(No Model.)

2 Sheets—Sheet 1.

W. J. PYLE.

FOLDING BED.

No. 564,644. Patented July 28, 1896.

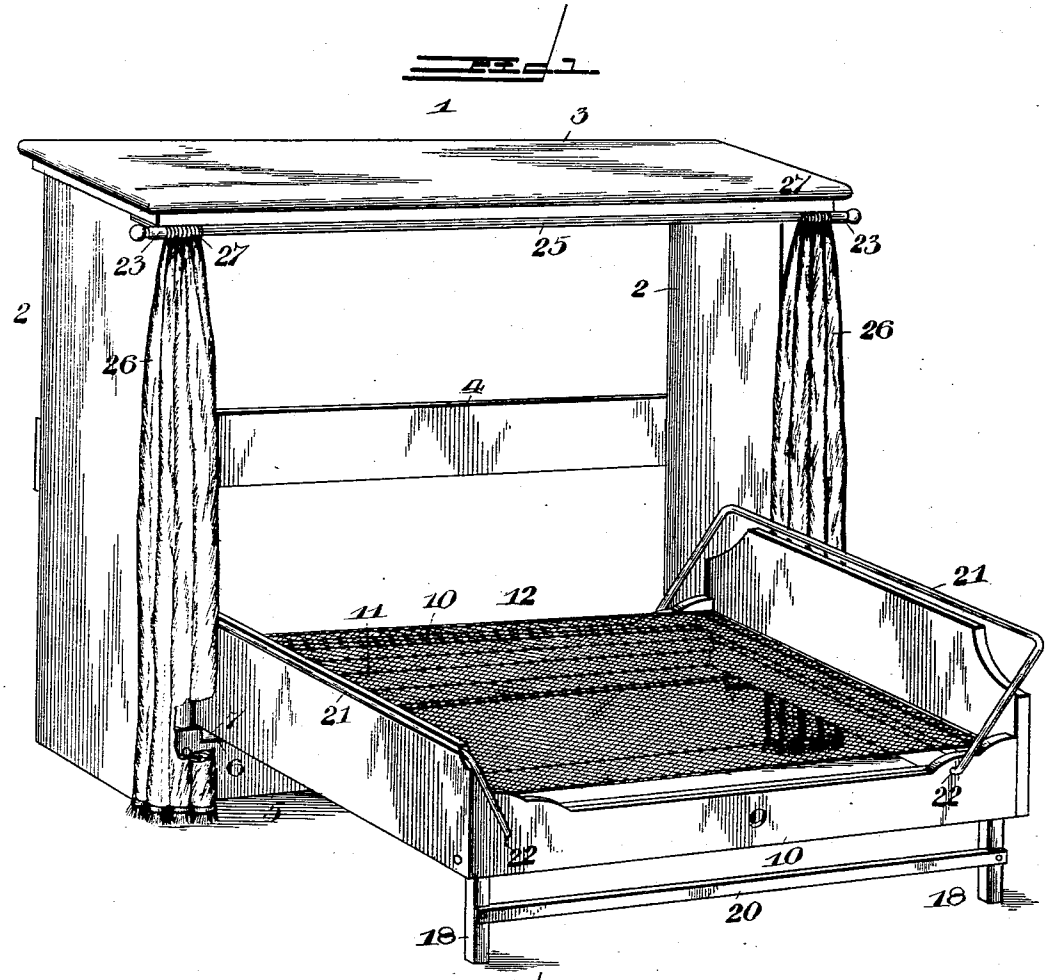
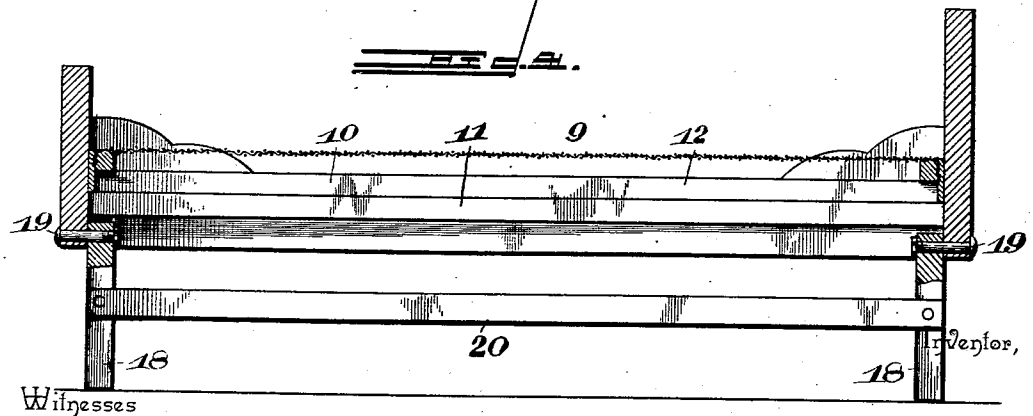


