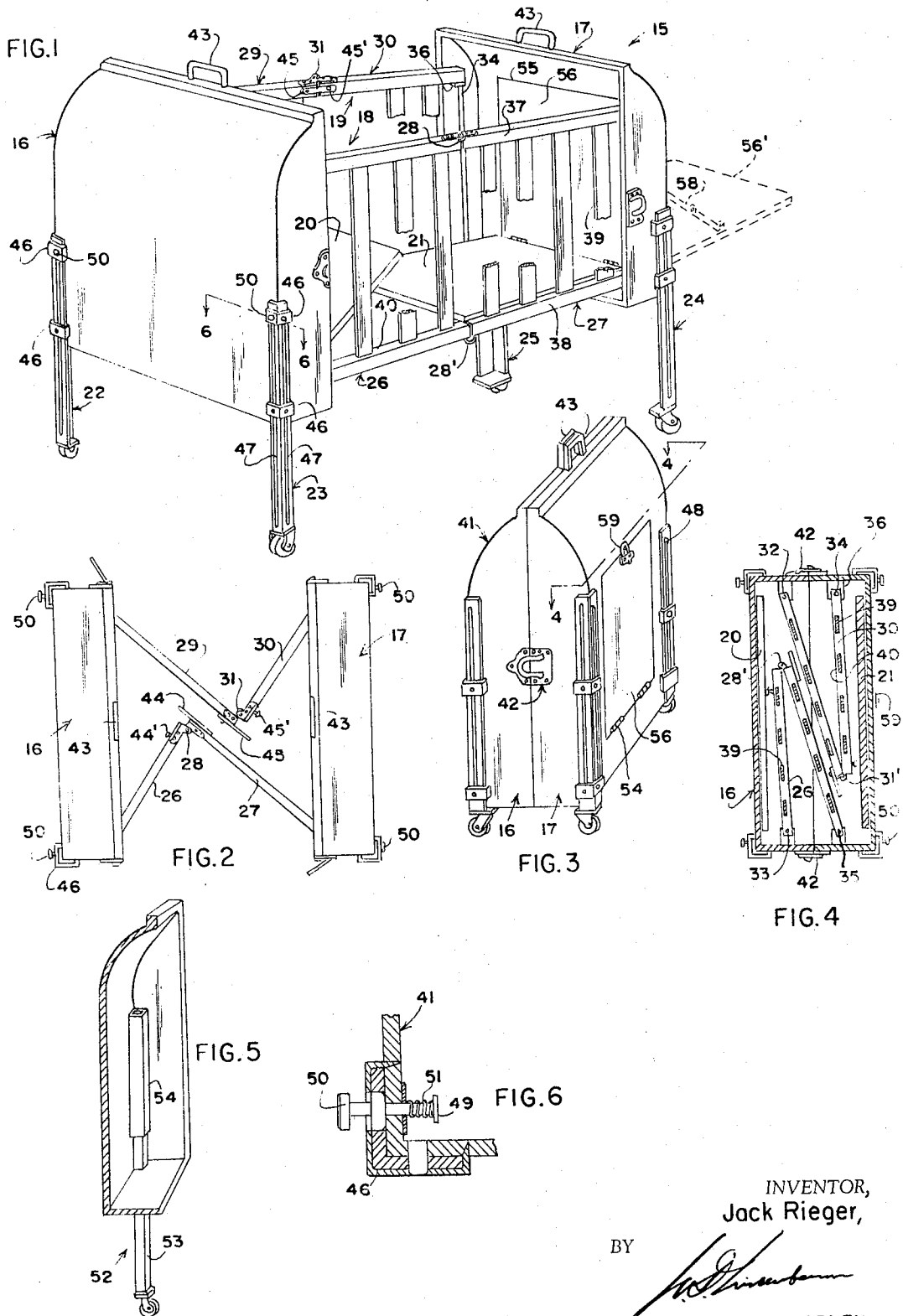


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PORTABLE COLLAPSIBLE COMBINATION
CRIB AND PLAY PEN
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**PORTABLE COLLAPSIBLE COMBINATION CRIB
 AND PLAY PEN**

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My present invention relates to a combination crib and play pen.

