

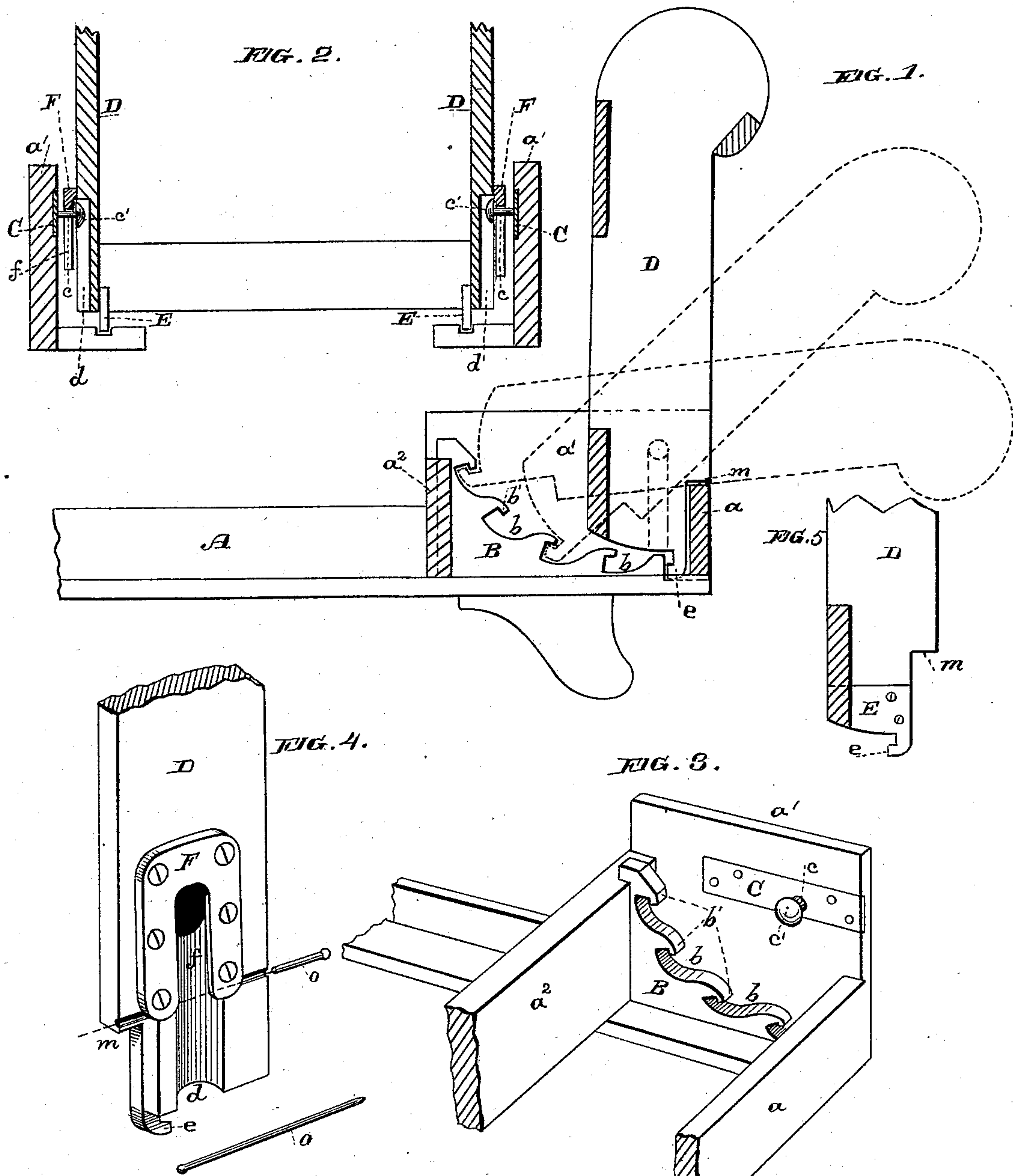
(No Model.)

B. F. FARRAR.

SOFA BED.

No. 278,004.

Patented May 22, 1883.



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UNITED STATES PATENT OFFICE.

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SOFA-BED.

SPECIFICATION forming part of Letters Patent No. 278,004, dated May 22, 1883.

Application filed March 31, 1883. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN F. FARRAR, of the city and county of San Francisco, State of California, have invented an Improved Sofa-Bed; and I hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to that class of furniture known as "sofa-beds," and to certain new and useful improvements therein.

These improvements consist in the means for hinging and adjusting those parts or portions which are intended to fold up or open out—as, for example, the back and heads.

The object of my invention is to provide a simple, economical, and effective means for operating the hinged parts and sustaining them in any desired position.

Referring to the accompanying drawings, Figure 1 is a side sectional view with the end piece dotted, showing it placed at different angles. Fig. 2 is an end section. Fig. 3 is a portion of the end in perspective. Fig. 4 shows the plate and slot in the end piece. Fig. 5 shows pawl E.

I have herein deemed it necessary simply to illustrate my invention in connection with and as applied to the heads or ends.

A represents a portion of the frame which forms the seat. At its end is formed, by means of strips a^2 and strips a' , a quadrilateral box, as shown. Within each end of this box, and secured in suitable manner, are the curved ratchets B. These are made of metal, with teeth b , having overlapping hooked ends b' .

