

(No Model.)

2 Sheets—Sheet 1.

F. P. PARKER, S. C. JONES, & N. F. COFFEY.
WARDROBE BED.

No. 479,719.

Patented July 26, 1892.

Fig. 2.

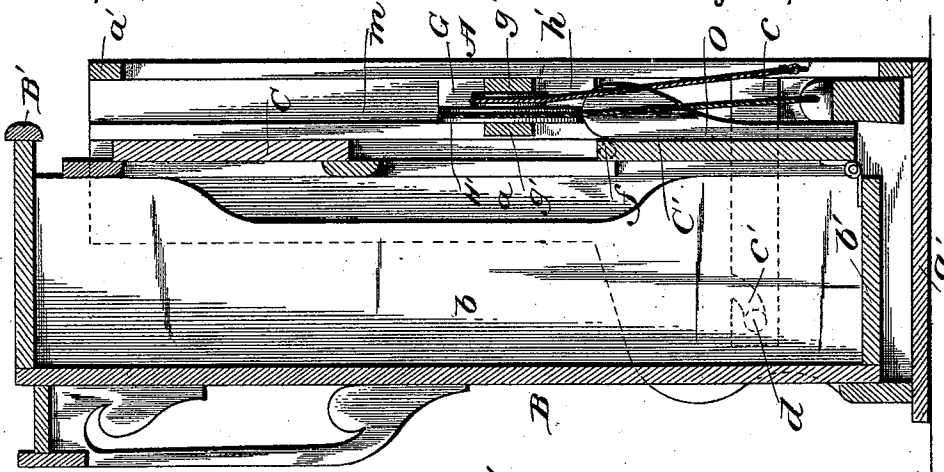


Fig. 5.

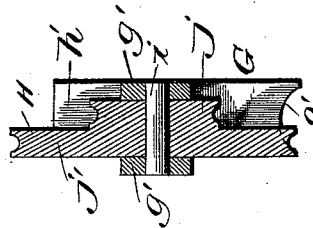
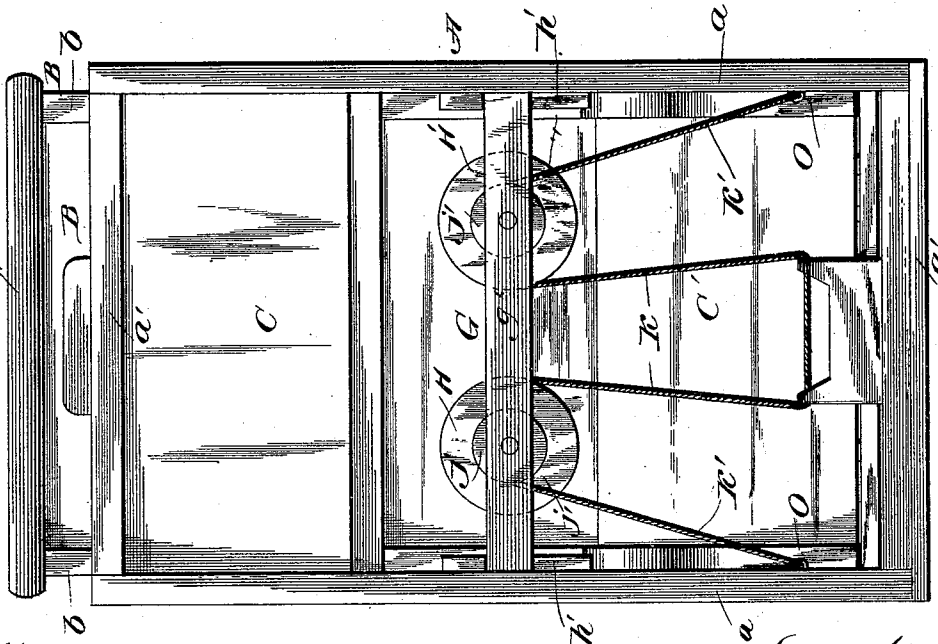


Fig. 1.



