No. 759,073. PATENTED MAY 3, 1904.

C. P. BROWN.

FOLDABLE BEDSTEAD.

APPLICATION FILED JUNE 18, 1903.

NO MODEL. 2 SHEETS—SHEET 1.

Fig. 1

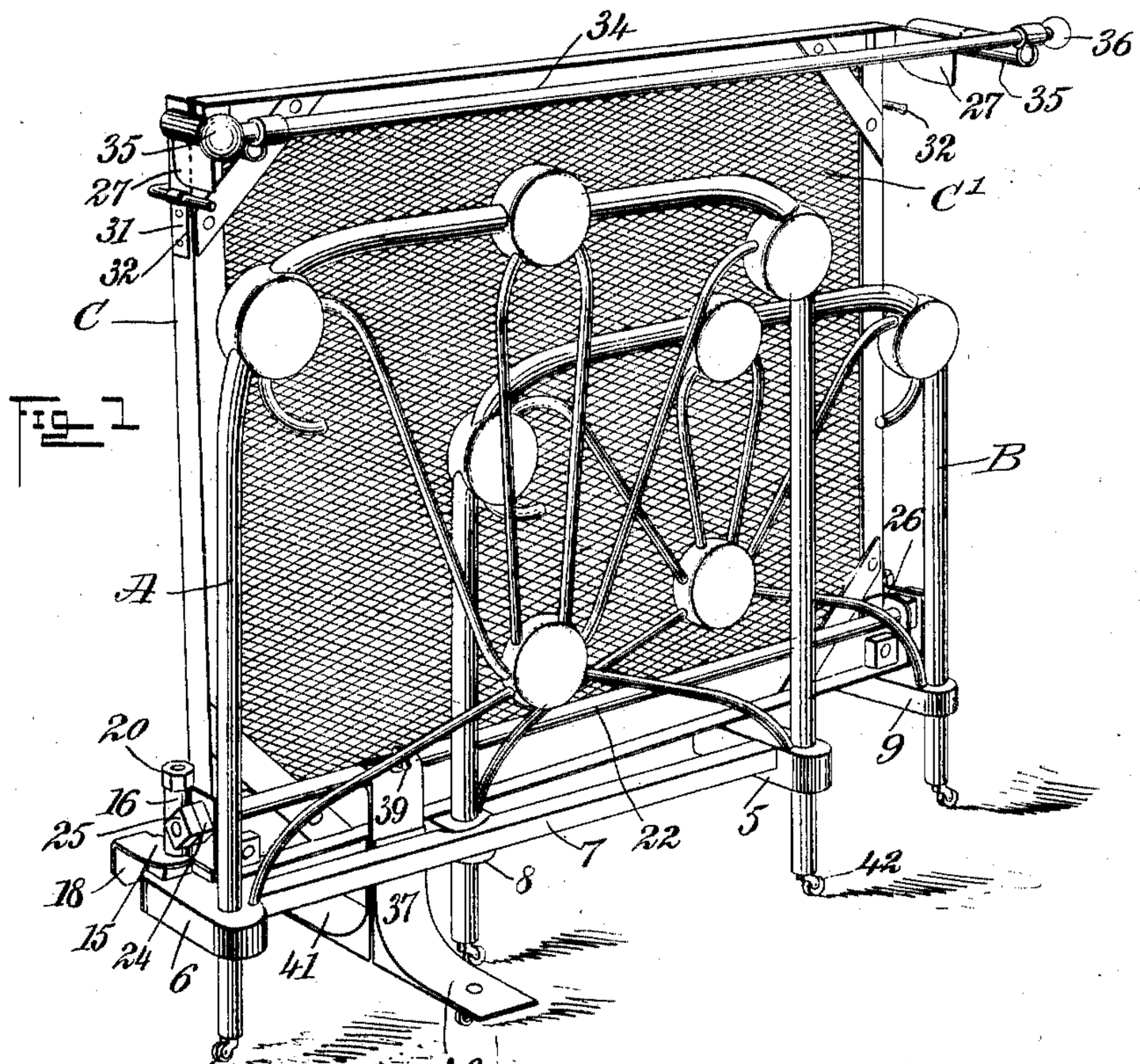


Fig. 2

