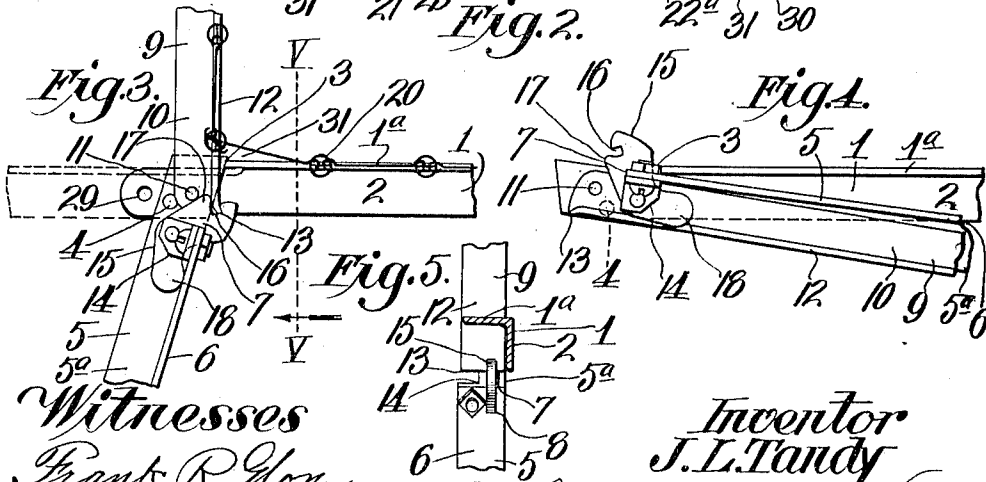
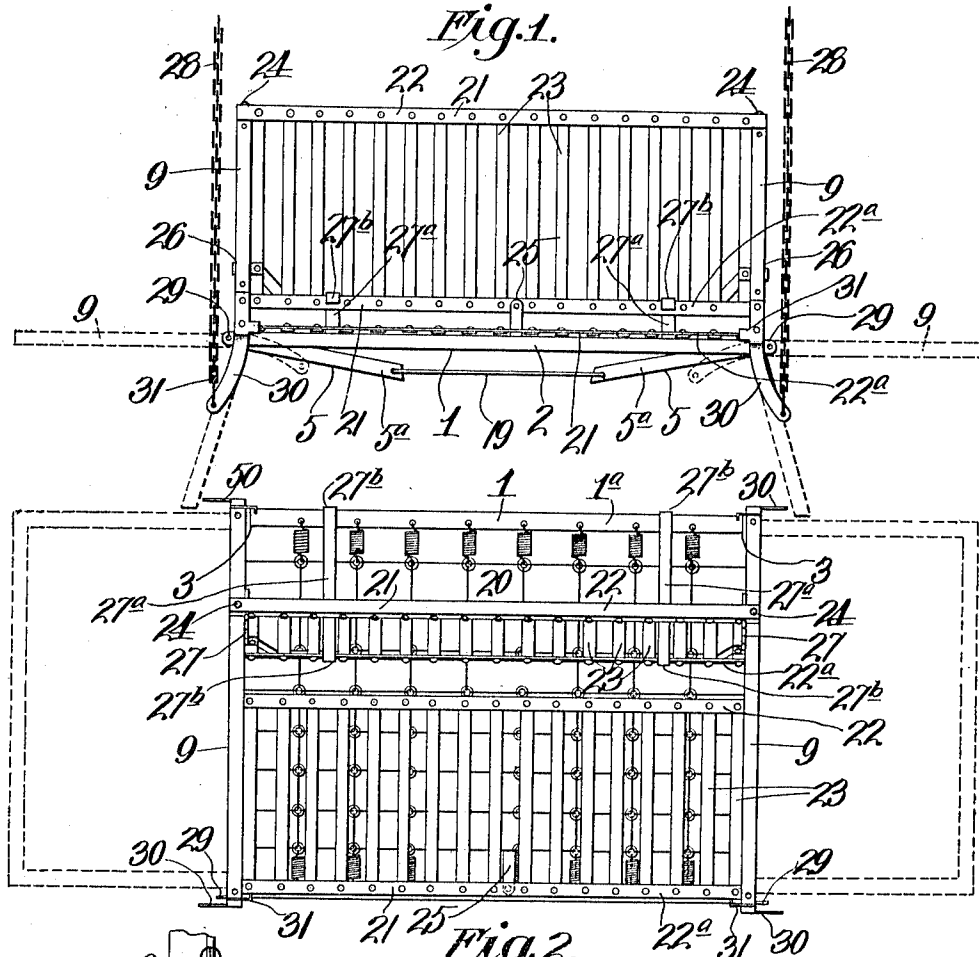