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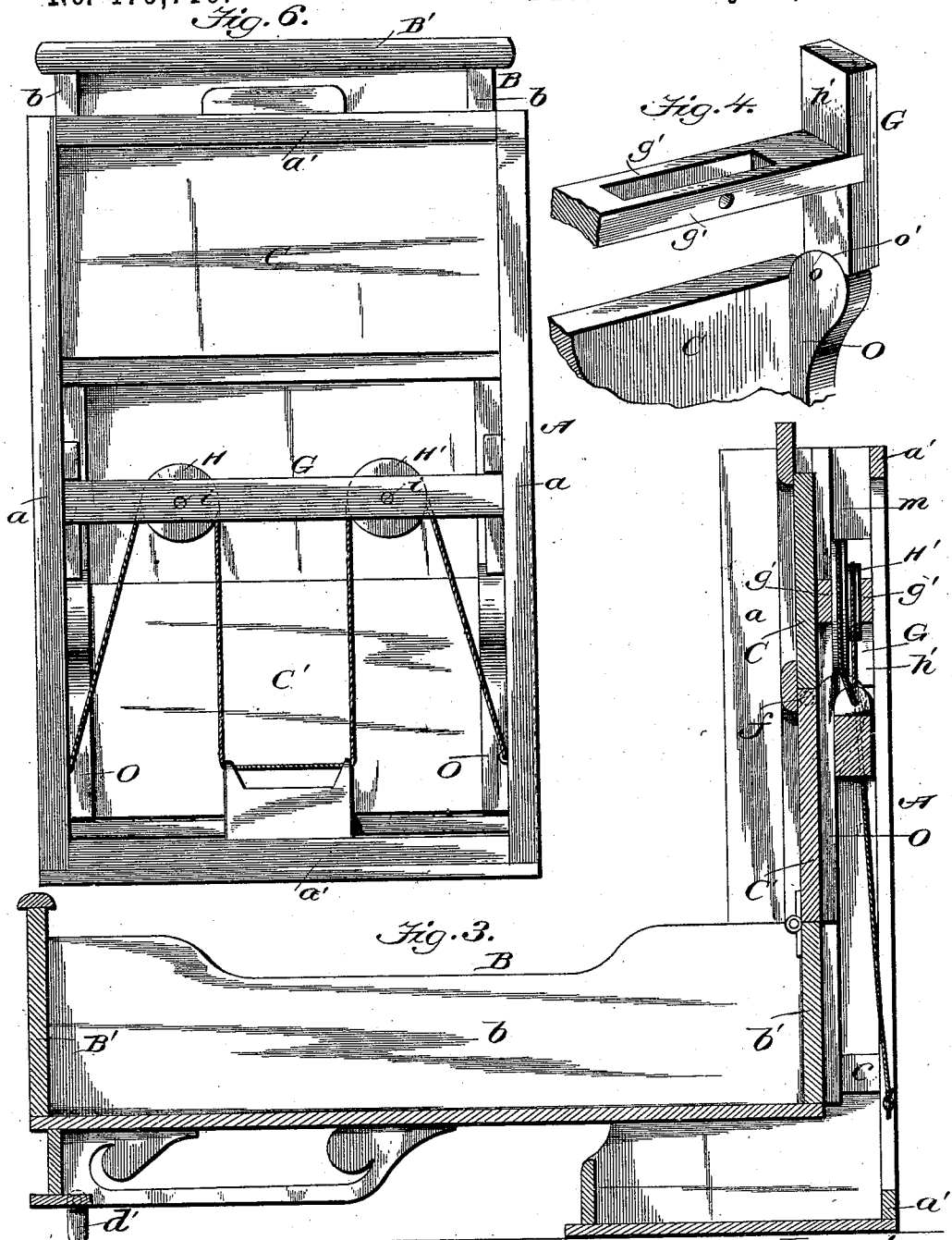
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2 Sheets—Sheet 2.

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WARDROBE BED.

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Patented July 26, 1892.



