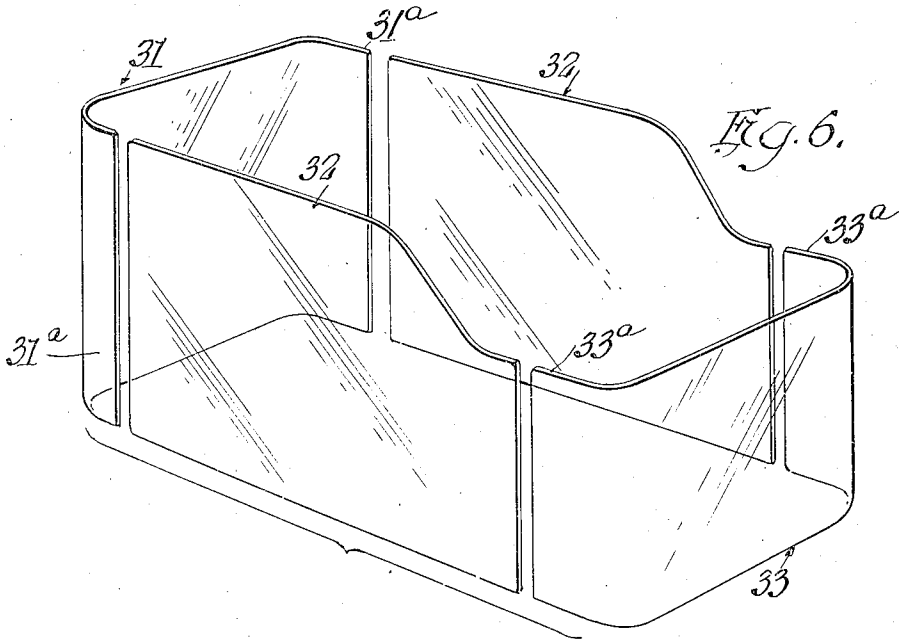


Fig. 6.

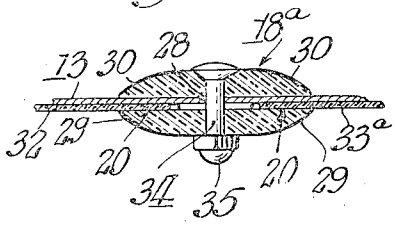


Fig. 4.

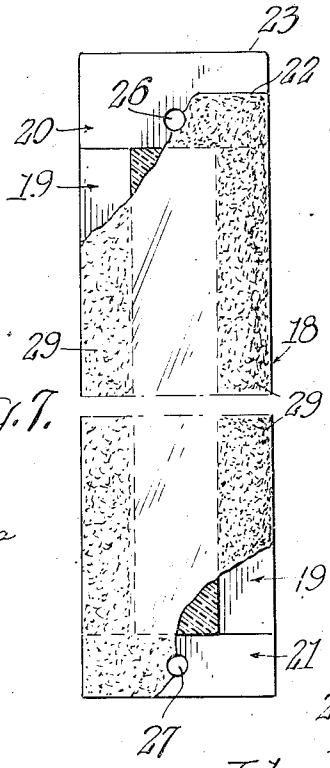


Fig. 7.

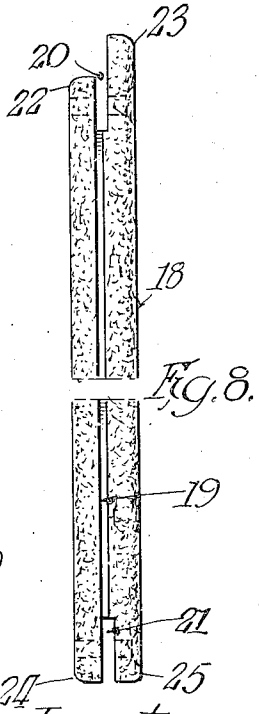


Fig. 8.

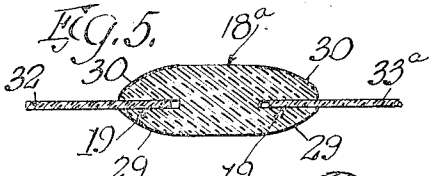


Fig. 5.

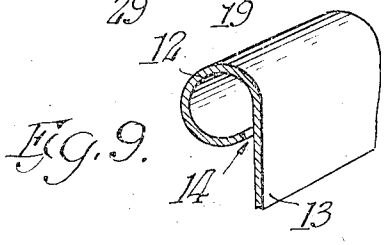


Fig. 9.

