G. F. SISBOWER.

FOLDING BED.

APPLICATION FILED JAN. 18, 1909.

954,218. Patented Apr. 5, 1910.

4 SHEETS—SHEET 1.

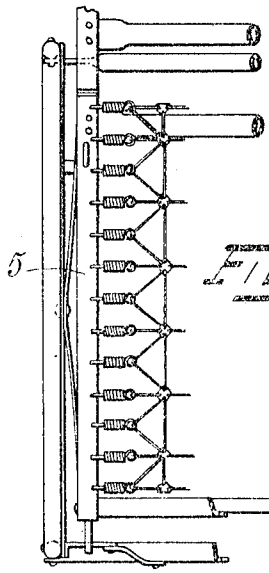


Fig. 4.

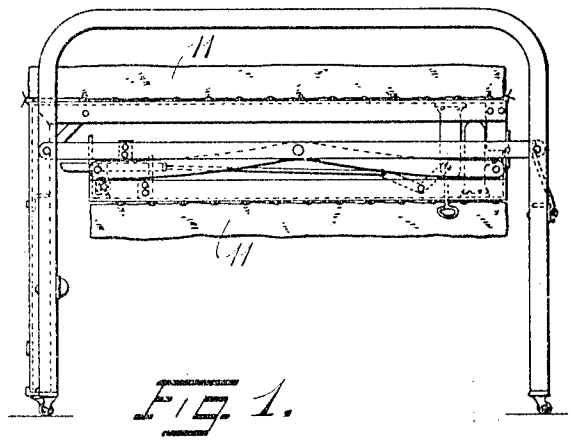


Fig. 1.

Fig. 2.

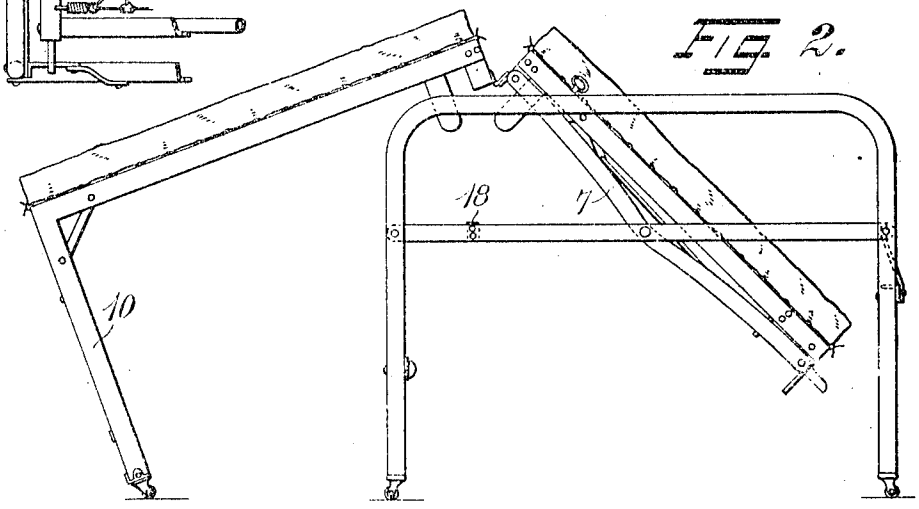
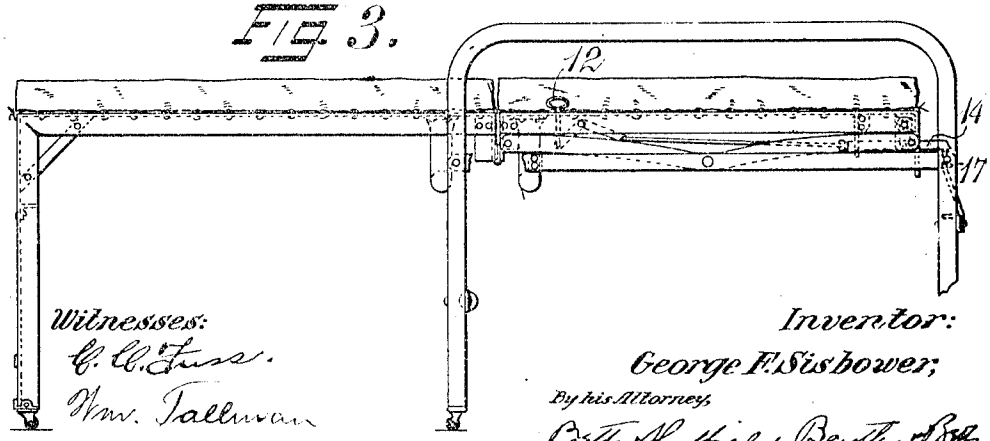


Fig. 3.