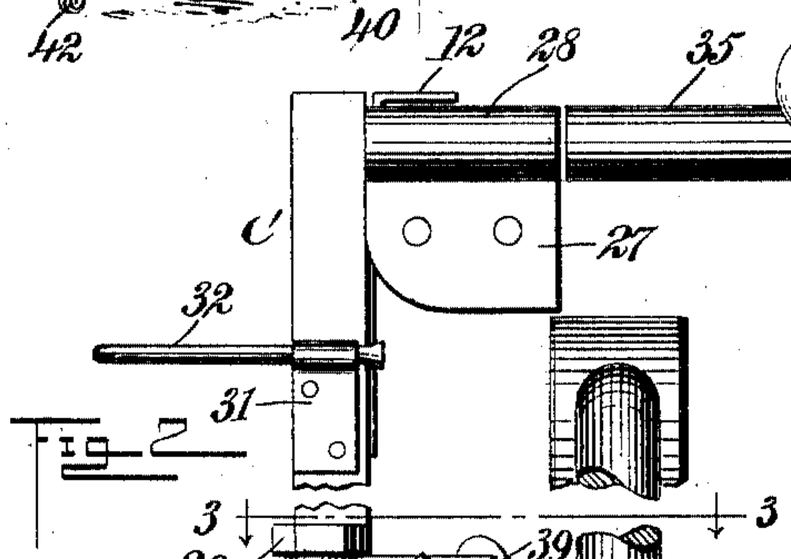
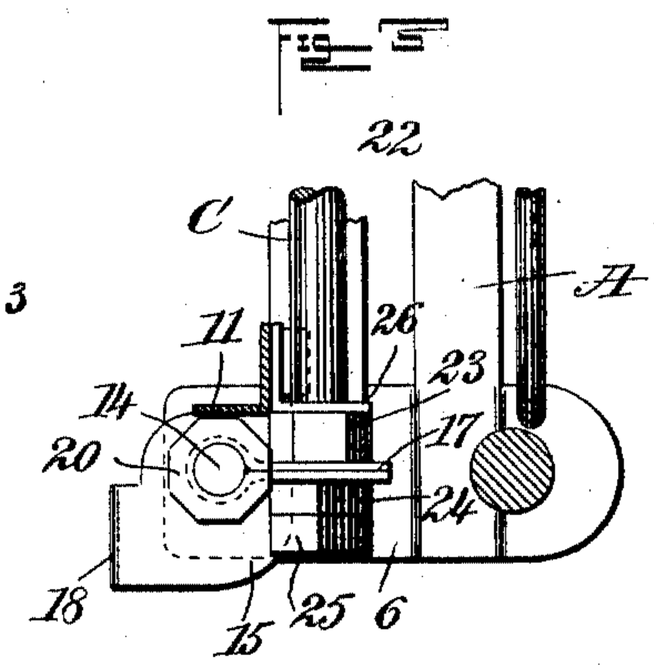


Fig. 5



WITNESSES.

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NO MODEL. 2 SHEETS—SHEET 2.

