No. 792,798. PATENTED JUNE 20, 1905.

H. F. SOWLE.

SOFA BED.

APPLICATION FILED MAR. 19, 1902, RENEWED NOV. 18, 1904.

3 SHEETS—SHEET 1.

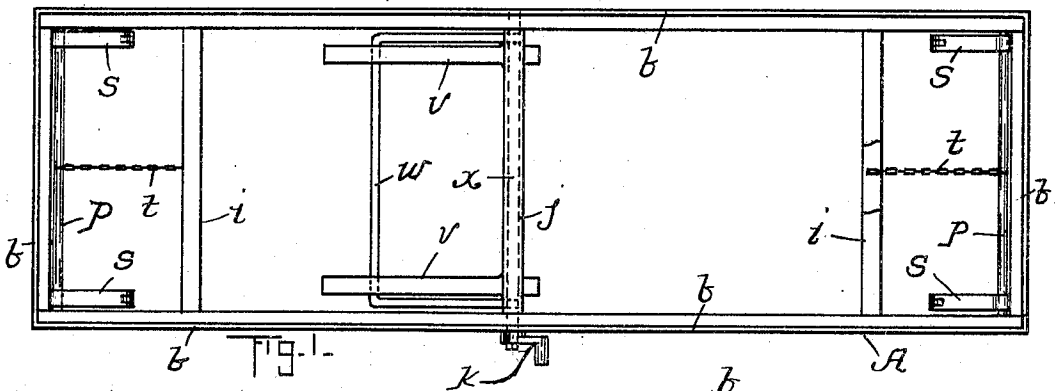


Fig. 1.

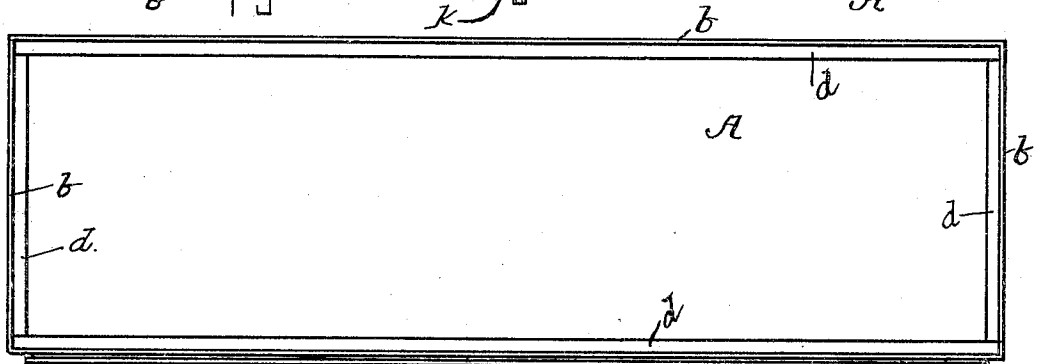


Fig. 2.

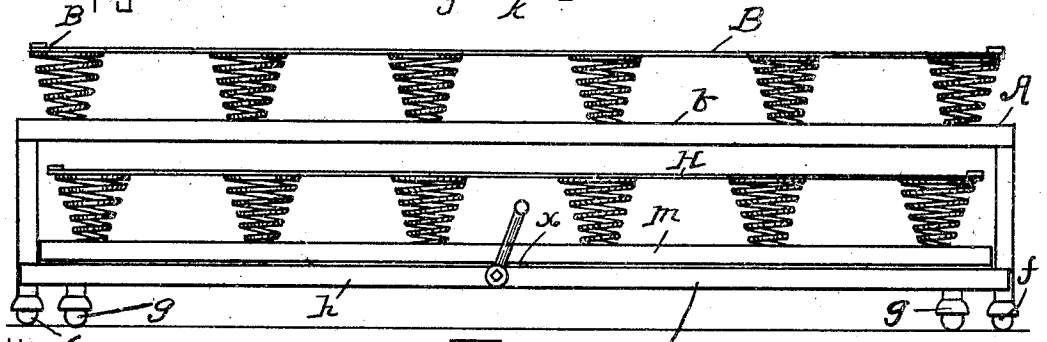


Fig. 3.

Witnesses:
H. B. Daire.
M. M. Davis

Inventor:
Herbert F. Sowle
By A. M. Shaw
atty.

No. 792,798. PATENTED JUNE 20, 1905.

H. F. SOWLE.

SOFA BED.

APPLICATION FILED MAR. 19, 1902. RENEWED NOV. 18, 1904.