Witnesses:
C. C. Fuss.
Wm. Tallman

Inventor:
George F. Sisbower;
By his Attorneys,
Betts Sheffield Bentley & Betts

G. F. SISBOWER.

FOLDING BED.

APPLICATION FILED JAN. 18, 1909.

954,218.

Patented Apr. 5, 1910.

4 SHEETS—SHEET 3.

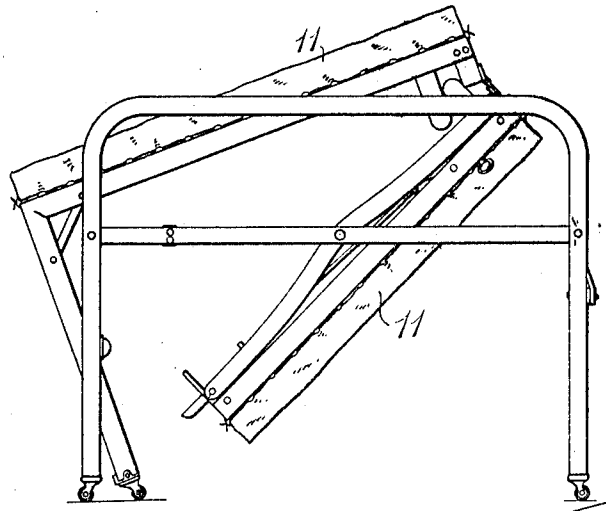


Fig. 5.

Fig. 6.

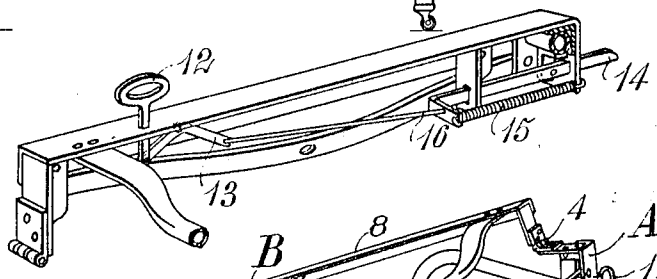
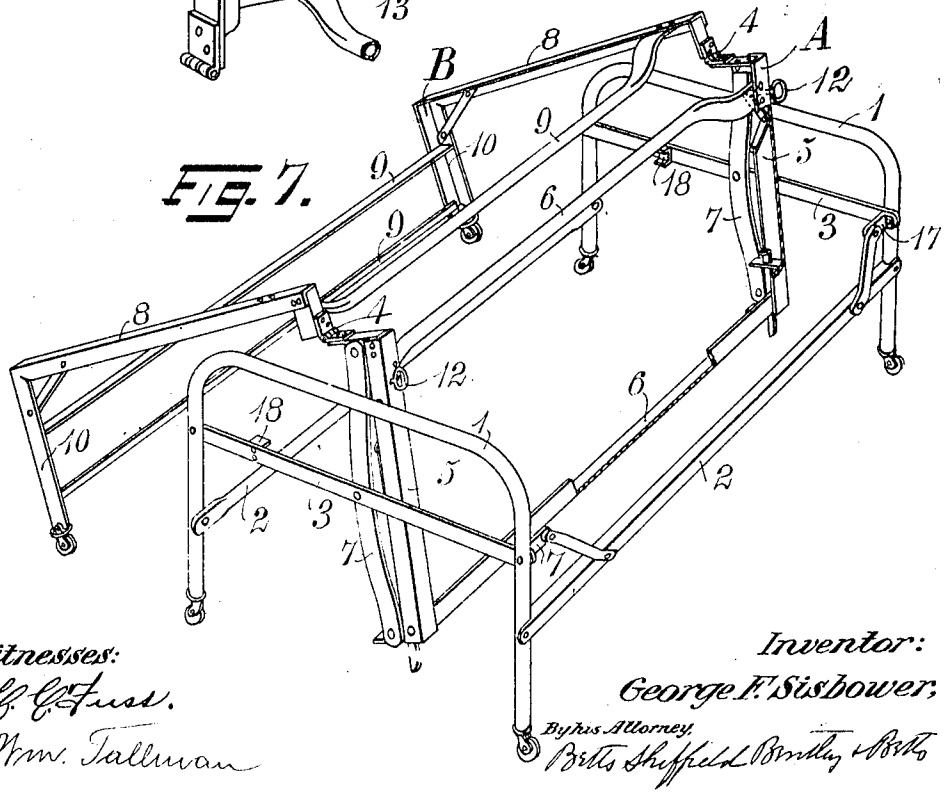