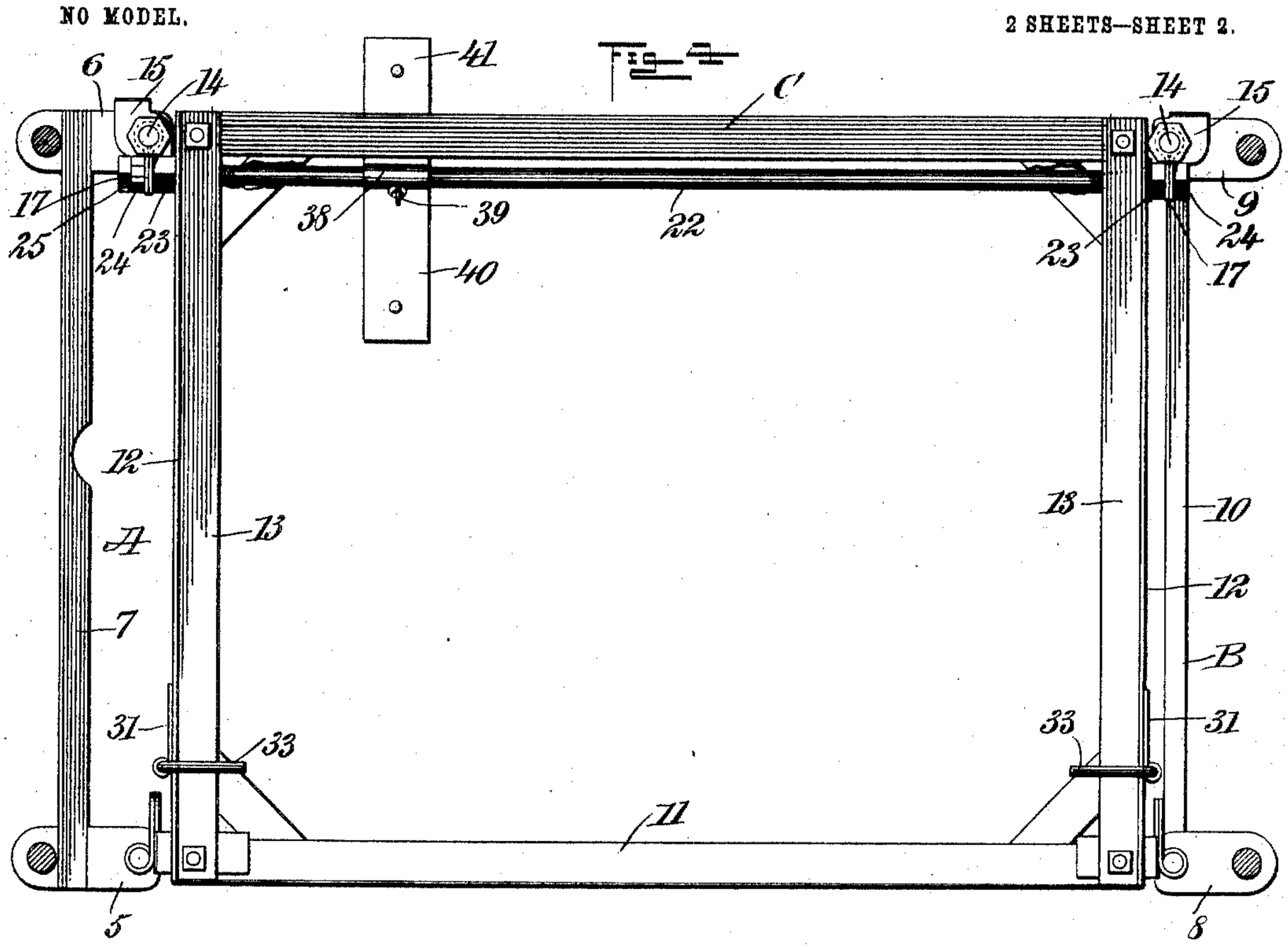


Fig. 5.