J. L. TANDY.
 CONVERTIBLE FURNITURE.
 APPLICATION FILED AUG. 8, 1910.

1,061,426.

Patented May 13, 1913.

2 SHEETS-SHEET 1.



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2 SHEETS—SHEET 2.

Fig. 6.

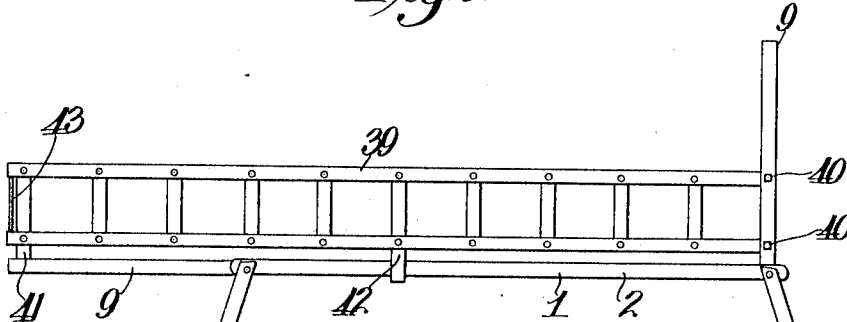


Fig. 7.

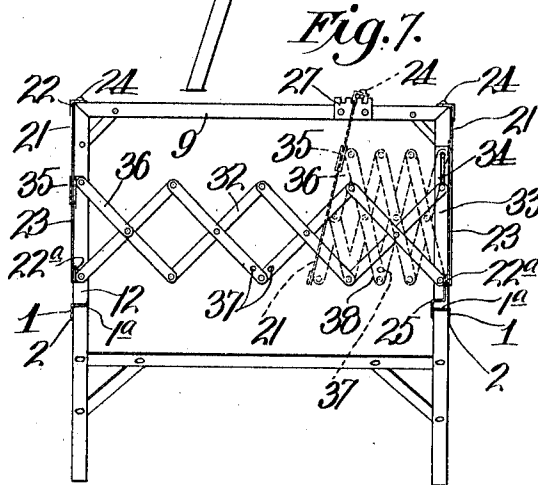


Fig. 8.

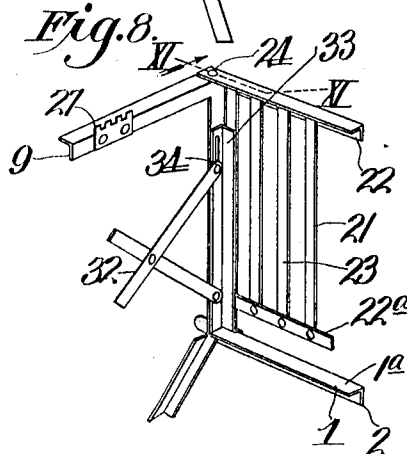


Fig. 10.

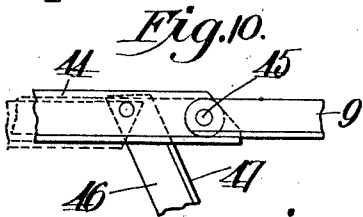


Fig. 11.

