

R. STEWART.  
Folding Sofas.

No. 133,548.

Patented Dec. 3, 1872.

Fig 1.

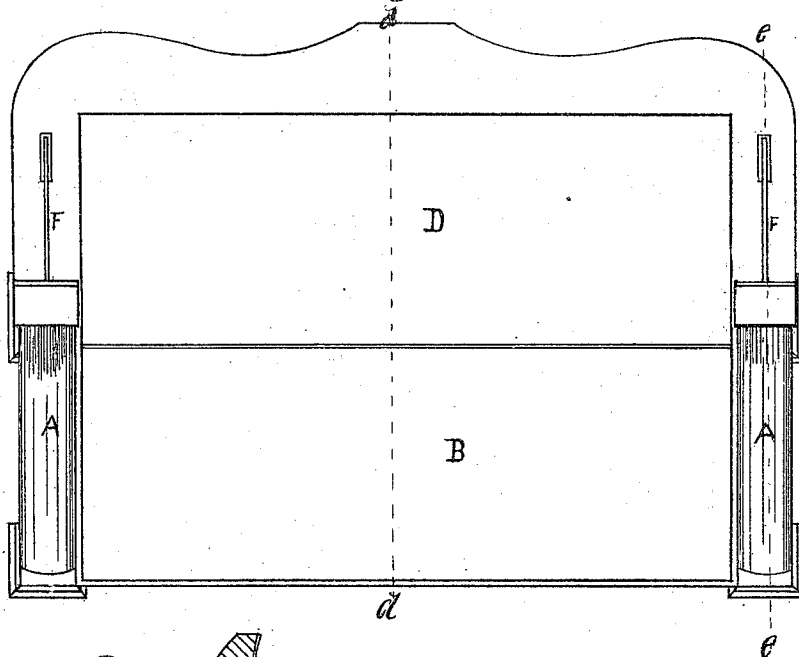


Fig 2.

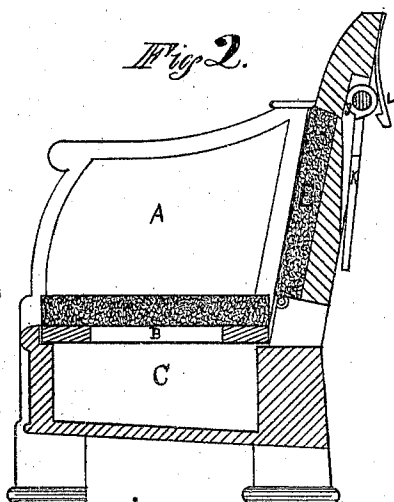


Fig 3.

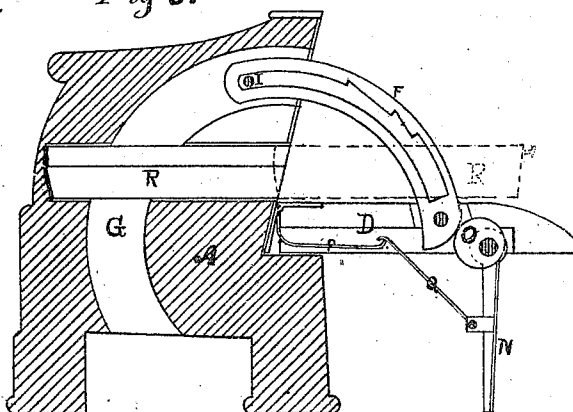
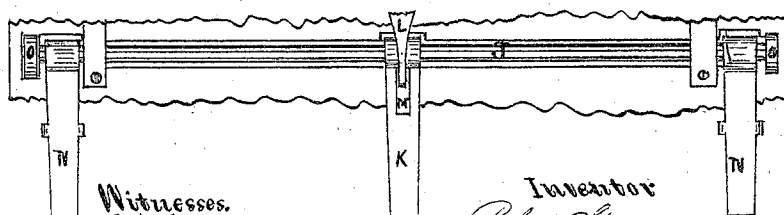


Fig 4.



Witnesses.  
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# UNITED STATES PATENT OFFICE

ROBERT STEWART, OF CHICAGO, ILLINOIS.