3 SHEETS—SHEET 2.

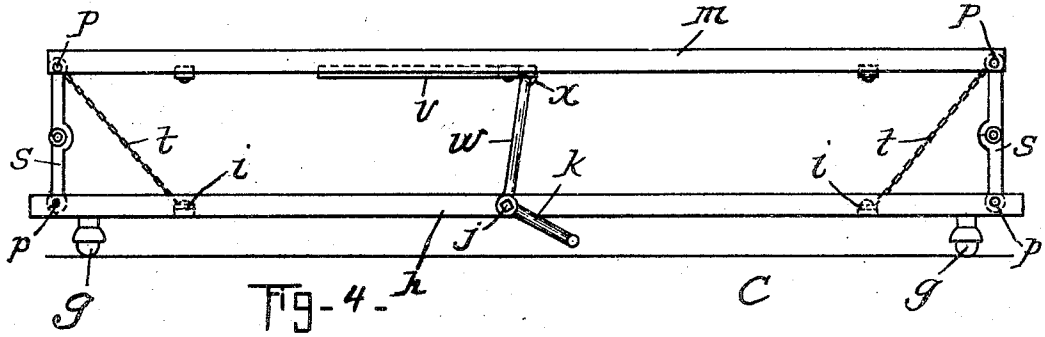


Fig. 4.

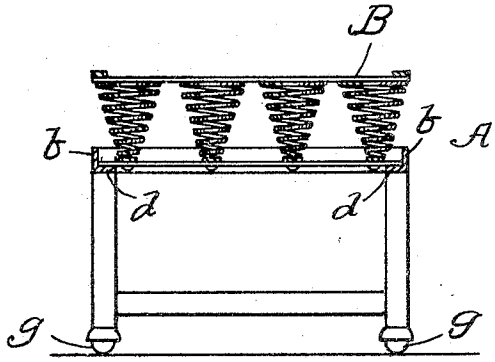


Fig. 5.

Witnesses:
H. B. Davis.
M. M. Davis

Inventor:
Herbert F. Sowle
By Chas. Shaw
Atty

No. 792,798. PATENTED JUNE 20, 1905.

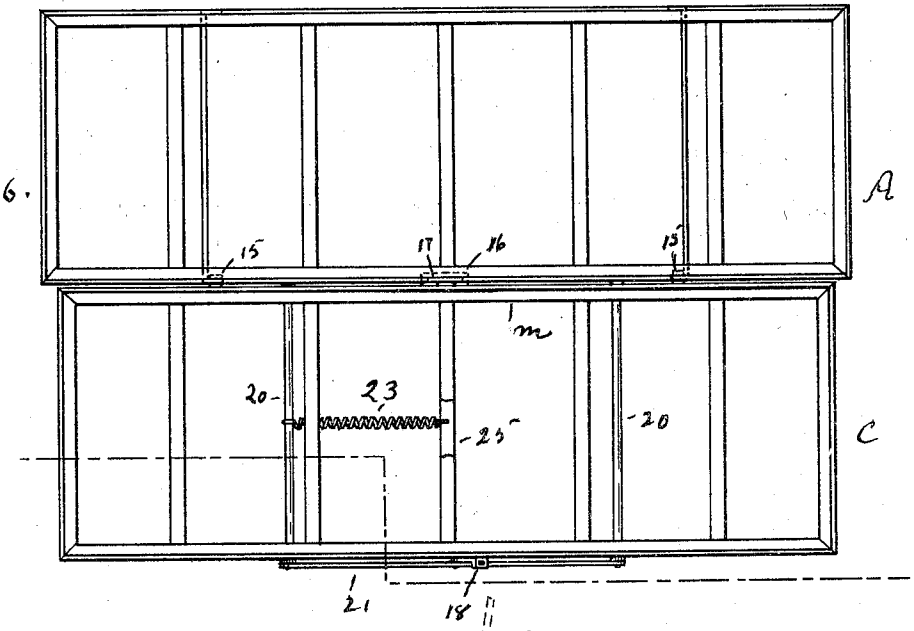
H. F. SOWLE.

SOFA BED.

APPLICATION FILED MAR. 19, 1902. RENEWED NOV. 18, 1904.

3 SHEETS—SHEET 3.

Fig. 6.



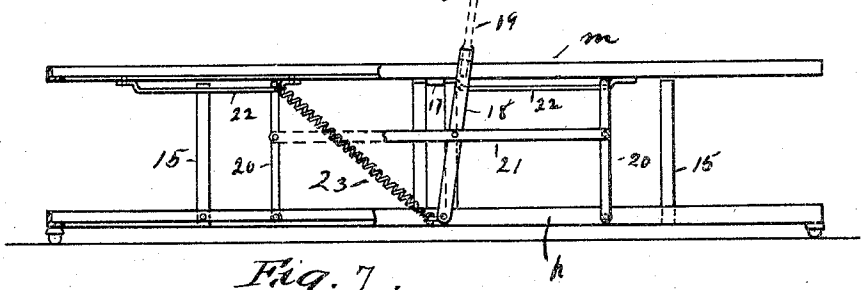


Fig. 7.

