

M. CROSBY.
Wardrobe Bedstead.

No. 232,805.

Patented Oct. 5, 1880.

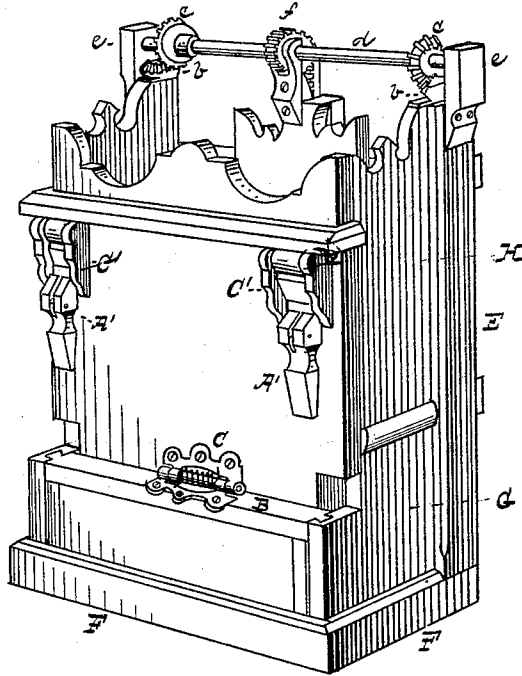


Fig. 1.

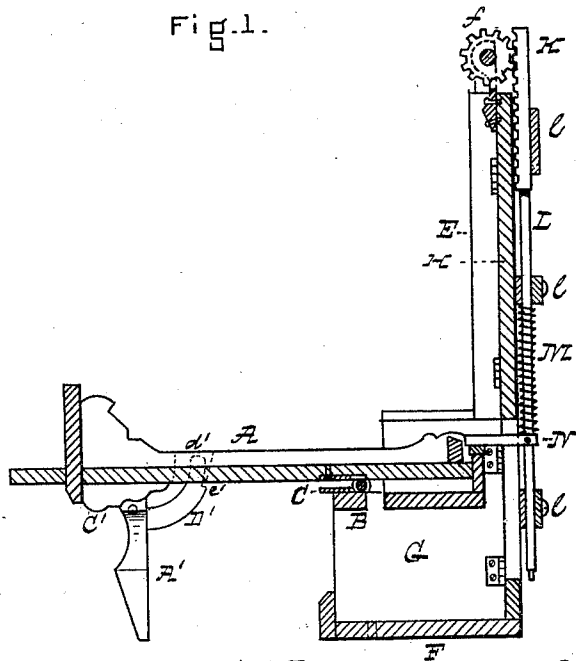


Fig. 2.

WITNESSES

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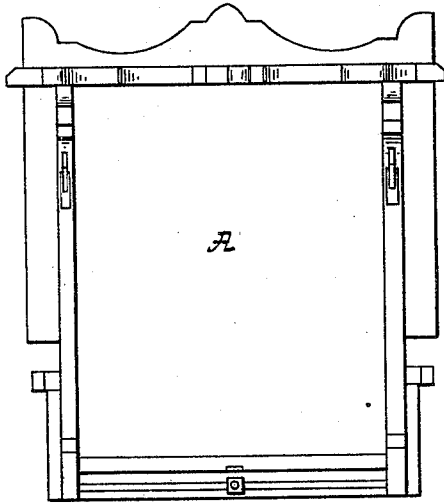


Fig. 3.

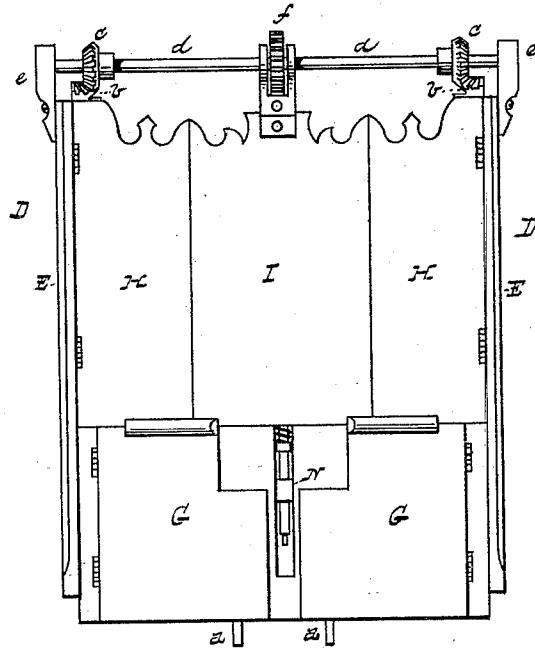


Fig. 4.

