

(No Model.)

J. DAVID.  
FOLDING BED.

No. 428,200.

Patented May 20, 1890.

FIG. 1.

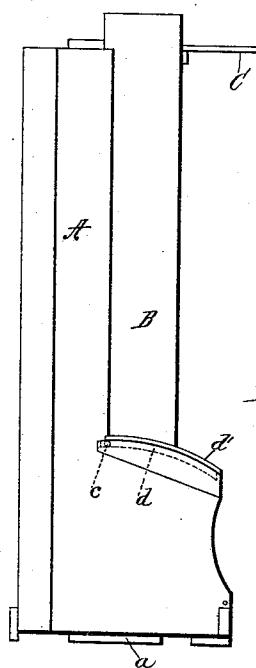


FIG. 2.

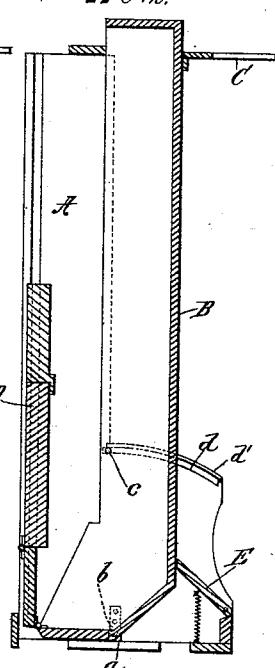


FIG. 3.

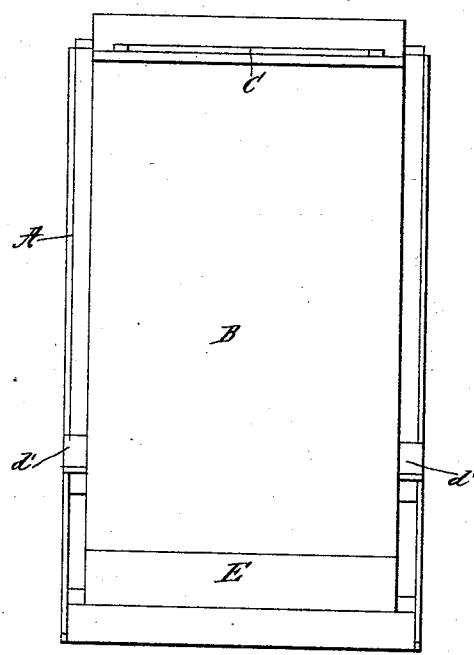


FIG. 4.

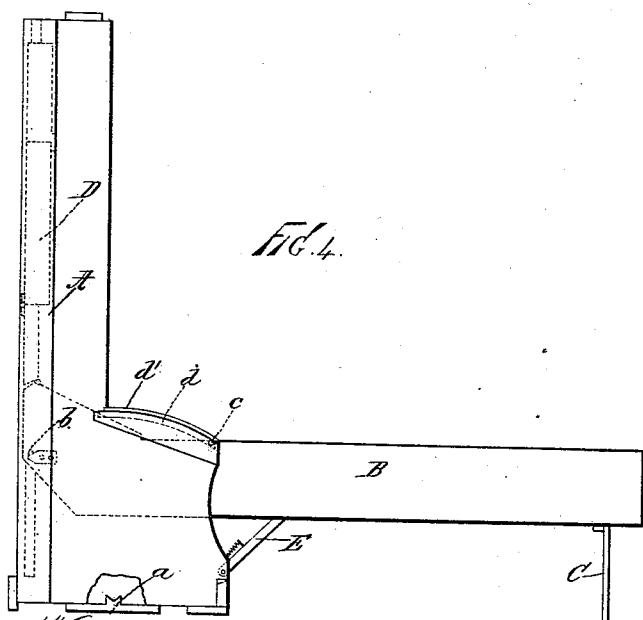
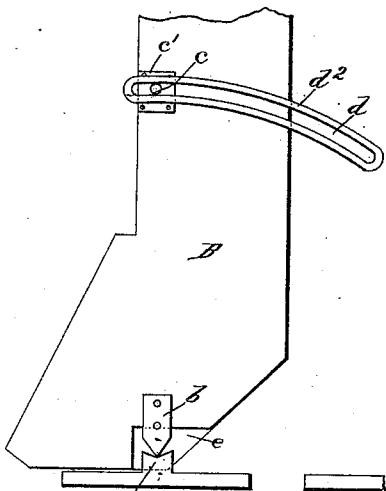


FIG. 5.



Witnesses:

John Buckle,  
L. H. Osgood,

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Jacob David,  
By Worth Osgood  
Attorney.

# UNITED STATES PATENT OFFICE.

JACOB DAVID, OF BROOKLYN, NEW YORK.

## FOLDING BED.

SPECIFICATION forming part of Letters Patent No. 428,200, dated May 20, 1890.

Application filed December 11, 1889. Serial No. 333,307. (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.

10 My invention has relation to that class of beds or bedsteads wherein the structure is composed of parts or sections, one or more of which is intended to be folded or turned up lengthwise or edgewise, so as to economize 15 floor-space when the bed is not in use. These are all known as "folding beds," though particular varieties sometimes take their names from other articles of furniture which they most nearly resemble, as wardrobe-bedsteads, 20 mantel-beds, &c.

My present improvements are applicable to all forms of these folding beds.

