

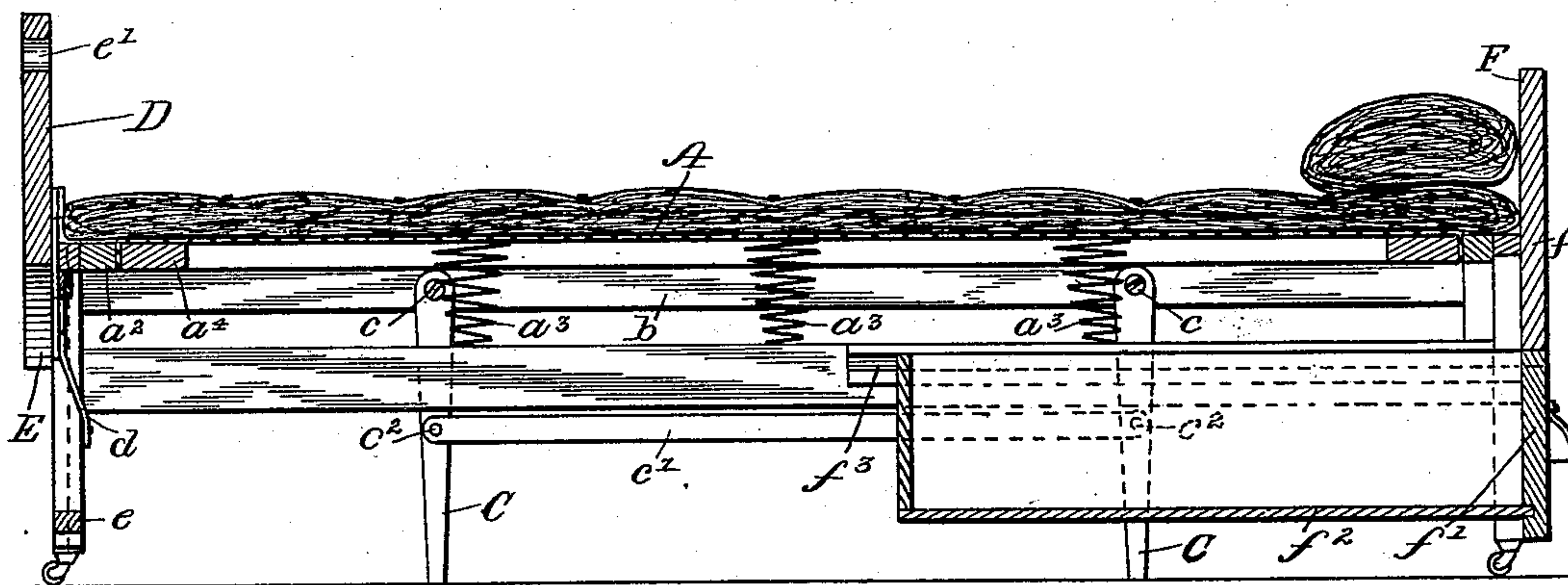
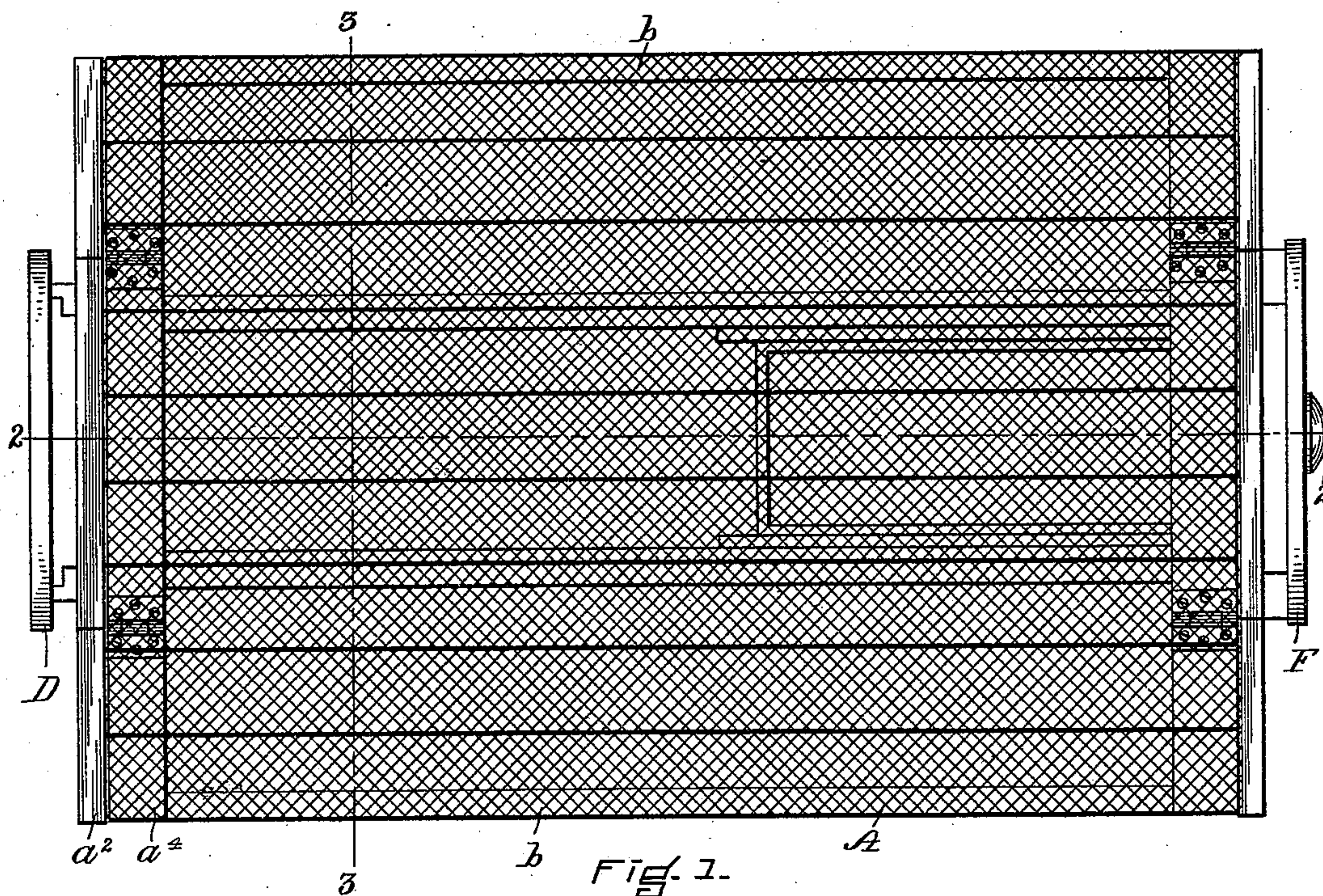
(No Model.)