An object of this invention is to provide a baby's crib of novel and improved construction which is collapsible and portable.

Another object thereof is to provide an article of the character mentioned, which in collapsed condition resembles a piece of hand luggage which can be conveniently taken along in an automobile or train while traveling, for use in hotels, "motels" and the like. It also finds use in a small apartment, a trailer or any other place where space is limited.

A further object is to provide a portable and collapsible crib of the kind set forth, which can be set up as a play pen, or extended to small bed-size.

Another object thereof is to provide a novel and improved crib and play pen combination which is easy to set into use and collapsed conditions, requiring no tools and all of whose parts are permanently associated. In use condition, the structure is sturdy. When collapsed, it is compact.

Still another object of this invention is to provide a novel combination crib and play pen having the stated attributes and which is simple in construction, reasonable in cost, easy to manipulate and efficient in carrying out the purposes for which it is designed.

Other objects and advantages will become apparent as this disclosure proceeds.

For one practice of this invention, the crib comprises end sections, which when brought together, form a carrying case resembling a piece of hand luggage. These end sections are identical box structures whose mouth rims are in abutment when the crib is collapsed. Each end section carries adjustable legs which are made long for crib use and short for play pen use. Each of the sides of the crib structure is in two sections which are hingedly connected. The remote ends of each side are respectively hinged to the end sections. Side sections lengths are such that the length of the extended crib is nearly twice its width. The crib floor consists of two panels which are in abutment when the crib is extended, and rest on ledges along the sections of the sides. The remote ends of said floor panels are respectively hinged to the end sections of the structure, so they could be swung up into them. The sides of the crib fold inwardly. When the end box structures are together, they are releasably locked to maintain the compact assembly. One of the box end sections may have a hinged wall which can be swung downward to serve as an extension of the crib floor.

In the accompany drawing forming part of this specification, similar characters of reference indicate corresponding parts in all the views.

FIG. 1 is a fragmentary perspective view showing a preferred embodiment of this invention. Here, the crib is in use condition and shows one of the floor panels started to be swung upward as an initial step to collapse the crib.

FIG. 2 is a top plan view showing the crib partially collapsed.

FIG. 3 is a perspective view showing the article collapsed, ready to be taken in hand by its handle means and carried like a piece of luggage.

FIG. 4 is a section taken along line 4-4 in FIG. 3.

FIG. 5 is a fragmentary perspective view shown partly in section, showing a modified form of leg structure.

FIG. 6 is an enlarged section taken at line 6-6 in FIG. 1.

In the drawing, the crib designated generally by the numeral 15, comprises essentially the generally identical end box structures indicated generally by the numerals 16 and 17, the side members denoted generally by the numerals 18 and 19, the floor panels 20 and 21, and the identical telescopic or extensible legs designated generally by the numerals 22, 23, 24 and 25. The side member 18 is composed of two sections 26, 27, one in horizontal extension of the other with their meeting ends in abutment, and pivotally connected by the hinges 28, 28', to fold inwardly. The side member 19 is composed of two sections 29, 30, one in horizontal extension of the other with their meeting ends in abutment, and pivotally connected by the hinges 31, 31', to fold inwardly. The distal ends of these side members are within the end box numbers and pivotally mounted thereto on the respective axis rods 32, 33, 34 and 35 which are supported on bearing brackets as 36, on the opposite side walls of said box structures. The axes of all pivotal connections, are of course vertical and that to be noted is that they are equi-distant from the mouth rim in each of the box structures. The mouths of said boxes 17, 16 are opposite each other in parallel vertical planes respectively, and when the crib 15 is collapsed as in FIG. 3, their mouth rims abut each other in vertical plane. The floor panel 20 is hinged to the end box 16, and the floor panel 21 is hinged to the end box 17; said panels extending into said boxes respectively and swingable upward therein. In use position, said floor panels rest on ledges offered by the side members 18, 19. The side members sections may be solid panels, or as shown, each may comprise top and bottom horizontal rails as 37, 38, joined by spaced vertical slats as 39 which are set in such rails to offer ledges as 40 on the bottom rails of all the side member sections, to support the floor panels 20, 21 when the latter are down as 21 in FIG. 1; the top rails being so positioned that they give clearance to allow the floor panels to be swung up into the box structures 16, 17 respectively.

