

No. 741,446.

PATENTED OCT. 13, 1903.

M. BENZ.
FOLDING BEDSTEAD.
APPLICATION FILED MAR. 26, 1903.

NO MODEL.

2 SHEETS—SHEET 1.

Fig. 1.

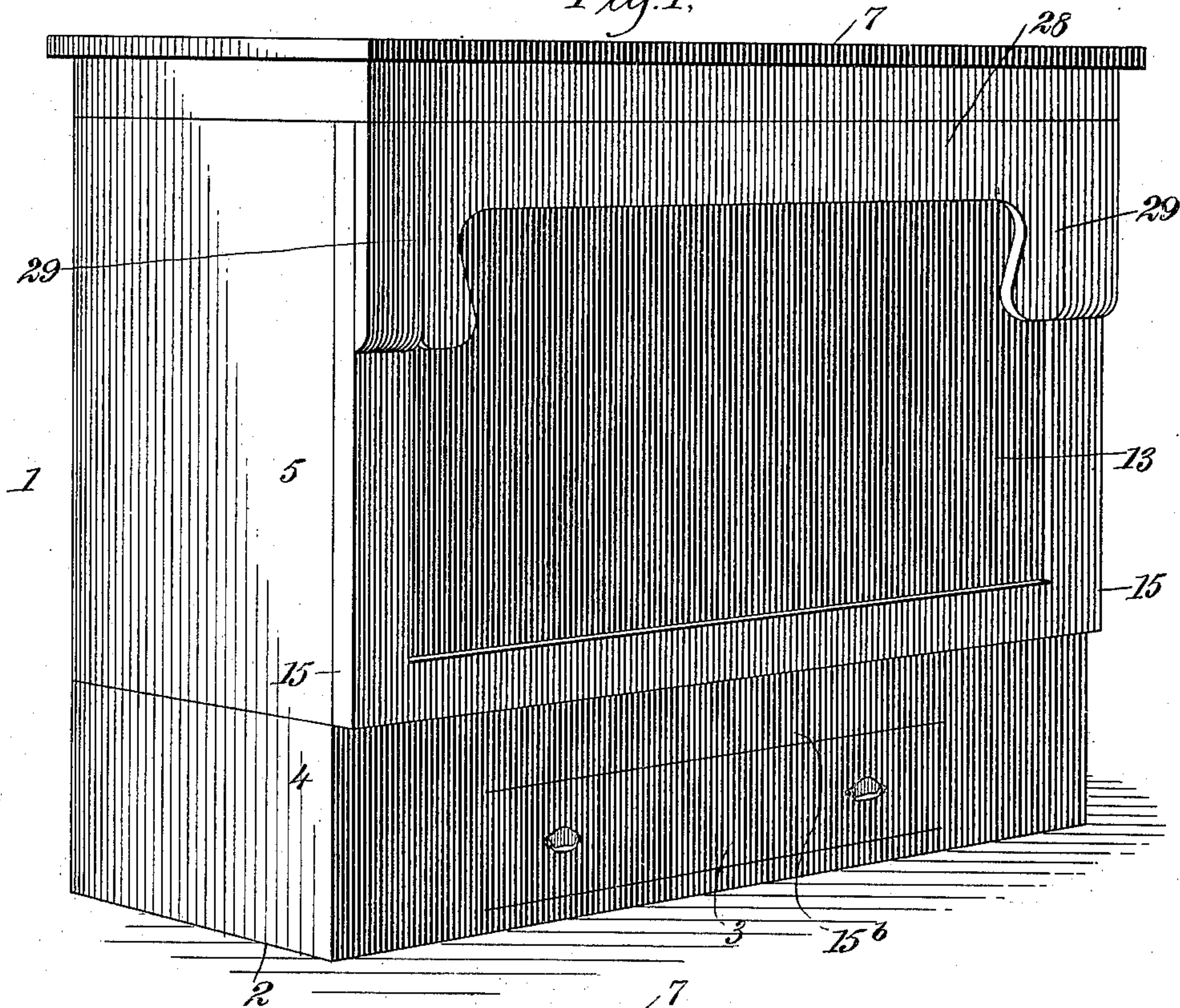
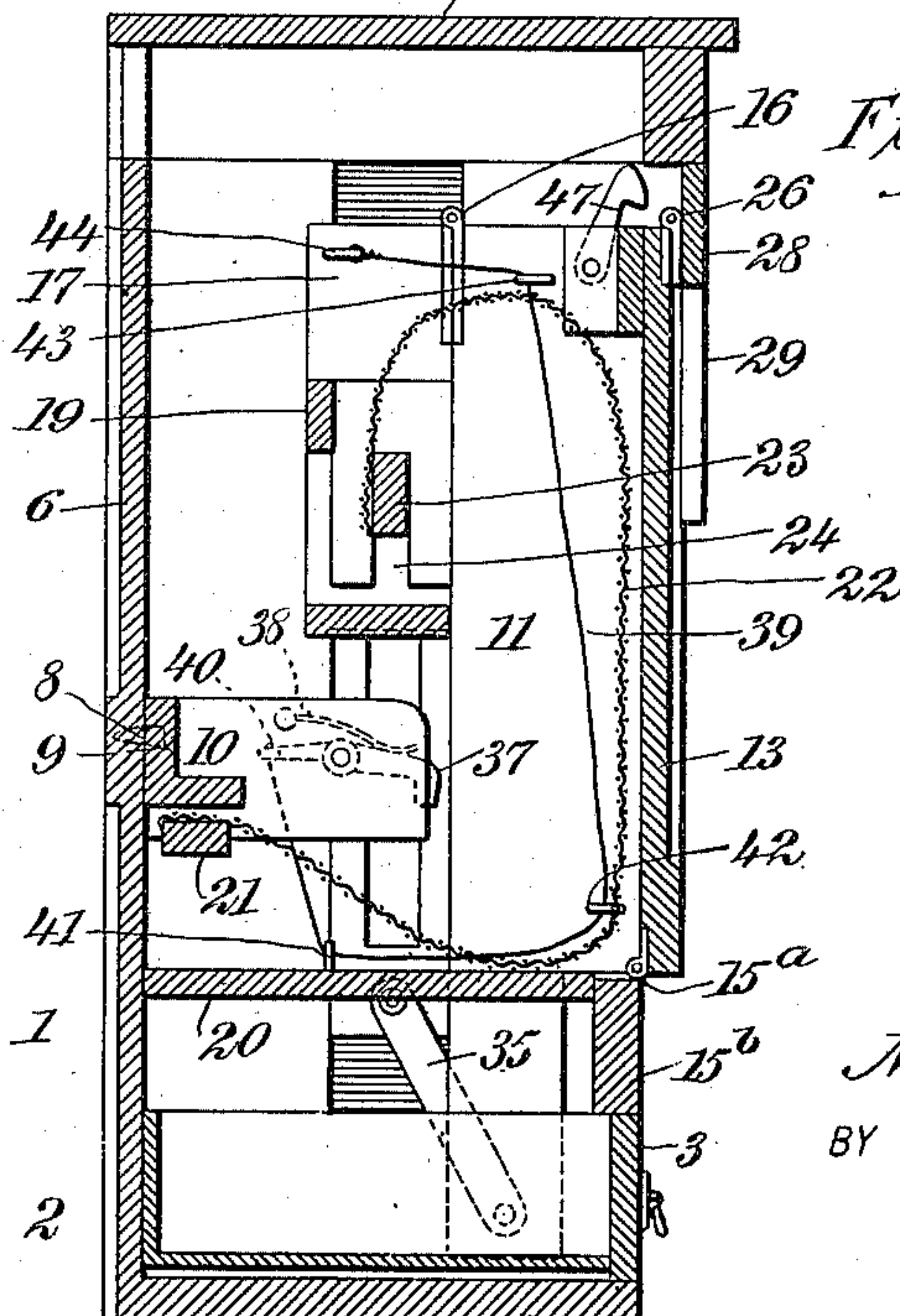


Fig. 2.