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Patented July 12, 1949 2,475,775

UNITED STATES PATENT OFFICE

2,475,775

BASSINET

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Application March 24, 1944, Serial No. 527,872

4 Claims. (Cl. 5—93)

1

This invention relates to improvements in bassinets and it consists of the matters hereinafter described and more particularly pointed out in the appended claims. The bassinet with which the invention is more especially concerned is of the kind including top and bottom frames and upright side and end walls, made in sections, of transparent material. A plastic such as clear cellulose acetate serves admirably. It is preferable to ordinary glass because it does not feel as cold as glass and it will not readily crack, shatter or break in the handling the bassinet receives while in use for its intended purpose. However, the plastic material above mentioned, as well as others, that may be used in lieu thereof, tend to shrink and expand with a resulting buckling or bulging under temperature changes. Also, age tends to modify dimensional characteristics. When the wall sections buckle or bulge, this not only detracts from the appearance of the bassinet, but makes it more difficult to wash clean and keep in a sanitary condition.

For a general statement of the purposes and uses of bassinets of the kind under consideration, reference is made to my co-pending application filed November 12, 1940 and bearing Serial No. 365,173, which matured into Patent No. 2,401,605 on June 4, 1946.

Because of the way in which such bassinets have been heretofore made, they had to be shipped from the factory in an assembled condition. Thus each bassinet required a relatively large and more expensive container that occupied considerable space in shipment, and this added to the cost to the ultimate user.

One of the objects of the present invention is to provide a bassinet which is so constructed that the expansion and contraction movements of the upright wall sections, under temperature changes, as well as dimensional changes due to age, are so accommodated that they will not buckle or bulge but will remain in a flat even condition.

Another object of the invention is to provide a bassinet of this kind which may be shipped from the factory, knocked down, in a relatively small inexpensive container, to be readily assembled in a short period of time by a person of ordinary skill.

A further object of the invention is to provide an improved post structure for holding the frames of the bassinet body in spaced relation and which posts are also made of a transparent plastic material, the margins of which are formed not only to enhance their appearance but to receive and conceal certain margins of the wall sections in

2

a manner accommodating relative movement therebetween, so that said wall sections will not buckle or bulge but will remain flat and even when changes due to temperature, age, etc. occur.

The above mentioned objects of the invention, as well as others, together with the advantages thereof, will more fully appear as the specification proceeds.

In the drawings:

Fig. 1 is a perspective view of the body of the bassinet embodying the preferred form of the invention.

Fig. 2 is a vertical sectional view on an enlarged scale, through a part of the bassinet body as taken on the line 2—2 of Fig. 1 more particularly illustrating the way in which the top and bottom frames of the body are held in spaced relation by one of the improved post structures later described in detail.

Fig. 3 is a fragmentary view in elevation of the parts appearing in Fig. 2, as viewed from the outside of the body.

Figs. 4 and 5 respectively are detail horizontal sectional views through parts shown in Fig. 3 on the lines 4—4 and 5—5 thereon respectively.

Fig. 6 is a perspective view of the transparent wall sections employed in the bassinet body when arranged in the grouped relation they occupy in said body.

Fig. 7 is a view in face elevation of one of the frame connecting posts employed in the improved bassinet body on the scale of Figs. 2, 3, 4 and 5 respectively, with parts shown as broken away better to disclose the internal structure thereof.

Fig. 8 is a side elevation of the post appearing in Fig. 7.

Fig. 9 is a perspective view of a fragment of formed sheet metal from which the top and bottom frames of the bassinet body are made.

Fig. 10 is a view similar to the bottom part of Fig. 2 showing a modified construction.

The bassinet includes an open top, oblong shaped, round cornered basket-like body having a greater height at the head end than at the foot end. A better understanding of the preferred dimensional characteristics of the bassinet body appearing in the drawings will be had by stating that the body has an inside width approximating 13¾" and an inside length of approximately 28". The "head" end, which is approximately 12¾" high has a length not less than 18" and the "foot" end, which is approximately 8¾" high, has a length approximating 6", the transition between said ends occupying the remainder of the 28".