The box structures may be shaped as shown, so when the crib is collapsed, the casing 41 formed, resembles a piece of hand luggage, and of course to hold said casing closed, it is equipped with suitable latches 42 as are used in the luggage art, and each box section may have a handle 43 so the article can be carried in hand. The numerals 44, 45 indicate swingable hook bars to respectively engage the headed screws 44', 45' to hold the side members from folding inward when the crib is in use condition. Each leg may be a length of angle iron guided along the vertical box edges at the corners of the casing 41 by straps like 46 fixed to said box structures and each leg may have a longitudinal slot like 47 having an enlargement as 48 at its upper end and one intermediate its top and bottom ends (not shown) to engage releasable latch means of suitable type which enter said enlargements to hold the legs extended as in FIG. 1, or retracted as in FIG. 3. Such latches being of the spring-biased type and may comprise a button 50 on a shank having a head 49 inside the casing 41, and carrying the compression spring 51, or any other suitable type. In this instance the button fits into said enlargements as 48. If desired, the legs may retract into the casing as is for instance shown at 52 where they are of telescopic construction; the leg in such instance being a rod 53 slidably fitted in the fixed tube 54. If desired, the leg structures may be hinged to the casing 41, one at each corner, with suitable releasable holding appurtenances as in a bridge table, which is readily understandable without further illustration.

It is to be noted that the length of each of the sections 26 and 30 is much more than half the distance between

the axes 34 and 35, and such lengths may be made as long as possible so the folded side members will come into the box structure upon the collapse of the crib as shown in FIG. 4. It is evident that each of the sections 27 and 29 will be longer than their mate sections 26 and 30 respectively. The compactness of the casing 41 will depend on the length of the crib required. Making said sections of equal length would at most give a crib length about equal to the width of the crib. However by the manner of structure here shown, the normal relation of width to length of crib as is conventional, can be attained.

As a baby grows, it becomes taller, and so provision is made to increase the effective length of the crib, by having an opening 55 in one of the box structures; said opening having a door closure which as herein shown is the panel 56 hinged to said box structure 17 at 54, so that when said panel 56 is lowered by being swung outwardly to the position indicated by the broken lines 56' where it is stopped and held by folding side braces as 58, to be at the level of the floor panels 20, 21 and serve as an extension thereof. When said auxiliary floor panel is in use, the box structure 16 becomes the head end of such extended crib. A latch 59 is provided to keep the panel 56 as a closed "door" when the crib is collapsed, or not in use when the crib is in use condition.

It is evident that when the legs 22-25 are retracted as in FIG. 3, the crib in use condition as in FIG. 1, becomes a play pen.

To collapse the crib 15, the hooks 44 and 45 are swung to disengage them from the headed screws 44' and 45' respectively, and after swinging the floor panel 20 up into the box structure 16, and the floor panel 21 up into the box structure 17, the side members 18 and 19 are folded inwardly a bit to bring the box structures nearer to each other as in FIG. 2. Then pushing said box structures towards each other while they ride on the casters 60 which may be provided on each of the legs, the fully collapsed condition shown in FIGS. 3 and 4, is attained, after the casing is locked by closing the latch means 42, and then the legs are retracted. The laden casing 41 can be carried by the handles 43, or rolled along on the casters 60. It is evident that the reverse procedure is used to erect the crib. In erected condition in any of the manners this article may be set up for, it is sturdy. Its weight should be sufficient to prevent it from being toppled by the child using it. The casing 41 has space for thin bedding, its floor panels may have adhered thereto a thick layer of foam rubber to serve as a mattress or, all bedding including a pillow, of the inflatable type may be carried along in the casing; no indication of bedding being shown in the drawing, for same is well understood to those versed in the art, without the necessity of further illustration.

