J. G. MANZ.

BEDSTEAD.

APPLICATION FILED MAR. 17, 1914.

1,100,757.

Patented June 23, 1914.

3 SHEETS—SHEET 1.

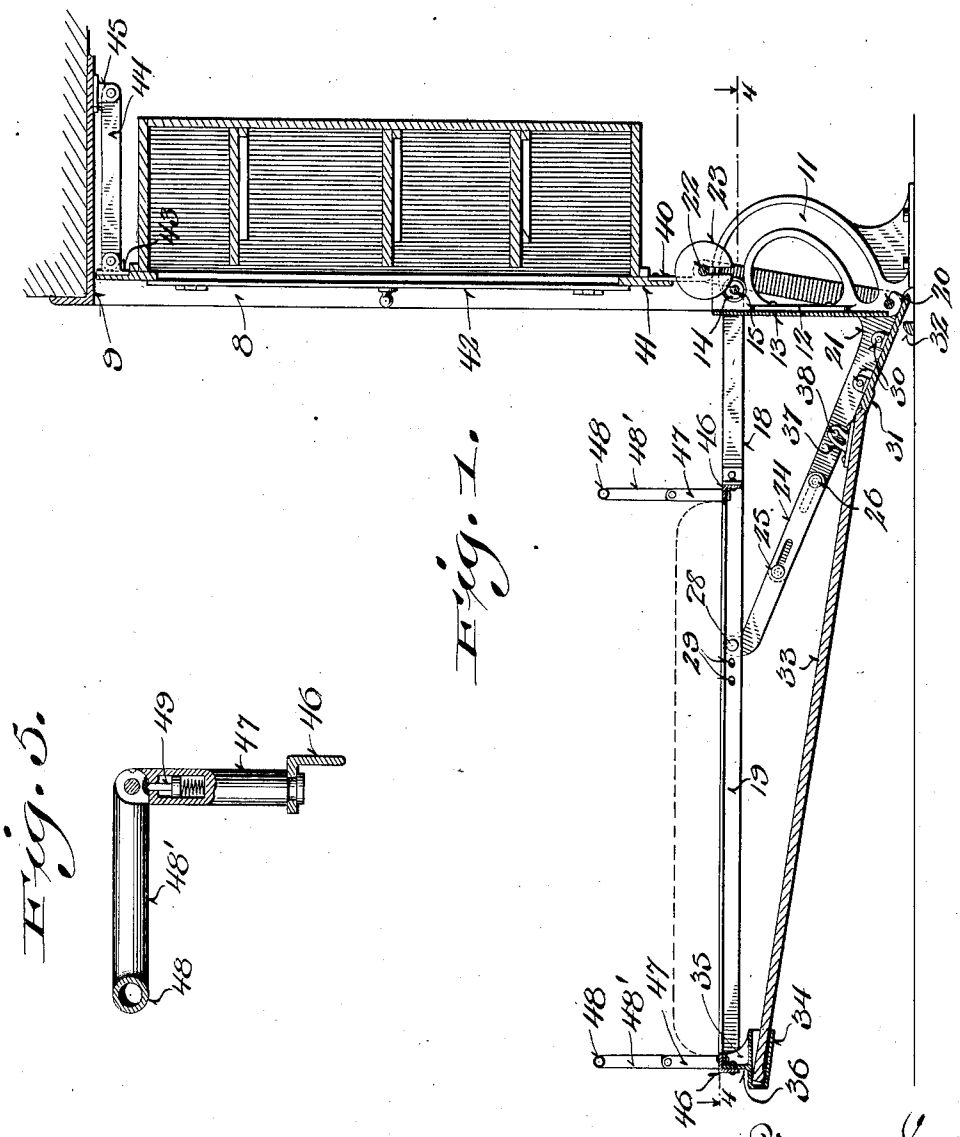


Fig. 1.

Fig. 5.

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3 SHEETS—SHEET 2.

Fig. 3.