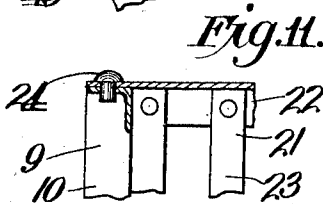


Fig. 9.

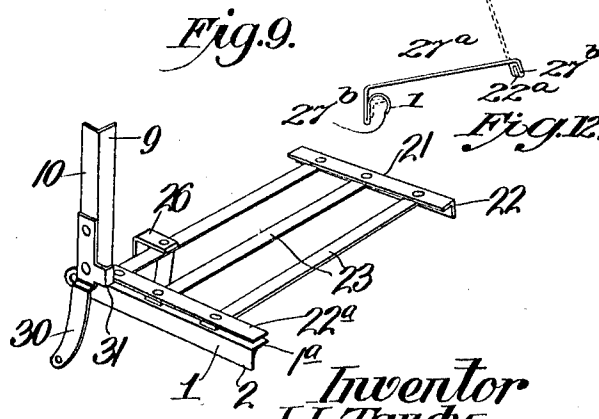


Fig. 12.

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UNITED STATES PATENT OFFICE.

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CONVERTIBLE FURNITURE.

1,061,426.

Specification of Letters Patent.

Patented May 13, 1913.

Application filed August 3, 1910. Serial No. 576,224.

To all whom it may concern:

Be it known that I, JOHN L. TANDY, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Convertible Furniture, of which the following is a specification.

This invention relates to convertible furniture and has for its object the production of a seat swing convertible into a bed swing for small children, or a reclining or bed swing for adults, and, in conjunction with means to lock the legs from folding movement, into a chair, cot or child's bed, and with certain parts omitted and others substituted therefor, into a youth's bed.

A further object is to produce a structure of the character outlined which possesses the desirable features of simplicity, strength and cheapness of construction.

With these general objects in view, and others as hereinafter appear, the invention consists in certain novel and peculiar features of construction and organization as hereinafter described and claimed; and in order that it may be fully understood, reference is to be had to the accompanying drawings, in which—

Figure 1, is a side elevation of a seat swing embodying my invention. Fig. 2, is a top plan view of the same. Fig. 3, is an enlarged vertical section of a part of the structure equipped with means for locking the leg in operative position as a support. Fig. 4, is a view showing the parts disclosed by Fig. 3, in folded or knock-down position. Fig. 5, is a section on the line V—V of Fig. 3. Fig. 6, is a side view of the structure with certain parts omitted and others added to constitute a youth's bed. Fig. 7, is a vertical transverse section of a modified form of the structure when arranged as a child's bed, and showing in dotted lines, a frame arranged as a back for the structure when arranged as a chair or seat swing. Fig. 8, is a perspective view of a part of the structure shown by Fig. 7. Fig. 9, is a perspective view of a part of the structure with a frame arranged to form a bottom for the structure when arranged as a seat swing or chair. Fig. 10, is a fragmentary view of a modified form of leg joint, with the parts in full lines in a position they occupy when the structure is used as a cot; the figure also showing the

parts in folded relation to each other in dotted lines. Fig. 11, is a section on the dotted line XI—XI of Fig. 8. Fig. 12, is a fragmentary section showing how the back of the structure is secured against forward or backward movement.