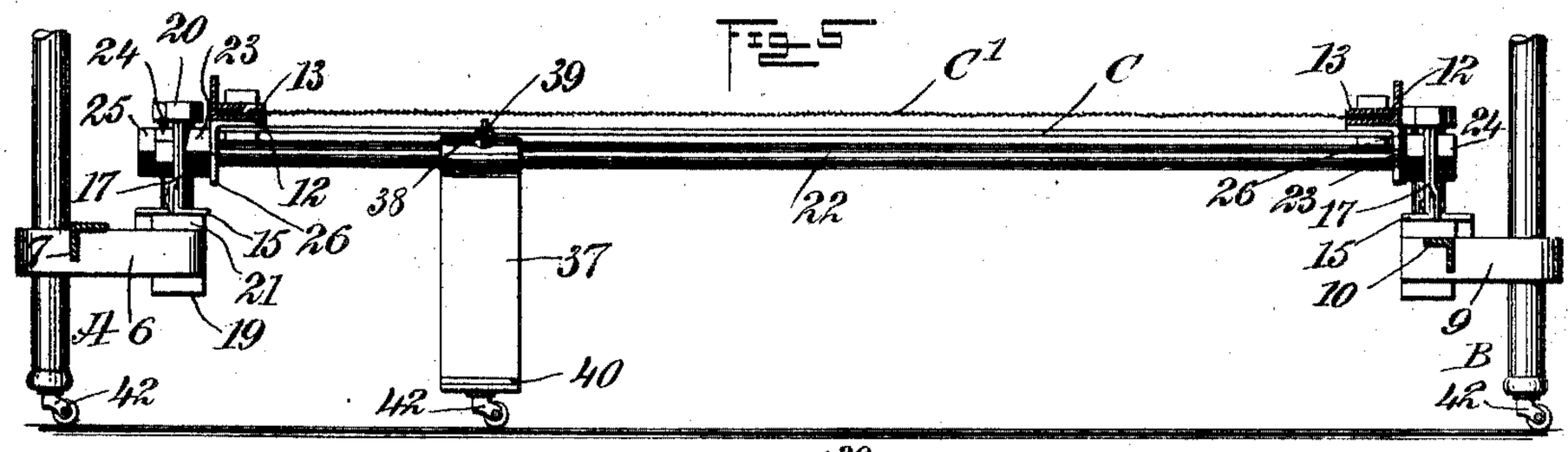
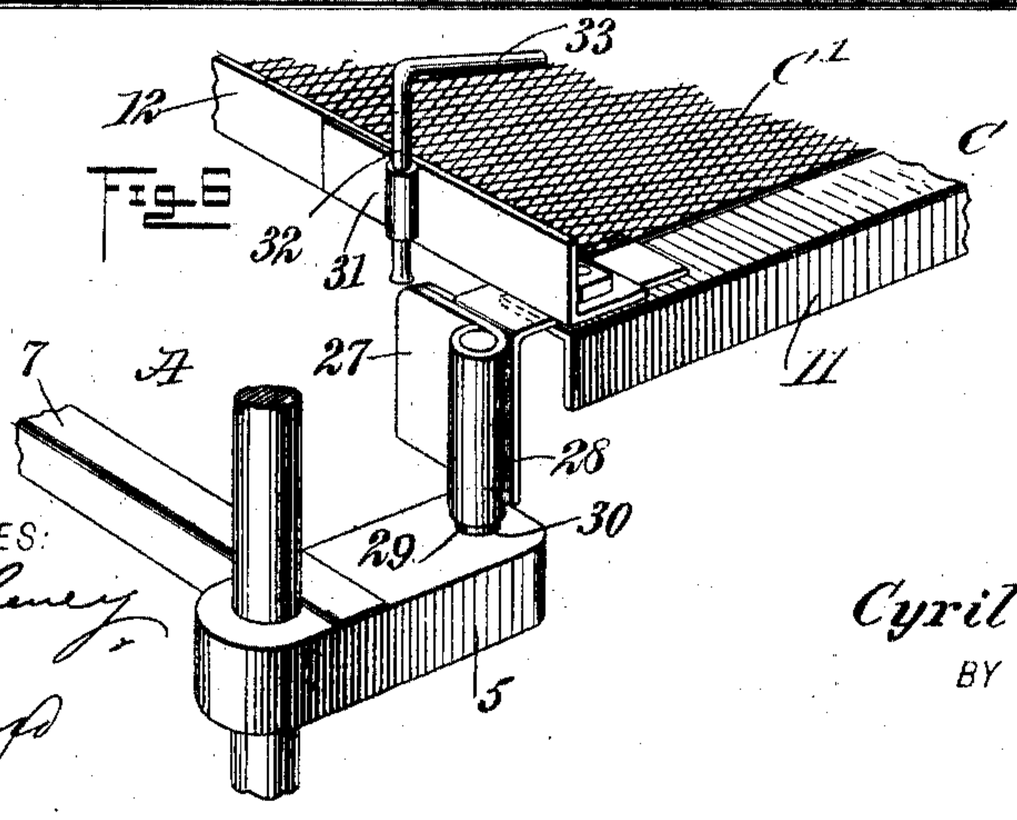


Fig. 6.