Fig. 7.



Witnesses:

C. C. Fuss.

Wm. Tallman

Inventor:

George F. Sisbower;

By his Attorney,

Betts Sheffield Bradley & Betts

G. F. SISBOWER.

FOLDING BED.

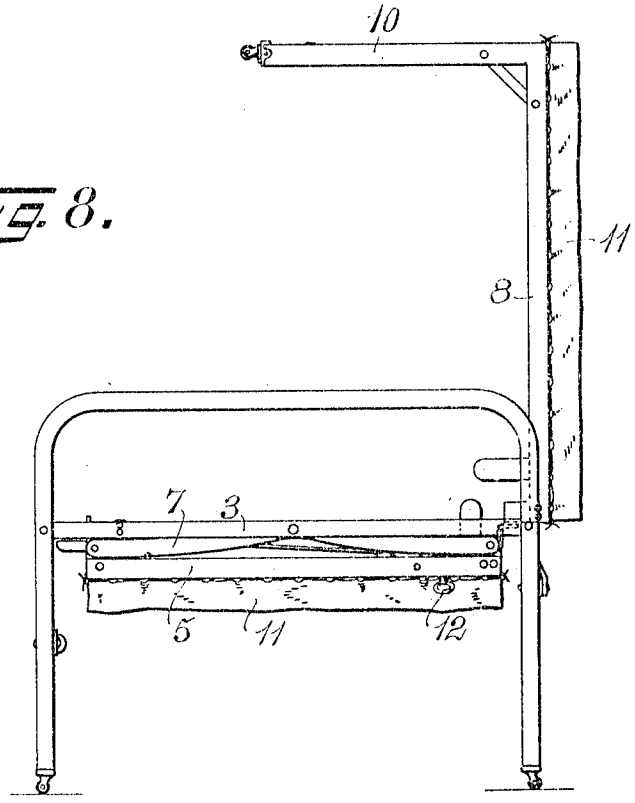
APPLICATION FILED JAN. 18, 1909.

954,218.

Patented Apr. 5, 1910

4 SHEETS—SHEET 3.

Fig. 8.



Witnesses:
C. C. Fuss.
Wm. Tallman,

Inventor:
George F. Sisbower,
By his Attorney,
Bates Sheffield Bradley & Bates

G. F. SISBOWER.

FOLDING BED.

APPLICATION FILED JAN. 18, 1909.

954,218.

Patented Apr. 5, 1910.

