(No Model.) 2 Sheets—Sheet 1.

W. FLAM.

SOFA BED.

No. 457,580. Patented Aug. 11, 1891.

Fig. 1.

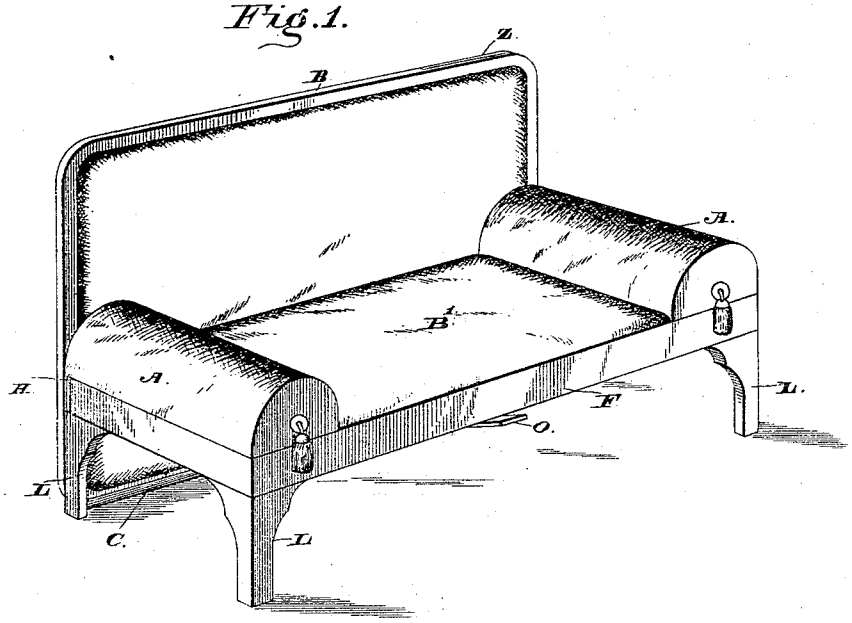
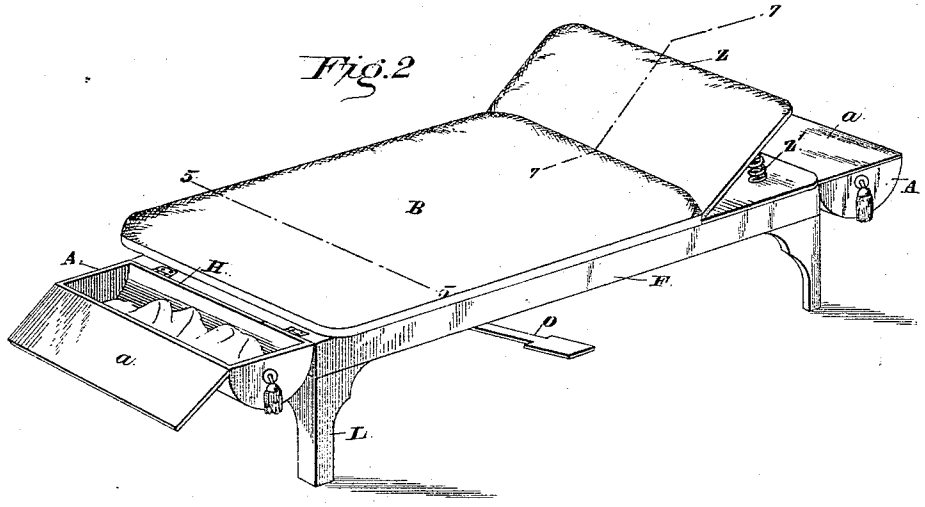


Fig. 2



Witnesses

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Inventor

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By his Attorneys,

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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

(No Model.) 2 Sheets—Sheet 2.

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Fig. 3.

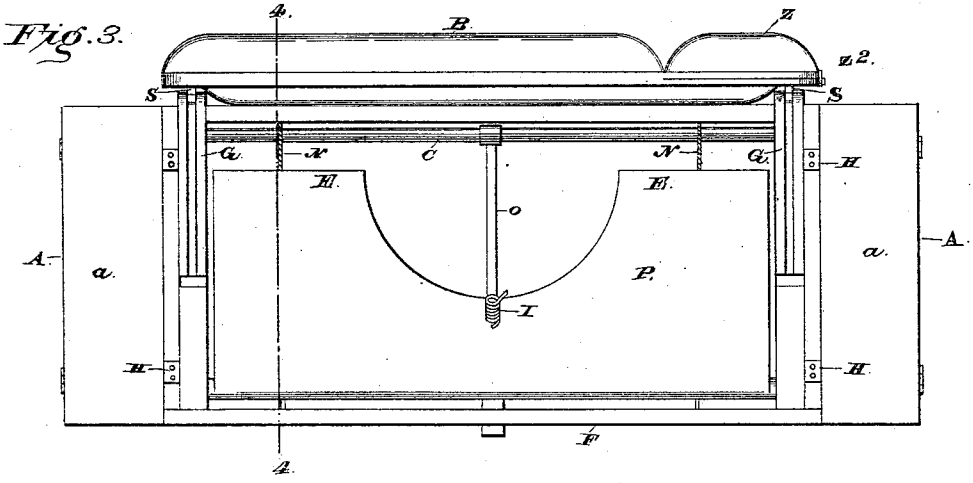


Fig. 4.