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No. 759,073. Patented May 3, 1904.

UNITED STATES PATENT OFFICE.

CYRIL PECK BROWN, OF SPRINGLAKE, MICHIGAN.

FOLDABLE BEDSTEAD.

SPECIFICATION forming part of Letters Patent No. 759,073, dated May 3, 1904.

Application filed June 18, 1903. Serial No. 162,013. (No model.)

To all whom it may concern:

Be it known that I, CYRIL PECK BROWN, a citizen of the United States, and a resident of Springlake, in the county of Ottawa and State of Michigan, have invented a new and Improved Foldable Bedstead, of which the following is a full, clear, and exact description.

My invention relates to improvements in foldable bedsteads by which I seek to produce a construction enabling me to utilize a standard metallic head-section, a similar foot-section, and a standard bed-frame in a way to fold the parts compactly when it is not desired to use the bed and at the same time allow the several parts to be easily and quickly unfolded for use.

A further object of the invention is to so connect the several essential parts that they may be easily assembled or disconnected by unskilled labor with a view to transporting the parts in a disconnected or knockdown condition.

A further object is to provide means for securely interlocking the bed-frame in its unfolded condition with the head and foot sections to the end that the frame will not collapse or break down when in use.

Further objects and advantages of the invention will appear in the course of the subjoined description, and the novelty will be defined by the annexed claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of a bedstead constructed in accordance with my invention and showing the parts in their folded positions. Fig. 2 is an end elevation, partly broken away, of the bedstead in the folded position shown in Fig. 1. Fig. 3 is a sectional detail plan view of certain of the parts, the plane of the section being indicated by the dotted line 3 3 of Fig. 2. Fig. 4 is a plan view, partly in section, of the bedstead in its unfolded position and adjusted for service. Fig. 5 is a longitudinal section through the bedstead in the position shown by Fig. 4, and Fig. 6 is a detail perspective view illustrating one corner of the bedstead in order to more clearly show the means for locking the bed-frame to one of the end sections.

The bedstead of my present invention consists of three main parts—a head-section A, a foot-section B, and a bed-frame C. These parts may be of the usual stock construction or standard pattern, and it will therefore be understood that each end section may be constructed of a single piece of metal, either brass or iron, and finished or ornamented in any way known to the trade. The head-section A is provided with inwardly-extending lugs 5 6, which are united by a tie-bar 7. The foot-section B is also provided with inwardly-extending lugs 8 9 and with a tie-bar 10. The lugs of each section may be made in one piece with the posts of said section, and the tie-bar may be of angle-iron or any other suitable form of metal united to the lugs in a suitable way.

The bed-frame C is shown as consisting of side and cross rails 11 12, each of angle-iron, and with the cross-rails 12 are associated suitable clamping-rails 13, which coöperate with the cross rails in holding a metallic mattress or a mattress-support C′ of any suitable nature firmly attached to the foldable bed-frame. The mattress-support is shown by Figs. 1, 5, and 6 of the drawings; but it is omitted from Fig. 4 in order that the construction and arrangement of the several parts may be more clearly shown by the drawings. The several parts comprising the bed-frame are united firmly in any approved way in order that the bed-frame as an entirety may be folded to the vertical position shown by Figs. 1 and 2 and unfolded to the horizontal position represented by Figs. 4 and 5.

The two end sections are connected at similar corners to one side of the bed-frame C by novel forms of devices, which permit the bed-frame to be folded to an upright position and the end sections to be folded inwardly into parallel relation one to the other and to the bed-frame, substantially as shown by Figs. 1 and 2. The means whereby the several parts are thus foldably connected constitutes one of the important improvements which I have made, and these devices contemplate the use of double-jointed couplings which accommo-

date a longitudinal tie or hinge rod that serves to unite the end sections and operates as the axis on which the bed-frame is adapted to turn. The inwardly-extending lugs 6 and 9 of the head and foot sections A B are provided with vertical openings for the accommodation of vertical pintles, spindles, or bolts 14, one of which passes through each of said lugs and through couplings now to be described.

