J. BASILE.

FOLDING BED.

APPLICATION FILED MAR. 1, 1915.

1,259,825.

Patented Mar. 19, 1918.

2 SHEETS—SHEET 1.

Fig. 1.

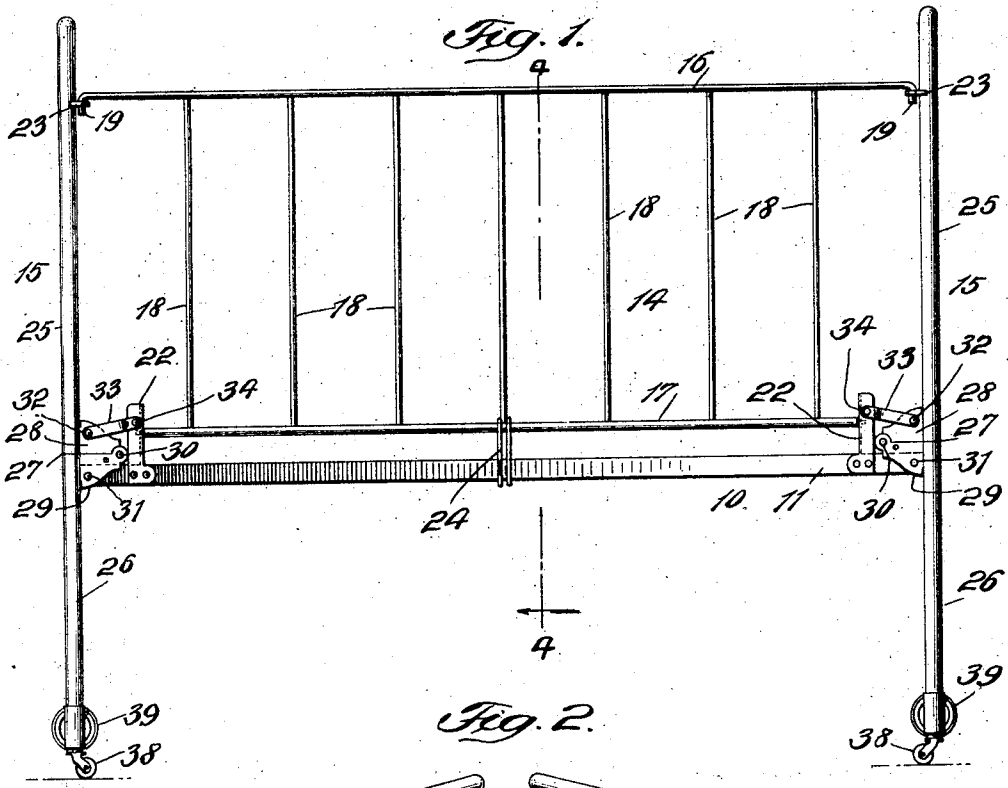


Fig. 2.

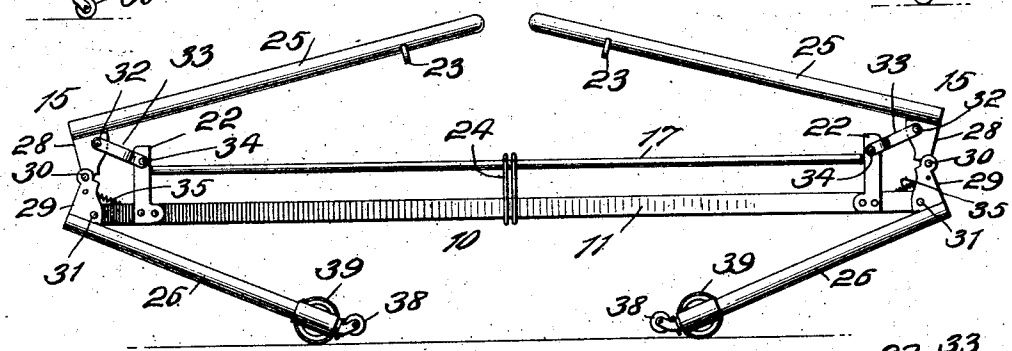
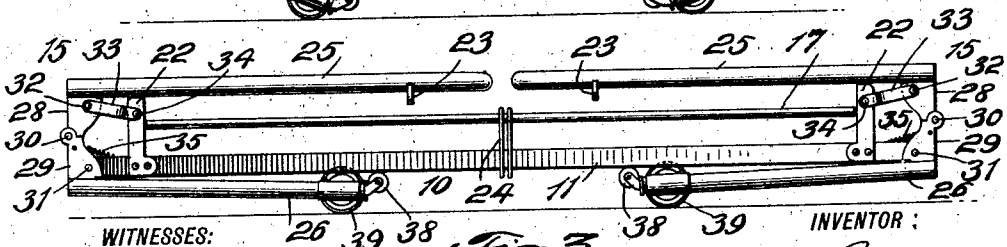


Fig. 3.



