

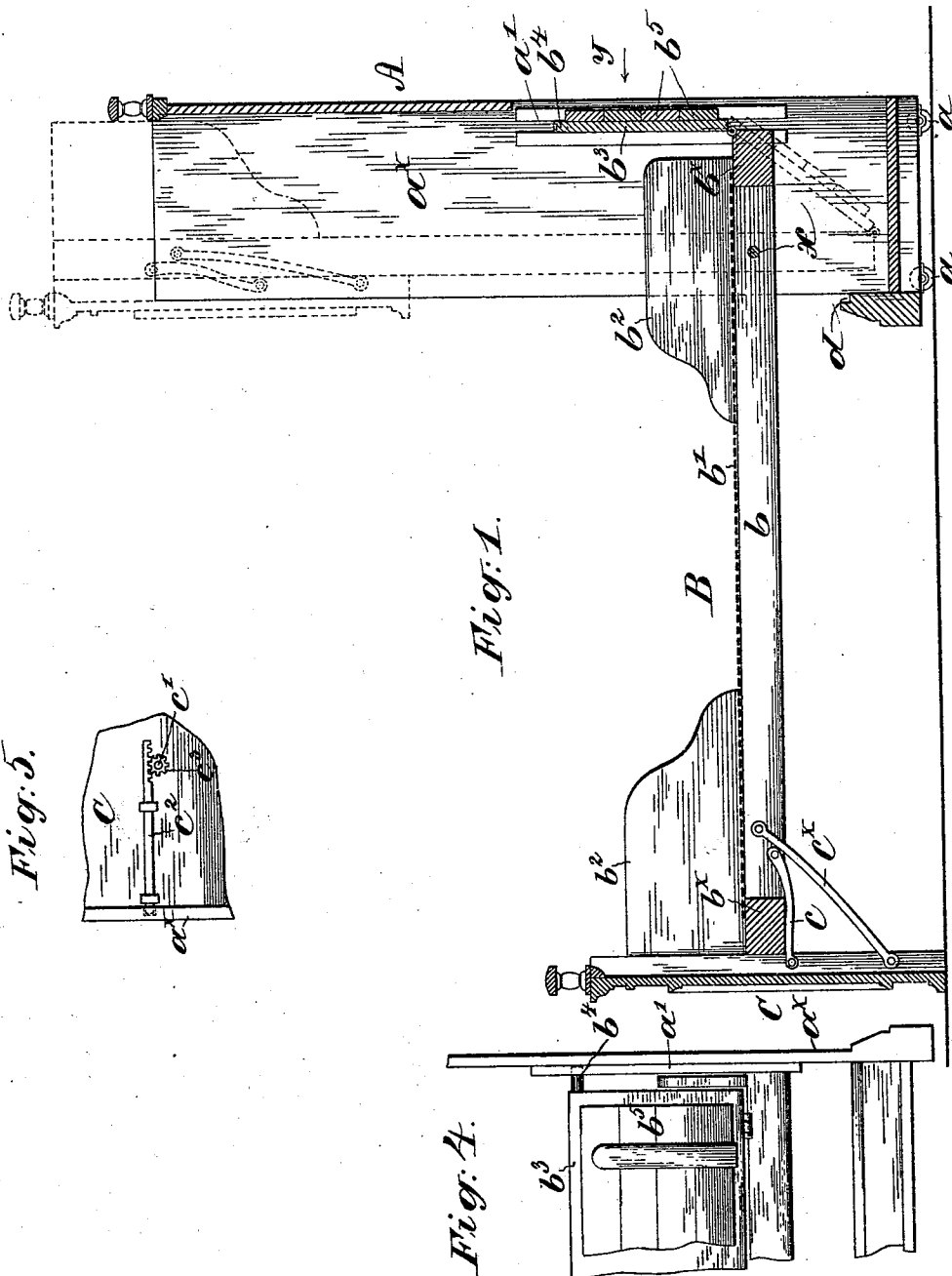
(No Model.)

3 Sheets—Sheet 1.

J. P. HAYES.
FOLDING BED.

No. 520,779.

Patented June 5, 1894.



Witnesses:
T. H. H. H. H.
Peter H. Ross.

