R. L. SMITH.

COMBINATION FURNITURE.

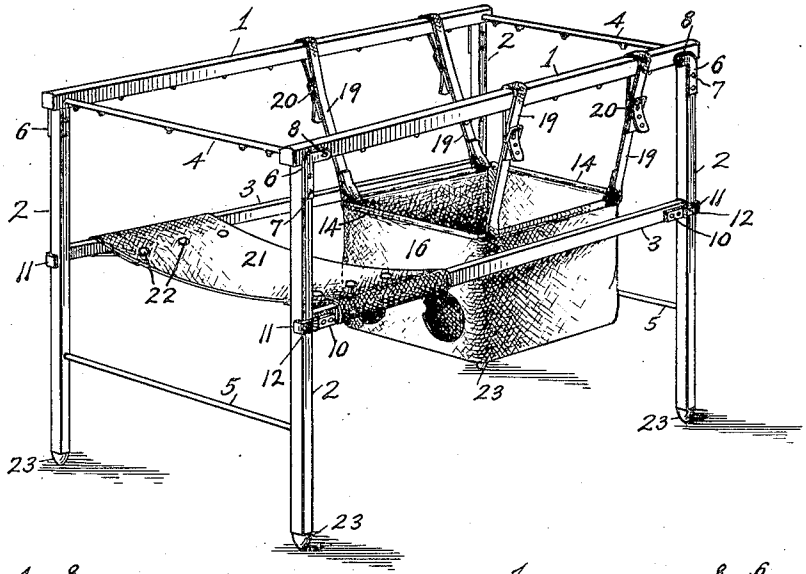
APPLICATION FILED APR. 29, 1919.

1,437,782.

Patented Dec. 5, 1922.

2 SHEETS—SHEET 1.

Fig. 1.



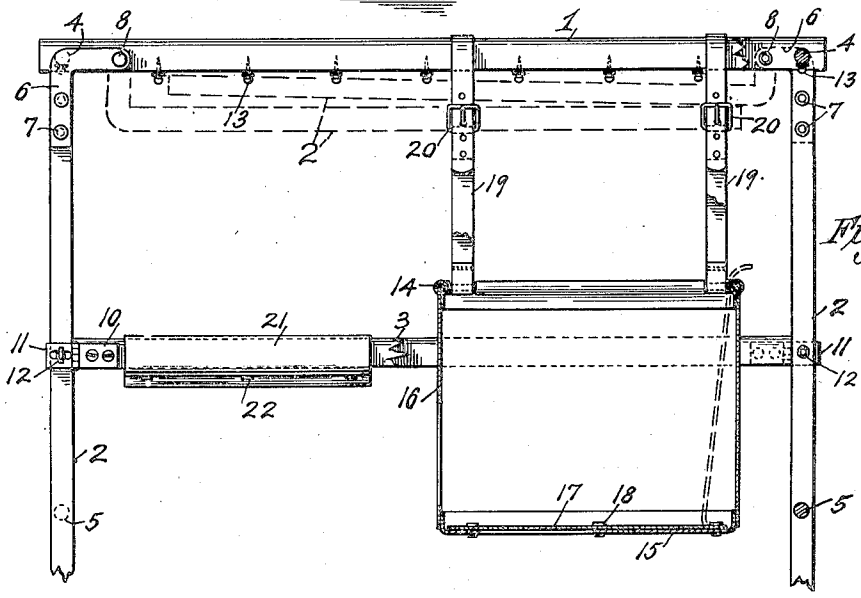


Fig. 2.

Inventor:
Robert L. Smith
By his Attys:
Philipp, Sampliet & Kennedy

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2 SHEETS—SHEET 2.

Fig. 3.

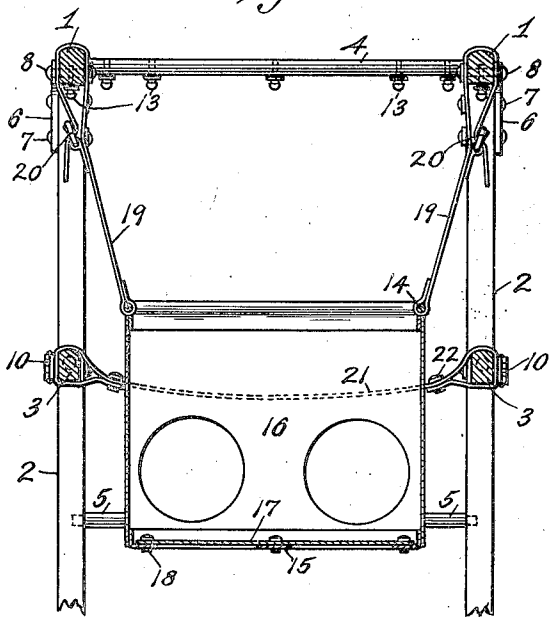


Fig. 4.