Witnesses:

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By *Edwin B. Prosser* Atty.

UNITED STATES PATENT OFFICE.

FRANK P. PARKER, OF GOSHEN, INDIANA, AND SAMUEL C. JONES AND NATHAN F. COFFEY, OF CARROLLTON, MISSOURI, ASSIGNORS, BY DIRECT AND MESNE ASSIGNMENTS, TO THE ST. JOSEPH FOLDING BED COMPANY, OF ST. JOSEPH, MISSOURI.

WARDROBE-BED.

SPECIFICATION forming part of Letters Patent No. 479,719, dated July 26, 1892.

Application filed March 4, 1892. Serial No. 423,798. (No model.)

To all whom it may concern:

Be it known that we, FRANK P. PARKER, of Goshen, Elkhart county, Indiana, and SAMUEL C. JONES and NATHAN F. COFFEY, residing at Carrollton, in the county of Carroll and State of Missouri, citizens of the United States, have invented certain new and useful Improvements in Folding Wardrobe-Beds; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

Our invention relates to a novel folding wardrobe-bedstead in which a counter-weight is used to poise or balance the weight of the folding bed-frame; and the novelty consists in the combination, construction, and arrangement of parts, which will be hereinafter fully described and claimed.

In our improved folding bed we aim to so arrange the parts that friction and wear on the sliding head-board are reduced to a minimum to insure a very easy sliding movement to the same and to reduce the weight of the counterpoise to the lowest possible limit, which, however, is sufficient to properly balance the weight of the bed-frame. To the accomplishment of these ends we provide an independent weight-frame, which is separate from the sliding head-board and is so associated therewith that the weight is poised directly upon the head-board and acts in a perpendicular line, thus reducing the friction on the head-board to a greater extent than when the weight is carried directly by or upon the head-board, and this weight is connected to the vertically-movable frame by intermediate cords or cables and pulleys to insure a traveling motion to the weight about thrice the travel of the head-board, thus enabling us to materially reduce the weight of the counterpoise. We also make the head-board in two sections, one of which is rigidly attached to the upper part of the upright frame, and the other section is attached to the end rail of the folding bed-frame by the usual or any preferred form of hinge, said sliding section of the head-board moving vertically in ways or guides on the upright stationary frame

when the bed-frame is raised and lowered. As the bed-frame is raised the sliding section of the head-board is lowered away from the upper stationary section of the head-board, and thus a large opening is secured between said sections of the head-board when the bed-frame is folded, which opening is at the middle of the bed and insures better ventilation thereof.

To enable others to more readily understand our invention, we will now proceed to a detailed description thereof in connection with the accompanying drawings, in which—

Figure 1 is a rear elevation of the wardrobe-bedstead when folded. Fig. 2 is a vertical central sectional view of the bed in its folded position shown in Fig. 1. Fig. 3 is a longitudinal sectional view of the bed opened. Fig. 4 is a detail perspective view of the sliding weight-frame and a portion of the sliding section of the head-board. Fig. 5 is a cross-section through the preferred form of pulley used in the sliding weight-frame; and Fig. 6 is a rear view, similar to Fig. 1, of the bed provided with a continuous cord and ordinary pulleys in the weight-frame.

Like letters of reference denote corresponding parts in all the figures of the drawings.

A is the upright stationary frame, consisting of the side pieces *a a*, joined at the top and bottom by the cross-rails *a' a'*, and B is the swinging or folding bed-frame, consisting of the side rails *b b*, the foot-board *B'*, and the transverse rail *b'* at the head of the folding bed-frame.

On the inner faces or sides of the upright parts *a a* of the stationary frame A are the fixed horizontal rails *c c*, which are provided with the sockets *c'* in their upper edges, and in these sockets are fitted the pivots or lugs *d d*, which are attached to the side rails *b b* of the bed-frame, whereby said bed-frame is pivotally supported on the upright stationary frame. The bed-frame is provided at its outer or foot end with legs *d' d'*, which are pivotally connected to the same and are adapted to fold and unfold by gravity when the bed-frame is raised and lowered, as is obvious.