Each coupling consists of a base 15, a sleeve 16, a lateral wing 17, and a depending stop flange or shoulder 18, all of which may be cast in a single piece of metal, or the parts may be struck up from heavy sheet metal, as desired, by the skilled constructor. The coupling is arranged for its base 15 to lie over one of the lugs 6 or 9 of the head or foot section, and the sleeve 16 of the coupling is disposed in vertical alinement with the opening in said lug. The wing 17 of the coupling is extended or prolonged from one side of the sleeve 16, whereas the stop flange or shoulder 18 extends downwardly from the opposite side of the base with relation to the sleeve, so as to lie in the path of the lug on the head or foot section when the parts are unfolded, as will presently appear.

The bolt or spindle 14 passes through the lug on one end section and through the sleeve 16 of one coupling, and this bolt is provided at its lower end with a nut 19, at its upper end with a nut 20, and with a jam-nut 21, which is screwed on the bolt in position between the lug of the end section and the base 15 of the coupling. (See Fig. 2.) In assembling the parts the bolt or spindle 14 is slipped through the hole of the lug on the end section and the nuts 19 and 21 are screwed on certain threaded parts of said bolt, thereby firmly clamping the bolt to the lug of the end section, after which the coupling is applied to the upper projecting part of the bolt by slipping the sleeve 16 of said coupling over said bolt, and the nut 20 is screwed onto the upper extremity of the bolt in a way to firmly retain the coupling between the nuts 20 and 21 of said bolt. The bolt 14 is clamped firmly to the lug of the end section in order to turn with said section when the latter is adjusted into its folded or unfolded position, said bolt turning freely in the sleeve 16 of the coupling.

The couplings which are applied to the lugs 6 and 9 of the end sections A B are disposed to have the wings 17 extended inwardly from the lugs into parallel relation, as shown by Fig. 4, and these two couplings are united solidly by the employment of an intermediate longitudinal stay-rod 22, which serves as the axis for the bed-frame C. This stay-rod is provided near its end portions with nuts 23, arranged to bind against the wings 17 of the two couplings, said threaded end portions of the rod being extended through suitable perforations in said wings of the couplings. The free ends of the rod are provided with binding-nuts 24 and with jam-nuts 25, and the end portions of the rod are thus rigidly secured to the wings of the couplings for the purpose of firmly bracing said couplings and holding them in their proper operative positions.

The bed-frame is provided on its hinged side with depending perforated lugs 26, which lie at the corners of the frame and are fitted loosely on the rod 22, thus operatively connecting the hinged side of the bed-frame to the rod 22 in a way to make the rod support one side of the bed-frame and to serve as a horizontal axis for said frame when folding and unfolding the latter.

In the practical construction of the bedstead I find it necessary to make the lugs of one end section somewhat longer than the lugs of the other end section in order that they may be folded into parallel relation one to the other, and in the drawings I have shown the lugs 5 6 of the head-section A somewhat longer than the lugs 8 9 of the foot-section B, although it will be understood that this relative arrangement of the lugs may be reversed. In folding the bed the frame C is turned on the axis afforded by the rod 22 to the vertical position represented by Figs. 1 and 2, after which the foot-section B is turned inwardly into parallel relation to the folded frame C, and finally the head-frame A is folded inwardly into parallel and overlapping relation to the foot-section, as shown by Fig. 1. The folding adjustment of the two end sections is permitted by the bolts 14, which turn with said sections in the sleeves of the couplings, and the several parts of the bed may thus be folded into exceedingly compact relation, so as to take up a very small amount of room or space.

Another feature of my invention consists in the provision of means for locking the bed-frame at its free corners to the lugs 5 8 of the two end sections when said bed-frame is folded to the position shown by Figs. 4 and 5. In one embodiment of the locking means I provide the bed-frame C at its free corners with the opposite and depending brackets 27, which are firmly secured to said bed-frame at the corners thereof and are provided with sleeves 28. In these sleeves are secured the locking-pins 29, which extend beyond the sleeves and are adapted to fit in openings 30, provided in the lugs 5 8. After the end sections A B shall have been unfolded to assume the positions shown by Fig. 4 the bed-frame is lowered by turning it on the rod 22, and during this lowering operation the locking-pins 29 enter the openings of the lugs 5 8, and thus secure the bed-frame in a horizontal position, so that said bed-frame will hold the end sections firmly in place, whereby the parts in their unfolded position are connected and locked to overcome any possibility of collapsing and breakdown.