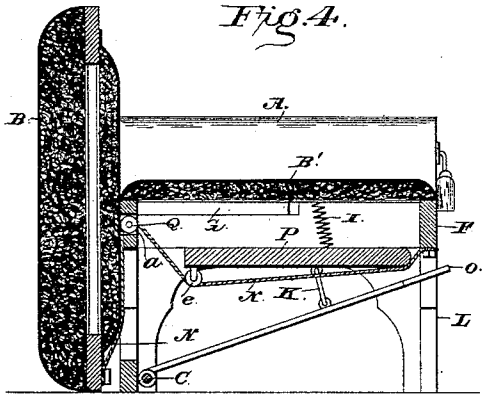


Fig. 5.

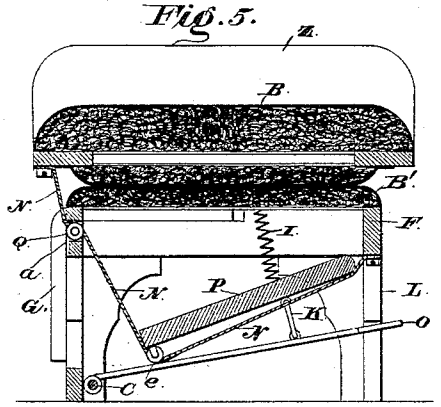


Fig. 6.

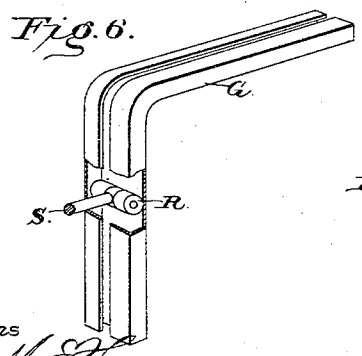
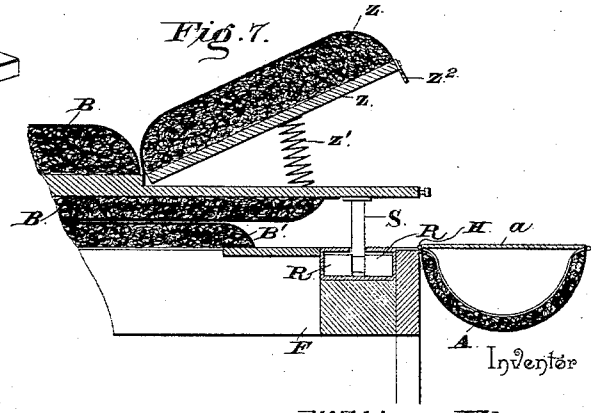


Fig. 7.



Witnesses

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UNITED STATES PATENT OFFICE.

WILLIAM FLAM, OF DENVER, COLORADO.

SOFA-BED.

SPECIFICATION forming part of Letters Patent No. 457,580, dated August 11, 1891.

Application filed December 16, 1890. Serial No. 374,901. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM FLAM, a citizen of the United States, residing at Denver, in the county of Arapahoe and State of Colorado, have invented a new and useful Sofa-Bed, of which the following is a specification.

This invention relates to bedsteads, and more especially to that class thereof known as "sofa-beds;" and the object of the same is to provide a device of this character which can be readily changed from a bed to a sofa, or vice versa, and which when in the latter condition will provide for the storage of the bedclothes.

To this end the invention consists of the details of construction hereinafter more fully described and claimed, and as illustrated in the drawings, in which—

Figure 1 is a perspective view of this device as a sofa, and Fig. 2 as a bed. Fig. 3 is a plan view of the sofa with the bottom thereof removed. Fig. 4 is a section on the line 4 4 of Fig. 3. Fig. 5 is a similar section on the line 5 5 of Fig. 2. Fig. 6 is an enlarged perspective detail of one of the guides and the rollers moving therein. Fig. 7 is a section on the line 7 7 of Fig. 2.