Fig. 4.



Witnesses
H. F. Doyle.
R. M. Smith.

Inventor,
By his Attorneys, William J. Pyle,
C. A. Snow & Co.

(No Model.)

2 Sheets—Sheet 2.

W. J. PYLE.

FOLDING BED.

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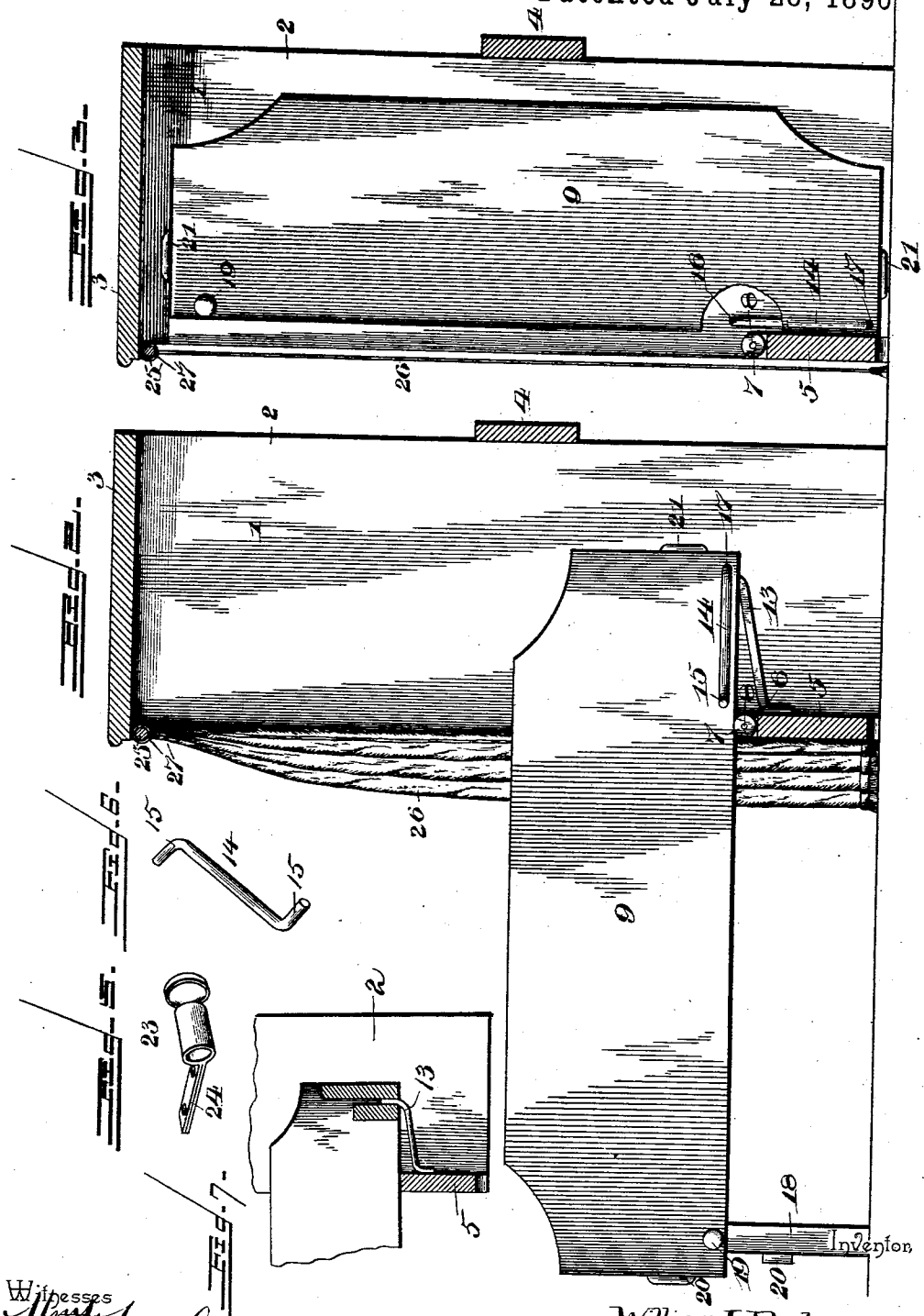