Any suitable means may be employed for

holding a mattress and bed-cover on the bed-frame C and mattress-support C′; but in the drawings I have shown one form of mattress-clamp. A keeper 31 is secured to each end rail of the bed-frame, near the free end thereof, and in this keeper is fitted the stem 32 of a clamping-arm 33. The stem is slidable in the keeper 31 to permit the arm 33 to be moved into and out of coöperative relation to the mattress and the bed-cover. It is to be understood that the stem 32 may be lifted for the purpose of withdrawing the clamping-arm 33 from engagement with the mattress, or the stem may be turned in the keeper in order to adjust the arm out of position; but before the bed-frame is folded the stem and arm should be moved to their operative positions in order that the two clamps may hold a mattress and suitable bed-covers firmly in place on the foldable bed-frame. I also provide the bed-frame with a drapery-rod 34, from which a curtain may be suspended when the parts are folded, said curtain adapted to conceal the bedstead. This drapery-rod is provided with sleeves 35, which are adapted to be slipped over the projecting ends of the locking-pins 29. The drapery-rod may be provided with suitable ornamental ends or heads 36, and said drapery-rod is supported detachably on the locking-pins by fitting its sleeves 35 over said pins. After the bed-frame shall have been folded the drapery-rod can easily be placed in position, and the curtain may be adjusted to conceal the bed-frame; but when it is desired to unfold the bedstead the drapery-rod should be removed by slipping its sleeves off the pins, after which the head and foot sections may be unfolded at right angles to the bed-frame, and said bed-frame can then be lowered in the manner heretofore described.

Another improvement which I have made consists of a leg adapted to steady the bedstead when it is in its folded position. This leg 37 is provided at its upper end with a sleeve 38, which is fitted on the stay or hinge rod 22 at a point between the couplings, said sleeve 38 being provided with a binding-screw 39, adapted to clamp the leg 37 to said rod 22 in a way to prevent displacement of the leg on said rod. The leg is provided at its lower portion with an enlarged base forming a foot 40 and a heel 41, said foot and heel extending in opposite directions from the vertical plane of the leg. The foot 40 extends well beneath the bed-frame when unfolded, while the heel 41 is adapted to extend outside the limits of the bedstead, as shown by Fig. 4, whereby the heel is adapted to engage with the wall of a room in order to space the bedstead laterally with relation to the wall. The posts of the head and foot sections, together with the enlarged base of the leg 37, are provided with suitable casters 42, thus enabling the bedstead to be rolled to any convenient position in a room.

The couplings at the hinged side of the bedstead have their shoulders or flanges 18 disposed in the path of the lugs 6 9 of the end sections, and when these end sections are unfolded to their operative positions (shown by Fig. 4) the lugs 6 and 9 are adapted to engage with the shoulders or flanges 18 of said couplings, whereby the flanges limit the outward movement of the lugs, and the head and foot sections are thus arrested when unfolded to assume the parallel relation shown by Fig. 4.

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

1. A foldable bedstead comprising unbroken end sections, a bed-frame, and couplings uniting the bed-frame and the end sections; said bed-frame being connected to the couplings to turn on a horizontal axis and the end sections being attached to the couplings to turn on vertical axes; said couplings affording stationary bearings for the members of the bedstead.

2. A foldable bedstead comprising stationary couplings located at one side of the structure and united one to the other, a bed-frame connected to said couplings for movement on a horizontal axis, and unbroken end frames having pivotal connection with said couplings independently of the bed-frame and turnable on vertical axes.

3. A foldable bedstead comprising couplings located at one side of the structure, a bed-frame pivoted to said couplings for movement on a horizontal axis, and end sections having pivotal connection with the couplings independently of the bed-frame and turnable on vertical axes.