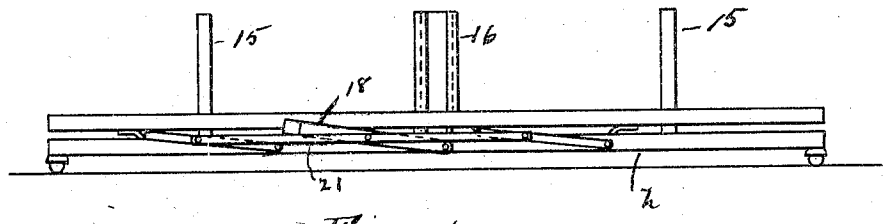


Fig. 8.

Witnesses:
H. B. Davis.
M. M. Davis.

Inventor:
Herbert F. Sowle.
By O. M. Shaw.
Atty

No. 792,798. Patented June 20, 1905.

UNITED STATES PATENT OFFICE.

HERBERT F. SOWLE, OF MELROSE, MASSACHUSETTS.

SOFA-BED.

SPECIFICATION forming part of Letters Patent No. 792,798, dated June 20, 1905.

Application filed March 19, 1902. Renewed November 18, 1904. Serial No. 233,269.

To all whom it may concern:

Be it known that I, HERBERT F. SOWLE, of Melrose, county of Middlesex, State of Massachusetts, have made certain new and useful Improvements in Sofa-Beds, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which said invention appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a top plan view of the frame of my improved bed represented as closed; Fig. 2, a like view showing bed open; Fig. 3, a front elevation of the bed as shown in Fig. 1; Fig. 4, a front elevation of the parts as shown in Fig. 2; Fig. 5, a sectional view illustrating details; Figs. 6 and 7, respectively, a plan and sectional elevation illustrating modifications in the construction of the adjusting mechanism; and Fig. 8, an elevation showing the housing-section collapsed.

Like letters and figures of reference indicate corresponding parts in the different figures of the drawings.

This invention relates to that type of couch or sofa bed which comprises two sections, one of which is adapted to be located within or below the other when a narrow bed or couch or sofa is desired, and the principal object of this invention is to provide an improved article of furniture of said character the movable or supplemental section of which is provided with hinged or folding legs or supports that are adapted when said section is drawn out from the main section to hold the mattress supported by it flush or level with the mattress of the main section to afford a wide bed having an even top surface.

A further object of this invention is to provide a construction whereby the supplemental section may be collapsed to such extent that it may be pushed within or below the main section and carry with it a coiled-spring mattress of an ordinary kind.

Further objects of the invention are to simplify and cheapen sofa or couch beds of the type referred to in a manner which will hereinafter appear.

Referring first to Figs. 1 to 5, inclusive, the main body or section A comprises a rectangular horizontal frame composed of angle-iron bars, the horizontal webs *d* of which serve to support the mattress B, which is shown as of an ordinary type having coiled springs between upper and lower cross-strips. The vertical webs *b* of the frame retain the spring-mattress in place and serve as guards against lateral displacement of the mattress. The frame is supported at a fixed height above a floor by suitable legs having casters *f*. (See Fig. 3.) The supplemental section (designated as a whole at C) comprises upper and lower rectangular frames *m* and *h*, respectively, preferably stiffened by cross-braces, as at *i*, the lower or base frame being provided with suitable casters *g*. The upper or top frame *m* supports a spring-mattress H in the same manner as that afforded by the main section for the mattress B. As shown in Figs. 2 and 4, the end bars *p* of the frames *h* and *m* are connected by folding legs pivoted to said bars and having rule-joints at the center, so they may fold or double up to permit the upper frame to rest upon the lower frame, or may be straightened out, as shown in Fig. 4, to support the ends of the upper frame when the latter is elevated. Stays *t*, preferably of strong flexible material, such as chain, connect braces *i* with the upper rods *p* to prevent the frame *m* from moving endwise when in raised position. Means for raising the frame *m* from its lower or collapsed position after the entire supplemental section C has been drawn out from the main section A comprise a crank-shaft *j*, mounted in the bars of the lower frame and having a crank arm or handle *k* and having a strut, frame, or rectangular leg *w* projecting from it. The horizontal portion of the strut, frame, or leg *w* rides along the under side of wear-strips *v*, carried by the upper frame, the motion of said horizontal portion in one direction being limited by a stop-bar *x*. These parts also constitute a le-

ver pivoted at *j* for raising the upper frame, as hereinafter described.