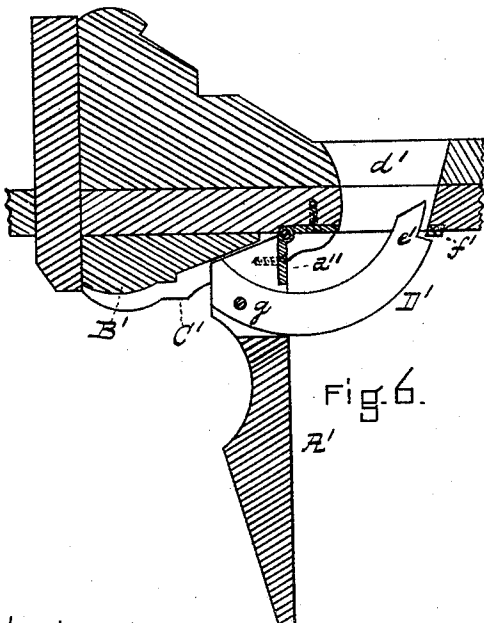


Fig. 6.

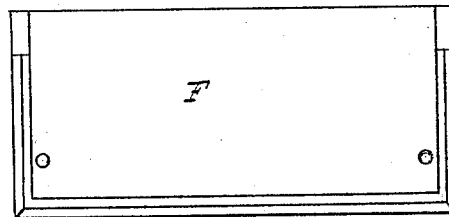


Fig. 5.

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UNITED STATES PATENT OFFICE.

MARK CROSBY, OF WAKEFIELD, MASSACHUSETTS.

WARDROBE-BEDSTEAD.

SPECIFICATION forming part of Letters Patent No. 232,805, dated October 5, 1880.

Application filed January 6, 1880.

To all whom it may concern:

Be it known that I, MARK CROSBY, of Wakefield, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Wardrobe-Bedsteads, of which the following is a specification.

My invention consists in a certain novel construction and combination of parts, which will first be described, and then specifically pointed out and determined in the claims.

Referring to the drawings forming part of this specification, Figure 1 is a view in perspective. Fig. 2 is a vertical longitudinal section. Fig. 3 is an elevation of the bed detached. Fig. 4 is an elevation of the cabinet-case, showing the panels H swung inward against the action of the springs and the side pieces, G, turned inward against the head-board, this being the position of the parts when prepared for transportation. Fig. 5 is a plan of the flooring-piece. Fig. 6 is a section taken longitudinally directly through the center of one of the folding legs upon the pivoted bed.

A in the drawings represents the hinged or pivoted bed, which corresponds in essential respects with the general features of beds of this class. It may be attached by the well-known pivoting-bar to the cabinet; but I have, in this instance, preferred to hinge the bed to the detachable filling-strip B by means of a large, strong, spring-butt, C. The bed A is weighted near the head in the usual manner to assist in raising it when it is to be folded within the cabinet.

The body D of the cabinet-casing has corner-posts E E, which rise from the flooring-piece to the top of the cabinet. To these posts the side pieces, G G, of the cabinet frame or case are permanently hinged, as seen in Fig. 4. These side pieces are provided with dowels a a, which engage with the flooring-piece F when the frame is set up and hold the side pieces firmly in position. When, on the other hand, the cabinet is to be packed, either for shipment or to obtain space, the posts are lifted from the flooring-piece F by tilting them backward, thus releasing the dowels a a and allowing the side pieces, G G, to swing inward against the back of the casing, where they lie against the back, occupying but very little space.

The remainder of the sides of the cabinet-casing is composed of the hinged panels H H,

hinged to the posts E E just above the side pieces, G G, and in such position that when both are turned outward upon their hinges they will form a continuous side to the cabinet, as seen in Fig. 1, the pivoted bed folding between the sides and against the back. When, however, the bed A is turned down into position for use, as in Fig. 2, these hinged panels are adapted to be swung inward until they lie in the plane of the back of the cabinet-case, where they form part of the continuous head-board H H I, as seen in Figs. 2 and 4.

Upon each hinged panel is mounted a quadrant-gear, b, engaging with a pinion, c, mounted upon a shaft, d, which is journaled in bearings e e set upon the tops of the posts E E, the segmental gears b b being so arranged that they are concentric with the hinges on which the panels swing. It is evident that by the revolution of these pinions c the quadrant-gears b will be turned and the hinged panels accordingly thrown backward and forward upon their hinges. The rotation of the shaft a, which carries these pinions, is effected by means of a main gear, f, at the center of the shaft, which is supported at that point by suitable bearings. The gear f engages with a rack, K, arranged upon the back of the cabinet. This rack is carried by a rod, L, sliding vertically in bearings l l, the rod being acted upon by a spring, M, which draws it downward, when the spring is free to act, thus turning the gear f and throwing the hinged panels H H outward into position to form the sides of the cabinet-case.

The rod L is moved in the other direction or upward by the pivoted bed A, the head end thereof striking an arm, N, upon the rod L, throwing the rack K upward and causing the gears to turn the hinged panels H H into the position shown in Figs. 2 and 4. As long as the bed remains unfolded, as in Fig. 2, the panels will continue to occupy this position and form part of the continuous head-board H H I; but the moment the bed is folded, the head being withdrawn from under the arm N, the spring M draws the rack K downward, and the panels are instantly thrown outward ready to receive the folded bed between them.