In the said drawings, what may be termed the bed frame of the structure is constructed as follows: A pair of parallel side rails 1, are formed of angle-iron and consist of horizontal flanges 1^a, and vertical flanges 2, depending from and at the outer sides of flanges 1^a, and of greater length than the same to provide openings 3 at the opposite ends of the rails, and pivoted at 4 to the projecting ends of flanges 2 are angle-iron legs 5, consisting of flanges 5^a fitting flatly against the inner sides of flanges 2 of the side rails, and inwardly-projecting flanges 6, terminating short of the upper ends of flanges 5^a to form openings 7, and the upper ends of the flanges 6 are provided with notches 8, for a purpose which hereinafter appears. A pair of arm frames 9, consist of angle-iron bent to U-form, one of said frames being arranged at each end of the bed frame. The flanges 10 of the arm frames 9, fit flatly at their free or unconnected ends against the inner sides of flanges 5^a of the legs and are pivoted thereto at 11, and said arm frames are adapted to occupy a horizontal position to form an extension of the bed frame, or a vertical position, in which latter case they extend through the openings 3 of the side rails, and the free ends of flanges 12 of the arm frames are adapted when the latter are horizontal, to bear against the underside of the ends of flanges 1^a of the side rails. (See dotted lines Fig. 3.) When the arm frames are vertical they constitute arms for the structure when arranged as a chair or seat swing, or ends for a child's bed swing.

For locking the legs against folding movement when used as a support, parts are provided as follows: 14 are angle brackets bolted or otherwise secured to the upper ends of the flanges 6 of the legs, and pivoted to said brackets and extending through the notches 8 of said flanges are catches 15 provided with notches 16 for engagement with the ends of flanges 12 of the arm frames 9, and with shoulders 17 which insure automatic engagement between said ends and the catches, and to compel the latter to as-

sume such positions that they will reliably engage the arm frames at the proper time, and to take up any extra downward motion and reduce the friction on shoulders 17, they are provided with weighted extensions 18.

When the arm frames form extensions of the bed frame as shown by dotted lines, Fig. 3, the catches are inoperative, the legs being incapable of swinging inward because of their downwardly-divergent relation, and outwardly because their upper ends bear against the extremities of flanges 1^a of the side rails. By swinging the arm frames upward from the dotted to the full line position, Fig. 3, their extremities engage and depress the notched ends of the catches and then strike the shoulders 17, and at the same time, the weighted ends of the catches re-elevate their notched ends and effect the locking of the arm frames in vertical position, that is, in rigid relation with the legs as a convenient means of swinging both together to folded or knock-down position. To relower the arm frames the catches are tripped by hand.

If it is desired to fold the structure to knock-down condition for convenience of storage or transportation, the arm frames are swung outward on the pivots of the legs because locked to the latter, until the catches strike and are tripped by the flanges 1^a, of the side rails and thus leave the legs free to swing under the side rails and the catches free to swing outward from under the said flanges. As this action occurs the outward pull on the arm frames causes them to pass from under the ends of said flanges and they are then free to swing downward on their own pivots until folded into the hollow sides of the legs when both are free to be swung upward under the side rails, as shown in Fig. 4, where they may be secured by the double-ended hooks 19, or otherwise. When the hooks 19, are disconnected from the legs, the latter and the arm frames folded therein, swing downward. The arm frames are then grasped and swung upward until the lower or free ends of flanges 10, impinge upon the upper sides of the extremities of flanges 1^a, of the side rails of the bed frame. As this occurs, the pivots 4, become the fulcrum points and cause the pivots 11 to swing upward and outward, the legs because pressed against the ends of flanges 1^a, swinging inward at their lower ends, and this action continues until the lower or free ends of the arm frames clear and pass below the flanges 1^a of the side rails, when the pull on the arm frames is relaxed, and the legs again swing outward through gravity and permit the free ends of the arm frames to swing inwardly under the adjacent ends of flanges 1^a. If the arm frames are now released they will drop down to a horizontal position or they may be swung upward un-

til they are again automatically engaged by the catches and held in a vertical position and in rigid relation with the legs.

20 is a wire fabric support covering the bed frame, and the arm frames 9, (as shown most clearly by Fig. 3), and of such character that it will fold with the latter and thus form the direct support for the occupant when the structure is arranged as a cot or reclining bed swing, or a part of the arms of the structure when arranged as a chair or a seat swing, or a part of the ends when the structure is arranged as a bed or bed swing for a child or youth.