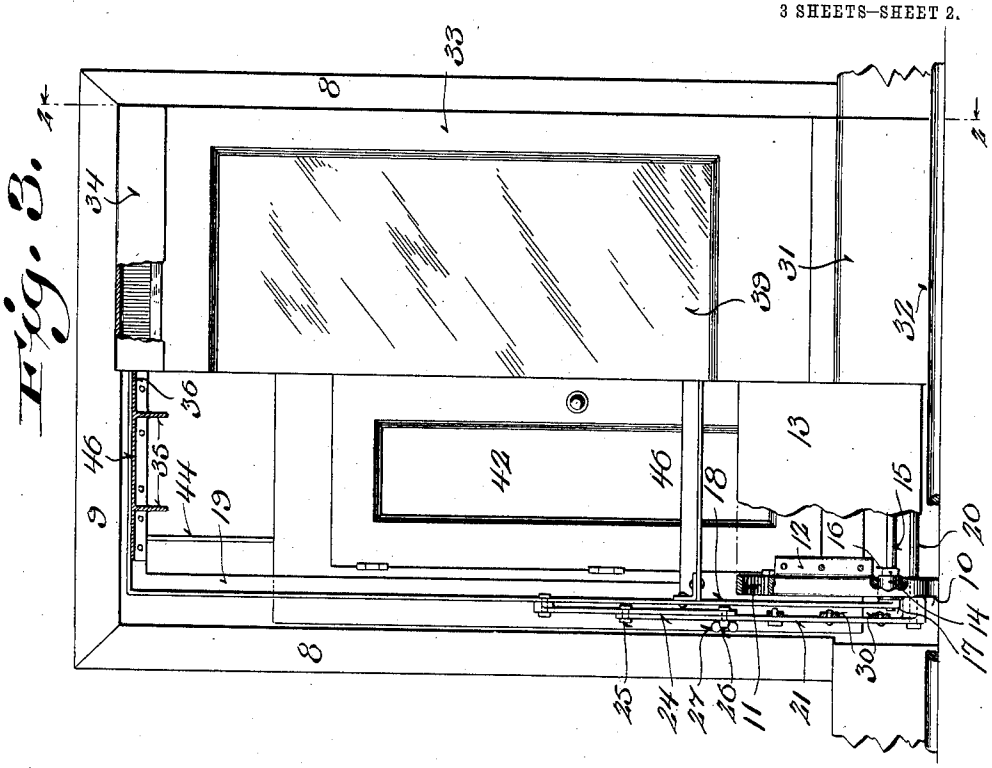
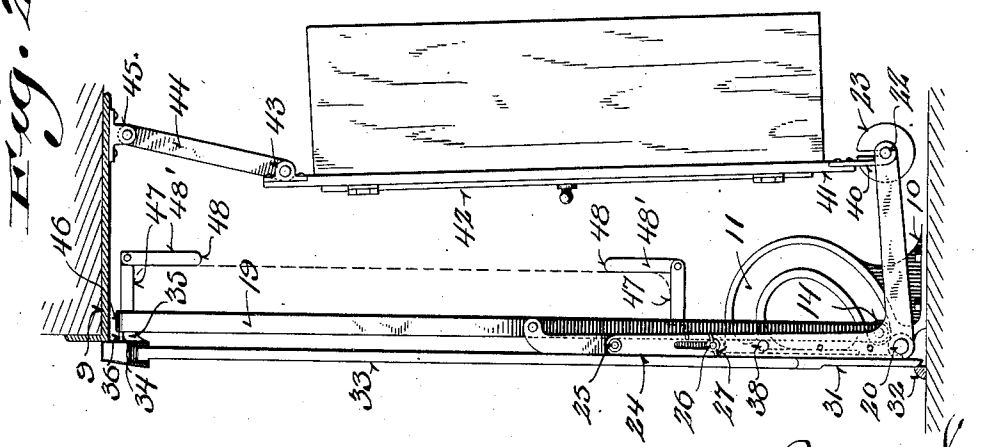


Fig. 2.



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3 SHEETS—SHEET 3.