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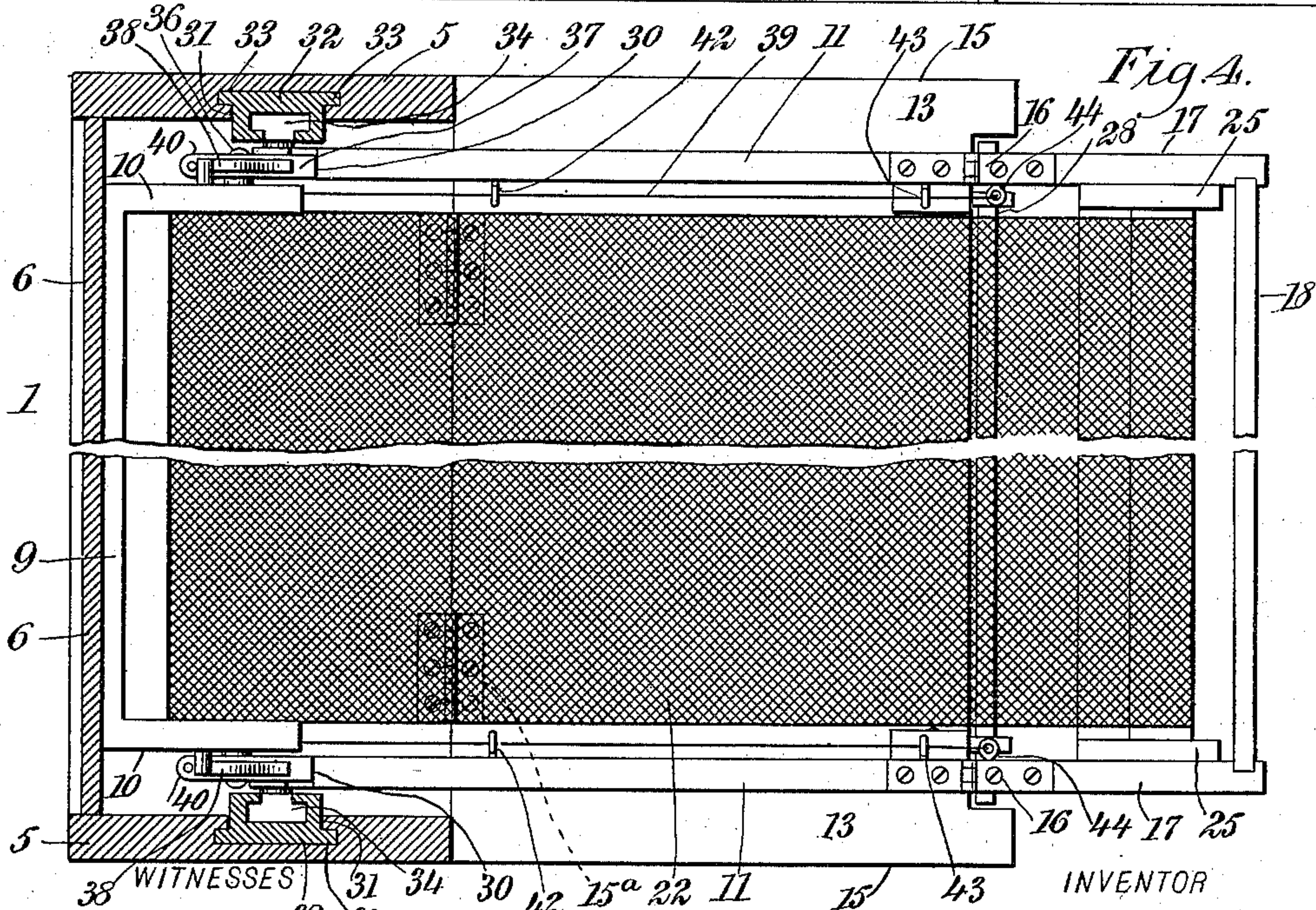
