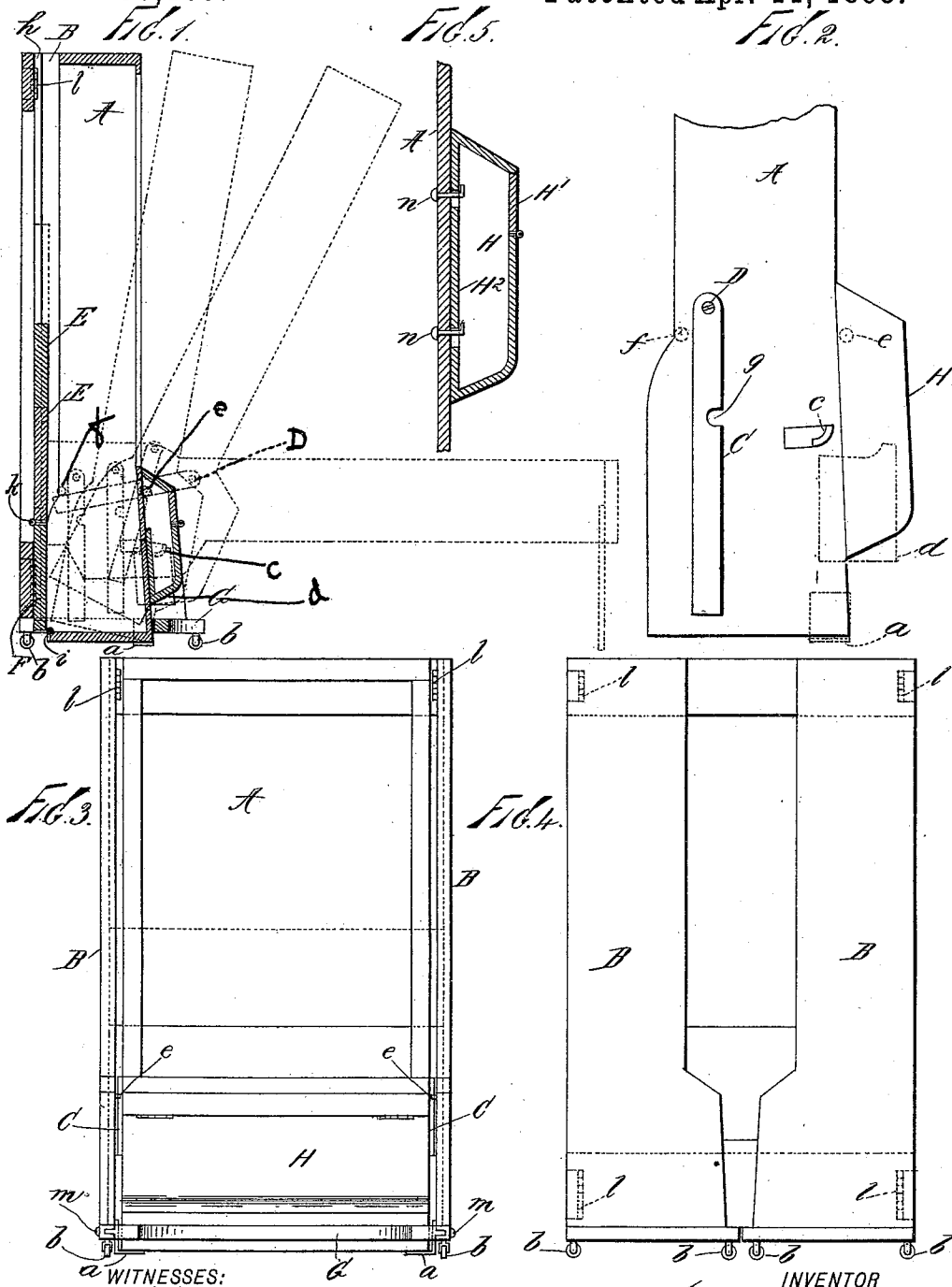


(No Model.)

J. DAVID.
FOLDING BED.

No. 495,109.

Patented Apr. 11, 1893.



WITNESSES:
John Buckler,
Chas. J. Morgan

INVENTOR
Jacob David,
BY *Wm. C. Osgood,*
ATTORNEY.

UNITED STATES PATENT OFFICE.

JACOB DAVID, OF BROOKLYN, NEW YORK.

FOLDING BED.

SPECIFICATION forming part of Letters Patent No. 495,109, dated April 11, 1893.

Application filed July 2, 1892. Serial No. 438,777. (No model.)

To all whom it may concern:

Be it known that I, JACOB DAVID, of Brooklyn, county of Kings, and State of New York, have invented certain new and useful Improvements in Folding Beds, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention relates to that class of beds or bedsteads wherein the structure is composed of a stationary and a movable part admitting of the folding or turning up of one part to economize in floor space when the bed is not in use. These structures are commonly known under the general name of folding beds, although particular varieties take special names from the articles they most nearly resemble, as wardrobe bedsteads, mantel beds, sofa beds, &c.

My present improvements are applicable to the various forms of folding beds, the wardrobe variety being selected for illustration herein merely for convenience.

The object of my invention is, to provide a simple and reliable means of hinging the movable part upon the stationary part or casing in such manner that the bed may be raised or lowered from any point with very little exertion, admitting of the easy separation of the two principal parts when desired, and preserving economy of floor space required for the structure. To accomplish all of this and to secure other and further advantages in the matters of construction, operation and use, my improvements involve certain new and useful features of invention, as will be herein first fully described and then pointed out in the claims.