Inventor:
James P. Hayes.
by Henry H. H. H.
his Attorney

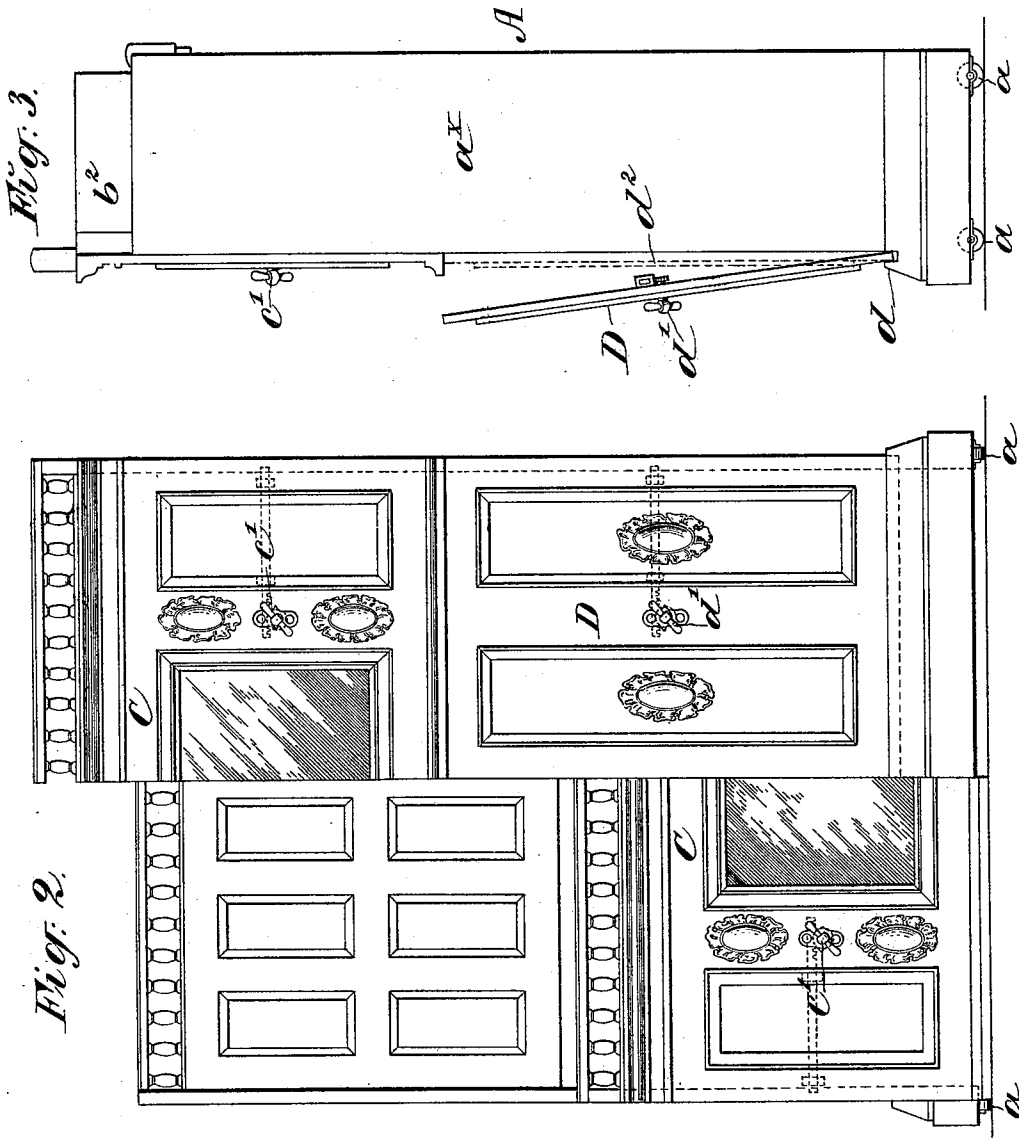
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3 Sheets—Sheet 2.

J. P. HAYES.
FOLDING BED.

No. 520,779.

Patented June 5, 1894.