One great advantage of this arrangement is that it is accomplished during a very short arc of motion of the pivoted bed, thus avoiding

all possible danger of a collision between the parts to which motion is communicated.

A' in the drawings indicates the pivoted leg of the hinged or pivoted bed. This leg is attached to the bed near the upper end, as seen in Fig. 1, and is secured thereto by means of a pivot-pin or by a hinge, *a''*, as shown in Fig. 6. In front of the point of attachment the leg is beveled in such manner that its end shall bear solidly against a correspondingly-beveled block, B', the two beveled surfaces being so calculated that when unfolded the leg shall stand at right angles with the plane of the bed and have a firm base of support upon the block B'. Upon either side of the block B' are placed supporting-pieces *c' c'*, which bear against the edges of the legs A', and, in connection with the angular blocks B', furnish a complete support upon three sides for the leg A'. Upon the fourth side I place an arch-shaped arm or plate, D', pivoted to the leg near its point of attachment, and passing through a slot in the side rails of the bed, (shown at *d'*,) through which the arm D passes when the leg is folded or unfolded upon its hinge *a''*.

The arm D' is provided with a notch or detent, *e'*, at or near its free end, which is adapted to engage with the angle formed between the slot *d'* and the outer face of the bed. This angle is shod with a metal guard, *f'*, and the arm D' being pivoted to the leg at the point *g*, when the leg is unfolded the arm D' engages, by means of its detent *e'*, with the metal shoe *f'*, and holds the leg firmly in position as extended.

The strengthening-plates C' C' on each side of each leg prevent all lateral swaging, and the angular bearing-blocks B' support the legs firmly in all strains brought upon them which tend to force them beyond an angle of ninety degrees, while the brace-arms D' receive all strains in the opposite direction, or upon the other side. Thus I obtain a leg which is firmly and securely blocked up or braced in the most effectual manner upon every side.

By my construction, as above described, I am enabled to pack my cabinet-bed in three pieces—viz., the flooring-piece F, the detachable bed A, and the casing, which consists of the parts E H I G G. These parts may be assembled in and set up in a moment without the use of tools, and may be taken apart and packed with equal ease.

I disclaim a cabinet-bedstead having hinged panels of the character described, with mechanism for operating said panels by the movement of the pivoted bed, said disclaimer being in favor of an earlier application for patent filed by me October 14, 1879.

It will be seen that as the vertical rod L is drawn downward by the spring M, which is compressed by the unfolding of the bed, the whole force of said spring is exerted to aid the movement of the pivoted bed when the latter is turned into a vertical position. On

the other hand, when the bed is unfolded the arm N engages with the head of the frame after it has passed through about two-thirds of its arc of motion, and as the spring M begins to act at once to resist the further motion of the bed the movement is completed with ease, without shock or noise, and with only a slight exertion of strength upon the part of the operator.

By employing this mechanism I may, in addition to the other advantages enumerated, dispense with the greater part, if not the whole, of the weights with which the head of a wardrobe-bed is generally loaded.

If desired, a spring-butt, C, may be used to hinge the bed to the filling-strip B, as already described, in order to assist in accomplishing this result; but I do not regard this as essential.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. A cabinet-case for wardrobe-beds, consisting of a skeleton back having side pieces, G G, and panels H H hinged permanently thereto, substantially as and for the purpose set forth.

2. The combination, in a wardrobe or cabinet bedstead, of a skeleton case, a pivoted bed, hinged panels mounted upon said case, and gearing mounted upon the hinged panels and engaging with pinions actuated by a rack to which motion is imparted by means of the pivoted bed-frame, substantially as and for the purpose set forth.

3. The combination, in a cabinet or wardrobe bedstead, of a pivoted or hinged bed-frame, a case having hinged panels, a vertical bar sliding in suitable bearings and carrying a rack at its end, and a pinion engaging with said rack, whereby motion is imparted to two gears engaging with gears on the hinged panels, substantially as and for the purpose set forth.

4. The combination, with the upright having the posts E and filling-piece I, of the hinged panels H H and the hinged side pieces, G G, substantially as and for the purpose set forth.

5. The combination, with the pivoted bed A, of the hinged panels H H, having quadrant-gears *b b*, the pinions *f c c*, and rack-bar K, substantially as and for the purpose set forth.

6. A cabinet-bedstead consisting of the body D, the flooring-piece F, the hinged panels H H, hinged side pieces, G G, gearing *b b c c*, rack-bar K, rod L, spring M, arm N, and pivoted bed A, all as and for the purpose set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

MARK CROSBY.

Witnesses:

CHAS. B. TILDEN,
Z. S. ARNOLD.