4 SHEETS—SHEET 4.

Fig. 9

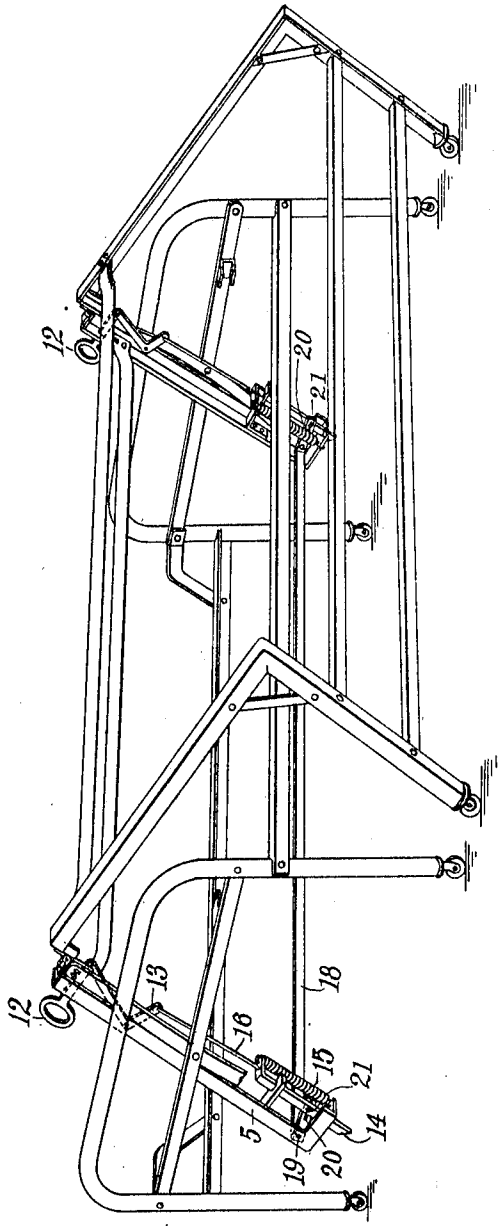
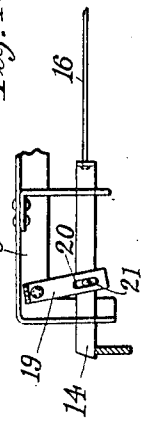


Fig. 10



Witnesses:
John W. Peters
M. J. G. Hart

Inventor
George F. Sisbower
By his Attorneys
Betts Sheffield Bentley & Betts

UNITED STATES PATENT OFFICE.

GEORGE F. SISBOWER, OF NEW YORK, N. Y., ASSIGNOR TO NEW YORK COUCH BED COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

FOLDING BED.

954,218. Specification of Letters Patent. Patented Apr. 5, 1910.

Application filed January 18, 1909. Serial No. 472,918.

To all whom it may concern:

Be it known that I, GEORGE F. SISBOWER, a citizen of the United States, residing in the city, county, and State of New York, have invented certain new and useful Improvements in Folding Beds, of which the following is a specification.

My present invention relates to means for decreasing the space occupied by the bed when not in use, and has for its object to provide a bed which shall be of simple and rigid construction, easy to operate and pleasing in appearance.

Referring to the drawings, Figure 1 is an end elevation of my improved bed, showing the bed folded; Figs. 2 and 5 are end elevations of my improved bed showing the parts during the operation of unfolding; Fig. 3 is an end elevation of my improved bed showing the parts unfolded; Fig. 4 is a plan view of a portion of the head or foot of my improved bed; Fig. 6 is a perspective view of the locking mechanism of my improved bed; Fig. 7 is a perspective view of my improved bed, in the operation of unfolding, with the mattresses and springs removed; Fig. 8 is an elevation of my improved bed showing the parts folded with one mattress raised; Figs. 9 and 10 show the means for operating the lock from either end of the bed.

As may be seen from the drawings, my improved bed consists essentially of a main frame comprising the head and foot members, 1, 1, side members 2, 2, cross members attached to the head and foot 3, 3, and two folding frames A and B hinged at 4, 4. Frame A consists of two end members 5, 5, side members 6, 6, and supporting members 7, 7, which supporting members are pivotally connected to end members 3, 3, approximately at their middle points. Frame B consists of two end members 8, 8, side members 9, 9, 9, and legs 10, 10, which may be provided with casters to facilitate the operation of the bed. The springs are attached to the end members 5, 5 and 8, 8, as shown in Fig. 4, and the mattresses 11, 11, are secured to the springs or frames to prevent their falling off, as shown in Fig. 5. Attached to the end members 5, 5, or frame A, are locks which consist of a handle 12, 12, a bell-crank 13, attached to said handle, and a bolt 14, operated by a spring 15, and a rod 16, adapted to engage the upper side of lugs 17 on the main frame of the bed. These bell cranks may be connected together by means of a rock-shaft or other means, so that the two locks may be operated from one end of the bed. In Figs. 9 and 10 I have shown such a means for connecting the bell cranks 13 together so that both locks may be operated from one end of the bed. These means comprise a rock shaft 18 which is pivotally attached to the end members 5, 5 of the rotating frame at points 19, 19, and is provided with slots 20, 20, which engage pins 21, 21 carried on bolts 14. When either of the handles 12, 12 is lifted, rod 16 and bolt 14 are drawn back and rock shaft 18 is caused to rotate about its pivots 19, 19, by reason of the engagement of pin 21 with slot 20, thereby causing a corresponding movement of the bolt 14 at the opposite end of the bed.