In lieu of making the sliding head-board of our improved bedstead in one piece and at

5 taching the counterpoise or weight directly
 to said sliding head-board, as has heretofore
 been the common construction, we construct
 the parts as follows: The head-board is made
 10 in two vertical sections C C', one of which is
 arranged above the other, and the upper section
 C of the head-board remains stationary and
 is rigidly affixed or secured in any suitable
 15 manner to the upper part of the stationary
 upright frame A. The other lower section
 C' of the head-board is attached at its
 lower edge to the cross-rail b' of the bed-frame
 20 by means of the ordinary hinges e or any preferred
 form of hinge-joint, and the said sliding
 head-board section C' is provided with
 guide and pivot lugs f on each side near the
 upper edge, which lugs are fitted in suitable
 25 vertical ways or grooves on the inner faces of
 the side pieces of the upright stationary frame,
 whereby the section C' is adapted to move
 vertically in the upright frame A when the
 bed-frame is raised or lowered. The parts of
 the head-board are so proportioned and the
 30 several elements of the bed act in unison, so
 as to adjust the sliding head-board C' against
 the lower edge of the stationary section C
 when the bed-frame is lowered, thus causing
 the head-board to present a practically-continuous
 front or appearance.
 35 G is the vertically-movable weight-frame,
 which is of skeleton or outline form and
 consists of the side pieces g' and the end
 pieces h', which parts are suitably united together,
 and between the side pieces of the
 40 weight-frame are arranged the pulleys H H',
 which are journaled on short shafts i, supported
 in the side pieces of the weight-frame. In the
 preferred embodiment of our invention we
 45 employ double pulleys of the form shown
 more clearly in Fig. 4 of the drawings. Each
 pulley consists of the small section j and the
 larger section j', which are united laterally
 together, and in the peripheries of the sections
 50 j j' of the pulley are formed grooves or
 recesses, in which are placed the cords or
 cables K K'. The cord K of each double pulley
 is coiled or wound once or twice in the large
 section j of the pulley, and the cord K' is
 55 wound one or more times in the groove of the
 small section j' of the pulley, the cords K K'
 being coiled or wound in reverse directions to
 each other. The cord K of the large section of
 the pulley is attached at one end to the pulley,
 60 and its other end is attached to the weight-frame,
 as shown in Fig. 1, and the other cord K' is
 attached to the smaller section j' of the pulley,
 and its other end is attached to the upright frame,
 which is arranged in rear of the sliding section
 65 of the head-board. It will thus be seen that
 each pulley has its cords coiled in reverse
 directions around its members or sections and
 that each pulley has one of the cords attached
 to the stationary frame and its other
 70 cord attached to the weight or counterpoise,
 whereby we are enabled to impart to the weight
 a distance of movement about thrice