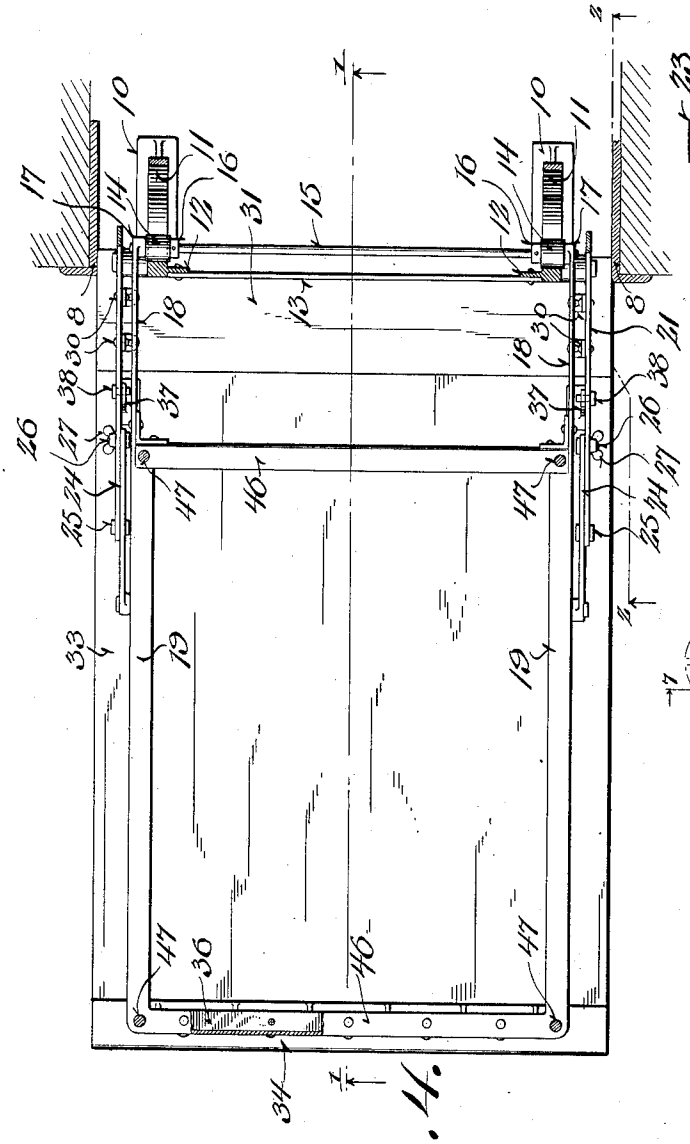


Fig. 4.

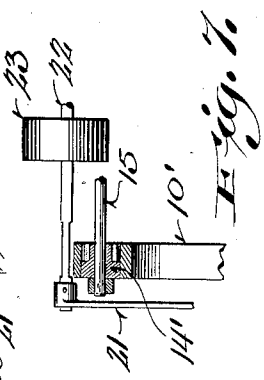


Fig. 7.

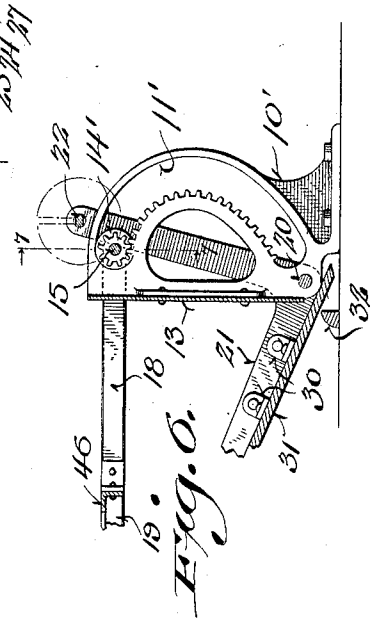


Fig. 6.

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UNITED STATES PATENT OFFICE.

JOHN G. MANZ, OF MILWAUKEE, WISCONSIN.

BEDSTEAD.

1,100,757. Specification of Letters Patent. Patented June 23, 1914.

Application filed March 17, 1914. Serial No. 825,346.

