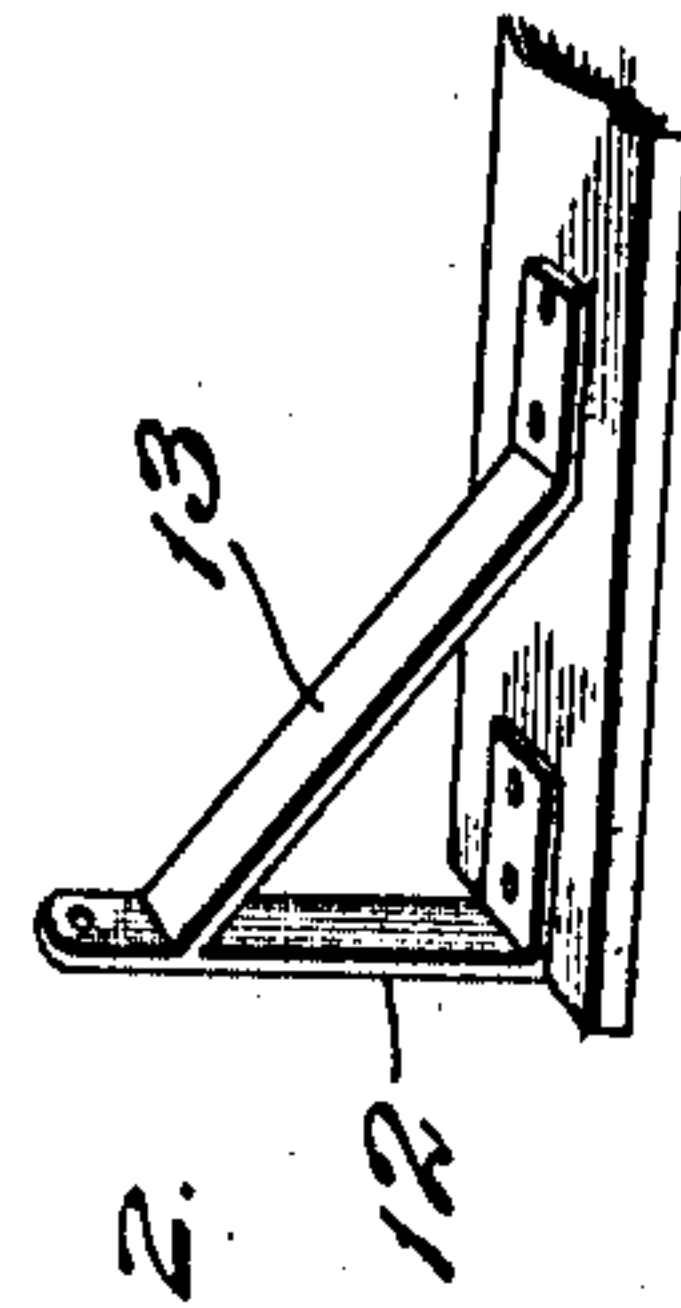


**SOFA BED.**

988,721.

2 SHEETS—SHEET 1.



Sup. 2.

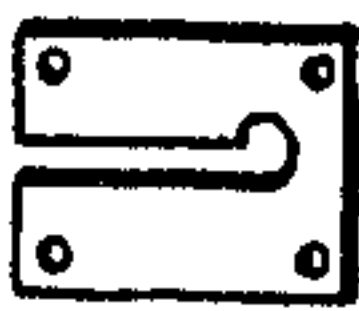


Fig. 5.