## IMPROVEMENT IN FOLDING-SOFAS.

Specification forming part of Letters Patent No. 133,548, dated December 3, 1872.

*To all whom it may concern:*

Be it known that I, ROBERT STEWART, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Folding or Bed Sofas; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable others skilled in the art to which my invention appertains to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 is a top view of a folding-sofa embodying my improvement, showing its position when unfolded to make a bed. Fig. 2 is a vertical transverse section taken on dotted line *d d*, Fig. 1, showing the position of the respective parts when folded. Fig. 3 is a vertical transverse section taken on dotted line *e e*, Fig. 1, showing the position of the respective parts when unfolded; and Fig. 4 is an elevation of a detached portion of a sofa embodying my improvements, showing the devices used in supporting the back when opened out.

Similar letters of reference indicate corresponding parts in the several figures of the drawing.

My invention relates to that class of sofas designed to perform a double purpose—that is, when folded to form an ordinary sofa, and when unfolded to be converted into a comfortable bed or invalid-chair; and to that end it consists in the mechanism employed in unfolding and supporting the back.

In the accompanying drawing, A represents the end pieces of my improved sofa, and B the frame-work uniting the same, said end pieces extending upward and forming arms of the sofa, they being upholstered in the usual manner. The seat of the sofa is hinged to the end pieces in such a manner that it is readily raised, thereby giving free access to chamber C, formed within the frame for the reception of bedding when not in use. D represents the back, which is hinged at its lower edge to the rear and lower extremities of the arms, as shown in Figs. 2 and 3. A recess is formed within the front portion of the back, into which the cushion or upholstery is secured, as shown by E, Fig. 2. Pivoted to the ends of said back

are segment or arc plates, of metal, F, which are loosely fitted within a semicircular chamber, G, formed within end pieces A. These arc-plates are provided with a circular slot, H, upon the upper edge of which is formed a series of ratchet-teeth, which engage a pin, I, passing through the slot, by which means the back is secured at any desired angle. Within the rear surface of the back, near its upper edge, is formed a longitudinal groove or channel, within which is secured a rock-shaft, J, rigidly secured to the center of which is an arm or lever, K, by which said shaft may be turned to the required position to bring said arm at a right angle to the back. Firmly secured to the back, immediately above shaft J, is a spring-hook, L, which, passing through a mortise, M, formed in arm K, and catching upon a projection when the arm is extended, secures the same in a fixed position. Firmly affixed to the shaft near its ends, and in the same plane with arm K, are depending bars N, which, together with arm K, form the legs upon which the back is supported when unfolded. Said legs are supplied with casters, when desired, to facilitate the moving of the sofa when opened out. Mounted upon the ends of the shaft are eccentric wheels O, which engage the ends of plates F when arm K is raised and release them from pins I by a slight lifting movement, thereby enabling the back to be readily unfolded. Firmly secured to the lower edge of the back are springs P, which extend upward to a point near the center, between the lower edge of the back and the shaft, as shown in Fig. 3. The upper ends of these springs are bent in such a manner as to engage the ends of springs Q, which are pivoted to the center of bars N, by means of which said bars are secured in position when folded against the back, (springs P bearing upon the backs of springs Q,) and also firmly held when extended to form the feet. Within the end pieces are formed slots for the reception of head and foot boards R, which, when the back is let down, are drawn out and rest against the arcs, as shown by dotted lines, Fig. 3. The frame of the seat is pivot-hinged to the ends, the back being also hinged thereto, doing away with the ordinary back-rail, and leaving, instead of a hard ridge in the center when the

sofa is opened out for a bed, a perfectly smooth and comfortable surface.

The number of notches within the arcs can be increased, if desired, to give any desired angle to the back for use as an invalid chair or bed.

The mattresses used upon the sofa can, when preferred, be covered with any water-proof material to prevent injury to the upholstering of the sofa incident to its use as an invalid-bed.

Having thus described my invention, what

I claim as new, and desire to secure by Letters Patent, is—

In combination with spring-hook L, the shaft J, provided with arm K and bars N, all arranged to operate as described, for the purposes herein set forth.

The above specification of my invention signed by me this 27th day of May, 1872.

ROBERT STEWART.

Witnesses:

ARCHIBALD STEWART,

WM. FIGOTT.