This invention is capable of numerous forms and various applications without departing from the essential features herein disclosed. It is therefore intended and desired that the embodiments shown herein shall be deemed merely illustrative and not restrictive and that the patent shall cover all patentable novelty herein set forth; reference being had to the following claims rather than to the specific showings and description herein to indicate the scope of this invention.

I claim:

1. In a crib and the like, first and second open box structures positioned in horizontally spaced relation, with their mouth rims opposite each other; the first box structure serving as the head end and the second box structure serving as the foot end of the crib, first and second opposite, spaced, vertical side wall structures, each extending into both of said box structures and each hingedly connected at its ends to said box structures; said hinge connections being equi-distant from the mouth rim in each box structure; each side wall structure comprising two hingedly connected sections in horizontal extension of each other; the axes of all said hinge connections be-

ing vertical; each side wall structure being foldable inwardly of the crib, the lengths of the sections of the first side wall structure being unequal; the lengths of the sections of the second side wall structure being respectively equal to the lengths of the first side wall structure; the longer section of each of said side wall structures being opposite the shorter section of the other side wall structure; each section being longer than half the distance between the side wall structures when said latter structures are parallel, means on each of said wall structures for releasably holding its sections in horizontal extension of each other, bottom wall structure extending into both box structures and positioned between the side wall structures; the ends of the bottom wall structure being hingedly connected to the respective box structures; said bottom wall structure comprising two separate sections having meeting edges between said box structures; said bottom wall sections resting on ledges on said side wall structures and swingable upwardly into said box structures respectively; the mouth rims of said box structures being substantially identical in size and shape, and in parallel vertical planes respectively, whereupon first swinging the sections of the floor structure upwardly into the respective box structures, then releasing the sections of the side wall structures for relative movement and then moving said box structures together, their mouth rims will be in abutment in vertical plane and said box structures will form a closed casing housing said floor sections and the folded side wall structures, and means on said box structures for releasably holding the casing in closed condition.

2. The article as defined in claim 1, including a leg at each corner region of the crib, movably mounted on said box sections and extending downwardly therefrom, means releasably holding said feet on said box structures; said feet when released for movement, being movable so that the bottom ends thereof come nearer to the floor structure and means releasably holding said feet when moved to the last mentioned position.

3. The article as defined in claim 2, wherein each leg is movable along the vertical.

4. The article as defined in claim 2, wherein each leg comprises two sections in telescopic sliding relation; one of said sections being positioned and fixed within the box section at which it is.

5. The article as defined in claim 1, wherein the wall of the foot end box structure which is opposite the head end box structure, is provided with an opening, a door closing said opening, hinged along at the plane of the floor structure, to swing downwardly away from the head end box structure, said door when swung downwardly, being in extension of the floor structure, means to releasably hold said door as an extension of the floor structure when it is swung downwardly and cooperative means on said door and the foot end box structure, for releasably locking the door when the latter is across said opening.

6. The article as defined in claim 1, wherein the casing has the appearance of a piece of hand luggage, and handle means on said casing so it can be carried as a piece of hand luggage.

References Cited by the Examiner

UNITED STATES PATENTS

1,498,633	6/1924	Lewis	5-99.31 X
1,748,809	2/1930	Verdini	5-97 X
2,057,344	10/1936	Hannum	5-177 X
2,592,166	4/1952	McLean et al.	5-11 X
2,680,252	6/1954	Hatton	5-177 X
2,695,412	11/1954	Kunz	5-177 X
3,031,689	5/1962	Sark	5-310
3,094,714	6/1963	Lutes	5-99

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