July 7, 1953 W. C. BAXTER 2,644,590

FOLDING STAND AND TRAY

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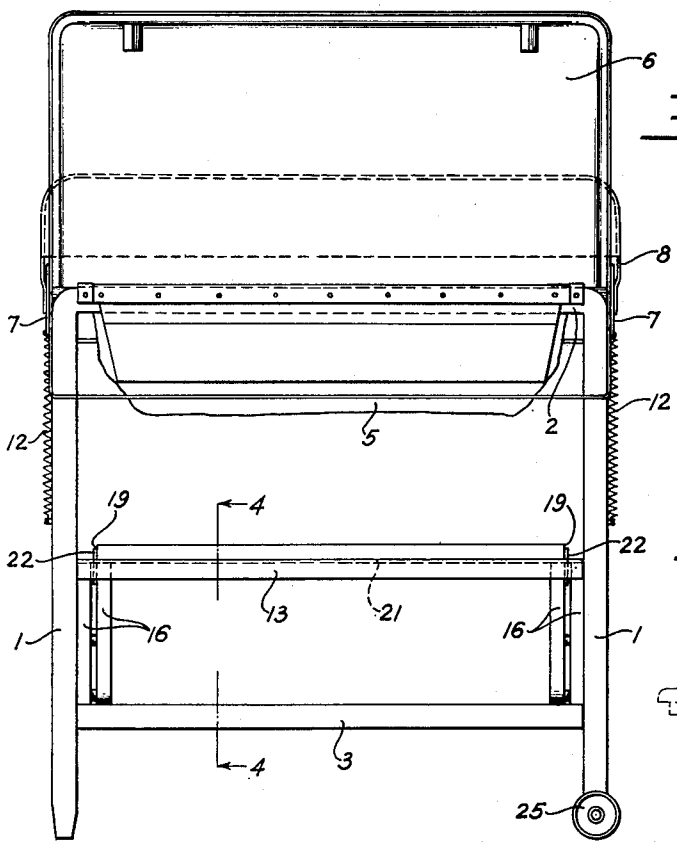


Fig. 1.

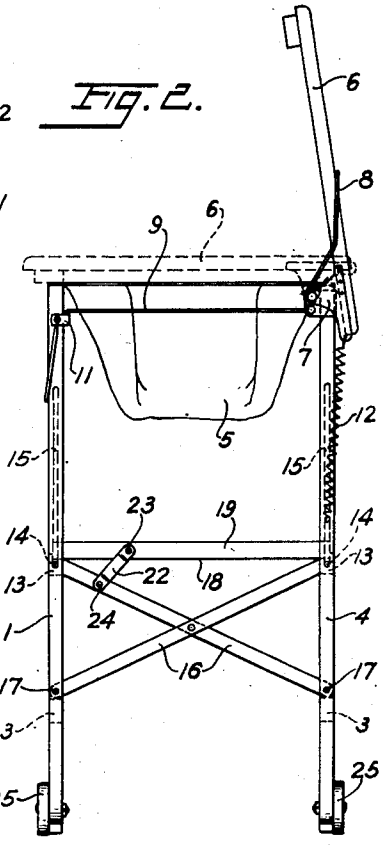


Fig. 2.

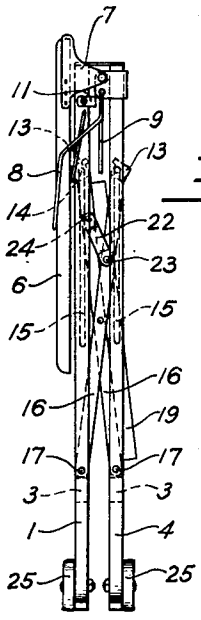


Fig. 3.

WILLIAM C. BAXTER
INVENTOR.

BY Harold E. Stonebraker
his ATTORNEY.

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Fig. 4.

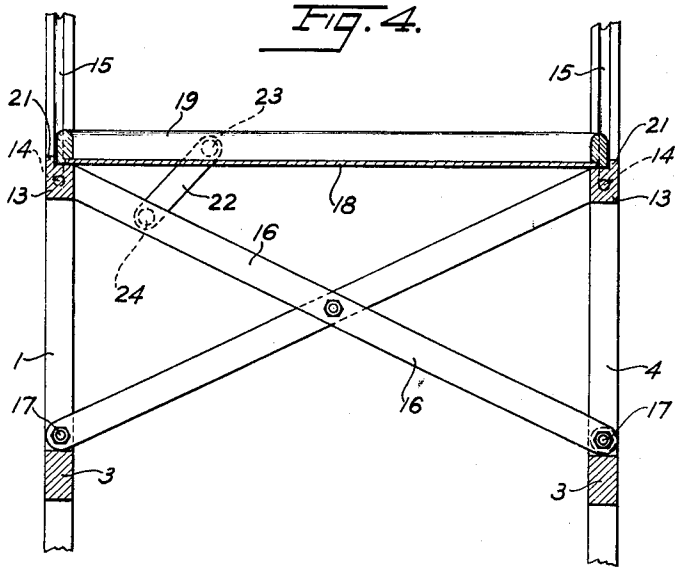


Fig. 5.