The body of the bassinet includes vertically

spaced top and bottom rectangular frames 10 and 11 respectively, having rounded corners. Each frame is preferably made from sheet metal about 1/16" thick, formed to provide a rolled bead 12, one margin of which merges into a flange 13 tangential to the bead. The other margin of said bead is spaced from said flange to leave a relatively narrow slot 14 that opens into the interior of the bead as best appears in Fig. 9. In a finished bassinet body, the flanges 13—13 are on the inside of the respective frames and face each other and the slots 14—14 are disposed on the outside of said frames as best appears in Fig. 2.

Associated with the bottom frame 11 are spaced apart, interlaced longitudinally and transversely extending strips 15 and 16 respectively, preferably of metal (see Fig. 1) which provide an open work bottom for the bassinet body. Said strips are provided at each end with a downturned flange 17 (see Fig. 2) which fits against and is secured, as by welding, to the inside of the frame. It is to be noted that the bottom edge of the flanges of said strips stop short of the bottom of the frame so that the rounded bead of said frame provides a smooth bottom surface therefor. Thus, the frame will not scratch or mar any surface upon which the bassinet may be placed. The open work bottom, as provided by the strips 15 and 16 is adapted to support a cushion or pad (not shown) which may be from two to three inches thick.

The top frame 10 is dropped at the foot end of the bassinet to provide for the lower foot end of the body before mentioned.

The frames 10 and 11 are held in spaced relation by means of pairs of upright posts 18 and 18*a* respectively, there being a post 18 and a post 18*a* at each side of the body and spaced from the rounded corners thereof as appears in Fig. 1. The posts 18—18 are associated with the higher head end of the body and therefore are longer than the posts 18*a*—18*a* which are associated with the lower foot end of the body. Outside of length, said posts are structurally alike so that a description of one of them will suffice for all.

Preferably each post is made of a transparent plastic material of the same general character as that of which the body sheets are formed. Cellulose acetate well serves the purpose. In practice, a strip of this material 1½" wide and ½" thick, and of the proper length, is provided centrally in each edge with a groove 19 that is 1/16" wide and ½" deep. In the top and bottom ends of the post are transverse grooves 20 and 21 respectively approximately ⅛" in width and having one of its surfaces flush with one of the surfaces of the groove 19. This provides at each end of the post, pairs of inner and outer flanges 22—23 and 24—25 at the top and bottom ends of the posts respectively. The words "inner" and "outer" are used herein with reference to the positions of said flanges, when said posts are incorporated in the body of the bassinet. Both bottom flanges 24—25 have a height approximating that of the flange 13 of the bottom frame. The front top flange 22 has a height approximating that of the flange 13 of the top frame while the rear top flange 23 has a height somewhat greater, as appears in Fig. 8. Holes 26—27 are formed centrally in said flanges and these openings register with holes 28 (see Fig. 2) in the flanges 13—13 of both frames to receive attaching bolts, as will later appear.

The lateral margins of each post are bevelled off on their front and rear surfaces as indicated at 29 and 30 respectively in Figs. 4 and 5. It is pointed out that the grooves 19—20 and 21 may be conveniently produced by a sawing operation and the margins 29 and 30 by machine operations. The surfaces produced by such operations are somewhat opaque and show up as substantially white or silvery areas in contrast to the clear transparent mid portion of the posts between them. This contrast enhances the appearance of the posts and provides an attractive decorative effect. In Figs. 1, 3, 7 and 8 of the drawings, the surfaces for the margins 29 and 30 of said posts are indicated by stippling.

The bassinet body also includes an upright wall arranged between the two frames 10 and 11 and preferably this wall is made in sections and from a transparent material. A transparent plastic material about 1/16" thick, such as cellulose acetate, is preferred to ordinary glass because of the safety factor so far as breakage is concerned. Such a plastic material expands and contracts in response to temperature changes. Age also affects the dimensional characteristics of the material. All these factors must be taken into consideration to avoid the disadvantages which would result from buckling and bulging.

Preferably, therefore, the upright wall mentioned is made in four sections, namely a "head" end section 31, two side sections 32—32 and a "foot" end section 33. Also by the use of sections, as mentioned, waste in cutting is eliminated as the same may be readily cut from sheets of such material available in the market. These sections are best shown as to their shape in Fig. 6 and wherein they are grouped in the relation they occupy in the finished bassinet body.