In the drawings, Figure 1 is a sectional elevation of a wardrobe bedstead constructed and arranged for operation in accordance with my invention and involving my improvements, the bedstead being represented in full lines in its closed or folded position, the dotted lines indicating different positions of the parts assumed as the bed is lowered or opened. Fig. 2 is a view in side elevation, on a larger scale than Fig. 1, showing a portion of the movable part with the hinge attachments in place thereon, the position of the corresponding attachments which belong

on the stationary part being indicated in dotted lines. Fig. 3 is a front elevation of the improved bed. Fig. 4 is a front elevation of the standing or stationary part as it appears when the sides are folded in position for moving or carrying. Fig. 5 is a sectional view showing the detachable receptacle applied upon the front of the bed.

In all the figures, like letters of reference wherever they occur, indicate corresponding parts.

A is the bed or movable part, which when in place, is so hinged upon the other part that it may be raised or lowered at will to close or open the article of furniture and yet so that it may be readily detached from the other part when it is desired to separate the two.

B, B, are the side pieces of the standing or stationary part.

Wood is most commonly employed in the manufacture of this class of furniture but obviously metal may be used if desired. Upon the side pieces B B and projecting inwardly therefrom at the lower and front portions I secure substantial ledges *a a* calculated to sustain the weight of the bed when up and to permit the bed to be turned thereon as on a fulcrum. These ledges sustain the bed in close proximity to the floor so as to economize as much as practicable in the matter of height and yet they do not allow the bed to touch the floor, being located just above the lower surfaces of the casters *b b*.

Upon the sides of the bed are secured suitable blocks as *c* and upon the inner faces of the sides B are abutments *d* so located as to receive the blocks *c* and through them to sustain the bed and permit it to turn upon the new hinge thus supplied. The bed being lowered from its vertical position shown in Fig. 1. to the next position indicated by the dotted lines turns upon the ledges *a* until the blocks *c* strike the abutments *d*. During this movement, which is short, the bed is very nearly balanced and is quite easy to move, but, as will be readily seen, if its opening movement should be continued upon the same axis, the weight to be controlled by the hand would increase very rapidly until the lowest position was reached. But by further lowering, the bed leaves the ledges *a* and commences to turn upon the abutments *d*. The

hinge axis or line about which the bed then turns being considerably removed from the former axis or brought nearer to the center of gravity of the moving part, the bed is of course nearly balanced for another portion of its path and in this portion may be controlled as easily as before. Above the level of the abutments *d* on the inside of the side pieces I secure strong pins as *e* and *f*, and upon the sides of the bed I mount freely swinging bars or levers C. C. These levers may be of wood or metal and are located in the spaces between the side pieces B and the sides of the bed, occupying very little room so that the structure may be made as compact in width as possible.

When the bed is lowered about as far as the second position indicated by the dotted lines in Fig. 1 the levers C strike upon pins *e* and under pins *f*, their further movement being thereby arrested. Then the bed turns upon the bolts or screws D through the ends of the levers, the hinge axis being thus transferred still farther toward the center of the bed, enabling one to lower the bed to its final position with as little exertion as before.

In elevating the bed or closing it, the improved appliances afford like advantages in transferring the line of movement and support from one position to another, so that the bed is always well balanced and moves with very little resistance in either direction and from any point. The levers C are notched as at *g*. The notches engage the pins *e* at the proper time and serve to lock the bed to the casing so that the parts are in no danger of being separated when the bed is down.

The weight of the bed is counterbalanced to a great extent by pieces as E. E. (any number of which may be used) fitted to slide up and down in grooves provided for them in the side pieces B as at *h*. The pieces E are connected with the head of the bed by an intermediate piece F hinged as at *i* and *k* but this intermediate piece does not run in the grooves *h*. The counterbalancing pieces form the upper portion of the head board when the bed is down, as is common in this class of beds and in the variety known as wardrobe beds. To support the outer end of the bed when in its lowermost position any form of leg or legs may be supplied, the position of one being indicated in dotted lines at the final position of the bed in Fig. 1, but omitted from other parts of the figure.

The folding bed is not only a heavy article of furniture but difficult to move or carry

when assembled, on account of its size and inconvenient form. To separate the bed from the stationary part has heretofore involved the dismantling of the hinges upon which the bed was mounted and this was difficult and unhandy. The hingemountings herein described admit of the separation of the two main parts of the structure without any difficulty whatever further than lifting one away from the other after removing the axis pin from the hinge *k*, which pin is the only piece connecting or locking the two parts one to the other when the bed is turned up. I hinge the side pieces B to the frame of the back of the stationary part as at *ll* so that they may be turned flat against the back as shown in Fig. 4. When in position for sustaining the bed, the side pieces B are braced by a strip G connected with the lower margins of pieces B by a mortise and tenon joint as shown in Fig. 3, the joint being made secure by any easily operating fastening, as by the wood screws at *m m* entering the strip G from the exterior, or by other suitable means.

Upon the lower front portion of the bed I mount a box or receptacle H. It is provided with a hinged lid as H' and has a solid back H² which is perforated to receive supporting hooks as *n n* connected with the front of the bed.

Having now fully described my invention, what I claim as new herein, and desire to secure by Letters Patent, is—

1. In a bed provided with hinge supports at varying distances from the base and comprising a stationary part and a movable or folding part, the levers pivoted upon the movable part combined with the pins fixed upon the stationary part, said pins being arranged to arrest the movement of the levers and through them to sustain the bed, substantially in the manner and for the purposes set forth.
2. In a bed comprising a stationary part and a movable or folding part, the levers pivoted upon the movable part combined with the pins fixed upon the stationary part, said levers being notched to form a lock with the pins, substantially as and for the purposes set forth.

In testimony that I claim the foregoing I have hereunto set my hand in the presence of two witnesses.

JACOB DAVID.

Witnesses:

W. J. MORGAN,
WORTH OSGOOD.