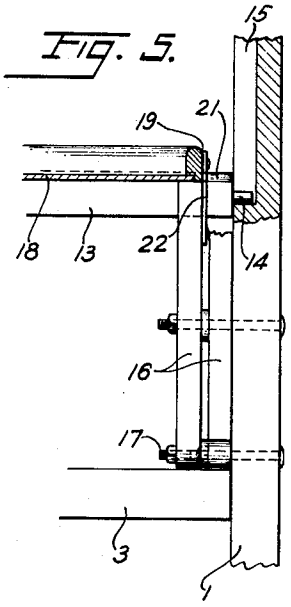


Fig. 7.

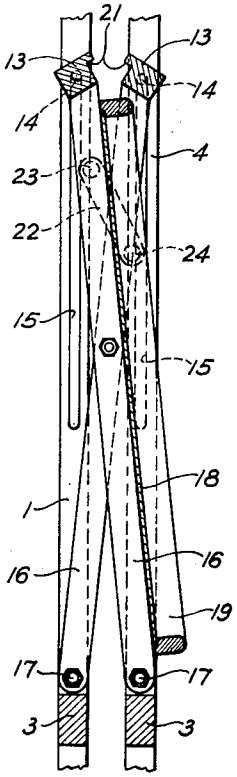
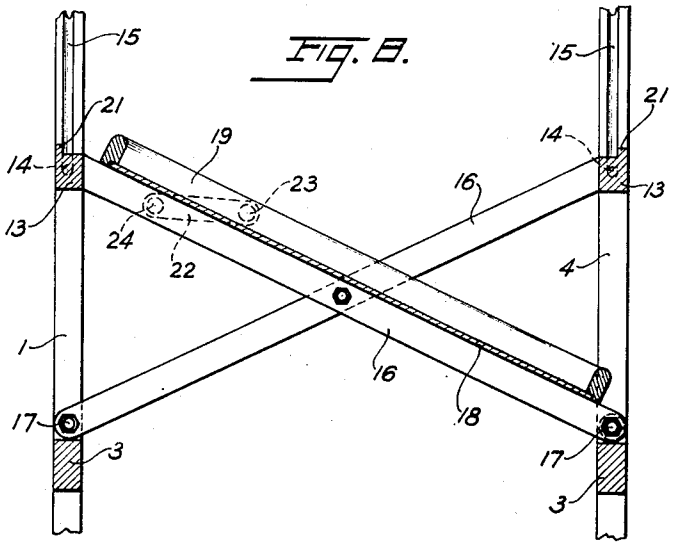


Fig. 8.



WILLIAM C. BAXTER
INVENTOR.

BY
Harold E. Stonebraker
his ATTORNEY.

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FOLDING STAND AND TRAY

William C. Baxter, Rochester, N. Y., assignor to Trimble, Inc., Rochester, N. Y., a corporation of New York

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3 Claims. (Cl. 211—132)

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This invention relates to a tray for a folding stand, with particular reference to the type of stand that includes leg frames which are movable in parallelism toward each other when folding and away from each other for opening, and has for its purpose to provide a tray that is conveniently accessible when the stand is in use and which can be quickly positioned out of the way to permit folding the leg frames and is located adjacent to the leg frames when the latter are folded.

The invention has to do with the type of stand in which two parallel leg frames are controlled by two connecting frames, arranged one within the other and including cross-rails pivoted to each other at their central portions and pivoted to the leg frames at their lower ends while the upper ends of the cross-rails are connected to top rails slidable in vertical guideways in the leg frames so as to maintain the leg frames always in parallel relationship when in either folded or open position, and the invention is designed to afford a tray pivotally associated with and adapted to rest on the inner connecting frame when the stand is to be folded and to be supported on both connecting frames in a horizontal position when the stand is in use and the leg frames extended.