The side sections 32—32, which are shorter than the length of the bassinet body as a whole, approximate in length the distance between the posts 18 and 18*a* on the associated side of the body. Each side section has a height for the greater part of its length that approximates that of the head end section 31 and then is reduced in height toward one end to approximate the height of the foot end section 33. Lateral margins 31*a*—31*a* of the head end section and the like margins 33*a*—33*a* of the foot end section respectively, are curved to provide the rounded corners for the wall of the body and to register or align with the end margins of the side sections. In forming the head and foot end sections 31—33, a sheet of the plastic material is cut to dimensions and then placed and confined in a form and while so confined is heat treated so that the rounded corners and margins 31*a* and 33*a* take a substantially permanent set under normal conditions of use.

In assembling a bassinet body from the parts described, the body sections 31—32 and 33 are applied to the bottom frame by inserting the bottom margins of said sections into the upwardly opening slot 14 which extends entirely about the bottom frame. The posts 18 and 18*a* are then positioned in place, with the grooves 21 straddling the flange 13 of said frame, after which the upright margins of the wall sections are brought to engage in the side grooves 19 of said posts. A bolt 34 is then inserted through the hole part 27 in the flange 25 of each post to pass through the associated hole 28 in the flange of the bottom frame and then through the hole part 27 in the flange part 24 of each post, after which a cap nut 35 is applied to the bolt end. It is pointed out at this time that that part of the hole 27 in the flange 25 is countersunk to receive a like

head on the bolt as appears in Figs. 2 and 4 so that said head forms no substantial projection.

Thereafter the top frame is applied so that the upper margins of the wall sections 31—32 and 33 pass through the slot 14 in said frame to enter the interior of the beading 12 thereof. This lines up the holes 28 in the flange 13 of said frame with the holes 26 in the flanges 22 and 23 at the top end of the posts. Then bolts 34 and nuts 35 are applied to hold the parts in position, after which all nuts 35 are tightened on their respective bolts.

The engagement of the upright margins of the wall sections 31—32 and 33 in the grooves 19 of the posts 18 and 18a best appears in Fig. 5. From said figure it is to be noted that the edges of said margins do not engage the bottoms of the grooves 19 but are slightly spaced therefrom to allow a telescopic or relative sliding movement of said margins in said grooves under such expansion and contraction, circumferentially about the body, as may occur under changes due to temperature or for other reasons. In this respect it is pointed out that none of the bolts 34 passes through any wall section and therefore there are no holes or openings in said sections.

From Fig. 2 it will be noted that the top and bottom margins of said body sections 31—32 and 33 have a substantially snug fit in the grooves 14 of the frames 10 and 11 and that they are in no manner attached in place by bolts or the like. Thus when the expansion and contraction of the body sections occurs in a vertical direction, said margins are free to move further into or out of the beads 12 of said frames.

Thus while the margins of each wall section are capable of some relative movement with respect to the frames and posts, they are nevertheless securely held against displacement. Therefore said sections are free to "creep" under contraction and expansion and will not buckle or bulge or become otherwise distorted.

The entire bassinet body may be shipped in a knocked down condition, as a compact package from its place of manufacture and may be readily set up or assembled by persons of ordinary skill. When set up and assembled, the bassinet has an attractive and pleasing appearance which is enhanced by the white or silvery stripes at the margins of the posts. Furthermore the clear space between the said margins of the posts increases the transparent area of the body as a whole.

In hospital use, the bassinets are frequently cleaned by immersing in a sterilizing bath water solution so that some of the bath solution enters the beading 12 of the upper and lower frames through the slots 14—14 thereof. As the slot 14 of the upper frame faces substantially downwardly, the water in the bead of the upper frame drains out through the slot 14 thereof, after the bassinet has been removed from the bath water solution.

However, it is to be noted, from Fig. 2 that the slot 14 for bottom frame faces substantially upwardly. Therefore, in order that the bath water solution may drain therefrom, there is provided at suitable spaced points about the bottom part of the bead 12 of the bottom frame, drain openings 12a as best appears in Figs. 1, 2 and 10 respectively. Thus it is assured that after a cleaning, as above mentioned, water will not be retained in the bead of the bottom frame, to eventually creep up between the flange 13 of the frame and those marginal parts of the wall sections 31—32 and 33 engaged therewith.

It is to be noted also from Fig. 2 that the bead 12 of both frames is disposed on the outside of the bassinet body. With this arrangement the bead 12 of the top frame provides a good finger grip in moving the bassinet from one place to another. However, the arrangement of the bead 12 of the bottom frame on the outside of the body is not essential as it may, if desired, be disposed upon the inside of the body as appears in Fig. 10. In said Fig. 10, like parts bear the same numerals as before. As shown in said Fig. 10, the end of the member 16 rests upon and is secured to the top of the bead 12 and the flange 13 is then disposed upon the outer surface of the margins of the wall sections 31—32 and 33 respectively.