To all whom it may concern:

Be it known that I, JOHN G. MANZ, a citizen of the United States, and resident of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Bedsteads; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention consists in what is herein particularly set forth with reference to the accompanying drawings and pointed out in the claims of this specification, its object being to provide simple, economical bedsteads that may be easily and safely handled with respect to adjustment of their bed-frame elements from vertical to horizontal position or the reverse. Mechanism of each bedstead may be combined with an automatically adjustable closure for some of a cabinet or space in which the bed-frame is vertical at times, and with a closet adjustable in the same space.

Figure 1 of the drawings represents a sectional view indicated by line 1—1 in Fig. 4, and illustrates a bedstead in accordance with my invention, the bed-frame thereof being in horizontal position; Fig. 2, a similar view indicated by line 2—2 in Figs. 3 and 4, and which illustrates the bed-frame in vertical position; Fig. 3, a front elevation of a partly closed cabinet containing the bedstead and an automatically adjustable closet that are also partly shown in front elevation, parts of the structure being broken away; Fig. 4, a plan view partly in horizontal section as indicated by line 4—4 in Fig. 1; Fig. 5, a partly sectional side elevation of a detail of the bedstead; Fig. 6, a partly sectional side elevation of a detail of the structure when the bed-frame is provided with pinions engaging the rack surfaces of curvilinear guide-slots in the supporting standards, and Fig. 7, a sectional view indicated by line 7—7 in Fig. 6.

Referring by numerals to the drawings, 8 indicates each of a pair of angular stiles, and 9 the angular top of a casing forming part of a cabinet. Within the cabinet and bolted or otherwise suitably fastened to the floor thereof is a pair of standards 10, each standard being adjacent to a stile of the aforesaid casing and provided with a curvilinear slot 11. It is preferable to provide the standards with inner side flanges 12 and fasten thereto a front shield-plate 13. The slot 11 of each standard has elliptical contour and engaging the same is a roller 14 loose on a spindle 15 between a rigid collar 16 of the spindle and a boss 17 of an arm extension 18 of a side-bar 19 forming part of a bed-frame. The roller 14′ in Figs. 6 and 7 is toothed to form a pinion, and a face of the slot 11′ in the adjacent standard 10′ is toothed to form a rack engaged by said pinion, otherwise the slot of each standard is preferably depressed at its upper end to form a locking-seat for the roller engaged therewith. By having the bed-frame arms in pinion and rack gear with the standards better control is had of a heavy bedstead.

Mounted in the standards 10 is a fulcrum-rod 20 for a pair of bell-crank levers 21. One arm of each of these levers is connected to a side-bar 19 of the bed-frame, and the other arm of the same lever supports a rod 22 upon which to hang a counterweight 23 or a plurality of the same. To provide for selective connection of each bell-crank lever with a bed-frame side-bar, an arm of the lever is shown as having a longitudinally slotted slidable section 24 engaged by a guide-bolt 25 stationary in connection with the remainder of the same arm, and a bolt 26 with the slidable section engaging a longitudinal slot in the major portion of said arm extends into a clamp-nut 27, the outer end of said slidable section of the lever arm being loose on a bolt 28 extending through any one of a series of apertures in said bed-frame side bar, as at 29 in Fig. 1.

Shown in rigid connection with the outer arms of the bell-cranks are brackets 30, and fastened to these brackets is a baseboard 31 constituting a fixed closure for the front of the cabinet when the bed-frame is vertical therein, the baseboard being opposed by a stationary strip of molding 32 that serves as a stop. In rocking butt-joint union with the baseboard is a movable panel constituting a closure 33 for part of the front of the cabinet above said baseboard, the outer end of this closure being in free sliding engagement with a hollow header 34 and having bracket-connection 35 with the foot-rail 36 of the bed-frame. Adjacent to its other end, the closure 33 is provided with suspension brackets 37 having curved slots thereof engaged by pins 38 extending through adjacent arms of the bell-cranks aforesaid. Owing to play in the header 34, the closure 33 is self-conforming to adjustments of the bedstead, it being vertical when said bed-

stead is swung up in the cabinet, and it may be the frame of a mirror 39 shown in Fig. 3.

