

J. B. HARLOW.
Sofa Bedsteads.

No. 135,643.

Patented Feb. 11, 1873.

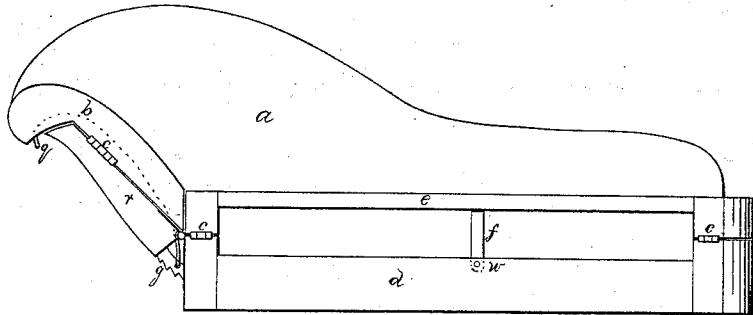


Fig. 1

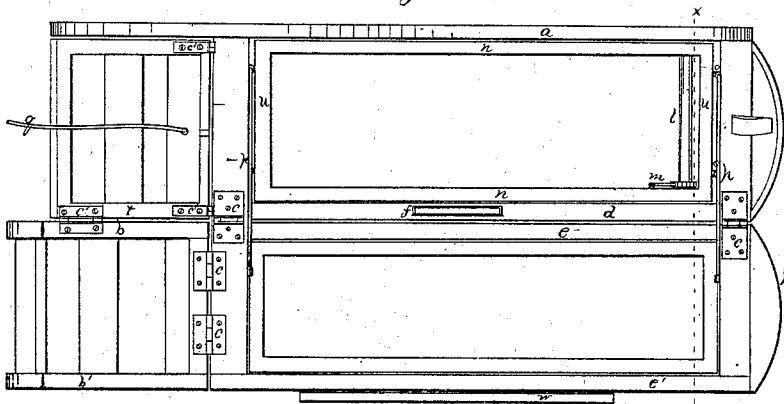


Fig. 2.

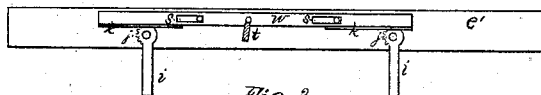


Fig. 3.

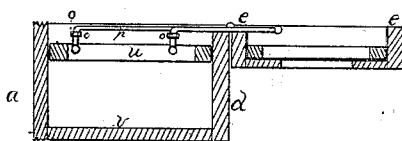


Fig. 4.

Witnesses:

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UNITED STATES PATENT OFFICE.

JOSEPH B. HARLOW, OF PORTLAND, MAINE.

IMPROVEMENT IN SOFA-BEDSTEADS.

Specification forming part of Letters Patent No. 135,643, dated February 11, 1873.

To all whom it may concern:

Be it known that I, JOSEPH B. HARLOW, of Portland, in the county of Cumberland and State of Maine, have invented certain new and useful Improvements in Sofa-Bedsteads; and I hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing, which is hereby made a part of this specification, in which—

Figure 1 is a front view of my invention as seen when closed to be used as a sofa. Fig. 2 is a top-plan view of the seat of the sofa when unfolded to form a bed-bottom. Fig. 3 is a view in detail of a portion of the outside edge of the folding part of the bottom of the bed, to show the manner in which the legs are affixed and made adjustable. Fig. 4 is a transverse section of Fig. 2 on the line *x x*.

Same letters show like parts.

The object of my invention is to so combine different mechanical devices as to form an economical and convenient article of furniture, which may be used as a sofa or lounge, and by a simple change in the relative position of the parts it becomes a bedstead. While it is used as a sofa the different parts are so arranged as to afford room for storage of bedding and other articles.