Referring to the said drawings, the letter F designates a rectangular frame-work supported by corner legs L, and A A are hollow semicircular arms having hinged covers *a*, adapted to close their flat sides and having upholstered curved sides, as shown. One of these arms is hinged, as at H, to each end of the frame F, and is adapted to be folded outwardly when the bed is made or folded inwardly when the device becomes a sofa. In the latter case the bedclothes may be stored within the arms, as will be understood.

The letter B designates the back of the sofa or the bottom of the bed. It comprises a frame carrying a wire-spring mattress, or in which is stretched webbing upholstered on both sides. In the under faces of the end bars of the back are studs S, having rollers R, and mounted on the end bars of the frame F are L-shaped guides G, provided with slots in their upper faces through which said studs project. I have said these guides are L-shaped because one member of each lies along the top of the frame F and the other member down the back of the rear leg below the rear edge of the frame. It will thus be understood that the back B can stand in a vertical position, as seen in Fig. 1, when the rollers will be below the rear edge of the frame and in the vertical portions of the guides, and the back will be prevented from falling forward by striking against the rear edge of the frame above where the rollers engage the vertical portions of the guides, or said back can stand in a horizontal position, as shown in Fig. 2, when the rollers will be in the horizontal portions of the guides. In the former case the device is a sofa; in the latter a bed.

The bottom of the sofa is lettered B′ in Fig. 1, and is merely a similar upholstered spring or webbing across the frame-work F, which bottom is covered by the back when the device becomes a bed.

The letter C designates a cross-piece connecting the two rear legs, and hinged to this cross-piece is an operating-lever O, which extends beneath the frame to within reach of a person standing in front of the device.

P is a plate pivoted beneath the frame near the front ends of the side bars of the same, said plate having rearward extensions E and connected by a link K with the operating-lever O and by a coiled spring I with the bottom B′. Ropes or chains N, secured to the front bar of the frame-work, pass beneath the plate P, under the extensions E, where they pass over pulleys *e*, thence up and over pulleys Q, situated in apertures *a* in the rear bar of the frame, and thence down and are connected with the back B.

When it is desired to convert the device from the sofa shown in Fig. 1 to the bed shown in Fig. 2, the arms A are first turned outwardly, the operator presses his foot on the lever O and bears downwardly, thereby depressing the plate P, drawing on the ropes N, and raising the back B, and the back is then drawn down to the position shown in Fig. 2.

The letter Z designates a leaf hinged to the rear of the back and adapted to be used as a pillow, as seen in Fig. 7, being flexibly supported by springs Z′, and held closed by a hook Z^2. The arms A are then opened, the bedclothes taken therefrom, and the bed made up, after which the operator can repose in blissful slumber thereon.

To restore the device to the condition shown

in Fig. 1, the bedclothes are taken off, the pillow folded and latched, the back pushed to the rear and raised, when it will drop into position, with the arms turned inwardly.

A device of this character can be cheaply constructed, and, because of its extreme simplicity and facility of operation, will not be liable to get out of order.

What is claimed as new is—

1. In a sofa-bed, the combination, with the frame and the L-shaped guides mounted thereon and extending down the back thereof below the rear edge of the frame, said guides having slots in their outer faces, of the back, the studs projecting therefrom and passing through said slots, said studs being nearer the lower edge of the back than the height of the frame from the floor, and the rollers at the ends of the studs moving within said guides, substantially as described.

2. In a sofa-bed, the combination, with the frame, the L-shaped guides mounted thereon, a plate pivoted to the frame and having extensions provided with pulleys, and ropes connected to the front bar of the frame, passing under said pulleys, leading over pulleys located in apertures in the rear bar of the frame and extending thence downwardly, of the back, whose lower bar is connected to the ends of said ropes, studs depending from said back and engaging said guides, and means for operating said plate, substantially as described.

3. In a sofa-bed, the combination, with the frame, the L-shaped guides mounted thereon, a plate pivoted to the frame and having rearward extensions, ropes connected to the front bar of the frame passing under said extensions, leading over pulleys connected to the rear bar of the frame, and extending thence downwardly, a back whose lower bar is connected to the ends of said ropes, and studs depending from said back and engaging said guides, of a cross-bar connecting the rear legs, an operating-lever hinged thereto, and a link connecting said lever with the plate, as and for the purpose set forth.

4. In a sofa-bed, the combination, with the frame having an upholstered bottom, L-shaped guides on said frame, a plate pivoted below the front end of the same and having rearward extensions, and a spring connecting said plate with the bottom, of ropes leading from said extensions over pulleys in the rear bar of the frame, a back upholstered on both sides connected at its lower edge to the ends of said ropes and having studs engaging said guides, and an operating-lever, its rear end connected to the frame, its center connected to the plate, and its front end projecting forward of the front of the frame, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

WILLIAM FLAM.

Witnesses:
WM. STEGNER,
JOE FITZPATRICK.