

No. 670,073.

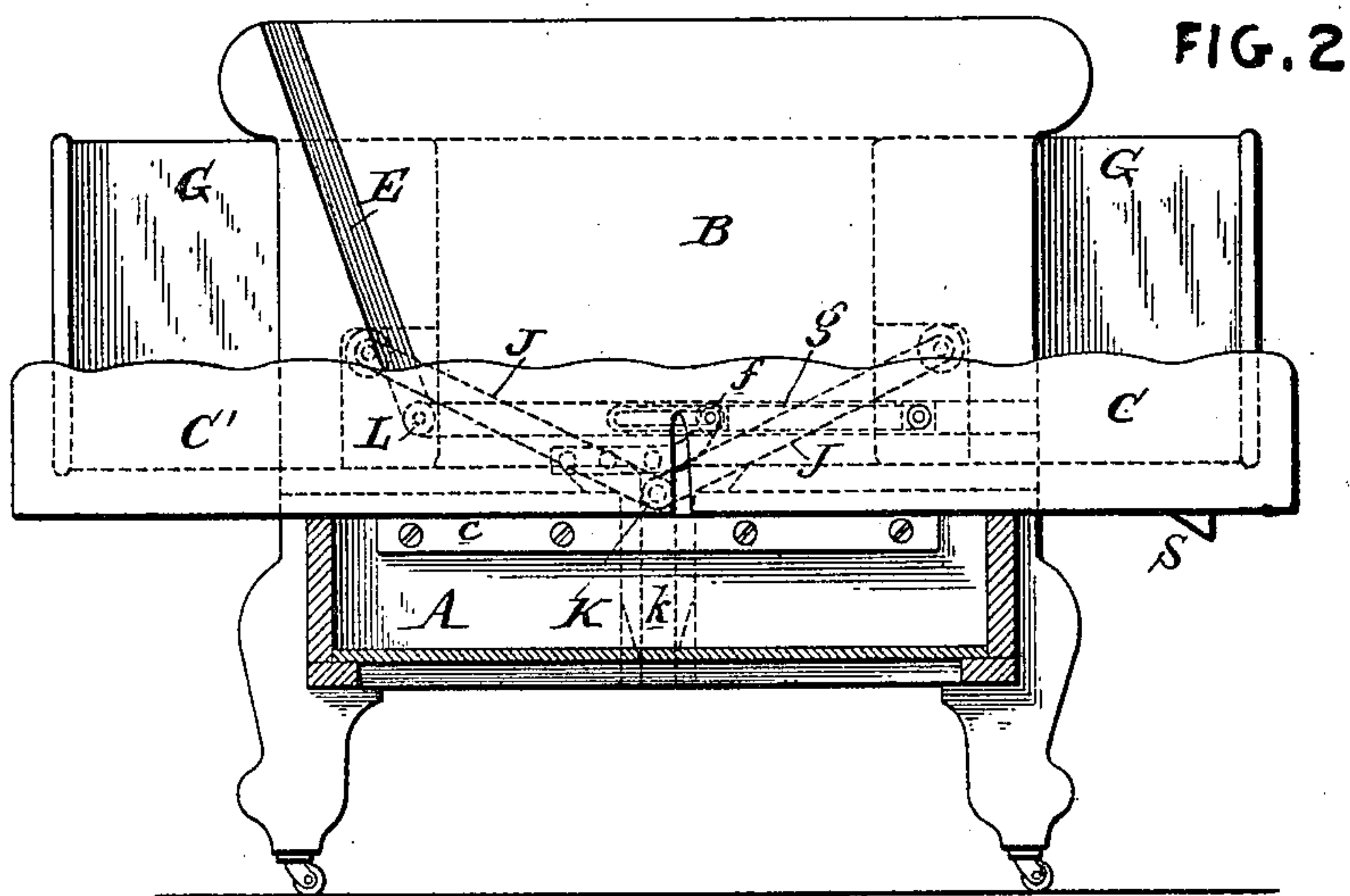