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2 SHEETS—SHEET 2.

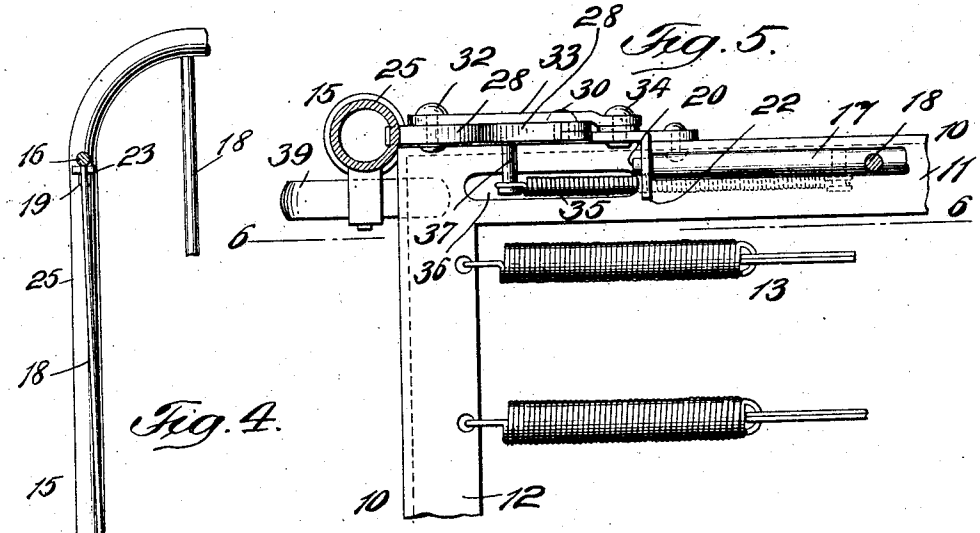
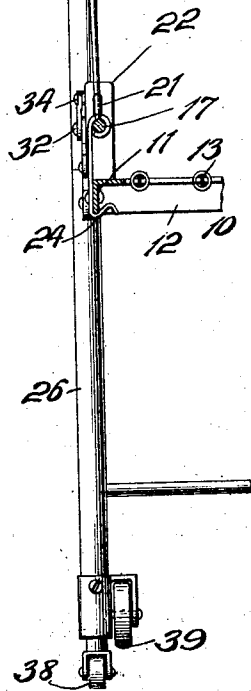


Fig. 5.

Fig. 4.



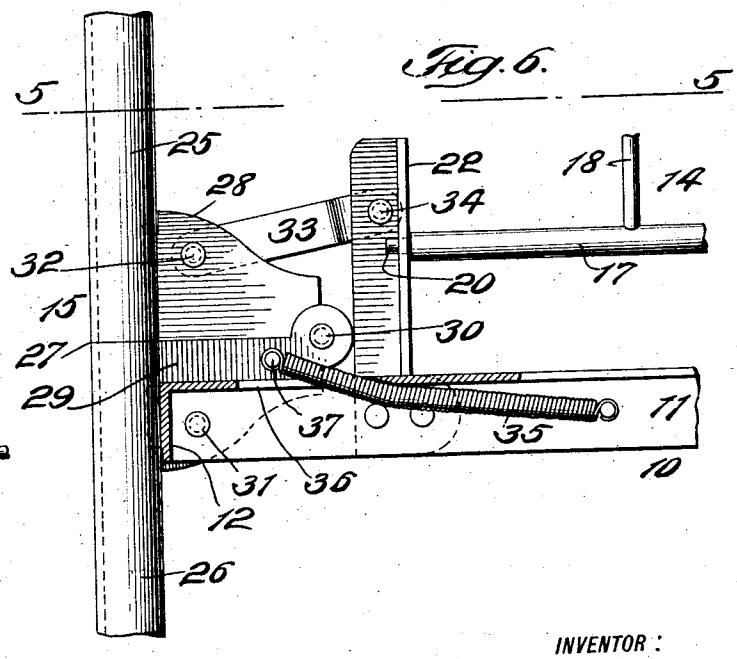


Fig. 6.