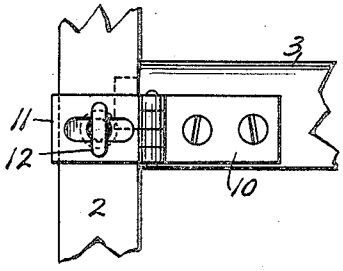


Fig. 5.

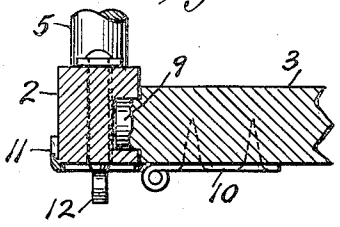
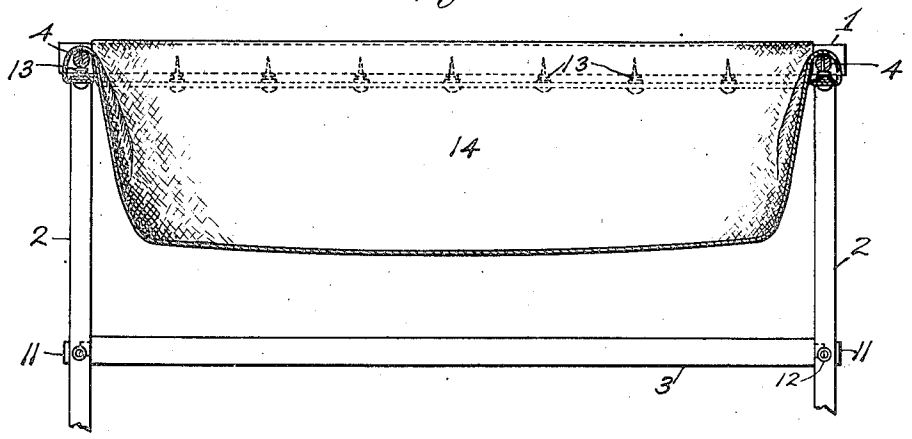


Fig. 6.



Inventor:
Robert L. Smith
by his Attys:
Philipp Sawyer & Kennedy

Patented Dec. 5, 1922. 1,437,782

UNITED STATES PATENT OFFICE.

ROBERT L. SMITH, OF BROOKLYN, NEW YORK.

COMBINATION FURNITURE.

Application filed April 29, 1919. Serial No. 293,447.

To all whom it may concern:

Be it known that I, ROBERT L. SMITH, a citizen of the United States, residing at Brooklyn, county of Kings, and State of New York, have invented certain new and useful Improvements in Combination Furniture, fully described and represented in the following specification and the accompanying drawings, forming a part of the same.

This invention relates to improvements in combination furniture, particularly intended for infants' use.

The invention consists in the features, details and combinations of parts which will first be described in connection with the accompanying drawings and then particularly pointed out in the claims.

In the drawings—

Fig. 1 is a perspective view of the device arranged as a swing and table device;

Fig. 2 a side elevation partly in section of the same;

Fig. 3 a detail transverse sectional view of the same apparatus;

Fig. 4 a detail elevation;

Fig. 5 a detail horizontal section of the connection device for detachably holding the legs and bottom rails together; and

Fig. 6 is a longitudinal vertical section of the device arranged as an infant's bath tub.

Referring to Figs. 1 to 5, the device comprises a collapsible or knock-down frame work consisting of top rails 1, legs 2, bottom-rails 3, top spindles 4 and bottom spindles 5.

The legs are connected to the top rails by a hinge device so arranged as to allow the legs to be folded inward and upward against the top rails, as shown in dotted lines in Fig. 2, when the bottom rails have been removed.

The hinge device which is employed in the present example, comprises an L-shaped hinge-leaf 6 secured by rivets 7 to the corresponding leg and pivotally movable on a pivot pin 8 suitably secured in the corresponding top-rail as by riveting the pin.

In order to permit the bottom rails to be connected to the legs so as to hold all parts very securely, and yet to be capable of ready removal, a special form of connection is employed, this constituting an important feature of the invention.

Each connection is made as follows: Each end of each bottom rail is joined to the leg by a mortise and tenon connection. In the present example the end of the side rail carries the tenon or dowel, indicated at 9, Fig. 5, and the leg is provided with the corresponding mortise. To hold the leg and rail against accidental disconnection a holding and locking means is provided, this consisting in the present example, of a hinged hook device having a stationary member 10 secured to the rail and a hook-member 11 hinged to the stationary member and having its turned over end or hook arranged to engage the proper outer face of the leg. When the hook-member is swung outward the tenon may be pulled from the mortise, thereby allowing the bottom rail to be removed. When the hook-member is in engagement with the leg as shown in Fig. 5 the leg is firmly locked to the bottom rail and the whole frame work is rigid.