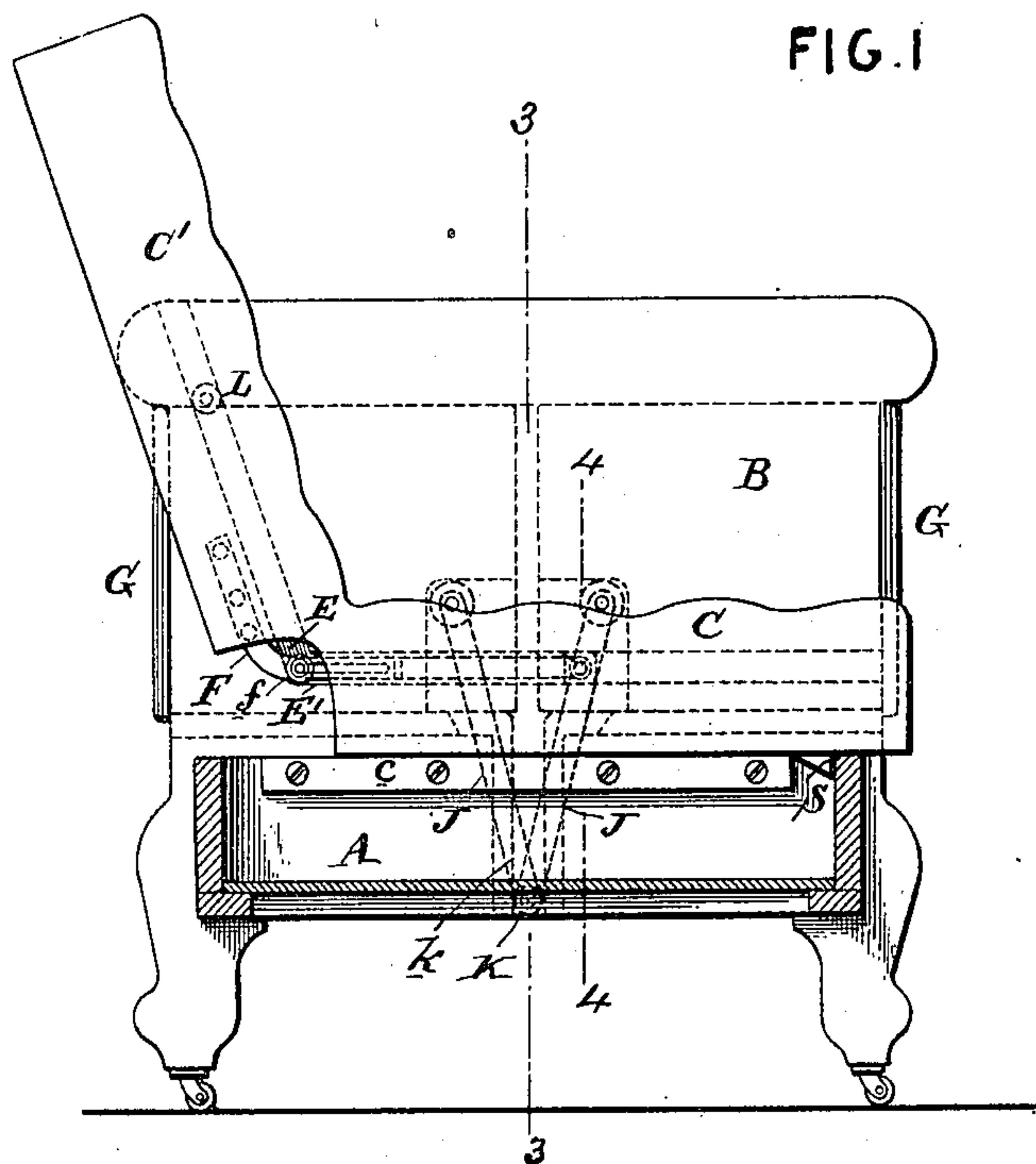
Patented Mar. 19, 1901.