C. F. Duwall.

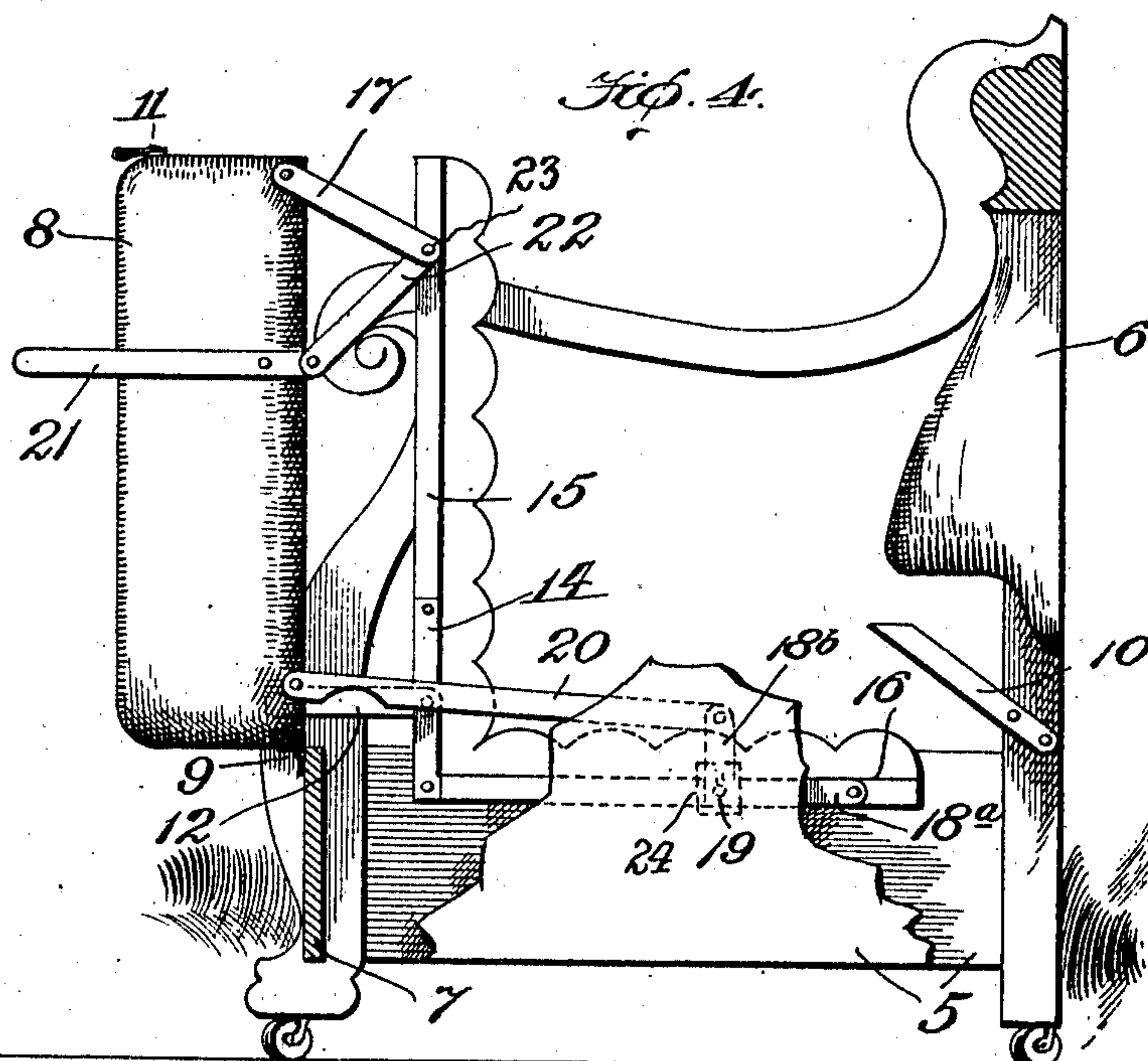
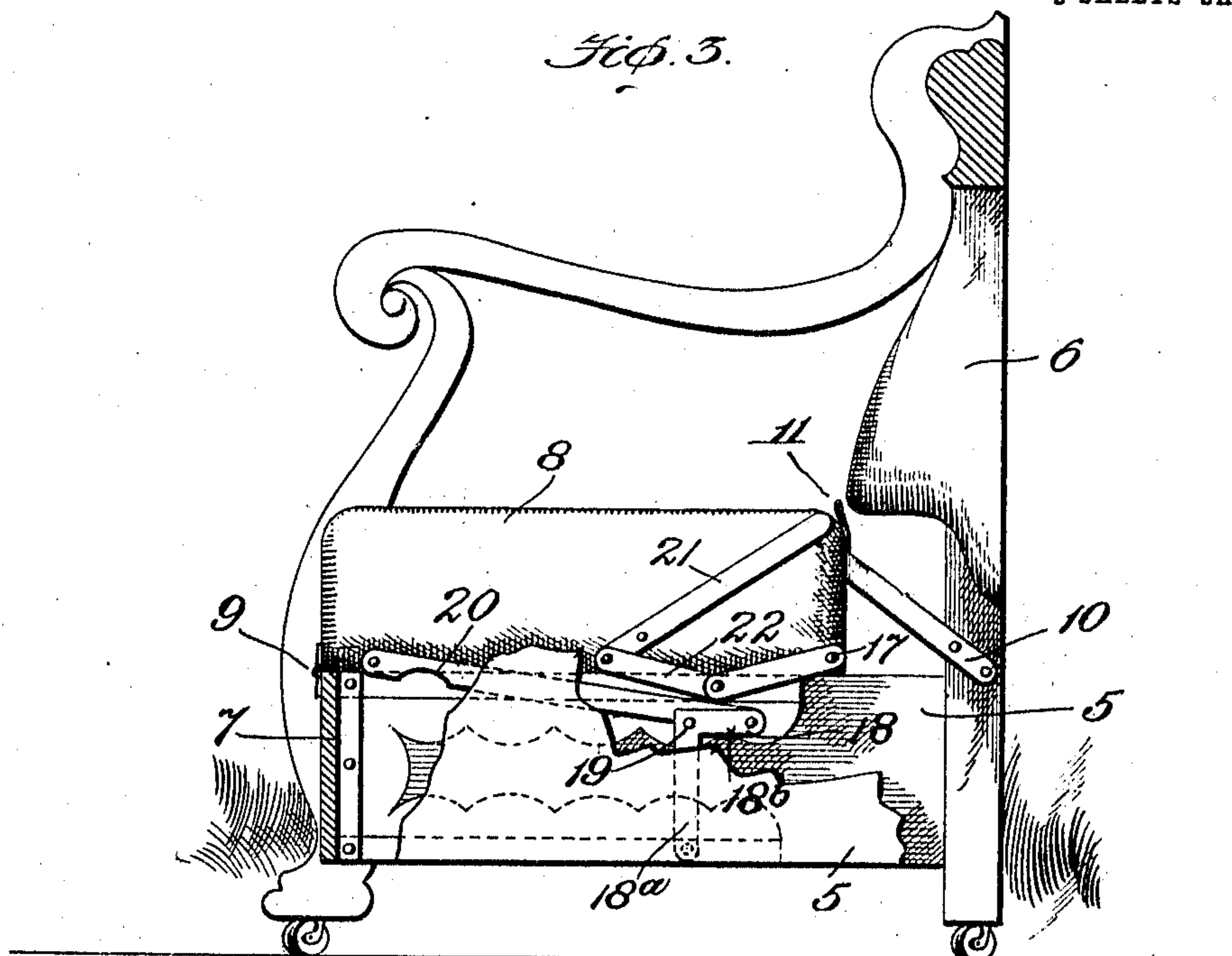
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988,721.

