

(No Model.)

F. RINGEMANN.

SOFA BED.

No. 314,879.

Patented Mar. 31, 1885.

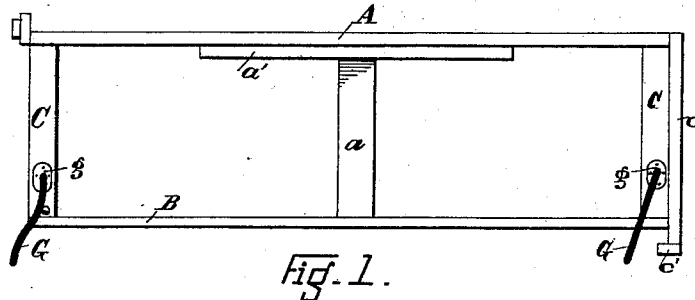


Fig. 1.

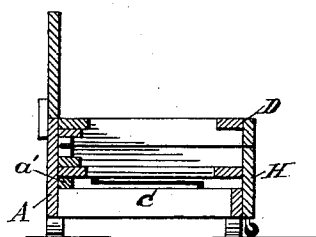


Fig. 2.

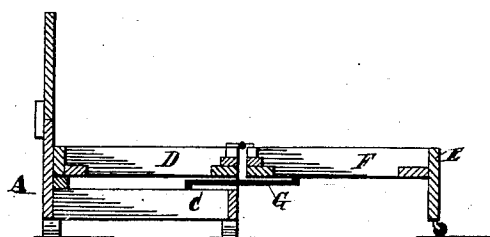


Fig. 3.

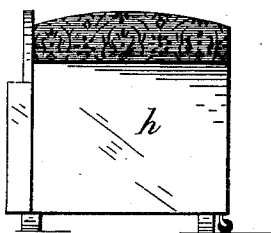


Fig. 4.

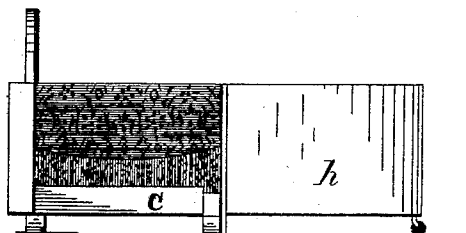


Fig. 5.

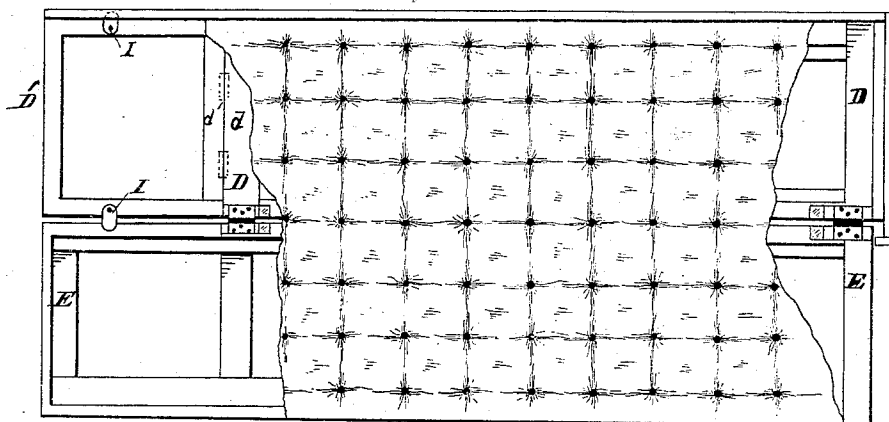


Fig. 6.

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UNITED STATES PATENT OFFICE.

FRANK RINGEMANN, OF CINCINNATI, OHIO, ASSIGNOR OF ONE-HALF TO
JOSEPH RINGEMANN, OF SAME PLACE.

SOFA-BED.

SPECIFICATION forming part of Letters Patent No. 314,879, dated March 31, 1885.

Application filed January 21, 1884. (No model.)

To all whom it may concern:

Be it known that I, FRANK RINGEMANN, a citizen of the United States, residing at Cincinnati, county of Hamilton, State of Ohio, have invented certain new and useful Improvements in Sofa-Beds, of which the following is a specification.

My invention relates to that class of sofa-beds or extension-lounges which consists of two frames—a stationary one which is covered and concealed by the seat-frame when the lounge is closed, and when the lounge is unfolded supports a part of the bed-frame, and a movable frame which supports the seat and bed-frame when the lounge is closed, the said movable frame being linked to the stationary frame, so as to be extended and closed for the purpose of forming a bed or lounge, as desired.

The object of the invention is a device that is easily folded and unfolded, is not liable to get out of order, and that can be readily taken apart for handling or shipping and readily put together.

With these objects in view the invention consists in certain details of construction and combinations of parts, all of which will be first fully described in connection with the accompanying drawings, and the novel features particularly pointed out in the claims.