B. F. FORTINER.
SOFA BEDSTEAD.

(Application filed June 16, 1900.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES.

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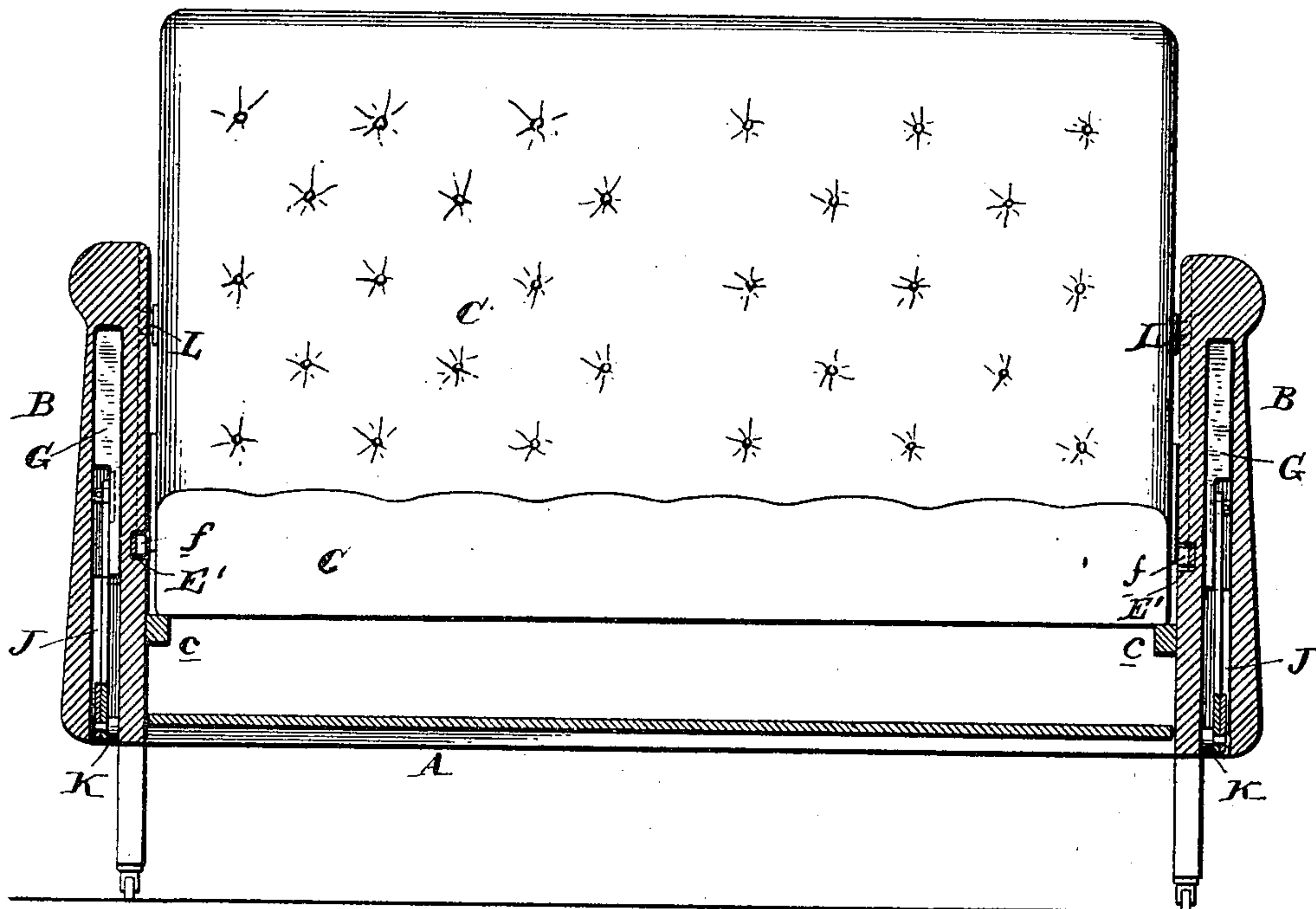