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By his Attorneys,
William J. Pyle,
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UNITED STATES PATENT OFFICE.

WILLIAM J. PYLE, OF CARTHAGE, MISSOURI, ASSIGNOR TO BENJAMIN F. HACKNEY, OF SAME PLACE.

FOLDING BED.

SPECIFICATION forming part of Letters Patent No. 564,644, dated July 28, 1896.

Application filed March 3, 1893. Serial No. 581,660. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. PYLE, a citizen of the United States, residing at Carthage, in the county of Jasper and State of Missouri, have invented a new and useful Folding Bed, of which the following is a specification.

This invention relates to an improvement in folding beds, and has for its object to provide a simple and convenient bed of the character referred to which shall occupy the space ordinarily taken by a mantelpiece, and have when finished and in place the general appearance of a mantel.

The principal object of the present invention is to mount the folding or swinging bed-frame with such relation to the stationary case that the operation of folding or unfolding the frame will be materially assisted by reason of one portion of the bed-frame counterbalancing the other portion, the particular form of hinge-rods between the swinging frame and the stationary frame contributing to the ease of operation.

Other objects and advantages of the invention will appear in the course of the subjoined description.

The invention consists in an improved folding bed embodying certain novel features and details of construction and arrangement of parts, as hereinafter fully described, illustrated in the drawings, and finally incorporated in the claim.

In the accompanying drawings, Figure 1 is a perspective view of the improved bed when folded down into operative position. Fig. 2 is a vertical transverse section through the same. Fig. 3 is a similar section with the parts in their folded positions. Fig. 4 is a longitudinal section through the bed-frame, showing the manner of mounting the hinged legs. Fig. 5 is a detail perspective view of one of the curtain-pole sockets. Fig. 6 is a detail perspective view of one of the crank-hinges. Fig. 7 is a detail section showing one of the flexible straps and the mode of its attachment.

Similar numerals of reference indicate corresponding parts in the several figures of the drawings.

Referring to the accompanying drawings, 1 designates a stationary upright frame, of open rectangular form, constructed, preferably, from hard wood and of a height corresponding as near as practicable to the height of an ordinary mantelpiece, and corresponding at the same time in height to the width of an ordinary bed.

The frame or case 1 is of a longitudinal extent slightly greater than the length of an ordinary bed, and is adapted to receive and have the latter folded within the same when not in use. The said stationary frame or case comprises the spaced end upright portions 2, the elevated cross-piece 3, forming the mantel, a horizontal connecting strip or brace 4 at the back, and a horizontal foot-piece 5, connecting the end portions 2 adjacent to their front bottom corners, as shown in the drawings.

At or near each end the foot-piece 5 is provided with notches or depressions 6, and within these notches or depressions are mounted supporting-rollers 7, journaled on short shafts or spindles 8, secured in any convenient manner in the foot-piece 5, the function of said rollers being to support the weight of the folding bed-frame and to assist in the operation of folding or unfolding the same.

9 designates the bed-frame, which is of the ordinary open rectangular form, the side rails 10 thereof being provided upon their inner adjacent surfaces with cleats 11, extending longitudinally thereof and forming horizontal ledges, upon which the bed-spring frame (indicated at 12) rests.