To these and other ends, the invention consists in the construction and arrangement of parts that will appear clearly from the following description when read in conjunction with the accompanying drawings, the novel features being pointed out in the claims following the specification.

In the drawings:

Fig. 1 is a view in front elevation illustrating the invention as applied to a folding stand for an infant's bath tub and dressing table, the stand appearing in extended or operative position, the tray in horizontal operative position resting on the connecting frame, and the dressing table in upright position;

Fig. 2 is a view in end elevation of the same, with the dressing table appearing in dotted lines in its horizontal operative position;

Fig. 3 is a view in end elevation showing the stand, tray, and dressing table in folded position;

Fig. 4 is an enlarged partial sectional view on line 4—4 of Fig. 1;

Fig. 5 is an enlarged partial sectional view taken vertically through the leg of one of the leg frames;

Fig. 6 is a view similar to Fig. 4, showing the position of the tray when resting on its connecting frame, prior to folding the stand, and

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Fig. 7 is an enlarged transverse sectional view illustrating the position of the parts shown in Fig. 6 when the stand is folded.

Referring more particularly to the drawings in which like reference numerals refer to the same parts throughout the several views and in which the invention is shown as embodied in an infant's folding bath stand and dressing table, 1 designates the legs of a front leg frame that includes a top rail 2 and bottom rail 3, while 4 designates the legs of a similar rear leg frame, 5 is a flexible bath tub of suitable fabric material suspended between the top rails of the front and rear leg frames, and 6 is a dressing table that is pivotally mounted upon supporting plates or brackets 7 fastened to the legs of the rear leg frame, permitting the dressing table to swing from a horizontal operative position, as shown in dotted lines in Fig. 2, to the upright position illustrated in full lines, such movement being limited by the rack 8 pivoted on the brackets 7. 9 designates wire rods pivotally connected to the brackets 7 and having bent or hook portions at their forward ends for engagement with suitable clips 11 carried by the legs of the front leg frame, the rods 9 when in operative position as shown in Fig. 2 acting to hold the leg frames against a tendency to close, which might otherwise take place when the tub 5 is filled with water.

When the stand is to be folded, the wire rods 9 are lifted out of engagement with clips 11 and swung downwardly, whereupon the stand can be folded by moving the leg frames toward each other and the dressing table 6 swung forwardly and downwardly until it is positioned forwardly of the front leg frame and parallel thereto, as illustrated in Fig. 3, acting to hold the stand in folded relation with the front leg frame maintained between the rear leg frame and the dressing table. 12 is a spring connecting the rear of the dressing table with a point at the lower part of the rear leg frame and acting to hold the dressing table normally in upright position while permitting it to be swung to a horizontally operative position or to a lowered position forwardly of the front leg when the stand is folded.

The front and rear leg frames are controlled by similarly constructed connecting frames arranged one within the other, and the inner of which consists of a top rail 13 having pins or trunnions 14 at its ends which travel vertically in guideways 15 provided in the legs of the front leg frame. The inner connecting frame also includes cross-rails 16 rigidly connected to the top rail 13 and having their lower ends pivoted at 17 to the legs of the rear leg frame, it being under-

stood that the outer connecting frame is pivoted to the front leg frame and slides vertically in the rear leg frame or reversely to the inner connecting frame. The cross-rails at either end of the two connecting frames are pivoted to each other centrally so that as the top rail of one of the connecting frames is elevated, it causes a corresponding elevation of the top rail of the other connecting frame and a consequent movement of the leg frames toward each other until they assume the folded relationship illustrated by the movement from Fig. 4 to Fig. 7.

In order to afford a tray for conveniently supporting various articles at a proper elevation for use in connection with the dressing table or with a similar stand for other possible uses, and to enable having the tray always in position for convenient use and permit its folding with the leg frames of the stand, there is provided a tray which includes a bottom 18 and sides 19, and when in operating position, the tray is arranged as shown in Fig. 4, resting upon horizontal supporting surfaces of the top rails 13 of the two connecting frames, each top rail including an upstanding flange or shoulder 21 at its outer edge to limit lateral movement of the tray 19.

In order to have the tray 19 always associated with the stand and foldable in conjunction therewith, links 22 are provided, these being pivotally connected to the sides 19 of the tray at points in proximity to the front of the tray as indicated at 23, and the links 22 extend thence downwardly and forwardly to a pivotal connection at 24 with the adjacent cross-rails of the inner connecting frame, being pivotally connected thereto at points adjacent to the front of the connecting frame. With this arrangement, the tray is positionable when the stand is to be folded in parallel relationship to the connecting frame on which it is mounted and resting upon the cross-rails of the connecting frame as illustrated in Fig. 6.