It will now be understood that when the parts are in the positions shown in Fig. 3 the collapsed section C may be readily pushed under the main section A without disturbing the comparatively high mattress H or covering thereon, after which it may be concealed by any suitable overhanging covering on the section A.

When a wide bed is desired, only two operations are needed—first the drawing of the section C out and then the moving of the crank-handle *k* from the position shown in Fig. 3 to that shown in Fig. 4. This last-mentioned operation causes the leg or frame *w* to ride along the plates *v* to the limit prescribed by the stop-bar *x*, the said frame *w* acting as part of a lever and through the upper frame simultaneously straightens out the folding legs *s* and pulls the stays *t* taut to prevent endwise movement of the upper frame. Said upper frame will then be supported by foldable legs at three points—viz., the center and both ends. The end legs remain in straight positions owing to their rule-joints, and the central one cannot swing back, because in moving up against the stop-bar *x* it slightly passes a vertical position. The upper frame *m* is therefore held flush with or in the plane of the frame of the main section A. To collapse the section C, the central leg is thrown over and then breaking the joints of the end legs permits the frame *m* to fall to the frame *h*, after which the whole may be housed under the main section without having to make any preliminary preparations, such as stowing away a mattress or disjointing or unhooking any parts.

Figs. 6, 7, and 8 illustrate some modifications in the means for sustaining the upper frame of the section C in raised position, and a spring is employed for counterbalancing in some degree the weight of the said upper frame and for rendering easier the operation of raising it. In this form folding legs 20 are shown, comprising strut-frames similar to the frame or leg *w* in the other form. These frames 20 are pivoted to the lower frame *h*, and their upper horizontal portions ride in guideways formed by straps 22, secured under the frame *m*. A lever 18, having an extension or telescoping handle 19, is pivoted to the lower frame, and a bar 21 is pivotally connected to the said lever and to the two strut or leg frames 20. The rear bar of the lower frame *h* is provided with two rigid uprights or stop-bars 15, the upper ends of which are adapted to engage the inner edge of the front bar of the frame of the main section to prevent the two sections from being accidentally entirely pulled apart, and said rear bar of the lower frame *h* is also provided with a rigid vertical guide 16, which receives a slide 17, carried by the rear bar of the upper frame to prevent the upper frame from moving endwise. A spring 23 connects the top of one of the legs 20 with a cross-bar 25 of the lower frame. To change the positions of the parts as shown in Fig. 8 to the positions shown in Fig. 7, the lever 18 is turned upward, the spring 23 at the same time pulling on the upper end of the leg 20, to which it is connected, and thus materially aiding in the elevation of the upper frame. The slide 17 moves upward in the guide 16, and the tops of the legs 20 slide along the guides 22 to the limit prescribed by the ends of the latter. When this limit is reached, the lever 18 has moved slightly past a vertical position and locks the parts against collapsing. To collapse the section C, the lever 18 is moved in the reverse direction. It will thus be seen that with this form only one operation is needed to either open or collapse the section C when pulled out from the section A.

It will be seen that with each form of construction the supplemental section is supported by its own legs independently of the supports of the main section and may therefore be used as an independent narrow bed. With the second form described a slight lifting of the front of the main section will permit the members 15 and 16 to pass, so that the supplemental section can be removed for separate use.

Having thus explained the nature of the invention and described a way of constructing and using the same, although without attempting to set forth all of the forms in which it may be made or all the modes of its use, I declare that what I claim is—

1. An interconvertible bed and couch comprising a main section and a supplemental section, the latter having foldable legs permanently connected therewith, and having means whereby said legs will support the supplemental section independently of the main section.

2. An interconvertible bed and couch comprising a main section and a supplemental section, the latter having foldable legs permanently connected therewith, and having means whereby said legs will support the supplemental section independently of the main section, the said legs being of a length to support the top of the supplemental section in the plane of the top of the main section.

3. An interconvertible bed and couch comprising a main section and a supplemental section, the latter having pivoted legs connected for simultaneous movement, and a pivoted strut engaging the under side of the mattress-supporting frame of the supplemental section, and means for swinging said strut on its pivot.

4. An interconvertible bed and couch com-

prising a main section and a supplemental section, the latter consisting of upper and lower frames permanently connected by foldable legs.

5. An interconvertible bed and couch comprising a main section and a supplemental section, the latter consisting of upper and lower frames permanently connected by foldable legs, and means for preventing endwise movement of the upper frame when raised.

HERBERT F. SOWLE.

Witnesses:
O. M. SHAW,
C. M. WILBUR.