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UNITED STATES PATENT OFFICE.

JOSEPH BASILE, OF NEW YORK, N. Y., ASSIGNOR TO GREENPOINT METALLIC BED COMPANY, OF BROOKLYN, NEW YORK, A FIRM COMPOSED OF DAVID FRANK, OF BROOKLYN, NEW YORK, JOHN TROUNSTINE, OF NEW YORK, N. Y., AND WILLIAM LIES, OF BROOKLYN, NEW YORK.

FOLDING BED.

1,259,825. Specification of Letters Patent. Patented Mar. 19, 1918.

Application filed March 1, 1915. Serial No. 11,151.

To all whom it may concern:

Be it known that I, JOSEPH BASILE, a subject of the King of Italy, and a resident of New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Folding Beds, of which the following is a specification.

The invention pertains more particularly to metal beds or cribs for the use of babies or small children, and the object of the invention is to produce a bed or crib of the character referred to having hinged side frames and sectional folding end frames, with accessory parts, adapting the entire structure to be very compactly folded so as to occupy the minimum amount of space when not in use.

A further purpose of the invention is to so construct and arrange the several parts of the bed in their relation to each other that the bed may be very conveniently unfolded to a normal operative condition and have its parts, when in such condition, securely held against any accidental occurrence which might otherwise tend to permit the bed sections to move to their folded condition. In the folding of the parts of the bed the two side frames fold over upon the spring or upon the mattress, if the same is on the spring, and the head and foot frames fold toward each other with the lower sections thereof passing below the spring and the upper sections thereof above the spring and upon the folded side frames, thus producing a compact structure occupying but little space and convenient of packing and transportation.

The invention will be fully understood from the detailed description hereinafter presented, reference being had to the accompanying drawings, in which:

Figure 1 is a side elevation of a crib constructed in accordance with and embodying the invention, the parts of the crib being shown in their unfolded relation placing the crib in condition for use;

Fig. 2 is a like view of the same with the parts of the crib shown in a partly folded condition, the side frames having been folded downwardly toward the spring and the end frames being shown as having their sections partly folded toward opposite sides of the spring;

Fig. 3 is a corresponding view of the same showing the crib in its completely folded condition, the usual mattress being omitted;

Fig. 4 is a vertical transverse section of the crib taken on the dotted line 4—4 of Fig. 1 and on a larger scale;

Fig. 5 is a horizontal section through one corner portion of the crib taken on the dotted line 5—5 of Fig. 6, and

Fig. 6 is a vertical section, partly broken away, through the corresponding corner portion of the crib taken on the dotted line 6—6 of Fig. 5.

In the drawings, 10 designates a rectangular angle iron frame of rigid character and constituting the side rails 11 and end rails 12, the latter receiving the customary spring 13 of any suitable type upon which a mattress, not shown, may be supported. The side frames of the bed are designated by the numeral 14 and the end frames by the numeral 15, the side frames comprising upper and lower rods 16, 17 and vertical connecting rods 18, the ends of the rod 16 of each side frame being bent downwardly to form hooks 19, as shown in Fig. 1, and the ends of the rod 17 of each side frame being reduced to form trunnions 20 to enter slots 21 in the vertical angle iron bars 22 secured to the side members 11 of the frame 10. The side frames 14 by reason of the trunnions 20 and slots 21 in the bars 22 become hinged at their lower portions to the general bed structure and are rendered capable of being folded toward and upon one another over the spring 13. The hooks 19 formed on the ends of the upper rod 16 of each side frame are adapted to enter apertured ears 23 fastened to those portions of the end frames 15 which may be called the corner posts. When the sides 14 are folded upwardly and outwardly to their vertical position shown in Fig. 1, the said frames may be elevated sufficiently, due to the presence of the slots 21, to enable the hooks 19 to be placed over the ears 23 and then moved downwardly through the apertures in said ears, thereby securing the side frames in vertical position. When the side frames have been turned upwardly and the hooks 19 passed downwardly through the ears 23, the trunnions 20 reach the lower ends of the slots 21 and thereupon I secure the side frames against vertical movement