The chief objects of my invention are to provide simple, cheap, durable, and effective 25 means of hinging or mounting the movable part upon the stationary part or casing and in such manner that all the desired adjustments may be easily made, so that the bed will move or swing close to the base and rest 30 close to the casing at back and sides, thus economizing in height, in depth from back to front, and in width from side to side of the casing; and, further, to make the hinge-fittings or appliances so that they may be easily 35 and quickly mounted in place without interfering with the fair appearance of 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 40 peculiarities of construction and arrangements or combinations of parts, as will be herein first fully described, and then pointed out in the claims.

45 In the accompanying drawings, forming part of this specification, I have shown at Figure 1 a side view; at Fig. 2 a vertical section and elevation, and at Fig. 3 a front view of a wardrobe-bedstead constructed and arranged for operation in accordance with my 50 invention and involving my improvements,

the bed being shown in its upturned or closed position. Fig. 4 is a side elevation showing the bed lowered from the casing or opened in position for use. Fig. 5 is a view of a fragment on a larger scale than previous figures and illustrating details in elevation.

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

A is the casing or stationary part, which may or may not be mounted on casters or rollers. It is usually made of wood and as light as is consistent with its required durability and stability.

B is the bed or movable part, which is so hinged or mounted that it may be raised or lowered at pleasure to close or open the piece of furniture.

As shown in Fig. 3, the bed is made so as to fit in between the side pieces of the casing, occupying practically all the space between those side pieces, there being no openings between said parts requiring to be covered or concealed. On the bottom of the casing and 75 on each side I mount a block, as a, projecting beyond the inside faces of the sides of the casing, and notched or indented on top to receive points or projections connected with the bed. The blocks a are preferably of metal, and 80 they are heavy and strong enough to bear the weight of the bed and any strain likely to be brought upon them. They are firmly fastened to the side pieces of the casing in any secure way.

Upon the sides of the bed and at the extremity thereof are points or projections b, which are let into the sides and there secured by screws or otherwise, so as not to add to the width of the bed. These points or 90 projections bear upon blocks a when the bed is up, and sustain its weight, and they form a kind of hinge-connection between the bed and casing, but one which is not permanent, as will be seen from the following.

Upon the sides of the bed are secured projecting pins c of ample strength. They may be in the form of studs projecting from plates, as c', which are let into the wood-work and there secured by screws, or they may be 100 mounted in any other substantial manner. These pins c ride in curved slots d, provided

in the sides of the casing, which at their lower parts project somewhat, as indicated in Figs. 1, 2, and 4. The curves of the slots are struck from the bearings on blocks *a* as centers, and 5 with radii equal to the distance from said bearings of the pins *c*.

When the top of the bed is lowered, the bed turns on the bearing-blocks *a*, as on hinges, until such times as the pins *c* reach the lower 10 ends of the slots *d*, when the hinge-axis is transferred to the line through the centers of the pins, and thereafter, in the farther downward movement of the bed, it must turn upon the pins. As soon as it commences to turn 15 on the pins the points *b* leave the bearings *a*. When down to a horizontal position, the bed is supported at one end by the casing and at the other by suitable legs, as *C*; which may or may not be hinged. The bed so hinged or 20 mounted is balanced by a head-board *D*, which is hinged to the head of the bed and rides up and down in suitable grooves in the side pieces. This head-board may be weighted as may be required.

25 *E* is a bottom board hinged to the casing and adapted to move with the bed, being provided with a suitable returning-spring, substantially as shown. It is used to conceal the lower part of the bed when turned up.

30 The curved slots *d* may be cut in the side pieces, or they may be formed by providing separate top pieces, as *d'*, which may be more or less ornamental, or a metallic piece, as *d''*, Fig. 5, having the curved opening *d* therein, 35 may be provided and let into the inside of the side pieces of the frame and there secured in any suitable way.

To enable the sides of the bed to pass the blocks *a*, they may be cut away, as shown at 40 *e*, when the bed will move without interfering with blocks *a*.

When the bed is up, all the weight is transferred directly to the lowermost part of the base, so that it is not liable to become accidentally lowered, and it will be seen that the hinge-axis on which the bed turns before reaching its final upright position is as close to the floor as is practicable to place it, by reason of which the length of the bed de-

termines the height of the structure, and any 50 additional height is in no way necessary. The bed is also by this means of hinging carried close to the back of the casing when turned up, so the casing need not be enlarged in either direction more than is necessary to 55 accommodate the moving parts. The pins *c* are placed at points distant from the head about one-third the length of the bed, and thus the head-board is only required to be weighted enough to balance one-third of the 60 weight of the bed.

Being constructed and arranged substantially in accordance with the foregoing explanations, the improved bed is of few and simple parts, all easily applied and easy of 65 operation and admirably calculated to answer the purposes or objects of the invention herein indicated.

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

1. In a folding bed, the stationary part or casing having the hinge-blocks at bottom and provided with curved slots, as explained, the movable bed carrying at the extremity of the 75 head-section points or projections for engagement with the blocks, and hinge-pins riding in the curved slots and turning in the bearings formed at the ends of said slots, combined and arranged substantially as shown. 80

2. In a folding bed, the stationary part or casing, the movable bed, the balancing head-board, hinge-blocks and curved slots, hinge-points mounted at the extremity of the head portion of the movable bed for engaging 85 with the said blocks, and hinge-pins riding in the curved slots and turning in the bearings at the ends thereof, all combined and arranged substantially as shown and described.

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

90 JACOB DAVID.

Witnesses:

JOHN BUCKLER,  
WORTH OSGOOD.