To effect such positioning of the tray from its operative position illustrated in Fig. 4, the tray is gripped and lifted upwardly in a swinging movement about the pivots 24 far enough to permit swinging the rear end of the tray downwardly until it clears the top rail 13 of the other connecting frame, whereupon the tray can be moved downwardly and rearwardly, swinging on the pivots 23 and 24 until it is in its lowermost position as illustrated in Fig. 6 with the links 22 in the position shown in dotted lines therein. When the tray is in this position, it rests on the cross-rails 16 of the inner connecting frame and the entire stand can be folded, moving the leg frames together while maintaining their parallel relationship until the entire assembly assumes the position illustrated in Fig. 3, so that it can be readily moved about or packed for transportation.

For convenience of portability, the legs at one end of the leg frame are provided with wheels or casters 25 so that by lifting the legs at the opposite end, the device can readily be wheeled over a floor and is held firmly in position against accidental displacement by the bottoms of the other legs resting directly upon the floor.

While the invention has been disclosed in connection with an infant's folding bath stand and dressing table, it is susceptible of application to any folding stand of the character set forth such for instance as food and beverage serving stands and the like, and although there is disclosed herein a specific embodiment of the invention, it will be understood that various changes and modifications may be incorporated without departing from the essential features of the improvement, and this application is intended to cover any such departures as may come within the purposes of the invention and the scope of the following claims.

I claim:

1. In a folding stand comprising a pair of leg frames movable toward and from each other in parallelism and controlled by inner and outer connecting frames each including a top rail vertically slidable in guideways in the legs of one of the leg frames and a pair of cross-rails each pivotally connected centrally to a cross-rail of the other connecting frame and pivotally attached at its free end to the legs of the other leg frame, the improvement which consists in a tray positioned parallel to and supported on the cross-rails of the inner connecting frame when the stand is folded, said tray having a length greater than the distance between the cross-rails of said inner connecting frame and less than the distance between the cross-rails of said outer connecting frame, said tray having a width less than the length of said cross-rails and greater than the distance between opposite top rails when the stand is unfolded, and links pivotally connected to said tray and to the cross-rails of the inner connecting frame, permitting the tray to be supported on said cross-rails parallel thereto when the stand is folded and to be moved bodily to a horizontal position supported on both top rails when the stand is open.

2. In a folding stand comprising a pair of leg frames movable toward and from each other in parallelism and controlled by inner and outer connecting frames each including a top rail vertically slidable in guideways in the legs of one of the leg frames and a pair of cross-rails each pivotally connected centrally to a cross-rail of the other connecting frame and pivotally attached at its free end to the legs of the other leg frame, the improvement which consists in a tray positioned parallel to and supported on the cross-rails of the inner connecting frame when the stand is folded, said tray having a length greater than the distance between the cross-rails of said inner connecting frame and less than the distance between the cross-rails of said outer connecting frame, said tray having a width less than the length of said cross-rails and greater than the distance between opposite top rails when the stand is unfolded, and links pivotally connected to the ends of the tray near its front and to the cross-rails of the inner connecting frame at points forwardly of the connections with the tray permitting the tray to be elevated from a horizontal position and swung bodily downwardly onto the cross-rails of said inner connecting frame in parallel relationship thereto.

3. In a folding stand comprising a pair of leg frames movable toward and from each other in parallelism and controlled by inner and outer connecting frames each including a top rail vertically slidable in guideways in the legs of one of the leg frames and a pair of cross-rails each pivotally connected centrally to a cross-rail of the other connecting frame and pivotally attached at its free end to the legs of the other leg frame, the improvement which consists in a tray positioned parallel to and supported on the cross-rails of the inner connecting frame when the stand is folded and on the top rails of both said connecting frames when the stand is open, said top rails having supporting surfaces for the tray and shoulders limiting lateral movement of the tray when resting on said top rails, said tray having a length

greater than the distance between the cross-rails of said inner connecting frame and less than the distance between the cross-rails of said outer connecting frame, said tray having a width less than the length of said cross-rails and greater than the distance between opposite top rails when the stand is unfolded, and links pivotally attached to the ends of said tray in proximity to its front and extending forwardly to points adjacent to the front of the cross-rails of the inner connecting frame, the links being pivotally attached to said cross-rails at points forwardly of the connections with the tray permitting the tray to be lifted bodily above said top rails and swung downwardly in an arcuate movement into parallel relation against said inner connecting frame.

WILLIAM C. BAXTER.

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