such as a vigorous child might possibly be able to give to them, the sides at this time being secured with the trunnions 20 at the lower ends of the slots 21 so as to prevent that elevation of the side frames which might cause the hooks 19 to leave the ears 23 and fold either outwardly or inwardly. I do not wish to limit myself to any special means for locking the side frames 14 in their vertical position, but I find it convenient to thus lock said frames by means of a wire hook 24 swiveled upon the lower rod 17 of each side frame and adapted at its lower end to be caught under the lower edge of the side member 11 of the frame 10. The hook 24 may be made from a rod of wire doubled upon itself and straddling one of the vertical rods 18, as shown in Fig. 1, this construction and arrangement of the hook keeping the latter in fixed position on the rods 17. When it is desired to fold the side frame 14 downwardly, the hook 24 will be disengaged from the side member 11 and the frame 14 then lifted upwardly until the hooks 19 leave the apertured ears 23, whereupon the side 14 may be folded downwardly without obstruction. The hooks 24 hold the side frames 14 downwardly to such extent that when they are engaged with the side members 11 said side frames 14 cannot be elevated to release the hooks 19 from the ears 23, but when the hooks 24 are disengaged from the side members 11 the slots 21 permit the side frames 14 to be elevated to a sufficient extent to retract the hooks 19 from the ears 23, thus releasing the side frames to be folded downwardly at will. The hooks 24 by being formed of parallel members or bifurcated may, when the sides 14 are folded downwardly or to the position shown in Fig. 3, be turned over upon that rod 18 of the sides which is engaged by the hooks, so that the hooks will then lie horizontally and be out of the way, or said hooks may, when said sides 14 are in their folded down position, be engaged by the side members 11 of the general frame 10, as I indicate in Figs. 2 and 3, and thereby be utilized to hold the rods 17 of the sides firmly down with their trunnions 20 at the lower ends of the slots 21.

The end frames 15 correspond with each other and each comprises an upper section 25 and a lower or leg section 26, the upper sections 25 of said end frames constituting head and foot frames and being of any suitable design. The sections 25, 26 are respectively provided adjacent to their meeting portions at the joint 27, with inwardly extending plates 28, 29 which are pivotally connected together at their inner ends, by a pin or pivot 30 to form a hinge. The plates 28, 29 may be regarded as the leaves of the hinge in edge to edge relation to each other and 30 as the pintle of the hinge. The plates 28, 29 are rigid with the sections 25, 26, and the plates 29 are secured by pivots 31 to the ends of the side members 11 of the frame 10. The plates 28 have pivotally secured to them, as at 32, the outer ends of the links 33 whose inner ends are secured by pivots or pins 34 to the vertical angle bars or posts 22, and when the parts of the crib are in their unfolded operative condition, the outer ends of the links 33 are slightly below the inner ends of said links, this having a tendency to aid in holding the end frames of the bed in their upright position during the time that the sides 14 are being positioned. When the upper sections 25 are folded toward each other and upon the then folded sides 14, the outer ends of the links 33 ride upwardly above the horizontal plane of the pivots 34, as shown in Figs. 2 and 3, said links during a portion of the inwardly closing movement of the sections 25 moving upwardly at their outer ends and then during the final closing movement of said sections 25 turning downwardly to some extent as will be understood by a comparative reference to Figs. 2 and 3.

The plates 28, 29 extend inwardly with their adjacent edges in horizontal alinement and in engagement with each other when the crib is in unfolded condition for use, as shown in Fig. 1, the joint between the leaves or plates 28, 29 being in line with the joint 27 or abutting ends of the frame sections 25, 26, and when the parts of the crib are in folded position, as shown in Fig. 3, those edges of the plates 28, 29 which formerly abutted stand in vertical alinement.

If it be assumed that the parts of the crib are in unfolded position for use and that it is desired to fold the crib, the first step will be to disengage the hooks 24 from the side members 11 of the frame 10 and then elevate said sides, one after another, to retract the ends 19 from the ears 23, folding said sides one upon the other downwardly upon the spring 13 or the usual mattress if that should be upon the spring 13, and thereupon the upper ends of the end frames 15 may be forced toward each other, and this will cause the upper sections 25 of said frames to fold downwardly toward each other and upon the then folded sides 14 and the lower sections 26 of said frames 15 to fold toward each other and below the spring 13, as represented in Figs. 2 and 3, Fig. 2 showing the sections 25, 26 as having partly reached their final folded position and Fig. 3 showing said sections as having been completely folded. When it is desired to unfold the parts of the crib to restore it to condition for use, the attendant may take hold of the then adjacent ends of the sections 25 and turn said sections upwardly and outwardly from each other, this having the effect of causing the lower or leg sections 26 to turn downwardly and outwardly from

