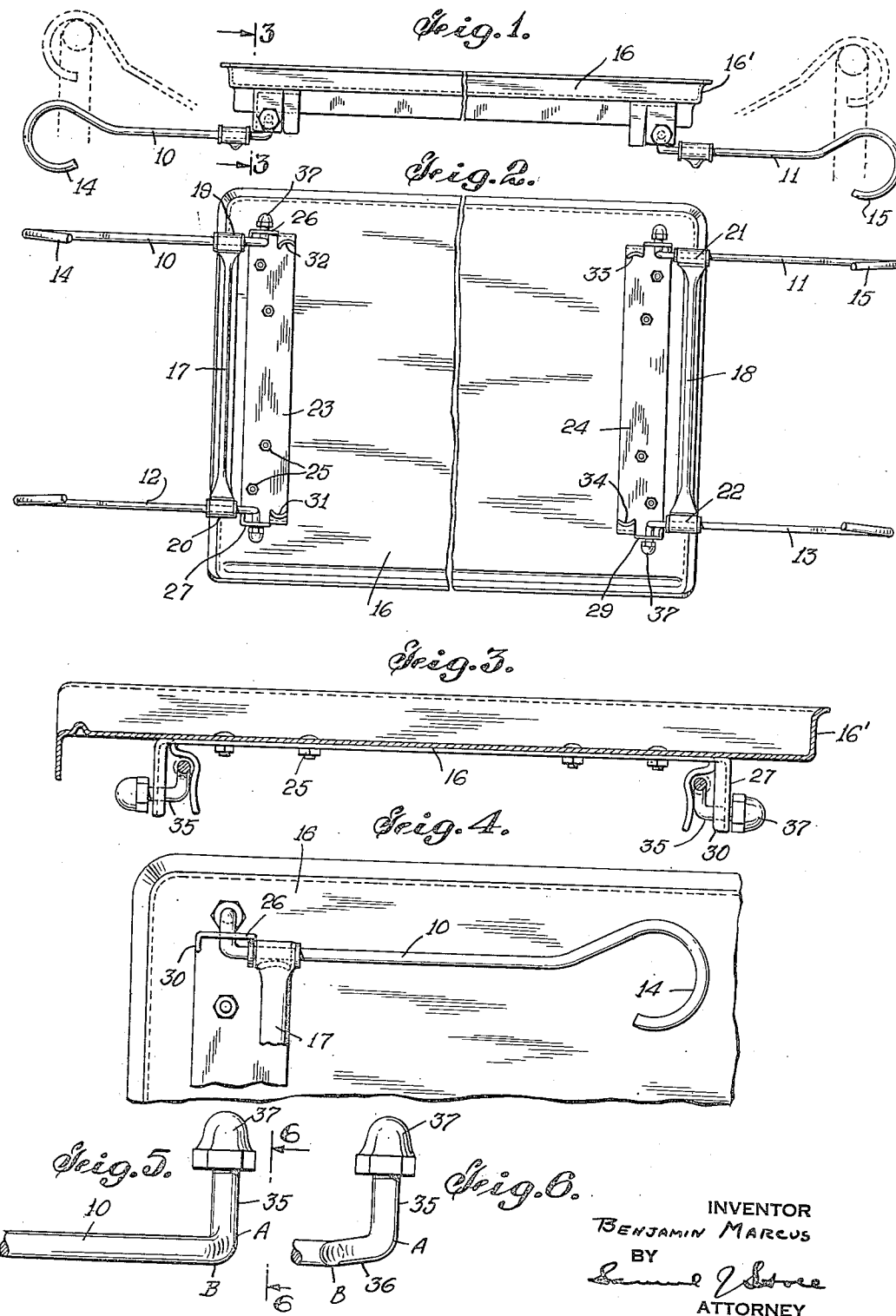


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TRAY FOR CRIBS AND THE LIKE

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TRAY FOR CRIBS AND THE LIKE

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3 Claims. (Cl. 311-26)

This invention pertains to trays for use with babies' cribs and beds provided with side railings.