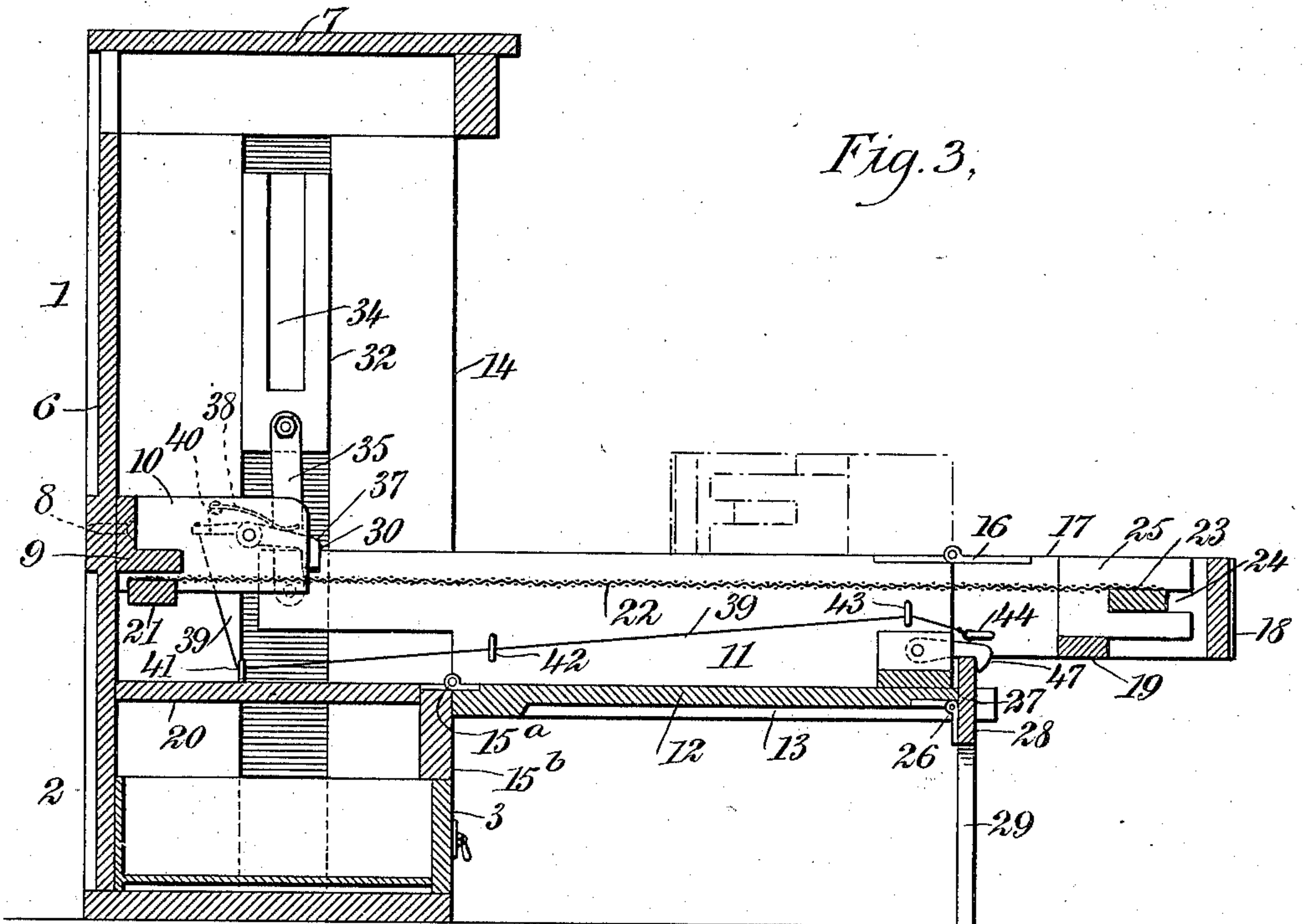
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UNITED STATES PATENT OFFICE.