While in describing the invention I have referred in detail to the form, arrangement and construction of the parts employed, the same is to be considered only in the illustrative sense so that I do not wish to be limited thereto except as may be specifically pointed out in the appended claims.

I claim as my invention:

1. A bassinet embodying therein top and bottom frames, each cross sectionally including a substantially tubular portion and a flange leading off from one side thereof and spaced from the other terminus of the substantially tubular portion to form an entrance slot into the substantially tubular portion, the flanges of both frames facing each other, upright wall sections disposed between said frames and at their top and bottom margins extending through said entrance slots into the tubular portions of both frames, there being a space between the adjacent vertical margins of said wall sections, upright members, one for and wider than each space between said adjacent margins of said wall sections, each upright member having a groove in its lateral margins of a width approximating the thickness of and into which extend said adjacent margins of said wall sections, each upright member having a groove in each top and bottom margin of a width approximating the combined thickness of parts of the wall sections and flanges of the frames that are engaged jointly therein, and means passing through top and bottom end parts of said upright members between the edges of the spaced margins of said wall sections in said top and bottom grooves of said upright end members and through parts of the flanges in said grooves to connect said frames, wall members and said upright members together in operative relation.

2. A bassinet embodying therein top and bottom frames, each cross sectionally including a substantially tubular portion and a flange leading off from one side thereof and spaced from the other terminus of the substantially tubular portion to form an entrance slot into the substantially tubular portion, the flanges of both frames facing each other, upright wall sections disposed between said frames and at their top and bottom margins extending through said entrance slots and into the substantially tubular portions of both frames, there being a space between the adjacent vertical margins of said wall sections, upright members, one for and wider than each space between the adjacent vertical margins of said wall sections, each upright member having a groove in its lateral margins of a width approximating the thickness of and into which extend said adjacent vertical margins of said wall sections, each upright member having a groove in

each top and bottom margin of a width approximating the combined thickness of parts of the wall sections and flanges of the frames that are engaged jointly therein, and with the edges of the flanges engaged against the bottom of the associated top and bottom groove and with a top part of said upright member outwardly of said groove engaged flatwise with the underside of the tubular portion of the frame and whereby said upright members are prevented from rocking longitudinally of the frame members, and means securing said frames, wall members and said upright members in operative relation.

3. A bassinet embodying therein top and bottom frames, each cross sectionally including a substantially tubular portion and an upright flange of a greater width than the diameter of the tubular portion and leading off from one side thereof and spaced from the other terminus thereof to form an entrance slot into the tubular portion, the flanges of both frames facing each other, upright wall sections disposed between said frames and at their top and bottom margins extending through said entrance slots and into the tubular portions of both frames, there being a space between the adjacent vertical margins of said wall sections, upright members, one for and wider than each space between the adjacent lateral margins of said wall sections, each upright member having a groove in its lateral margins of a width approximating the thickness of and into which extend said adjacent vertical margins of said wall sections, each upright member having a groove in each top and bottom margin of a width approximating the combined thickness of parts of the wall sections and flanges of the frames that are engaged jointly therein, and means securing said frames, wall members and said upright members together in operative relation, the flange of the top frame being disposed upon the inside thereof and the tubular portion of said top frame being disposed on the outside of the frame and forming a grippable hand hold, by which the bassinet may be carried about.

4. A bassinet embodying therein a bottom frame and a second frame spaced vertically thereabove, said frames being substantially rectangular in plan and each being formed with

a substantially tubular portion and each having a slot therein, the slot in the lower frame opening upwardly and that in the upper frame opening downwardly, members spaced from the corners and extending between said frames and operatively connected at their ends to said upper and lower frames, side portions of said members having longitudinal grooves therein, and means providing an upright wall between said frames, said wall comprising a plurality of sections including two end sections, said end sections being of substantially U shape in plan thereby providing a unitary wall for the entire end and also parts of the side wall, the vertical edge end portions of said side wall parts extending into said grooves in said side portions of the said members extending between the upper and lower frames, and the upper and lower edge portions of said U-shaped end wall sections projecting into the slots of said upper and lower frames.

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