each other until finally said sections 25, 26 reach their vertical position shown in Fig. 1; thereafter the attendant will disengage the hooks 24, if they have been engaged with the sides 11 of the frame 10, and turn the sides 14 upwardly into vertical position, lifting said sides 14 when in vertical position until the trunnions 20 thereof reach the upper ends of the slots 21 and the ends or hooks 19 are over the ears 23, whereupon the sides 14 will be permitted to lower so that the trunnions 20 may pass to the lower ends of the slots 21 and the ends or hooks 19 enter the apertures in the ears 23; after this the hooks 24 will be engaged with the lower edges of the sides 11 of the frame 10, as shown in Fig. 4, thereby locking the sides 14 in their vertical position and said sides under such condition serving to hold the end frames 15 in vertical position or in other words acting to prevent said end frames from being folded. The crib will be ready for use as soon as the sides 14 have been moved to and secured between the end frames 15.

As means for facilitating the unfolding of the sections of the end frames 15, I preferably provide at each corner of the crib a spring 35 secured at one end to a side 11 of the frame 10 and at the other end to the plate 29. The springs 35 are placed under tension or stretched during the folding movement of the members of the end frames 15, and hence act during the unfolding movement of said members as power to aid the operator in restoring the crib to condition for use. The springs 35 are mainly concealed below the upper flange of the angle-iron members 11 and each spring 35 at its outer end extends upwardly through a slot 36 formed in such flange to a pin 37 securing the spring to the plate 29.

The sections 26 or leg members of the end frames 15 will ordinarily be equipped with customary casters 38 and on their inner sides with wheels 39 of reasonable diameter. The wheels 39 are not swiveled but remain parallel with the legs afforded by the sections 26, and said wheels 39 are of great benefit in that when the parts of the crib have been folded, as shown in Fig. 3, the crib structure rests and may be pushed about upon the wheels 39. The wheels 39 are also of advantage in the folding and unfolding of the crib parts in that during the folding of such parts said wheels, after the leg sections have turned to a sufficient extent below the spring, roll upon the floor, instead of the ends of said legs scraping against the floor, and that during the unfolding of the crib parts the wheels 39 roll upon the floor instead of the ends of the legs scraping upon the floor. The wheels 39 might be placed at the lower ends of the legs afforded by the end frame sections 26, but in order to afford the maximum amount of convenience and efficiency, said wheels should not be swiveled and said legs should, therefore, be equipped with the usual swiveled casters 38 and non-swiveled wheels 39.

What I claim as my invention and desire to secure by Letters Patent, is:

1. A crib comprising a general spring and mattress supporting frame, end frames in upper and lower sections normally in vertical alinement and abutting against each other at the joint between them constituting respectively head and foot sections foldable inwardly and downwardly and leg sections foldable inwardly and upwardly, and means hinging said upper and lower sections comprising plates secured to adjacent portions of said sections at said joint and extending inwardly and pivotally secured together at their inner ends, with the plates on one set of said sections also pivotally secured to said general frame.

2. A crib comprising a general spring and mattress supporting frame, end frames in upper and lower sections constituting respectively head and foot sections foldable inwardly and downwardly and leg sections foldable inwardly and upwardly, and means hingedly securing said upper and lower sections comprising plates secured to adjacent portions of said sections and extending inwardly and pivotally secured together, with the plates on the lower sections pivotally secured to said general frame, standards on said frame and links pivotally connecting said standards with the said plates on the said upper sections.

3. A crib comprising a general spring and mattress supporting frame, end frames in upper and lower sections constituting respectively head and foot sections foldable inwardly and downwardly and leg sections foldable inwardly and upwardly, and means hinging said upper and lower sections comprising plates secured to adjacent portions of said sections and extending inwardly and pivotally secured together, with the plates on the lower sections pivotally secured to said general frame, combined with springs connecting said plates and general frame and to be placed under tension during the folding of the crib, thereby to aid in the unfolding of the crib.

Signed at Brooklyn, in the county of Kings and State of New York this 19th day of February, A. D. 1915.

JOSEPH BASILE.

Witnesses:
ARTHUR MARION,
CHAS. C. GILL.

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