MAX BENZ, OF NASHVILLE, TENNESSEE.

FOLDING BEDSTEAD.

SPECIFICATION forming part of Letters Patent No. 741,446, dated October 13, 1903.

Application filed March 26, 1903. Serial No. 149,665. (No model.)

To all whom it may concern:

Be it known that I, MAX BENZ, a citizen of the United States, and a resident of Nashville, in the county of Davidson and State of Tennessee, have invented a new and Improved Folding Bedstead, of which the following is a full, clear, and exact description.

This invention relates to folding bedsteads; and it consists, substantially, in the improvements herein particularly described and claimed.

The invention has for its principal object to provide a folding bedstead which is readily portable for shipment or storage and one which occupies but small space in either position thereof, besides being comparatively light in weight and composed of comparatively few parts of simple construction and organization.

A further object is to provide a bedstead of this character which is both effective and reliable in use and one which may be readily manipulated with small exertion on the part of the operator.

A still further object of the invention is to provide a folding bedstead which is comparatively inexpensive to manufacture and one which may be carried into and out of position for use without noise or friction, besides possessing the capacity for long and repeated service.

The above and additional objects are attained by means substantially such as are illustrated in the accompanying drawings, in which—

Figure 1 is a view in perspective showing my improved bedstead in its folded condition. Fig. 2 is a vertical transverse sectional view thereof, showing more clearly the position assumed by the several elements or members of the bedstead when the latter is folded up. Fig. 3 is a similar view to Fig. 2, showing the position assumed by the several elements or members of the bedstead when the latter is lowered to position for use; and Fig. 4 is a top plan view, partly in section.

Preliminarily to a more detailed description it may be stated that my improvements comprise substantially a cabinet of general rectangular structure, the same having a base of suitable height and being open at the front

and also preferably closed at the back. Interiorly of this cabinet a stationary head-rest is located, while the bedstead proper is of special construction or embodiment, whereby the same may be lowered into position for use and again folded into small compass and carried or turned upwardly into the cabinet. The principal part of the movable structure is received within the cabinet, while the said structure is provided with a bottom or panel closing the under side thereof, and which panel when the movable structure is in its raised or elevated position also completely closes the open front of the cabinet, thereby concealing the presence of the bedstead and imparting to the cabinet the ordinary appearance of such articles of furniture. I employ a main bed-section and an auxiliary or foot section, and I also employ special means for automatically locking the said main section in the downward or unfolded position thereof, these locking means having connections therefrom to the said auxiliary or foot section, whereby on folding up the said latter section the said locking means are released to permit the entire bed structure to be carried to its upward position within the cabinet, all substantially as will be more fully explained hereinafter.

While I have herein represented a certain preferred embodiment of my improved folding bedstead, it will be understood that I am not limited to the precise details thereof in practice, since immaterial changes therein may be resorted to coming within the scope of my invention.

Specific reference being had to the accompanying drawings by the designating characters marked thereon, 1 represents a stationary structure approximating an ordinary cabinet in form, the same having a base 2, in which is preferably fitted to slide in and out a drawer 3, said base being of any desired height and having flush with the end sections 4 thereof the side walls 5 of the cabinet. The rear side of the cabinet may be closed at 6 for practically the full height of the stationary structure, and supported upon the upper edges of the said side walls 5 is a cap or top piece 7, which may be either plain or of any desired ornamentation.