It is desired to provide a tray or platform which can be readily attached to and removed at will from cribs and beds with side railings such as are used in hospitals, nurseries, and the like. The tray has a plurality of hooked arms for convenient attachment to bed railings. When not in use the arms are folded under the tray. The arms are so devised that in operating in association with their support brackets the hooked ends of the arms are automatically rotated to positions parallel to the substantially flat bottom surface of the tray, so that the tray may be stored flat in a minimum of space.

A principal object of the invention is to provide a tray with rotatable hooked support arms.

A further object is to provide a tray with hooked arms which automatically fold flat against the tray when in closed position.

A further object is to provide a tray which can be folded flat for storage when not in use.

Other and further objects of the invention will become apparent from the following description taken together with the drawing wherein:

Fig. 1 is an elevational view of the tray in position for attachment to the side railings of a bed or crib.

Fig. 2 is an underside or bottom view of the tray in Fig. 1.

Fig. 3 is a sectional view taken on lines 3-3 of Fig. 1.

Fig. 4 is a fragmentary bottom view of the tray showing an arm in folded position.

Fig. 5 is an elevational view of one end of a tray supporting arm.

Fig. 6 is an end view of the arm of Fig. 5.

In Fig. 1 the tray is shown in fully operative position. The elongated four arms, of which only two arms 10, 11 are visible in this view, are wholly extended outwardly. The bottom of the tray is a substantially flat surface 16 and is horizontally disposed. The bottom of the tray is bent at its side to form the sides 16' of the tray. The arms have substantially straight center sections which terminate in hooked ends 14, 15. These hooked ends are substantially coplanar with the longitudinal axes of the arms. The brackets and crossbars supporting the arms are best shown in Fig. 2. Arms 10, 12 and 11, 13 are joined in pairs by crossbars 17, 18 respectively. The crossbars terminate in cylindrical sleeve-like bearings 19, 20, 21, 22 through which pass the arms and in which the arms rotate as hereinafter explained. Brackets 23 and 24 support the several arms. The brackets are secured to the flat bottom 16 of the tray by nuts and bolts 25, or by rivets, welding or other suitable means. The arms fit into upstanding end portions of the brackets. These end portions 26, 27, 28, 29 are provided with apertures through which pass the ends of the arms. Each of said end portions is bent to form a lug such as lug 30 shown in Figs. 3 and 4. The plane of the lug is perpendicular to the longitudinal axes of each supporting arm of the tray. The brackets are provided

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with further lugs 31, 32, 33, 34 having outwardly curved center portions. The ends of the tray supporting arms are actuated by these lugs as will be described. The inner end of each arm is doubly bent as clearly shown in Figs. 5 and 6. The first right angle bend A forms the short arm portion 35 and the second right angle bend B forms the second short arm portion 36. Arm portion 35 is thus perpendicular to the longitudinal axis of arm 10 but is offset therefrom by the length of arm portion 36. Each arm terminates in a cap nut threaded to the end of the arm.

When the arms 10, 13 are all extended outwardly the open portions of the hooked ends are disposed downwardly to effectively engage the side railings of a bed or crib. The opposite ends of the arms are engaged in the apertures of the bracket ends 26-29, through which apertures pass the short arm portions 25. In folding the arms upon removal of the tray from railings of bed or crib, all arms rotate about ninety degrees until contact is made with the lugs 31-34 where the curved portions of the lugs force the arms to rotate ninety degrees about their longitudinal axes in the sleeve-like bearings 19-22 so that arm portions 35 and bent portions A slide through the apertures in bracket ends 26-29 bringing arm portions 36 to rest in the apertures. In this arm movement the hooked ends of the arms are brought flat against the bottom surface 16 of the tray. When the arms are to be extended they first rotate on arm sections 36 as axes until the lugs 30 are reached. There the lugs 30 force the arms to move laterally so that bent portions A slip through the apertures in bracket ends 26-29 causing the arms 10-13 to rotate ninety degrees in the bearings 19-22 to bring the open portions of the hooked ends to the downward position. With the arms in the extended position the short arm portions 35 are now engaged in the apertures of bracket ends 26-29 as above explained.