21 indicates frames, preferably of skeleton construction, for use as the sides of a child's bed or child's bed swing, or one as a back and the other as a bottom for the structure when arranged as a seat-swing or chair, each frame preferably consisting of parallel rails 22—22^a and connecting slats 23, the rails preferably being of angle-iron. When the structure is arranged as a child's bed, the frames 21 are arranged vertically and the upper rails are fitted upon the top and against the outer sides of the arm frames 9, and secured in place by fitting pins 24 through the said top rails and the upper ends of said arm frames and to prevent the lower ends of the frames 21 swinging outward, they are provided with pivoted catches 25 to be swung down against the inner edge of flanges 1^a of the side walls of the bed frame, and to prevent the lower ends of frames 21 moving inward, the endmost slats 23 are provided with extensions 26 to fit against the outer sides of the frames 9. When the parts are thus arranged and the legs rest upon the ground, the structure constitutes a child's bed, and when the said frames 21 are removed and the arm frames are swung downward to the dotted position shown in Fig. 1, a cot is produced.

When it is desired to transform the structure into a chair, the arm frames are arranged vertically and so held by the catches, if in place, or by hand. One of the frames 21 is then placed horizontally upon the wire fabric support to reinforce the same and thus provide a stronger and more comfortable bottom for the chair. The other frame 21 is then disposed at substantially the angle shown by dotted lines, Fig. 7, with the extremities of the upper rail thereof fitting upon the arm frames and the extremities of the depending portions of said rail fitting in the notched brackets 27, secured to the top or bridge portions of the arm frames, the connections between said vertically-arranged frame 21, and the arm frames being made secure by fitting pins 24, through said frames. The lower rail of said frame 21, is connected to the nearest side rail of the bed frame by bars 27^a, terminating in hooks 27^b, fitting over said lower rail and said side rail.

To transform the chair into a seat swing, chains 28, are hooked at their lower ends to lugs or extensions 29, of flanges 2^a, of the side rails of the bed frame or at any other suitable point, the preferred method of attachment, however, being to provide the arm frames with pendent extensions 30, with which the lower ends of the chains are connected, as shown in Fig. 1, the lower ends of said extensions being turned outward so that the weight of the swing and its occupant shall tend to maintain the arm frames in upright position, and to guard against said frames swinging inward beyond a vertical position from any cause, should the frame 21, forming the back fall down, the extensions 30, are provided with hook arms 31, which overlies the side rails of the bed frame, it being understood that when the structure is used as a seat swing, the brackets 14, and catches 15, must be removed to permit the legs to be folded, as in Fig. 1, it being noted that the legs cannot be swung to folded position if the brackets and catches are in place unless the arm frames are also folded or are in horizontal position. It will also be noticed, by reference to the dotted lines, Fig. 1, that when the structure is arranged as a bed swing for an adult,—when the arm frames are horizontal,—the extensions 30, project inwardly so that the weight sustained will tend to hold the said frames in a horizontal position and thus guard against any accidental upward movement thereof which might result in injury to a person upon or bending over the swing.

In Figs. 7 and 8, I show a modified form involving the use of lazy-tongs 32, as a connection between the frame 21 forming the front side wall when the structure is arranged as a child's bed or child's swing, and standards 33, erected upon one of the side rails of the bed frame near the extremities of such rails, the connection of the lazy-tongs at one end with said standards being a pin-and-slot connection, as at 34. If desired the standards may be dispensed with and the lazy-tongs connected directly to the frame forming the rear side wall. The lazy-tongs at one end are also slidably connected by means of sleeves 35, with the frame 21, forming the front side wall, so that the adjustment of the latter until its top rail 22, is engaged with the notched lugs 27, results in the collapse or contraction of the lazy-tongs, as indicated by dotted lines, Fig. 7, and in order that said adjusted frame or walls may stand at an angle comfortable to the occupant of the chair or seat-swing, two of the foremost links 36, of the lazy-tongs connected to the sleeves 35, are of sectional construction so that they may fold back to substantially the same angle as the adjacent links and thus permit the ad-