Secured in any suitable manner to the inner surface of the back 6 of the cabinet (or at the head end of the bed)—as by screws 8, for instance—is a stationary frame 9, having at each end thereof a forwardly-projecting branch 10, the said frame being preferably (though not essentially) employed, by which proper inclination or elevation may be given to the pillows of the bed; but the said branches 10 of this frame are for a special purpose, as presently explained.

The foldable structure of the bedstead consists of a main section constructed of duplicate parallel side rails 11 11, to the edges 12 of which is secured a panel 13, which when the said foldable structure is in its elevated position within the cabinet serves to completely close the open front 14 of said cabinet, (see Fig. 2,) the side edges 15 of said panel (in the closed position of the bed) being flush with the outer surfaces of the said side sections 5 of the cabinet, as shown, said panel being hinged at 15^a to the upper edge of the front 15^b of the base above the drawer 3. Hinged to the outer ends of said side rails 11, at 16, are the shorter parallel side rails 17 of the auxiliary or foot section of the bedstead, the outer ends of said shorter rails being connected by a brace 18, and also connecting these rails is an additional strengthening-brace 19.

The upper part of the base 2 of the cabinet is closed by a top piece therefor, (indicated at 20,) thus preventing any portion of the mattress or bedclothes from protruding within said base or the drawer therein, and extending between the members 10 of the frame 9 and beneath said frame is a rigid cross strip or bar 21, to which the supporting-wires of an ordinary wire mattress 22 are connected at one end, the other end of such mattress being likewise connected to another cross strip or bar 23, the ends of which are held or supported between the upper and lower sides of notches 24, formed in supporting-brackets 25, attached or secured to the inner sides of the shorter side rails 17 of the said foot-section of the bedstead.

Hinged at 26 to the free longitudinal edge 27 of the panel 12 is a strip 28, formed at each end thereof with a supporting-leg 29 for the outer part of the structure when the latter is turned down or unfolded for use, said strip being so hinged as to be capable of being turned flatwise against the outer side of said panel when the latter is in its upright position. (See Fig. 1.)

The inner end of each of the main side rails 11 is notched on its upper edge to form a shoulder 30, and said ends are free to work vertically in the spaces between the adjacent surfaces of each of the side sections 5 of the cabinet and the corresponding branch 10 of the stationary frame 9, and it will be observed that the said inner surfaces of the said side sections 5 are each formed with a verti-

cal groove 31, in which works a vertically-slidable weight 32, the sides of said groove each being undercut to receive corresponding vertical flanges 33 on said weights. The said weights 32 are each preferably slotted or recessed at 34 for the reception of blocks or other media (not shown) to lend additional weight thereto, if desired, and movably connecting the lower end of each weight with the outer side of the adjacent notched end of the corresponding main side rail 11 is a link 35. (See more especially Figs. 2 and 3.)

Pivotally mounted at 36 on the outer side of each branch 10 of the frame 9 is a dog or detent 37, which is normally acted upon by a spring 38 to be depressed at the headed end thereof, and when the main section of the bedstead is lowered for use the said headed ends of these dogs or detents engage the shoulders 30 of the rails 11, so that it is practically impossible to again lift or raise the said section until such engagement is released. For this latter purpose any suitable means may be employed—such, for instance, as a cord or wire 39, connected at one end to the tailpiece 40 of each detent or dog, thence passed through eyes or guides 41 and 42, secured to the top piece 20 of the base and the inner surface of the corresponding side rail 11, respectively, whence said cord or wire is passed through another eye or guide 43, also similarly secured to the side rail 11, and finally secured at its other end to a suitable eye or other means 44 therefor fastened to or projecting from the inner side of the corresponding side rail 17 of the hinged foot-section of the bedstead. In this way it will be seen that at a given point (greatest radius) in the arc of the circle described by the said eyes 44 on folding the hinged foot-section upwardly the said cords or wires will be drawn upon in a manner to release the said dogs or detents 37 from engagement with the said shoulders 30, whereupon the entire foldable structure may be carried to the position shown in Figs. 1 and 2. When in its closed position, the said foldable structure will be held thereto either of its own weight or by means of the slidable weights 32, as is apparent, although I may employ a suitable locking device (not shown) for this purpose, if so desired. Said weights assist in both the folding and unfolding movements necessary to be imparted to the structure, as is apparent, and it is also apparent that on lowering the said structure the shoulders 30 will ride the under surfaces of the headed ends of the dogs or detents, thereby elevating such ends sufficiently to allow said shoulders to pass, whereupon the springs will again react to force the dogs or detents in engagement with the shoulders in the manner already explained.