The operation of my improved bed is as follows: Starting with the bed in the open position shown in Fig. 3, the handle 12 of the lock is raised, thereby disengaging the bolt 14 from the lug 17, and permitting the frame A to revolve about its pivots. The parts then assume the positions shown in Figs. 2 and 5 respectively, and finally that shown in Fig. 1. The bed is then folded, and if it is desired to reopen it, this may be accomplished by lifting one side of the bed and pulling out the frame B, as will be readily understood. This is continued until members 7, 7 come in contact with lugs 18, 18 on members 3, 3, and bolt 14 passes over and enters into engagement with lug 17. When the bed is closed, the frame B may be lifted as shown in Fig. 8, and the space between the two frames may conveniently be used for the storage of bed clothes or other articles. It may also be noted that the adjacent side members 6 and 9 are depressed below the level of the end bars, so as to permit of the sag of the wire mattress when the bed is opened. The axis of the hinges between frames A and B is also below the end-bar level to permit the swing of the depressed side bars 6 and 9 which are also at unequal distances from the hinge axes to enable one to swing by the other as seen in Fig. 5. The hinges are attached to side pieces depending from the end bars which also project beyond the side members 6 and 9. Since the frame B is offset with respect to frame A to form a containing

space, it becomes necessary to provide means for maintaining the frames level, which means are afforded by the stops 18 which are placed at the proper height for that purpose. In order to utilize the said containing space, the main frame should be unobstructed at its rear edge to permit frame B to swing up as indicated in Fig. 8. Since the frame B travels on rollers and the legs carrying such rollers are rigidly connected to the frame, it is only necessary, in either opening or closing the bed, to swing the rotating frame A about 90 degrees, or until it passes the dead center, when the weight of frame B will complete the movement, its rollers permitting it to ride in or out to follow the in or out movement of that edge of the rotating frame to which it is hinged. The legs of frame B should also be farther from the hinging point than the side of the main frame is, so that frames A. and B can in closing come to a horizontal position unhindered.

In view of the numerous modifications which may be made without departing from my invention, I do not wish to be limited to the precise details shown and described.

What I claim as new, and desire to secure by Letters Patent of the United States, is:

1. In a bed of the class described, the combination of a main frame, a reversible frame rotatably mounted within said main frame, and a non-reversible laterally movable frame hinged to said rotatable frame and supported by it in the open position.

2. In a folding bed, the combination of a main frame, a narrower frame rotatable on a longitudinal axis within the width of the main frame, and a laterally movable frame hinged to the rotatable frame and supported at one edge, when in the open or closed position, by the rotatable frame and at the other edge by legs resting on the floor.

3. In a bed of the class described, the combination of a main frame, a rotatable frame and a laterally movable frame hinged to said rotatable frame on an axis below the end-bar level of the two hinged-together frames, whereby a nonsagging joint is formed and a separate space provided.

4. In a bed of the class described, a main frame, a frame rotatably mounted therein, a laterally movable frame, side pieces depending from the ends of said rotatable and laterally movable frames, and hinges connecting the said contiguous side pieces of said rotatable and laterally movable frames.

5. In a bed of the class described, the combination of a main frame having end members and side members at a lower level than said end members, a reversible frame pivoted in said end members and a non-reversible frame movable laterally and hinged to one edge of the reversible frame.

6. In a bed of the class described, the combination of a main frame having end members at a higher level and side members at a lower level, a reversible frame pivoted in said end members and a non-reversible frame movable on rollers to and from the main frame and hinged to one edge of the reversible member.

7. In a bed of the class described, the combination of a main frame, a frame rotatably mounted therein and pivoted at a point above the level of the side members of the main frame, a laterally movable frame hinged to said rotatably mounted frame, and means for supporting said laterally movable frame during its movement.