By rotating the arms 10-13 180 degrees or so from the fully extended position to the completely folded position the arrangement of lugs thus described causes the arms to fold flat against the bottom of the tray automatically without requiring any additional operation on the part of the operator other than manually rotating the arms inwardly. With the arms in folded position they do not protrude from the bottom of the tray so that the tray may be readily stored away. It will be noted that the tray is provided with the useful integrally formed upstanding sides 16'. These sides flare outwardly and thus have the additional usefulness in that they permit a plurality of trays to be nested one within the other to occupy a minimum of storage space. The folded arms with the hooked ends turned flat against the bottoms of the trays permit nesting of the trays which is a valuable feature when many trays are to be stored or shipped and space must be conserved.

Although a limited number of forms of structure embodying the invention have been disclosed it is not necessarily intended that the invention be limited thereto since all reasonable equivalents and modifications thereof belong properly within the scope of the invention as defined in the following claims.

I claim:

1. In a tray for attachment to a crib having spaced, parallel, horizontal side railings, a plurality of supporting arms pivotally connected to the bottom of the tray, the free ends of said supporting arms being hook-shaped and adapted to be hooked over the side rails of said crib, the pivoted ends of said supporting arms being bent twice to form one portion which is disposed at right angles to the main body of the supporting arm and a second portion which is disposed at right angles to the first por-

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tion, the first bent portion, the main body of the supporting arm and the hook-shaped portion at its free end all occupying a common plane, the second bent portion being perpendicular to said plane, and bearings on the tray for said bent portions of the supporting arms, said supporting arms being pivotally movable about the axes of said bent portions in said bearings, whereby the supporting arms may be pivoted from a position flat against the bottom of the tray to an outwardly projecting position wherein the hook-shaped ends of said supporting arms are engageable with the side rails of the crib, said supporting arms being also pivotable about their main body axes in order to move either bent end portion into engagement with the bearings and thereby to move the other bent end portion out of engagement with the bearings, thereby enabling the hook-shaped ends of said supporting arms to lie flat against the bottom of the tray when the tray is not in use and enabling said hook-shaped ends to assume an angular position 90 degrees removed from said flat position in order to engage the side rails of the crib when the tray is in use.

2. In a tray for attachment to a crib having spaced, parallel, horizontal side railings, a plurality of supporting arms which in one position are adapted to fold against the bottom of the tray and in another position are adapted to support the tray from the side rails of the crib, each said supporting arm comprising a straight rod which constitutes the main body of the supporting arm, a hook-shaped end portion at one end of said main body, a pair of bent end portions at the opposite end of said main body, one of said bent portions being disposed at right angles to said main body and occupying a common plane with said main body and said hook-shaped end portion, the second bent portion being perpendicular to the first bent portion and to said common plane, said bent portions constituting bearings for the supporting arm and

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being disposed within a bearing secured to the bottom of the tray, said supporting arm being pivotable about the axis of its main body to move one bent portion out of the bearing and the other bent portion into the bearing, whereby the hook-shaped end of the supporting arm may be turned from a position flat against the bottom of the tray when the tray is not in use to an angularly different position for engagement with the side rails of the crib when the tray is in use, said supporting arm being also pivotally movable about the axis of either bent portion so that it may be moved into a position against the bottom of the tray or into a position extending outwardly from the tray.

3. A supporting arm for a tray of the character described, said supporting arm having a relatively straight main body portion, a hook-shaped portion at one end which is engageable with a side rail of a crib or the like, and a pair of bent end portions at the opposite end of said main body, said bent end portions comprising the bearing portions of said supporting arm whereby the supporting arm may be pivotally connected to a tray, said bent end portions being disposed at right angles to each other, one of them being disposed at right angles to the main body of the supporting arm and occupying a common plane therewith and with the hook-shaped end portion, the other bent end portion being disposed at right angles to said plane.

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