the travel of the sliding section of the head-
 board, which is advantageous, as it enables
 us to reduce the weight of the counterpoise
 70 to between twenty-nine and thirty-eight
 pounds, which is ample to effect the proper
 counterbalance of the folding bed-frame. We
 do not, however, wish to limit ourselves to
 the peculiar form of double pulleys and the
 75 particular arrangement of the cords relative
 to the pulleys and the weight, and in Fig. 6
 of the drawings we have shown another
 embodiment of our invention capable of use
 80 advantageously in connection with the independent
 weight-frame separate from the sliding
 section of the head-board. In this modification
 of our invention we use a single continuous
 cord or cable, which has one end attached
 85 to one side of the upright frame, thence
 extending over one pulley through the eyes
 of the weight, thence over the other pulley,
 and finally its other end is attached to the
 other side of the upright frame. In this
 90 arrangement of the cord and weight the latter
 travels double the distance of the movement
 of the sliding section of the head-board and
 we use the plain single pulleys; but for
 reasons stated we prefer to use the double
 95 pulleys and the reverse disposition of the
 cords attached, respectively, to the weight and
 the upright stationary frame. The weight-frame
 is guided in vertical ways or grooves m
 100 m on the inner faces of the side pieces of the
 upright frame, and this frame is connected
 with or to the sliding section of the head-board
 by means of the reinforce vertical strips O O,
 which are attached to the back side of the
 sliding head-board section C', and the upper
 105 ends of said vertical strips are rounded, as at
 o, and fitted in concave seats o' in the lower
 edges of the end pieces of the weight-frame,
 thus forming a pivotal joint between the sliding
 head-board section C' and the weight-frame.
 110 By this arrangement and connection of parts
 we are enabled to secure a vertical action
 of the weight or counterpoise, which is applied
 directly to the sliding section of the head-board
 in the most advantageous manner, as the friction
 115 and binding of the head-board while working
 in the ways or grooves of the upright frame
 are reduced to a minimum, and the parts thus
 operate with great ease and freedom. It will
 also be seen that a simple connection of the
 120 weight to the bed is secured, that we can reduce
 the weight of the counterpoise, and that a better
 ventilation of the bed proper is attained when
 it is folded than can be secured in folding
 wardrobe-beds of the usual form.

125 We are aware that changes in the form and
 proportion of parts and details of construction
 of the mechanism herein shown and described
 as an embodiment of our invention can be made
 without departing from the spirit or sacrificing
 130 the advantages thereof, and we therefore reserve
 the right to make such changes and modifications
 as fairly fall within the spirit of our invention.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a folding wardrobe-bedstead, substantially as shown and described, the combination of an upright stationary frame, a pivoted bed-frame, the sectional head-board having the upper part rigid with the stationary frame and the lower part attached to the bed-frame and guided in suitable ways on the stationary frame, the independent weight-frame also guided on the stationary frame and having a direct pivotal connection with the sliding part of the head-board, and the two double pulleys carried by the weight-frame and each pulley having one cord attached to the stationary frame and another cord connected to a vertically-movable weight, as and for the purposes set forth.

2. In a folding wardrobe-bedstead, the combination, with a stationary upright frame and a pivoted bed-frame, of the sliding head-board attached to the bed-frame and guided at its free end in suitable ways on said stationary frame, the independent weight-frame also guided in ways on said stationary frame above the free end of the sliding head-board, the two double pulleys carried by said weight-frame, a weight, and two cords for each double pulley, which are wound reversely on the different-sized sections thereof, one of said cords being connected to the weight and the other cord secured to the stationary frame, as and for the purposes set forth.

3. In a folding wardrobe-bedstead, substantially as shown and described, the combination, with a stationary upright frame and a pivoted bed-frame, of the divided head-board having its upper part attached to the stationary frame and its lower member attached to the

bed-frame and guided at its free end in ways on the stationary frame, an independent sliding weight-frame also guided in ways on the stationary frame above the sliding part of the head-board and having a direct pivotal connection therewith, and a weight sustained or carried by the sliding weight-frame, as and for the purposes described.

4. In a folding wardrobe-bedstead, the combination of a stationary upright frame, a folding bed-frame, a sliding head-board attached to the bed-frame and having its free end guided in ways on the stationary frame, an independent sliding weight-frame arranged above said free end of the head-board and having a direct pivotal connection with said end of the head-board, said weight-frame being guided in ways independently of the head-board, and a weight sustained or carried by the weight-frame, as and for the purpose set forth.

5. In a folding wardrobe-bedstead, substantially as shown and described, the combination, with a stationary upright frame, a folding bed-frame, and a sliding head-board guided at its free end on the stationary frame, of the independent sliding weight-frame also guided in ways on the stationary frame above the free end of the sliding head-board and bearing directly thereon and a weight carried or sustained by the sliding weight-frame, as and for the purpose described.

In testimony whereof we affix our signatures in presence of two witnesses.

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SAMUEL C. JONES.
NATHAN F. COFFEY.

Witnesses:

W. R. PAINTER,
RALPH F. LOZIER.