FIG. 3

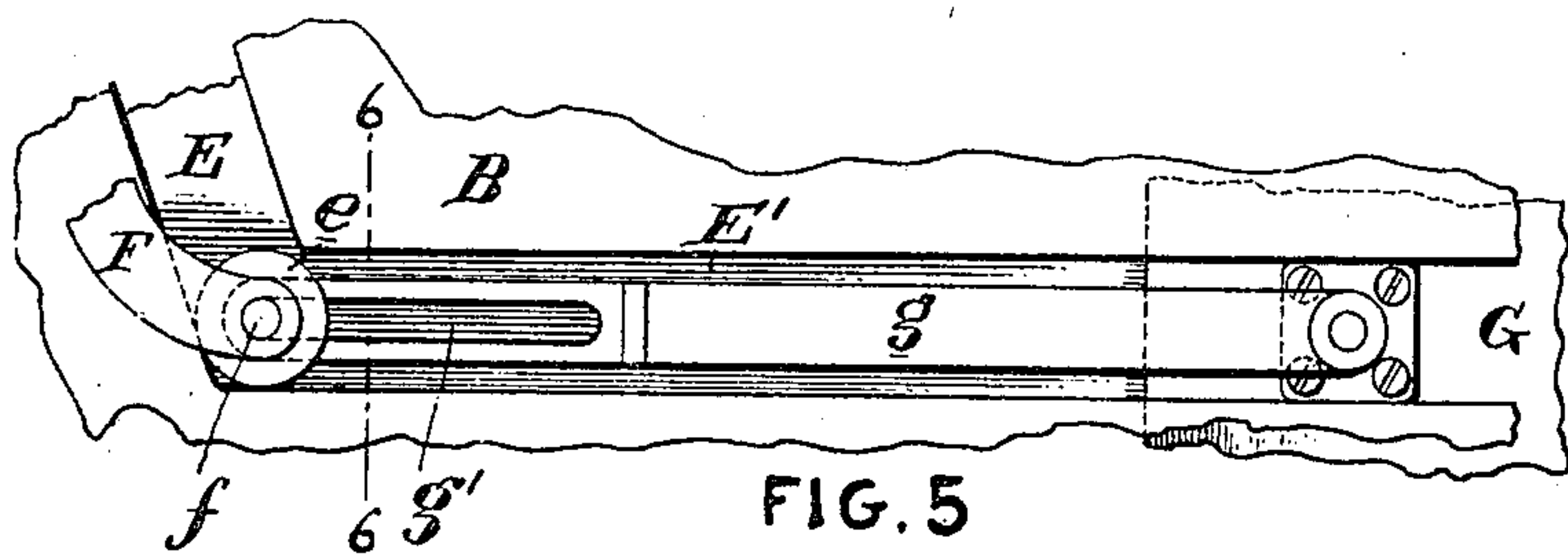


FIG. 5

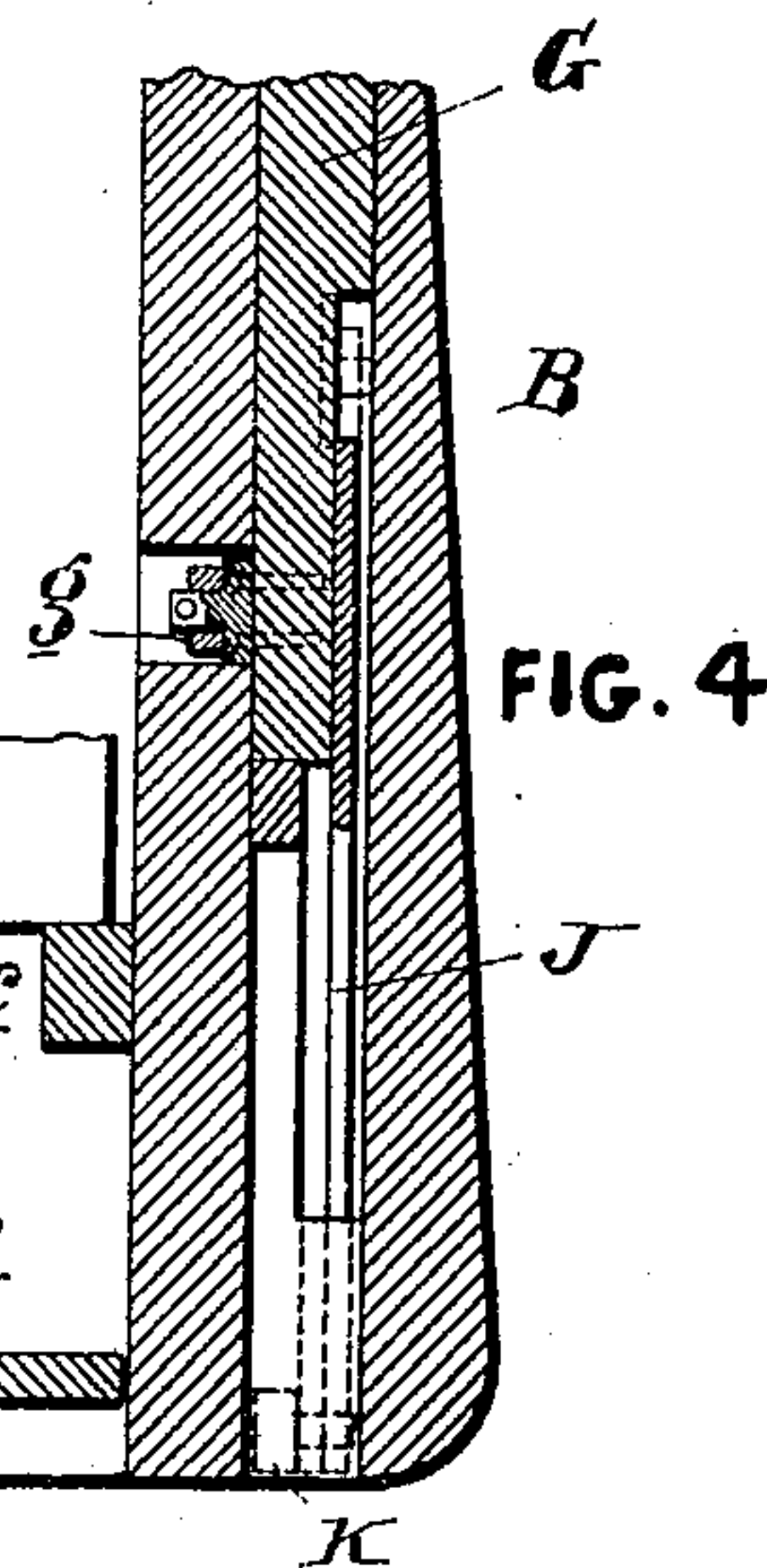


FIG. 4

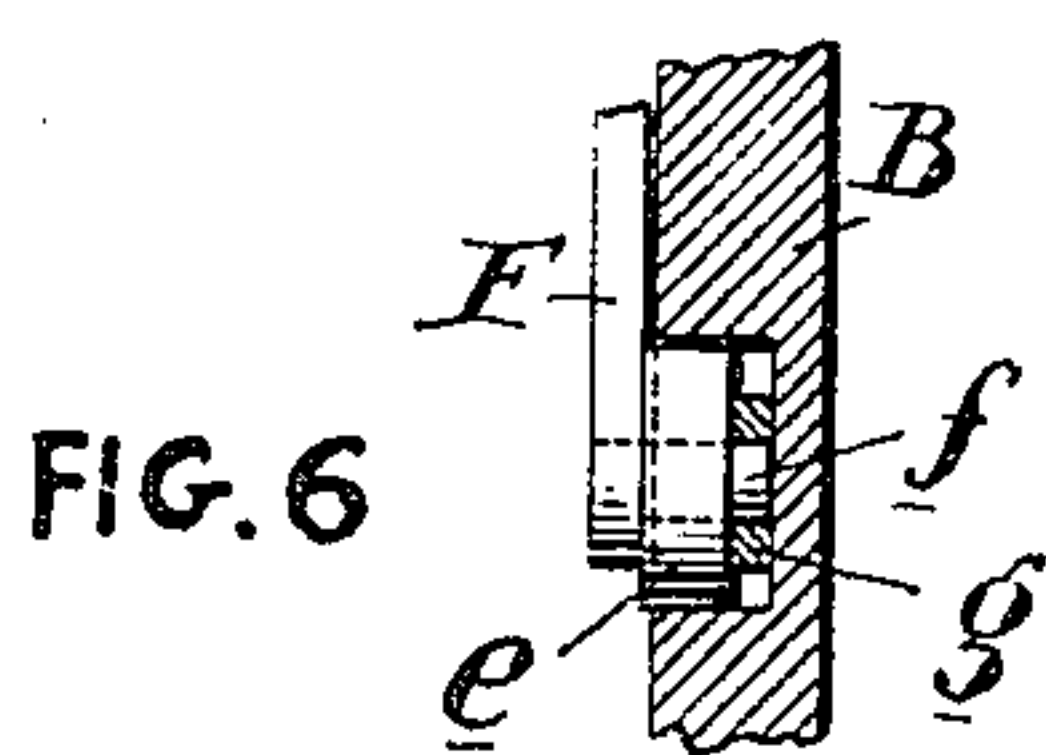


FIG. 6

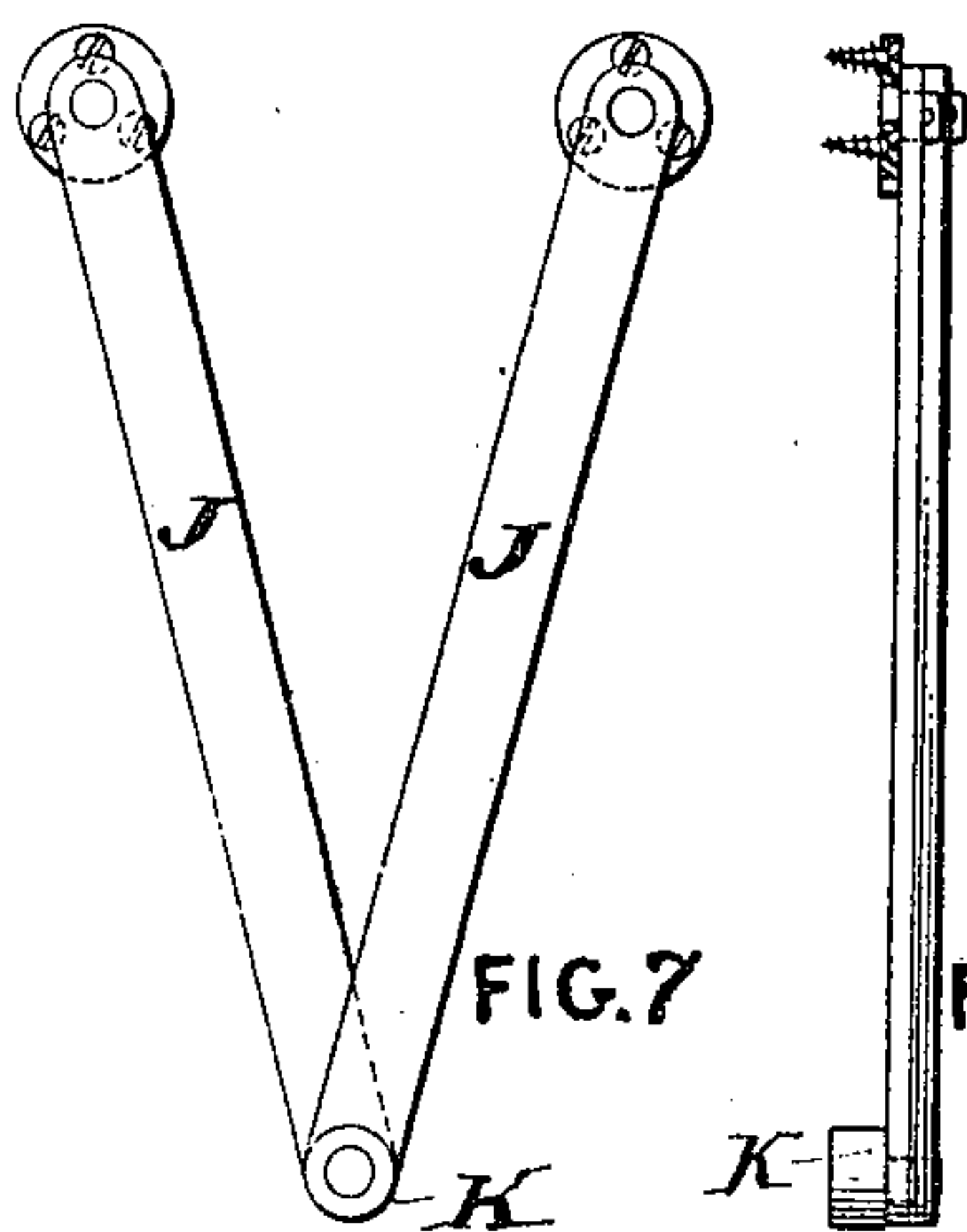


FIG. 7

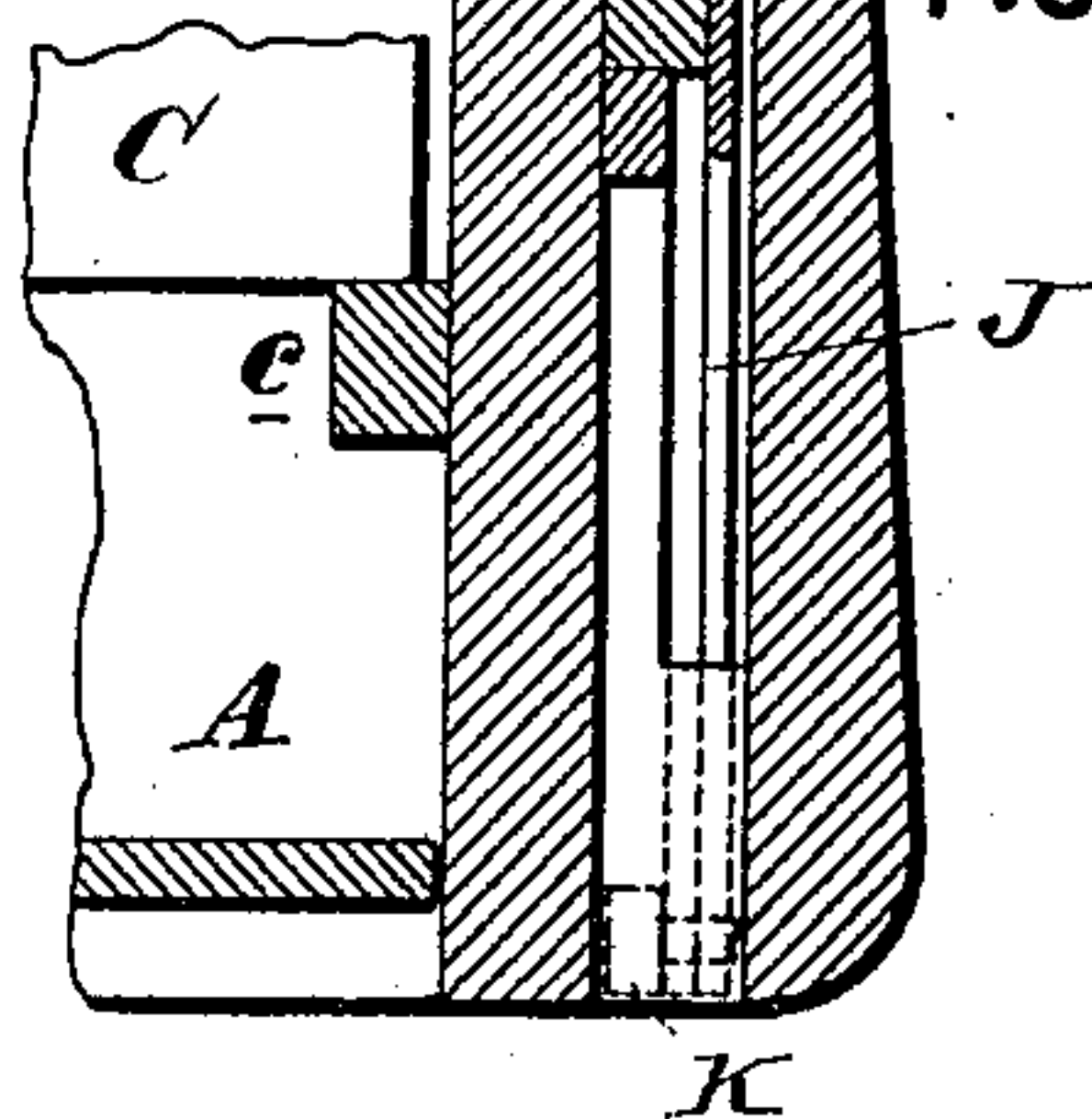


FIG. 8

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UNITED STATES PATENT OFFICE.

BENJAMIN F. FORTINER, OF CAMDEN, NEW JERSEY, ASSIGNOR TO THE
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SOFA-BEDSTEAD.

SPECIFICATION forming part of Letters Patent No. 670,073, dated March 19, 1901.

Application filed June 16, 1900. Serial No. 20,488. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN F. FORTINER, of Camden, county of Camden, State of New Jersey, have invented an Improvement in
5 Sofa-Bedsteads, of which the following is a specification.

My invention has reference to sofa-bedsteads; and it consists of certain improvements fully set forth in the following specification and shown in the accompanying drawings, which form a part thereof.

The object of my invention is to provide a sofa-bedstead with expanding or extension ends to produce wide head and foot boards
15 when the sofa is arranged as a bed and narrow end frames when used as a sofa. The extension portions of the ends of the sofa are preferably so arranged as to move automatically and be controlled by the act of moving