Arranged on the rod 22, I show brackets 40 attached to the front frame 41 of a closet having doors 42, and other brackets 43 attached to said frame are coupled to links 44 that are also coupled to hangers 45 in the cabinet, whereby said closet is free to automatically adjust itself in conformity to adjustments of the bed-frame, its different positions being shown in Figs. 1 and 2. A panel may be substituted for the closet to form a closure for the cabinet above the shield-plate 13 when the bed-frame is in horizontal position, but the closet form of closure will be found a convenience.

Attached to end rails of the bed-frame are brackets 46 supporting posts 47 in pairs and coupled to each pair of the posts are inturned ends 48′ of bedding-binders 48, the coupling extremities of the binders being notched for engagement with the bolts 49 of spring latches with which said posts are provided, as shown in Fig. 5. By means of the latches the binders are held in the position shown in Fig. 1, or in the position shown in Fig. 2.

Each counterweight 23 is provided with a slot having an inner circular enlargement, and the rod 22 has a slabbed portion that permits placing of the counterweight thereon to engage a round portion of the same, as shown in Fig. 7.

The general construction and arrangement of parts is such that the bedstead is not only easy of manipulation, but it is also safe when in horizontal position, and provision is had for ready access to the closet therewith when said bedstead is in said position.

My invention extends to a counterbalanced support other than a bed-frame having arms, rollers associated with the arms in curvilinear slots of standards, and levers fulcrumed to the standards in connection with said support.

I claim:

1. A bedstead comprising a pair of curvilinearly slotted standards, a bed-frame having arm extensions of its side-bars, rollers associated with the bed-frame arms in engagement with the slots of the standards, levers fulcrumed in connection with said standards and attached to said bars of the bed-frame, and means counterbalancing said bed-frame.

2. A bedstead comprising a pair of curvilinearly slotted standards, a front shield plate intermediate of the standards, a bed-frame having arm extensions of its side-bars, rollers associated with the bed-frame arms in engagement with the slots of the standards, levers fulcrumed in connection with said standards and attached to said bars of the bed-frame, and means counterbalancing said bed-frame.

3. A bedstead comprising a pair of curvilinearly slotted standards, a bed-frame having arm extensions of its side-bars, rollers associated with the bed-frame arms in engagement with the slots of the standards, levers fulcrumed in connection with said standards and attached to said bars of the bed-frame, means counterbalancing the bed-frame, a panel device having play connection with said levers, and a hollow header with the foot-rail of the aforesaid bed-frame in engagement with the outer end of said panel device that is slidable therein.

4. A bedstead comprising a pair of curvilinearly slotted standards, a bed-frame having arm extensions of its side-bars, rollers associated with the bed-frame arms in engagement with the slots of the standards, levers fulcrumed in connection with said standards and attached to said bars of the bed-frame, means counterbalancing said bed-frame, a baseboard connected to the levers, a panel device having play connection with said levers as well as rocking butt-joint connection with the baseboard, and a hollow header with the foot-rail of the aforesaid bed-frame in engagement with the outer end of said panel device that is slidable therein.

5. A bedstead comprising a pair of curvilinearly slotted standards, a bed-frame having arm extensions of its side-bars and bedding-clamps in latch-controlled pivotal connection with posts attached to end-rails of said frame, rollers associated with the bed-frame arms in engagement with the slots of the standards, levers fulcrumed in connection with said standards and attached to said bars of the bed-frame, and means counterbalancing said bed-frame.

6. A bedstead comprising a pair of curvilinearly slotted standards, a bed-frame having arm extensions of its side-bars, rollers associated with the bed-frame arms in engagement with the slots of the standards, bell-crank levers fulcrumed in connection with said standards and attached to said bars of the bed-frame, and means with the levers counterbalancing said bed-frame.

7. A bedstead comprising a pair of curvilinearly slotted standards, a bed-frame having arm extensions of its side-bars, rollers associated with the bed-frame arms in engagement with the slots of the standards, levers fulcrumed in connection with said standards and attached to said bars of the bed-frame, means counterbalancing said bed-frame, and a backing device in movable connection with the bed-frame.