In order to prevent accidental opening of the hook-member, suitable fasteners are employed. In the present example a turn-button 12 is rotatably mounted in the leg and arranged to pass through a slot in the hook-member 11. When the head of the turn-button 12 is at right angles to the hook-member 11 the latter is locked in place. By rotating the turn-button so that its head is parallel to the slot, the hook-member 11 may be swung out on its hinge and the leg is freed so that it may be separated from the bottom-rail.

The under faces of the top rails and top-spindles are provided with a series of studs, as indicated, for example, at 13. A flexible bath-tub 14, Fig. 6, has its margins arranged to pass over the top of the top rails and spindles and to turn down under the said rails and spindles, the said margins of the tub being provided with spring sockets for engaging the studs.

It will be clear from Fig. 6 that by carrying the margins of the tub over, around and beneath the top spindles and rails, the frictional hold of the margins of the waterproof cloth of which the tub is made, will be very great, and the direction of pull on the studs and sockets will be in the direction transverse to the studs, so that there is no tendency to pull the sockets from the studs. At the same time, when it is desired to remove the tub it is easy to separate the socket and stud fasteners by pulling downward on the free margins of the cloth.

When the device is to be used as a swing or baby-walker the tub is removed and a

swing-device attached to the top-rails. This swing device comprises a top frame 14 of any suitable shape, for example rectangular as shown, from which hangs a cloth receptacle for the infant. This receptacle has its bottom 15 provided with two leg openings, and its front 16 also provided with two leg openings. A flexible flap 17 is secured to the bottom and may be turned down flat on the bottom to cover the leg openings therein as shown in section in Fig. 2, thus forming a seat for the infant, when its legs are extended through the front openings, or may be turned upward and back as indicated in dotted lines in Fig. 2 to allow the infant's legs to be extended through the bottom openings of the receptacle. The flap 17 may be locked in place, when down, by snap fasteners as indicated at 18, Fig. 2.

The top frame 14, is hung up by four straps 19 which pass over the top-rails as shown and have their ends held to the standing part of the straps by buckles 20 as shown.

A table or shelf device 21 may be provided to hold toys and the like. This is secured to the bottom rails in a detachable manner, by passing the ends of the cloth over and around the bottom rails and securing the ends to the main portion of the cloth by snap fasteners indicated at 22.

When the swing is in place on the frame, the infant may be put in the receptacle with its feet projecting forward through the front leg openings. If the device is to be used as a baby walker the bottom flap 17 may be turned up and the child's legs inserted through the bottom openings so that the child may stand on the floor. It can then propel the framework along the floor, the friction being decreased if desired by providing the lower ends of the legs of the framework with the so-called "domes of silence" or similar antifriction devices, as indicated at 23.

It will be noted that the swing device may swing without disturbing the table or shelf, so that toys thereon will not be knocked off by the swinging movement.

It will be noted that the receptacle may be adjusted in height relative to the floor by means of the buckles which hold the supporting straps. Thus it is possible to use the device with children of different sizes by adjusting the straps so that the child's feet will be on the floor when its legs extend through the bottom openings. At the same time, because the shelf is supported on the bottom rails, this shelf will be at a height convenient for the child so that it can play with its toys on this shelf, whether sitting in the swing or standing up therein.

A further feature of the apparatus is that by arranging the studs for the bath-tub on the bottom faces of the top rails, there is no interference with the straps which support the receptacle, and hence the straps may be slid along the top rails, so as to support the receptacle at any desired place.

What is claimed is:

1. The combination, with a framework having top-rails and bottom-rails and legs supporting said rails, of a child's swing device suspended from the top rails and a table detachably connected to the bottom rails in front of said swing device.

2. The combination, with a framework arranged to move along a floor, of a receptacle swung from said framework and having two separate leg openings in its front wall and leg openings in its bottom and also having a flap arranged to turn down to cover the openings in the bottom and to turn up inside the receptacle, said receptacle being adjustable in height relative to said framework, and a shelf carried by the framework in front of said receptacle and materially below the top of the framework.

3. The combination, with one-piece rigid top-rails, and legs hinged to said top-rails and arranged to fold against them, of bottom-rails detachably connected to said legs by mortise and tenon joints, and releasable locking means for holding said legs to the bottom rails, substantially as described.

In testimony whereof, I have hereunto set my hand.

ROBERT L. SMITH.