Referring to the drawings, in which similar reference-letters indicate like parts wherever they occur in the different views, Figure 1 is a plan view of the stationary frame with the back removed and the coupling-links in place. Fig. 2 is a vertical transverse sectional view taken through the naked frames when the lounge is closed, looking in the direction of the lounge-foot. Fig. 3 is a similar view of the frames when unfolded to form a double bed. Fig. 4 is an end elevation of the closed lounge when finished. Fig. 5 is a similar view of the device unfolded to form a bed. Both this view and Fig. 4 show an end view of the lounge-bed. Fig. 6 is a top plan view of the unfolded lounge. A part of the upholstering at the head and foot is removed to expose the means of supporting the seat and bed-frame and the manner of connecting the frames together.

The stationary frame is composed of a wide back rail, A, a narrow front rail, B, and two

narrow end rails, C, with a covering or finishing, *c*, at the foot and a cross-brace, *a*, in the center. The movable frame is composed of a folding seat-frame, D, which has a hinged head-rest, D', and the seat-supporting frame E, to which the seat-frame is hinged. The end rails, F, of the frame E are, like the end rails of the stationary frame, made heavy enough to receive metal socket-plates *g*, which are let into the top edges of the rails C and the bottom edges of the rails F, to receive the bent ends of the metal coupling-links G, by which the stationary and movable frames are united. The frame E has a front, H, and head end piece, *h*, which, when the lounge is closed, completely conceals the stationary frame. The frame E, with the exceptions above named, does not differ materially from the frames used in the ordinary extension-lounges. The folding frame D, with head-rest D', is hinged to the frame E, so that when opened out, as seen in Fig. 6, it and the frame E form a full-width double bed with a raised head extending entirely across. The meeting edges of the rails *d d'* of frame D D' are beveled off on the seat side, and the rails are hinged together upon the bed side, so that the head part may conform to the head part of frame E when folded, and be on the same level with it when unfolded.

On top of the head D', Fig. 6, are two buttons, I, which are pivoted upon bolts, which pass through its side rails, and have nuts upon the opposite edges, which are countersunk into the rails. One of these buttons turns over the inner head-rail of the frame E, and the other enters a slot in the back to sustain the head D' of frame D upon a level with the head of frame E. If it is desired to have the inside of the bed straight, instead of a raised head, the buttons need not be used. In such case the head would be supported upon the head-rail C of the stationary frame.

The crank-links G, I prefer to make from round rod-iron. The ends are bent in opposite directions to enter sockets *g* in top of rails C and bottom of rails F. The link at the head of the lounge is preferably curved, as shown, to more easily pass the center in swinging open or closed. The lounge is changed to a bed by swinging the movable frame from the

position in Figs. 2 and 4 around upon its casters, guided by the link G, the movement being similar to a parallel ruler, to the position shown in Figs. 3, 5 and 6, after which the seat-frame is turned over, the seat passing into the stationary frame and its side rail resting upon the strip *a'*, which is secured on the back A. The buttons I are turned, as shown in Fig. 6, if the raised head is desired, and if not the hinged head is allowed to drop down upon the head-rail C.

I have shown the movable frame mounted upon casters and the stationary frame without them, as it is easier thus to fold and unfold the lounge. The movable and stationary frames are detached by simply lifting off the movable frame and lifting out the links G, when it can be easily moved or conveniently packed for shipment. The bottom of the stationary frame may be crossed with slats or closed with canvas, to form a receptacle for bed-clothing, pillows, &c.

The upholstering upon the seat and bed frames is done in the usual manner. On the forward edge of foot-piece *c* is a return-piece, *c'*, back of which the front rail of the movable frame closes to complete the front finish of the lounge.

I do not wish to be limited to the exact form of frames shown, for it is evident that a sinking frame could be applied in my stationary frame to lift up upon a level with the seat proper to form a double bed, as is now com-

mon in forwardly-sliding-frame lounges; but I prefer the form shown, because the seat is not used as a bed, and the bed used is upholstered all the way across as a mattress is, and the center is therefore as soft and elastic as any part of the bed.

What I claim as new is—

1. In a sofa-bed or extension-lounge, the combination, substantially as before set forth, of the stationary frame with the seat and bed frame, and the links G, having their opposite ends bent in opposite directions, the lower ends being pivoted in vertical sockets in the top side of the stationary frame, and the upper ends in similar sockets in the under side of the seat and bed frame.

2. The combination, substantially as specified, of the stationary frame A, having vertical sockets *g* on the upper side of its end rails, and the movable frame E, having similar sockets in the under side of its end rails, with the metal coupling-links G, the opposite bent ends of which are pivoted in said sockets, uniting the two frames, and the folding seat-frame D D', hinged to the inner rail of frame E, whereby it may unfold over the stationary frame when the frame is extended, and form in connection with frame E a broad level bed.

FRANK RINGEMANN.

Witnesses:

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