20 the cushions constituting the seat and back of the sofa.

In carrying out my invention I provide the end frames or arms of the sofa with sliding boards which stand vertically and slide in or
25 telescope with the hollow end frames or arms, said boards being pushed out or drawn in by suitable connections with the cushions of the sofa. Each end frame has two of these sliding boards adapted to move in opposite di-
30 rections, so as to widen the end frame equally on both front and back to secure symmetry in the structure when used as a bed.

My invention will be better understood by reference to the drawings, in which—

35 Figure 1 is a cross-section of my improved sofa-bed on line 1 1 of Fig. 3, showing the sofa-bed used as a sofa. Fig. 2 is a similar section showing same extended to form a bed. Fig. 3 is a longitudinal section of same on
40 line 3 3 of Fig. 1, but showing the cushion in elevation. Fig. 4 is a cross-section of a portion of same on line 4 4 of Fig. 1. Fig. 5 is an elevation showing the means for moving the sliding boards. Fig. 6 is a cross-section
45 on line 6 6 of Fig. 5, and Fig. 7 is a side elevation, and Fig. 8 an end elevation, of the links connecting the two movable boards at one end of the sofa.

50 A is the main frame and is connected at its ends to the hollow end frames B B, which preferably have the feet or support formed

on them. These end frames have transverse guide-strips *c* for the cushions and are further provided with the grooves E E', arranged at an angle to each other, the grooves E' being horizontal and the grooves E oblique and
55 backward.

The seat-cushion C rests upon the guide-strips *c* and is jointed to the back-cushion C', the upper surface of the upholstery being
60 continuous. The back-cushion has its ends at or about the middle furnished with guide-rollers L, which work in the oblique grooves E to sustain the cushion when moved back and into the position shown in Fig. 1. The
65 forward end of this cushion is also provided with two guide-rollers *f*, working in the horizontal grooves E', said rollers being journaled on bearings carried by brackets F, fastened to the frame of the back-cushion C'. It will
70 now be understood that as the seat-cushion C is liberated from the catch S by raising its forward edge slightly the back-cushion may be lowered into a horizontal position, as shown in Fig. 2, the rollers L and *f* insuring a grad-
75 ual lowering of the upper or free end thereof.

G G are sliding boards telescoping into the front and rear vertical faces of the end frames B. When they are in, the appearance is as
80 in Fig. 1, and when extended the appearance is as in Fig. 2. In the extended position they act as means to widen out the end frames so as to make them constitute wide head and foot boards. These boards G G at each end are coupled in pairs by jointed links J J, which
85 links are respectively hinged at their upper ends to the boards and jointed at their lower ends where they carry a guide-roller K, which works up and down in a vertical guide-groove *k*. By this means it is evident that if one of
90 these boards G is moved out the other must be moved out also. To the front board of each pair is connected a link *g*, having a slot *g'*, which receives the journal-pin of the roller *f*, as clearly shown in Figs. 5 and 6. These
95 links *g* move in the grooves E', which in front of the forward boards open entirely through the inner wall of the end frame. It will be seen that as the back-cushion C shifts from position shown in Fig. 1 to that of Fig. 2 the links
100 *g* will push the front boards G forward, and these, by links J, will move the rear boards

G backward, the parts assuming the positions shown in Fig. 2. The slots *g* of the links are to enable a more extended movement to the cushions than is necessary to the links.