Witnesses:
J. W. H. H. H. H.
Peter A. Ross

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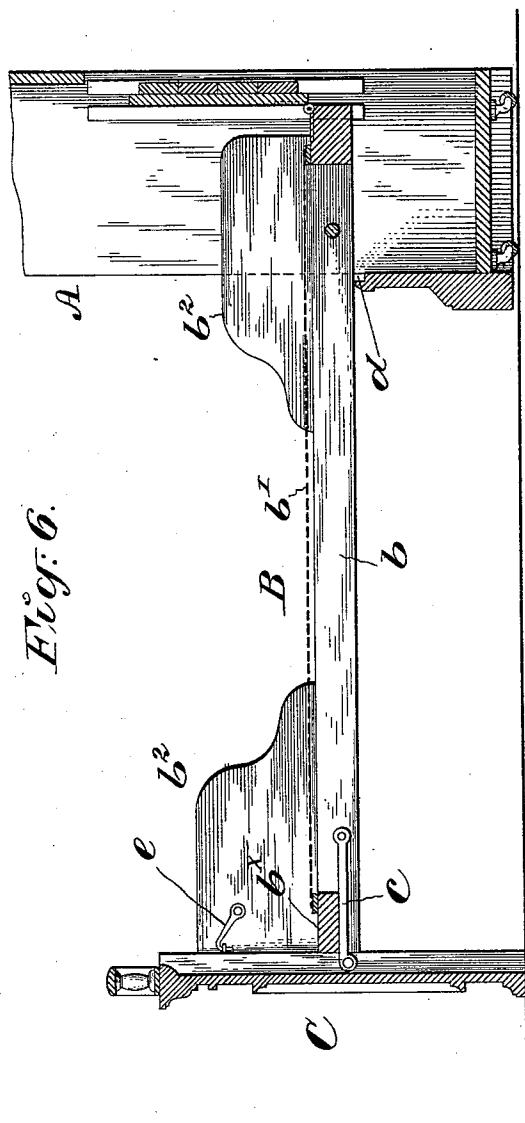
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3 Sheets—Sheet 3.

J. P. HAYES.
FOLDING BED.

No. 520,779.

Patented June 5, 1894.



Witnesses:
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Inventor:
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UNITED STATES PATENT OFFICE.

JAMES P. HAYES, OF MOUNT VERNON, NEW YORK.

FOLDING BED.

SPECIFICATION forming part of Letters Patent No. 520,779, dated June 5, 1894.

Application filed June 29, 1893. Serial No. 479,114. (No model.)

To all whom it may concern:

Be it known that I, JAMES P. HAYES, a citizen of the United States, and a resident of Mount Vernon, in the county of Westchester and State of New York, have invented certain new and useful Improvements in Folding Beds, of which the following is a specification.

My invention relates to the class of folding or wardrobe beds, and particularly to that class of such beds in which the support for the foot of the bed-body, when turned or pulled down, is hinged or movably connected to the said bed-body.

The object of the invention is, in part, to provide a simple, inexpensive and compact bed, and in part to provide a combined foot-board and support which will form a part of the cabinet finish or front of the bed when the latter is turned up.

The invention will be fully described hereinafter and its novel features carefully defined in the claims.

In the accompanying drawings I have illustrated an embodiment of my invention.

Figure 1 is a vertical, longitudinal mid-section of the bed, as it appears when the bed-frame is turned down for use. In this view the bed-frame as it appears when folded up in the standard is represented in dotted lines. Fig. 2 is a front view of the bed; the right-hand side of this view represents the bed as it appears when the bed-frame is folded up, and the left-hand side shows it as it appears when the bed-frame is turned down for use. Fig. 3 is a side view of the folded bed with the front-board only partly in place. Fig. 4 is a fragmentary view of the bed from the point indicated by arrow *y* in Fig. 1. Fig. 5 is a view of the fastening device for the foot-piece and front-board. Fig. 6 is a view illustrating slight variations in the structure of the bed.

A represents the standard of the bed, provided with casters *a*.

B is the folding bed-frame (as a whole) pivotally hung at *x*, in the sides, *a*^x, of the standard. The main portion of the bed-frame consists of the side-rails, *b*, end-rails, *b*^x, woven wire fabric, *b'*, strained over the frame in a well known way, and elevated sides, *b*², at the head and foot, mounted on the side-rails

b. To the head of the bed-frame B is hinged a head-board, *b*³, which has studs, *b*⁴, at its upper corners (see Fig. 4) that engage and play in keepers, *a'*, fixed on the sides *a*^x of the standard A. On the back of the head-board *b*³, are weights, *b*⁵, to counter-balance the bed-frame and bedding.

C is a foot-piece which serves the purpose of a foot-board and legs, when the bed-frame is down, as represented in full lines in Fig. 1, and which forms the upper part of the front of the bed when the bed-frame is folded up into the standard, as indicated in dotted lines in the same figure. This foot-piece C is connected to the bed-frame B in a peculiar manner, as will be described, *c* and *c*^x, are two metal hinging links, pivotally attached to the side-rail *b* of the bed-frame at one end, and to the foot-piece C, at the other end. These links are of different lengths, and are so arranged as to their points of attachment that when the bed-frame B is turned down to a horizontal position, the foot-piece C will stand in a vertical position; the shorter link *c* will take under the foot end-rail *b*^x of the bed-frame and form a firm support for the foot of the frame and the longer link, *c*^x, forms a diagonal brace, as clearly shown. The effect of this construction is to cause the pressure downward on the bed-frame to hold the foot-piece C up tightly against the bed-frame, and to keep the foot-piece firmly in its upright position. There will be a pair of these links at each side-rail *b* of the bed-frame. When the operator wishes to fold the bed, he seizes the handles *c'*, on the foot-piece and lifts. As the bed-frame goes up the foot-piece maintains its upright position but draws downward, swinging the links *c* and *c*^x about the points where they are pivoted to the respective rails *b*, until, when the bed is folded into the standard, the foot-piece folds in against it, the links being then substantially parallel with each other, and the top of the foot-piece about a level with the upper end of the bed-frame, as clearly seen in the dotted lines in Fig. 1. The lowering of the foot-piece is very important, as otherwise it would project far above the top of the folded bed-frame. When so folded up the foot-piece forms the upper part of the bed-front, as seen at the right in Fig.