P. E. KROEHLER.  
SOFA BED.  
APPLICATION FILED JUNE 8, 1909.

Patented Apr. 4, 1911.

2 SHEETS—SHEET 2.



Witnesses:

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# UNITED STATES PATENT OFFICE.

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## SOFA-BED.

988,721.

Specification of Letters Patent.

Patented Apr. 4, 1911.

Application filed June 8, 1909. Serial No. 500,826.

*To all whom it may concern:*

Be it known that I, PETER E. KROEHLER, a citizen of the United States, residing at Naperville, in the county of Dupage and State of Illinois, have invented a Sofa-Bed, of which the following is a specification.

My invention is an improvement in sofas or davenports, and the primary object of the same is to provide a combination sofa and bed of such construction that when the parts are arranged in the form of a sofa or davenport the device will have the usual appearance of this particular style of furniture, and when arranged in bed form a foldable mattress which is normally concealed under the upholstered seat of the sofa or davenport will be brought into a horizontal position and firmly supported for use as a bed.

With this primary object in view my invention consists in the combination with a sofa frame and its seat, of a folding mattress and means, as levers and links, for connecting the same to the sofa frame and seat and for supporting the latter, such connecting means being so constructed and arranged as to operate the mattress and support when the seat is swung out of and into the frame; all as hereinafter fully described and specifically set forth in the appended claims.

In the accompanying drawings which form a part of this specification: Fig. 1 is an end view of a combination sofa and bed constructed in accordance with my invention, the parts being arranged in bed form and the rear end of the sofa-frame removed. Fig. 2 is a detail hereinafter referred to. Fig. 3 is an end view, partly in section, showing the parts arranged to form a sofa or davenport. Fig. 4 is a similar view, the seat being raised in the operation of converting the sofa into a bed. Fig. 5 is a detail view of a pivot connection, hereinafter referred to.

Like numerals of reference indicate like parts in all the figures of the drawings.

In carrying out my present invention I employ a conventional form of sofa or davenport frame, comprising the end pieces 5, 5, back 6, and front rail 7, and in connection therewith provide a suitably upholstered seat 8, which latter in the present instance is hinged at its forward end to the upper edge of the front rail by means of the

hinges 9, so that said seat may be swung out of the frame in converting the sofa into a bed, as hereinafter explained. The rear end of the seat is supported in the frame by arms 10, secured to the rear corner-posts of said frame, and for the purpose of operating the seat it is provided at the center of its rear end with the usual loop or strap 11.