8. A bedstead comprising a pair of curvilinearly slotted standards, a bed-frame having arm extensions of its side-bars, rollers associated with the bed-frame arms in engagement with the slots of the standards, levers fulcrumed in connection with said standards and attached to said bars of the

bed-frame, means counterbalancing said bed-frame, and a closet in movable connection with the bed-frame back of the same.

9. A bedstead comprising a pair of curvilinearly slotted standards, a bed-frame having arm extensions of its side-bars, rollers associated with the bed-frame arms in engagement with the slots of the standards, bell-crank levers fulcrumed in connection with said standards and attached to said bars of the bed-frame, a rod connecting arms of the levers, one or more counterbalance weights on the rod, a backing device in movable connection with the rod, suitably arranged hangers, and links connecting said backing device and hangers.

10. A bedstead comprising a pair of curvilinearly slotted standards, a bed-frame having arm extensions of its side-bars, rollers associated with the bed-frame arms in engagement with the slots of the standards, extensible levers fulcrumed in connection with said standards for selective connection with the bed-frame side bars, and means counterbalancing said bed-frame.

11. A bedstead comprising a pair of curvilinearly slotted standards, a bed-frame having arm extensions of its side-bars, rollers associated with the bed-frame arms in engagement with the slots of the standards, bell-crank levers fulcrumed in connection with said standards and attached to said bars of the bed-frame, means counterbalancing the bed-frame, a backing device movable in connection with arms of said levers, suitably arranged hangers, and links connecting said backing device and hangers.

12. A pair of curvilinearly slotted standards, a support having arms, rollers associated with the arms in engagement with the slots of the standards, levers fulcrumed in connection with said standards and attached to the support, and means counterbalancing said support.

13. A pair of curvilinearly slotted standards, a support having arms, rollers associated with the arms in engagement with the slots of the standards, levers fulcrumed in connection with said standards and attached to the support, means counterbalancing said support, a panel device having play connection with the levers, and a hollow header with the support in engagement with the outer end of said panel device that is slidable therein.

14. A pair of curvilinearly slotted standards, a support having arms, rollers associated with the arms in engagement with the slots of the standards, levers fulcrumed in connection with said standards and attached to the support, means counterbalancing said support, a baseboard connected to the levers, a panel device having play connection with said levers as well as rocking butt joint connection with the baseboard, and a hollow header with said support in engagement with the outer end of said panel device that is slidable therein.

15. A pair of curvilinearly slotted standards, a support having arms, rollers associated with the arms in engagement with the slots of the standards, levers fulcrumed in connection with said standards and attached to the support, means counterbalancing said support, and a backing device in connection with the support.

16. A pair of curvilinearly slotted standards, a support having arms, rollers associated with the arms in engagement with the slots of the standards, levers fulcrumed in connection with said standards and attached to the support, means counterbalancing said support, and a closet in movable connection with the support.

17. A pair of curvilinearly slotted standards, a support having arms, rollers associated with the arms in engagement with the slots of the standards, bell-crank levers fulcrumed in connection with said standards and attached to the support, a rod connecting the levers, one or more counterbalance weights on the rod, a backing device in movable connection with the rod, suitably arranged hangers, and links connecting the backing device and hangers.

18. A pair of curvilinearly slotted standards, a support having arms, rollers associated with the arms in engagement with the slots of the standards, extensible levers fulcrumed in connection with said standards for selective connection with the support, and means counterbalancing said support.

19. A pair of curvilinearly slotted standards, a support having arms, rollers associated with the arms in engagement with the slots of the standards, bell-crank levers fulcrumed in connection with said standards and attached to the support, means counterbalancing the support, a device in connection with arms of said levers constituting a partial closure for space back of said support when the same is horizontal, hangers in said space, and links connecting said closure and hangers.

In testimony that I claim the foregoing I have hereunto set my hand at Milwaukee in the county of Milwaukee and State of Wisconsin in the presence of two witnesses.

JOHN G. MANZ.

Witnesses:
CHAS. B. NEHRING,
N. E. OLIPHANT.

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