2, and it may be ornamented with mirrors, carvings, paneling, &c. The operator locks or fastens the foot-piece in the standard by means of the handles c' , which, by rotation, shoot bolts into sockets in the sides a of the standard A. Fig. 5, which represents a part of the inner face of the foot-piece, shows how these bolts, c^2 , may be operated through the medium of a pinion, c^3 , on the spindle of the handle c' , the teeth of which engage rack-teeth on the bolt. This form of fastening device has no special novelty and I make no claim to it, nor do I limit myself to any particular form of fastening device for the foot-piece C.

When the bed-frame is folded up into the standard and secured in place, the space below it, which would otherwise be open, is closed by a removable front piece, D. The lower edge of this front-piece is set in a keeper, d , formed in the base of the standard A, and then pushed back into place where it is locked or secured through the medium of handles, d' , and bolts, d^2 , (see Fig. 3) similar to those seen in Fig. 5, or indeed of any suitable kind; I do not limit myself in this respect. In Fig. 3 the front-board D is represented in place in dotted lines, the full lines representing the mode of placing it. This front-board is capable of being highly ornamented; and it will, by preference, correspond in ornamentation with the foot-piece C.

The back-board, e , of the standard extends down to meet the top of the head-board, in the position the latter assumes when the bed-frame is pulled down, as clearly shown in Fig. 1. This back-board e may be paneled or otherwise ornamented as seen at the left in Fig. 2.

In Fig. 6 I have shown some slight variations in the construction of the bed which come within the scope of my invention. I prefer to employ the links c^x , as well as the links c , as the former serve to aid the operator in steadying the foot-piece C when he is folding up or pulling down the bed-frame, and as a brace for the foot-piece when the bed-frame is down, but the bed-frame could be operated with the links c only, as shown in Fig. 6, hooks, e , or other equivalent fastenings being provided to secure the foot-piece to the side-boards b^2 , when the bed is down. The single pair of links c will serve to lower the foot-piece when the bed-frame is folded up. Fig. 6 also shows the base in which the groove d is formed extended up higher than as seen

in Fig. 1. This construction lessens the size of the removable front-piece D.

I do not limit myself to any special means for mounting the folding bed-frame in the standard as there are many known means commonly employed for the purpose.

Having thus described my invention, I claim—

1. In a folding bed, the combination with a standard, a folding bed-frame mounted therein, and means for counterbalancing the bed-frame and bedding, said bed-frame having elevated side-boards b^2 , on its rails, of a foot-piece C, connected to the bed-frame by links which take under and support the rail of the bed-frame when the foot-piece is folded up against the ends of the side-boards b^2 , the said links, and means for holding the foot-piece up firmly to the said side-pieces when the bed-frame is down.

2. In a folding bed, the combination with a standard, a folding bed-frame mounted in the same, and means for counterbalancing the bed-frame and bedding, of a foot-piece C, connected to the bed-frame by pairs of links, each pair consisting of a supporting link c , which takes under the end rail b^x of the bed-frame, and a link c^x , which forms a diagonal brace when the bed-frame is down, and the said pairs of links, substantially as set forth.

3. In a folding bed, the combination with a standard, a bed-frame mounted in the standard and means for counterbalancing the bed-frame and bedding, of the foot-piece C, connected to the bed-frame by links, whereby it forms the upper part of the front of the bed, the said links, and the removable front-board D, all arranged substantially as set forth.

4. A folding bed comprising a standard, a folding bed-frame mounted in said standard, a foot-piece connected to the bed-frame by links, whereby it forms the upper part of the front of the bed when the bed-frame is folded, and a removable front-board D, which occupies the space between the base of the standard and the lower edge of the foot-piece, said front-board being provided with fastening devices, as set forth.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

JAMES P. HAYES.

Witnesses:

HENRY CONNETT,
JAMES K. DUFFY.