For the purpose of engaging the connecting-strip 28 for the legs 29 when the bedstead is turned down or unfolded I prefer-

ably employ pivoted hooked pawls 47, mounted on the inner faces of the side rails 11, said pawls readily yielding to enable said strip and legs to be turned against the sides of the
 5 said panel 13, as also shown in Figs. 1 and 2.

As before stated, I am not limited in practice to the specific construction and organization of elements herein specifically described.

10 If desired, the spaces in which the weights work may be closed by a cover or panel, as is apparent, thereby concealing the weights from view when the bed is lowered into position for use, and it will be understood that
 15 to pack the bed for shipment or transportation the frame 9, the back 6, the mattress, and the top piece 7 are separated and the back 6 lifted out, and these parts may be so laid together as to occupy but a small space.

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

1. A folding bedstead comprising a cabinet having a hinged panel for closing the front of
 25 the same, a frame secured to the back of said cabinet within, having forwardly-projecting branches at the ends thereof, a spring-pressed dog pivoted to the outer side of each of such branches, and parallel side rails having sup-
 30 ports for the outer ends thereof when lowered, said rails being formed at the inner ends thereof with shoulders which are automatically engaged by said dogs to secure the rails in their lowered position.

35 2. A folding bedstead comprising a cabinet having a hinged panel for closing the front of the same, a frame secured to the inner side of the back of said cabinet, having forwardly-projecting branches at the ends thereof, a
 40 spring-pressed dog pivoted to the outer side of each of such branches, parallel side rails, having supports for the outer ends thereof when lowered to substantially horizontal position, said rails being formed at the inner
 45 ends thereof with notches and shoulders, the latter being automatically engaged by said dogs to secure the rails in their lowered position, and means for automatically releasing such engagement on again elevating the side

rails to position within the cabinet, said 50 means being constituted of cords attached to one end of said dogs, thence extending along the side of the side rails, and being attached at the other ends thereof to said supports.

3. A folding bedstead comprising a cabinet 55 having a hinged panel for closing the front of the same, a frame secured to the inner side of the back of said cabinet, having forwardly-projecting branches at the ends thereof, a
 60 spring-pressed dog pivoted to the outer side of each of such branches, parallel side rails provided with a foldable foot-section for supporting the outer ends thereof when lowered to substantially horizontal position, said rails
 65 being formed at the inner ends thereof with shoulders which are automatically engaged by said dogs to secure the rails in their lowered position, vertically-slidable weights co-operating with the rear ends of said side
 70 rails, and cords connected at one of their ends to said dogs, thence extending alongside the side rails and connected at the other ends thereof to said foot-section.

4. A folding bedstead comprising a cabinet 75 having a panel for closing the front of the same, a frame secured to the inner side of the back of said cabinet, having forwardly-projecting branches at the ends thereof, parallel
 80 side rails having a foldable foot-section for supporting the outer ends thereof when lowered to substantially horizontal position, devices on said branches engaging with the inner ends of said side rails to secure the latter in their lowered position, and means for
 85 automatically releasing such engagement on raising the side rails to vertical position within the cabinet, said means being constituted of cords connected at one of their ends to said
 90 devices, thence extending alongside said side rails and secured at their other ends to the said foldable foot-section.

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

MAX BENZ.

Witnesses:

M. C. JENSEN,
 MAX BENZ, Jr.