5 It will be observed that the boards *G* extend the width of the end frames *B* to approximately the width of the seat and back cushions when laid side by side.

While I have shown the extension-boards 10 *G'* both in front and rear, it is evident that the rear or the front boards may be omitted, or these boards may be only employed at one end to constitute the headboard, having the footboard narrow. I, however, prefer to em- 15 ploy the four adjustable boards *G*, as set out.

While I prefer the construction shown as excellently adapted to the purpose, the details may be modified without departing from the spirit of the invention.

20 Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a sofa-bed, the main frame having up- 25 right and horizontal guides *E'*, in combination with adjustable back and seat cushions hinged together and movable bodily forward upon the main frame and in which the ad- justable back-cushion is provided with guid- 30 ing projections adapted to the upright and horizontal guides, an extension-board movable into and out of the front of the end-frame portions of the main frame, and a linked connection between the back-cushion and the ad- 35 justable extension-board whereby the forward movement of the back-cushion upon the main frame will cause the extension-board to be projected in the same direction.

2. In a sofa-bed, the main frame having up- 40 right and horizontal guides *E'*, in combination with adjustable back and seat cushions hinged together and movable bodily forward upon the main frame and in which the ad- justable back-cushion is provided with guid- 45 ing projections adapted to the upright and horizontal guides, an extension-board movable into and out of the front of the end-frame portions of the main frame, a linked connection between the back-cushion and the ad- 50 justable extension-board whereby the forward movement of the back-cushion upon the main frame will cause the extension-board to be projected in the same direction, a second rearwardly-adjustable extension-board for the main frame in alinement with the front 55 extension-board, and mechanical connections between the two boards whereby the forward movement of the front extension-board produces a backward movement of the rear extension-board under the said forward move- 60 ment of the back-cushion.

3. In a sofa-bed, the combination of the main frame having upright end frames formed with upright and horizontal guides *E*, *E'*, a seat-cushion and a back-cushion hinged to- 65 gether and both bodily movable forward upon the main frame and the back-cushion being

further provided with guiding devices adapted to the guides *E*, *E'*, a front extension-board movable into and out of the front portion of the end frame, and a linked connection be- 70 tween the said extension-board and the back-cushion immediately at its lowermost guiding device which is adapted to the horizontal guide of the main frame, whereby the lowering of the back-cushion produces a forward 75 horizontal motion to the connecting link for projecting the extension-board forward and outward in the same direction with the movement of the seat-cushion.

4. A sofa-bed having adjustable back and 80 seat cushions and fixed end frames, combined with two extensible boards carried each by one more of said end frames and extensible in alinement therewith one board being ex- 85 tensible forward and the other extensible backward, connecting devices for simultaneously moving said boards in pairs on each end frame in opposite directions, and means connecting one of the boards of each pair with the cushions whereby the said boards will be 90 extended upon moving both cushions to a horizontal position and telescoped when the cushions are moved into position for a sofa.

5. In a sofa-bed a main frame having a hol- 95 low end frame, combined with a movable back-cushion guided upon the main frame so as to move down and bodily forward, a vertically-arranged extension-board adapted to be moved into or out of said end frame on the front portion, and means connecting the ex- 100 tension-board with the back-cushion whereby the lowering of the back-cushion moves the extension-board outward and away from the advancing cushion and vice versa.

6. In a sofa-bed, the combination of a fixed 105 hollow end frame, with an extension-board arranged vertically and adapted to telescope with the front part of the hollow end frame, an adjustable back adapted to be moved down to a horizontal position, and connecting means 110 between the extension-board and back whereby the lowering of the back moves the extension-board outward and away from the back.

7. In a sofa-bed the combination of the end frames *B B* having the guides-grooves *E E'* 115 as shown, with the adjustable cushions *C C'* the latter having projecting devices *f L* adapted to said grooves, extensible boards *G G* in each end frame, links *J J* jointed together and having their free ends hinged to the 120 boards, upright guides for the jointed ends of the links *J J*, and connecting links *g g* between the cushions and one of the extension-boards of each end whereby the movement of the cushions causes the extension-boards to 125 be moved out or in.

In testimony of which invention I have hereunto set my hand.

BENJAMIN F. FORTINER.

Witnesses:

GEO. H. RAPSON,

A. BRITTON PETERSON.