4. A foldable bedstead comprising end sections, a bed-frame, couplings connected with the end sections and affording vertical axes of movement therefor, and a hinge-rod attached rigidly to said couplings and holding them in fixed positions, said rod affording a horizontal axis of movement for said bed-frame.

5. A foldable bedstead comprising end members, a horizontal rod located at one side of the structure, couplings attached firmly to said rod, spindles secured to the end members and mounted in the couplings to form vertical axes of movement for said members, and a bed-frame having a hinged connection with said rod.

6. A foldable bedstead comprising end members having inwardly-extending lugs, couplings attached to corresponding lugs of the end members, a rod uniting said couplings, and a bed-frame hinged to said rod and provided with means for locking its free end to other lugs of the end members.

7. A foldable bedstead comprising a hinge-rod, couplings fixed to said rod, a bed-frame mounted on said rod to turn on a horizontal axis, and end sections having lugs of unequal length pivoted to the couplings to turn on vertical axes, said sections being foldable in-

wardly toward each other and in disalined relation.

8. A foldable bedstead comprising couplings, a bed-frame having hinged connection with said couplings to turn on a horizontal axis, and end sections each pivoted to one of said couplings to turn on a vertical axis; the respective end sections being located at different distances from their axes of movement and foldable inwardly against the bed-frame to have overlapping relation one to the other.

9. A foldable bedstead comprising end members, vertical spindles fast with said end members at corresponding corners thereof, couplings fitted idly to said spindles, a rod arranged lengthwise of the bed and made fast with said couplings, and a bed-frame mounted on said rod; said bed-frame being foldable on a horizontal axis, and the end members being individually foldable inwardly on vertical axes.

10. A foldable bedstead comprising end members having lugs, spindles fixed to said lugs, couplings fitted loosely on said spindles and provided with inwardly-extended wings, a rod attached to said wings of the couplings, and a bed-frame connected with said rod.

11. A foldable bedstead comprising end sections having lugs, couplings having pivotal connection with corresponding lugs of the sections, a bed-frame hinged to said couplings, and locking-pins carried by the bed-frame and adapted to have interlocking engagement with other lugs of the end sections.

12. In a foldable bedstead, a bed-frame hinged at one side by a horizontal rod ranging lengthwise of the bedstead and provided at the opposite corners with projecting pins, and a drapery-rod provided with sleeves which are fitted to said pins, said rod being supported by the pins and removable at will therefrom.

13. A foldable bedstead having a hinge-rod ranging lengthwise of said bedstead and located at one side thereof, pivoted end sections foldable inwardly on vertical axes, a bed-frame mounted at one side on said rod for movement on a horizontal axis and adapted to have interlocking engagement with the end sections when unfolded to a horizontal position, and a leg depending from the hinge-rod and having an enlarged floor-base.

14. A foldable bedstead having end members and a bed-frame united by a horizontal rod, and a leg attached to said rod and provided with an enlarged base; said base being arranged across the plane of the bed-frame and the end sections when folded, and limiting sidewise displacement of the structure in a collapsed condition.

15. A foldable bedstead having a rod ranging lengthwise of the bedstead at one side thereof, a bed-frame connected to said rod to turn on a horizontal axis, and pivoted end members foldable on vertical axes into parallel relation to the bed-frame.

16. A foldable bedstead having a rod ranging lengthwise of the bedstead at one side thereof, couplings fitted to said rod, end members pivoted to said couplings and foldable inwardly on vertical axes, a bed-frame connected to said rod to turn on a horizontal axis, and means for interlocking the bed-frame and the end members on the unfolding of the parts.

17. A foldable bedstead having a rod ranging lengthwise of the bedstead at one side thereof, a bed-frame fitted at one side to said rod to turn on a horizontal axis, pivoted end members foldable inwardly on vertical axes, and means for interlocking the bed-frame and the end members on the unfolding of the parts.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CYRIL PECK BROWN.

Witnesses:

JOHN B. PRUIM,

ENNO J. PRUIM.