Any preferred form of bed-spring may be employed, the same being constructed so as to be entirely independent of the bed-frame 9, whereby the said spring may be removed and replaced at pleasure.

The folding bed-frame is connected to the stationary frame or case by means of flexible straps 13, of some such material as leather, attached at one end to the foot-piece 5 of the stationary case and at their other ends to the inner side rail of the folding frame. These straps arrest the downward movement of the folding frame when the latter is moved into the stationary case. In addition to the flexible straps I employ what may be termed

"crank-hinges" 14, one located at each end of the bed-frame. Each of these crank-hinges comprises a straight central portion and reversely-projecting terminal portions 15. One of the terminals 15 is inserted in a socket 16 adjacent to the front edge of one of the upright end portions of the stationary case at the point 16, and the other terminal of the crank is inserted in a socket 17 in the inner hinged end of the folding bed-frame 9, as shown. These crank-hinges not only control and direct the swinging movement of the folding bed-frame, but they also assist the straps 13 to support the said folding frame when in its closed position, and they also prevent the inward longitudinal movement of the swinging frame when in position for use. In the operation of swinging the bed-frame the bottom edges of the foot and head boards of the bed-frame would ride upon the upper edge of the foot-piece 5 of the stationary frame were it not for the antifriction-rollers 7, which, as above stated, support the weight of said folding frame and in addition thereto establish revolving fulcrums, upon which the folding frame is vibrated.

When in position for use, the bed-frame is supported, as to its outer swinging end, by hinged legs 18, located at the corners of the bed-frame and pivotally connected thereto by means of bolts 19, the said legs being interconnected by a horizontal brace 20, whereby the legs are caused to swing together. The legs 18 will assume a vertical position whether the bed-frame is in position for use or in its folded position, and under the latter adjustment will swing entirely within the plane of the front edges of the stationary end upright portions 2 of the frame 1.

21 designates a pair of bail-shaped clamping-frames, the same being composed, preferably, of sections of stout wire or rods bent into the forms shown and having their inturned terminals inserted in perforations or sockets 22 in the side rails of the bed-frame. Just previous to locking the bed-frame into its folded position the bail-frames 21 are vibrated inward toward each other, so as to press against and confine the bedclothing within the bed-frame, thus preventing the said bedclothing from being displaced when the frame 9 is folded within the stationary case. When the bed is in position for use, as shown in Fig. 1, the bail-frames are thrown outward away from each other, so that they rest against the end upright portions 2 of the stationary case, where they will be out of the way.

23 designates a pair of curtain-pole sockets secured, preferably, to the longitudinally-projecting ends of the mantelpiece 3. These sockets are in the form of cylindrical ferrules, and are provided with lateral ears 24, which are perforated to receive suitable fastening devices, such as screws or nails, by means of which the said sockets are attached to the stationary frame. The opposite extremities of the curtain-pole 25 are inserted in these sockets, and textile curtains 26 are mounted by means of the usual rings 27 upon said rod. When the bed is folded, this curtain may be drawn entirely across the front of the stationary frame, so as to entirely conceal everything contained within the said frame, and when the bed is folded into position for use the said curtain may be moved toward either end of the stationary frame, as shown in Fig. 1.

The folding bed hereinabove described is extremely simple and inexpensive in construction, and by reason of its simplicity is not liable to get out of order. On account of the manner in which the bed-frame is fulcrumed it may be manipulated by any person with ease, and on account of its compactness is unobtrusive in appearance and will be found a very desirable article of furniture.

It will be apparent that changes in the form, proportion, and the minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

What I claim is—

In a folding bed, a stationary frame or case, in combination with a folding bed-frame adapted to fold within the same, a pair of crank-hinges interposed between the stationary frame and the folding frame and provided with reversely-projecting terminal portions entering sockets in the stationary frame and folding frame respectively, and the flexible straps interposed between and connecting the stationary and folding frames, all arranged for joint operation, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

WILLIAM J. PYLE.

Witnesses:
C. B. ARMSTRONG,
E. E. MORRIS.