Screwed to the inside surface of the strips a' of the box, and lying flush therewith, are iron castings or plates C, having inwardly-projecting pins c , with enlarged heads c' , forming knobs or buttons.

D is the end or head, made in proper shape. To the base of its sides, on their inner surfaces, are screwed castings E, each formed with a hooked pawl, e , as shown. The outer surface of the lower portion of the sides of the head is grooved out at d , and over the tops of the grooves is bolted to the sides a casting, F, having a slot, f , with an open bottom. In fitting the head D to its place its sides slip down inside of the strips a' of body-frame, the slotted castings F passing down over the pins c , the heads c' of which enter and fit in the

grooves d in the head. When the head is well down in position, the slotted castings bear down on the pins c , which thus form a pivot or hinge for the head, and the hooked pawls e engage with the hooked teeth b of the ratchets B. The sides of the head fit down inside of the end strip, a .

A shoulder, m , is formed on the rear lower ends of the side pieces of the head D. These rest on the outer strip, a , of the body-frame when the head D is fitted down to its place and is in a perpendicular position. In this position the hooked pawls e engage behind the lowest tooth, b , of the ratchets.

The head is prevented from moving inward beyond a perpendicular by reason of the lower ends of its sides bearing against the outer strip, a . By lifting the head D sufficiently to disengage its pawls from the ratchets it may then be lowered. It can be thus lifted because of its play on its pivots by reason of the slotted castings F, and it then turns on the pins c as pivots. By lowering the head, so that its pawls may engage with any of the teeth of the ratchets, it may be adjusted at any suitable inclination and there held securely, as its hooked pawls, engaging under the hooked teeth of the ratchets, find firm and strong bearings, and cannot be released by any pulling on the head. When the head has been lowered to its limit its pawls engage with the top teeth of the ratchets B. It has further support, when in this position upon the outer strip, a , by resting its own side strips thereon, so that it is perfectly rigid, and will bear any proper weight.

Now, in order to keep the head from being accidentally pulled out from the pins c , I have on each side a small rod, pin, or screw, o , which is fitted down in a socket in the outer surface of the sides of the head, and passes across the grooves d , under the pins c , thus closing the slotted plates F, so that they cannot be drawn off their pivots.

By my construction I avoid all the complicated mechanism now in use in this class of furniture for accomplishing this result. I have no swinging pawls to become disarranged and no cords to operate them. The engagement of the pawls and ratchets in other devices is at best an imperfect and loose one. In some the ratchets swing and are operated by cords, and in

others the pawls are pivoted, making it a matter of some uncertainty whether a proper engagement is effected; but in my device both pawls and ratchets are firm and require no cord to operate them. Their engagement is certain and rigid, affording a strong and secure device.

This construction may be applied to the back as well as to the heads, and I may have it at both ends, or at any point where one part is required to be hinged to another, and is adapted to be adjusted to various angles.

Suitably hinged to the head D will be the usual swinging or folding head, though I have not thought it necessary to show that here.

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

1. In a sofa-bed, the seat-frame or body A, having curved ratchets B, in combination with a swinging part or portion of the bed pivoted to the body, and having pawls *c* rigidly secured thereto, and a means for providing a play of the swinging portion on its pivots to throw its pawls into or out of engagement with the ratchets, substantially as herein described.

2. In a sofa-bed, the seat-frame or body A, having curved ratchets B, and pivot-pins *c*, in combination with a swinging part or portion of the bed, having slotted bearings F, fitting down upon pivot-pins *c*, and pawls *e*, rigidly secured thereto, all arranged and operating substantially as and for the purpose herein described.

3. In a sofa-bed, the seat-frame or body A, having secured in its ends curved ratchets B, with hooked teeth *b*, and pivot-pins *c*, in combination with the head D, having secured to its base the hooked pawls *e*, and to its sides

the slotted bearing-plates F, in which the pivot-pins fit, all arranged and operating substantially as herein described.

4. In a sofa-bed, the seat-frame or body A, having secured in its ends curved ratchets B, with hooked teeth *b*, and pivot-pins *c*, having enlarged heads *c'*, in combination with the head D, having hooked pawls *e*, engaging with ratchets B, grooved sides *d*, and slotted bearing-plates F, in which the pivot-pins fit, substantially as herein described.

5. In a sofa-bed, the seat-frame or body A, having strips *a* at each end, the curved ratchets B, with hooked teeth *b*, and the side pivot-pins, *c*, having enlarged heads *c'*, in combination with the head D, having hooked pawls *e*, engaging with ratchets B, grooved sides *d*, and slotted bearing-plates F, and the rod, pin, or screw *o*, for closing the opening of said slotted plates, substantially as and for the purpose herein described.

6. In a sofa-bed, the seat-frame having a strip, *a*, on its end, in combination with the head D, pivoted to said frame, and extending down inside of strip *a*, to limit its movement inward beyond a perpendicular, substantially as herein described.

7. In a sofa-bed, the seat-frame or body A, having a strip, *a*, on its end, in combination with the head D, pivoted to said frame, and having shoulders *m* cut out of the back of its sides to rest upon said strip, substantially as herein described.

In witness whereof I hereunto set my hand.

BENJAMIN F. FARRAR.

Witnesses:

S. H. NOURSE,
J. H. BLOOD.