justable frame or wall to extend downwardly and forwardly when forming a back support, and to hold the same in substantially rigid relation, adjacent links of the lazy-tongs are provided with holes 37, which register when the lazy-tongs are collapsed, to receive pins 38, which thus lock the lazy-tongs against expanding or further collapsing movement and maintain the adjusted frame 21 in the desired position.

In Fig. 6, one of the arm frames 9, is arranged vertically as a head and the other horizontally to constitute an extension for the stationary frame and form a youth's bed. In this case, low sides 39, of skeleton construction are arranged above the side rails of the bed frame and the side rails of the arm frame, the skeleton sides 39, being bolted at 40, to the upright arm frame or head, and provided at their opposite ends with depending portions 41 fitting in the grooves of the lowered arm frame or extension, and said sides 39 are also provided with hook-extensions 42 corresponding to hook lugs 25, to engage the side rails of the bed frame, the bed being completed by the employment of a low footboard frame 43 connecting the foot ends of sides 39 in any suitable manner.

In Fig. 10, the angular side rails 44 of the bed frame are inverted with respect to the corresponding parts shown most clearly in Figs. 3 to 5, inclusive, and the arm frames 9 are pivoted at 45 to said side rails so that they will rest upon the lower or horizontal flanges of the latter. The angle-iron legs 46, are also reversed so that the upper ends of their inwardly-projecting flanges 47 shall, by engagement with the undersides of the bed frame rails, be prevented from swinging outward too far, and in this construction it will be noted that the frames 21 must be relied upon to hold the arm frames vertical, as the catches 15 are dispensed with.

Having thus described the invention, what I claim as new and desire to secure by Letters Patent, is—

1. In convertible furniture, a structure, comprising a bed frame, arm frames arranged at each end of the bed frame and pivoted thereto and adapted to project vertically upward therefrom or to be swung downwardly and outwardly to a horizontal position to increase the length of the bed frame, a substantially upright frame arranged longitudinally of and above the bed frame and between the arm frames when upright, to constitute a back wall, means for securing the upper corners of the upright frame to the upper portions of the arm frames, and connections extending outwardly from the lower portion of the upright frame to one of the sides of the bed frame to anchor the former in a fixed relation to the latter.

2. In convertible furniture, a structure comprising a bed frame consisting of end and side rails, and a wire fabric connecting the rails, arm frames pivoted to the ends
5 of the bed frame and provided with fillings, the fillings constituting extensions of the wire fabric of the bed frame, a frame arranged longitudinally above the bed frame when the arm frames are upright and con-
10 sisting of a bottom rail, a top rail overlapping at its ends the upper portions or ends of the arm frames, and a filling connecting said rails, transversely extending bars connecting the lower part of the longitudinally
15 extending frame with one of the said rails of the bed frame, means for securing the overlapping ends of the longitudinally extending frame to the upper portions of the arm frames, and means for supporting the
20 structure at a suitable height.

3. In convertible furniture, a structure comprising a bed frame, a pair of substantially vertical arm frames secured to the ends of the bed frame, a longitudinally extending frame arranged in a substantially
25 upright position and embodying a top rail overlapping the upper ends of the arm frames when vertical, means for adjustably securing the said overlapping ends to the upper ends of the arm frames at different
30 points along the length of the latter, and means for securing the lower portion of the said longitudinally extending frame in fixed relation to the bed frame.

In testimony whereof I affix my signature, 35
in the presence of two witnesses.

JOHN L. TANDY.

Witnesses:

FRANK R. GLORE,
G. Y. THORPE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."