8. In a bed of the class described, a rotatable reversible frame having end members the extremities of which project laterally beyond the side members and a laterally movable frame hinged to the projecting ends of said end members.

9. In a bed of the class described, a rotatable reversible frame, a laterally movable non-reversible frame having end members the extremities of which project laterally beyond the side members and hinges connecting the projecting ends of said members to said rotatable member.

10. In a bed of the class described, the combination of a main frame a rotatable frame therein, a lock with a vertically movable handle connecting the two frames aforesaid, and a laterally movable frame hinged to the said rotatable frame.

11. In a bed of the class described, the combination of a main frame, a frame rotatable therein, a laterally moving, non-reversible frame hinged to the rotating frame, a lock for the frames, and a combined lifting and unlocking handle for operating the bed.

12. In a bed of the class described, the combination of a main frame, a centrally pivoted rotating frame therein, a laterally movable frame hinged to the rotating frame, locks at each end and a handle at one end operating the locks at both ends.

13. In a bed of the class described, the combination of a main frame, a reversible rotatable frame therein, a non-reversible, laterally movable frame hinged to the reversible frame at one edge but offset therefrom to form a containing space between them.

14. In a bed of the class described, the combination of a main frame, two removable frames therein hinged together and offset with respect to each other to form a containing space between them and means for maintaining the level of the two movable frames in both their open and closed positions.

15. In a bed of the class described, the combination of a main frame, a reversible metallic frame rotatable therein including end bars on a higher level and a side bar on

a lower level, and a non-reversible, laterally movable metallic frame also including end bars on a higher level and a side bar on a lower level, the two metallic frames being hinged together on an axis below the top level of their end bars.

16. In a bed of the class described, the combination of a main frame, a rotatable metallic frame having side and end bars, and a laterally movable metallic frame also having side and end bars and hinged to said rotatable frame, the end bars of said metallic frames being on a common level and their adjacent side bars on a lower lever.

17. In a bed of the class described, the combination of a main frame, a rotatable frame, and a laterally movable frame hinged to said rotatable frame, said laterally movable frame being free to swing when the bed is in closed position.

18. In a bed of the class described, the combination of a main frame, a reversible rotatable metallic frame having end bars and a depressed side bar and a non-reversible laterally movable, metallic frame also having end bars and a depressed side bar, the non-reversible frame being hinged to the reversible frame and rotatable thereon when the latter is in its closed position.

19. In a bed of the class described, the combination of a main frame and two hinged and offset frames, the first being rotatable in the main frame, and the second being floor supported at one side, hinged to the said first frame at the opposite side and rotatable with respect to the first frame when the latter is in its closed position.

20. In a bed of the class described, the combination of a main frame, a metallic frame having end and side bars rotatable in said main frame, a laterally movable metallic frame hinged to said rotatable frame, and stops for both sides of the latter frame serving to engage it with the main frame to prevent rotation thereof when in the open position.

21. In a bed of the class described, the combination of a main frame, a rotatable metallic frame therein having side and end bars, a laterally movable metallic frame also having side and end bars, and hinges jointing together the end bars of the two metallic frames at a point below the top level of those bars, the adjacent side bars of the said metallic frames being also below the top level of their end bars and unequally spaced from the axis of the hinge joint.

22. In a bed of the class described, the combination of a main frame, a reversible rotatable frame, a non-reversible laterally movable frame hinged to said rotatable frame, and legs for said non-reversible frame spaced a distance from the axis of the hinge greater than the distance from said axis to the side bar of the main frame when the bed is in its closed condition, whereby the non-reversible frame may be supported by said legs during the closing operation.

23. In a metal formed couch bed, the combination of a main frame made up of connected metal formed end frames, a reversible metal formed frame pivotally connected to the main frame, an extensible metal formed frame hinged to said reversible frame to be above it when the structure is in the form of a couch and shiftable toward and from the main frame to overturn said reversible frame, and means connected to a pair of said frames and operative to transform the structure into a double bed or a couch.

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

GEORGE F. SISBOWER.

Witnesses:
JAMES AUGUST,
JAMES J. COSGROVE.