At *a*, Fig. 1, is shown the back of the lounge, made in the usual form. At *c c c*, Fig. 1, and also at *c c c*, &c., Fig. 2, are shown hinges, upon which the bottom, the edge of which is shown at *e*, and the head-rest, the edge of which is shown at *b*, are unfolded, as shown in Fig. 2. The hinges *c' c' c'* permit the two parts of the head-rest *r* and *b* to be raised or lowered, as desired. This motion of the head-rest is controlled by the segmental ratchet *g*, which works upon a fixed stop at the point of its contact with the body of the lounge, but which is not shown in the drawing. This ratchet is pivoted, and is operated by the cord *q*, Figs. 1 and 2. At *e*, Fig. 1, and *e* and *e'*, Fig. 2, are shown the side rails of the frame, which, by being unfolded upon the hinges *c c*, form the extension of the width of the sofa or lounge to that of the bedstead. The frame, of which *b* and *b'* form the side rails, accompanies this former frame, and serves to extend the length of the bottom of the bed. *w*, Figs. 2 and 3, shows a sliding bar, which moves

backward and forward by the slots *s s*. This bar *w* has near each end a short toothed rack, *k*, into which mesh the mutilated gears *j j*, and in the line of a radius of these gears *j j* extend the legs or supporters *i i*, which support the outer folding frame. By moving the bar *w* these legs or supporters *i i*, by means of the racks *k* and gears *j j*, may be at right angles with or parallel to the bar *w*, as desired. The two parts *b* and *r* of the head-rest are not attached to the back *a*. The frame, composed of the rails *n n* and cross-bars *u u*, moves freely up and down between the back *a* and the front *d*, Figs. 1 and 2, and is supported by the cords *p p* near each end, Fig. 2, being suspended upon them in the manner shown in Fig. 4. These cords *p p* pass over pulleys, not shown, at their different points of deflection, and have one end of each of them, *p p*, attached to the frame, of which *e* and *e'* form the side rails. At *v*, Fig. 4, is shown a cross-bar, the lower edge of which rests upon the floor, and connects the back *a* with the front *d*, to impart rigidity to the whole device. This cross-bar has its counterpart in construction and office near the opposite end of the sofa, which from its position is not seen in the drawing. At *h h h*, Figs. 1 and 2, is seen a segmentally-shaped recess, where vessels necessary for the sleeping-room may be placed. The swinging arm *f*, which is pivoted at *w*, Fig. 1, may be raised to a perpendicular position to prevent the rail *e* from "sagging" or bending downward when sat upon, and when the folding part is opened to form a bedstead this arm *f* may be turned down to a horizontal position to prevent its interference with the working of the other parts of the device.

The different frames, herein described, may be covered with any strong material—as, for instance, sacking or burlap. At *l*, Fig. 2, is shown a roller having at its end the ratchet and stop *m*, which serves to tighten this sacking bottom should it become loose.

The operation of my invention is as follows: When used as a sofa my device presents the appearance shown in Fig. 1. When my device is to be used as a bedstead, the cord *q* being pulled raises the segmental ratchet *g* from its catch or stop, and thus permits the head-rest, composed of the two parts *b* and *r*, to drop down, and, as any one of the teeth of

the ratchet *g* may rest upon the stop, this head-rest may be placed at any desired angle with the other part *e* of the device. The frame, whose side rails are *b* and *e*, is then unfolded, and the whole bottom assumes the form shown in Fig. 2, the bar *f* being first turned down into the position shown at *f*, Fig. 2. As the frame, composed in part of the rails *e* and *e'*, is unfolded, the frame *u u n n* rises to a level with *e* and *e'*, so that both are upon the same plane, and the mattresses placed upon them form the bed. This frame *u u n n* rises by the action of the cords and pulleys shown in Fig. 4, and heretofore described. The sliding bar, provided with the racks *k k*, is then moved until the gears *j j* place the supporters *i i* from a horizontal position to a perpendicular one to support this folding part of the bedstead. The head-rest derives its support from the

other portions of the device through the hinges *c' c'*. At *t* is shown a loop for operating the sliding bar *w*.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination, in a sofa-bedstead, of the head-rest *r* and *b*, hinges *c c* and *c' c'*, ratchet *g*, and cord *q* with the mattress-frames, whose side rails are shown at *e* and *e'*, when used in the manner and for the purposes as set forth.

2. The combination of the rail *e*, bar *w* having the slots *s s* and racks *k k*, with the supporters *i i* and mutilated gears *j j*, all as set forth.

JOSEPH B. HARLOW.

Witnesses:

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