Secured to and projecting from the inner side of the seat at each end thereof is a supporting-bar 12, reinforced by an inclined brace 13, (see Fig. 2), and to the outer ends of these supporting-bars is pivotally connected the center section 14 of a foldable mattress frame comprising three sections, to wit: the aforementioned center section 14, and opposite end sections 15 and 16. The outer end of mattress-frame section 15 is connected to the seat by a supporting-link 17, which is of such length that when the seat 8 is swung to its position in front of the sofa frame said end section will be supported on a line with the center section 14. The other end section, 16, of the mattress-frame is pivotally-connected to one member, as 18<sup>a</sup>, of bell-crank levers 18, said bell-crank levers being pivoted to the inner sides of the end pieces 5 of the sofa-frame by means of pivot-pins 19 extending into said end pieces. These bell-crank levers are adapted to support the mattress-frame section 16 at that end or side opposite its connection with the center section 14, and in order to mechanically operate said bell-crank levers to properly raise and lower the section 16 as the seat is manipulated the short member, 18<sup>b</sup>, of each bell-crank lever is connected by a rod 20 to the inner end of said seat a short distance from the hinge.

When the seat is swung to the position in front of the sofa-frame the outer end thereof is supported by means of legs 21, pivoted at each end of the seat and adapted to be swung to a vertical or supporting position by means of links 22, each link being connected at one end to the projecting end of the supporting-leg and at the other end to the section 15 of the mattress-frame, the latter connection being preferably by means of the same pivot, as 23, by which the supporting-link 17 is connected to said section. This connecting-link 22 acts to swing the supporting-leg to a supporting position and to a position alongside of the end of the seat below the upper edge thereof when the



seat is swung out of and into the sofa-frame, as will be obvious.

As will be seen by reference to Fig. 1, when the parts are arranged in bed form the mattress-frame is supported at the center by the supporting-bars 12, at the outer end by means of the supporting-links 17 extending from the supported seat 8, and at the inner end by means of the bell-crank levers 18; and that when the seat is swung into the sofa-frame, as shown in Fig. 3, the sections 14, 15 and 16 are folded below the sofa-seat, while the supporting legs 21 are swung alongside the ends of said seat so as to be concealed, the inner portion of the seat being then supported by the arms 10. In this latter position of the parts the device assumes the character of an ordinary sofa or davenport.

It will be noted that when the sectional mattress-frame is folded below the sofa-seat the center section 14 is disposed vertically immediately in the rear of the front rail 7, with the end sections 15 and 16 disposed horizontally one above the other leaving a space in which the bed clothing may be stored; also that the mattress-frame section 16 maintains a horizontal position during the raising and lowering of the same in converting the sofa into a bed, and vice versa, and therefore the bed clothing may be folded and placed on this section before the seat is swung into the frame and the mattress-frame folded, and such clothing will not be disturbed by the operation of the parts.

The pivotal connection between the bell-crank lever 18 and end piece of the sofa-frame is preferably by means of a plate 24, (see Fig. 5), which is attached to the end piece and provided with an open-ended slot into which the headed pivot-pin 19 engages. This connection is provided in order that the parts may be readily assembled after being shipped in knockdown form, and for the latter purpose I also purpose to connect the front rail 7 and back 6 of the sofa-frame to the end pieces 5 thereof by means of the usual form of bed fasteners.

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

1. In a sofa-bed, the combination with a sofa-frame and seat hinged to the front end thereof, of supporting-bars extending from the inner side of the seat, a mattress-frame

comprising a center section connected to said supporting-bars and end sections pivotally connected to the center section, links connecting one of the end sections to the seat, and levers connecting the other end section to the sofa-frame.

2. In a sofa-bed, the combination with a sofa-frame and seat hinged to the front end thereof, of supporting-bars projecting from the inner side of the seat, a mattress-frame comprising a center section connected to said supporting-bars and end sections pivotally connected to the center section, supporting-links connecting one of the end sections to the seat, bell-crank levers connecting the other end section to the sofa-frame, and operating-rods connected to said bell-crank levers and to the seat.

3. In a sofa-bed, the combination with a sofa-frame and seat hinged to the front end thereof, of supporting-bars projecting from the inner side of the seat, a mattress-frame comprising a center section connected to said supporting-bars and end sections pivotally connected to the center section, supporting-links connecting one of the end sections to the seat, bell-crank levers connecting the other end section to the ends of the sofa-frame, and operating-rods connected to the bell-crank levers and to the seat near the hinges; together with supporting-legs pivoted to the ends of the seat, and links connected to the legs and to the adjoining mattress frame section, substantially as shown and for the purpose set forth.

4. In a sofa-bed, the combination of a frame, a seat invertibly connected therewith, a folded bed normally housed in said frame beneath said seat and comprising an intermediate section foldably mounted on said seat and front and rear sections foldably related to said intermediate section, and mechanism operative to automatically unfold the bed sections and elevate the front and rear edges respectively of the front and rear bed sections in the operation of inverting the seat.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

PETER E. KROEHLER.

Witnesses:

C. BAILEY,  
E. R. ROSENTRATER.