2 Sheets—Sheet 1.

N. WEBSTER.
COUCH BED.

No. 547,529.

Patented Oct. 8, 1895.



WITNESSES.

J. M. Dolan.
Henry & Mayhugh.

INVENTOR.
Nathaniel Webster
by his atty
Clarke & Raymond

(No Model.)

2 Sheets—Sheet 2.

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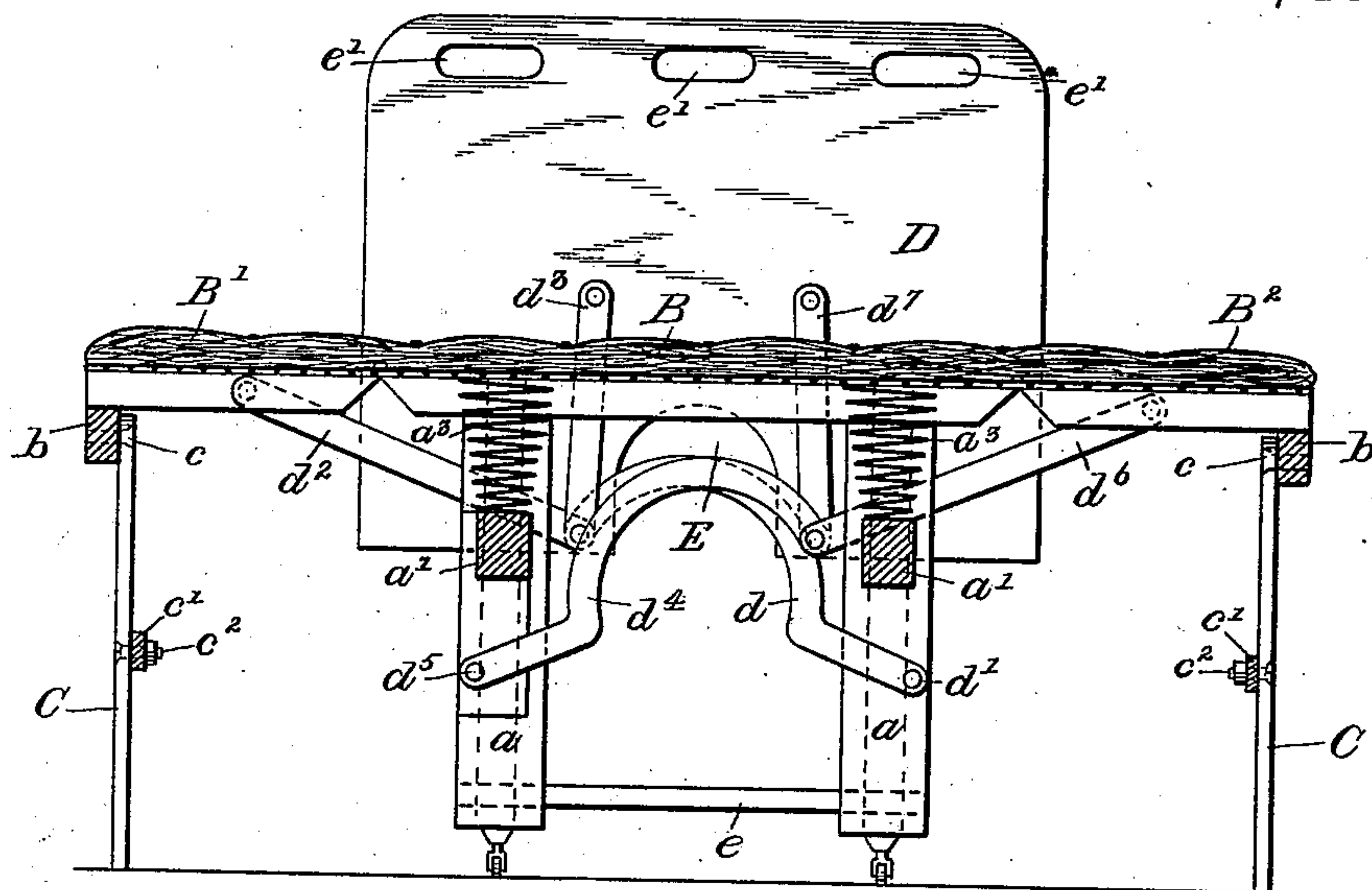


Fig. 5.

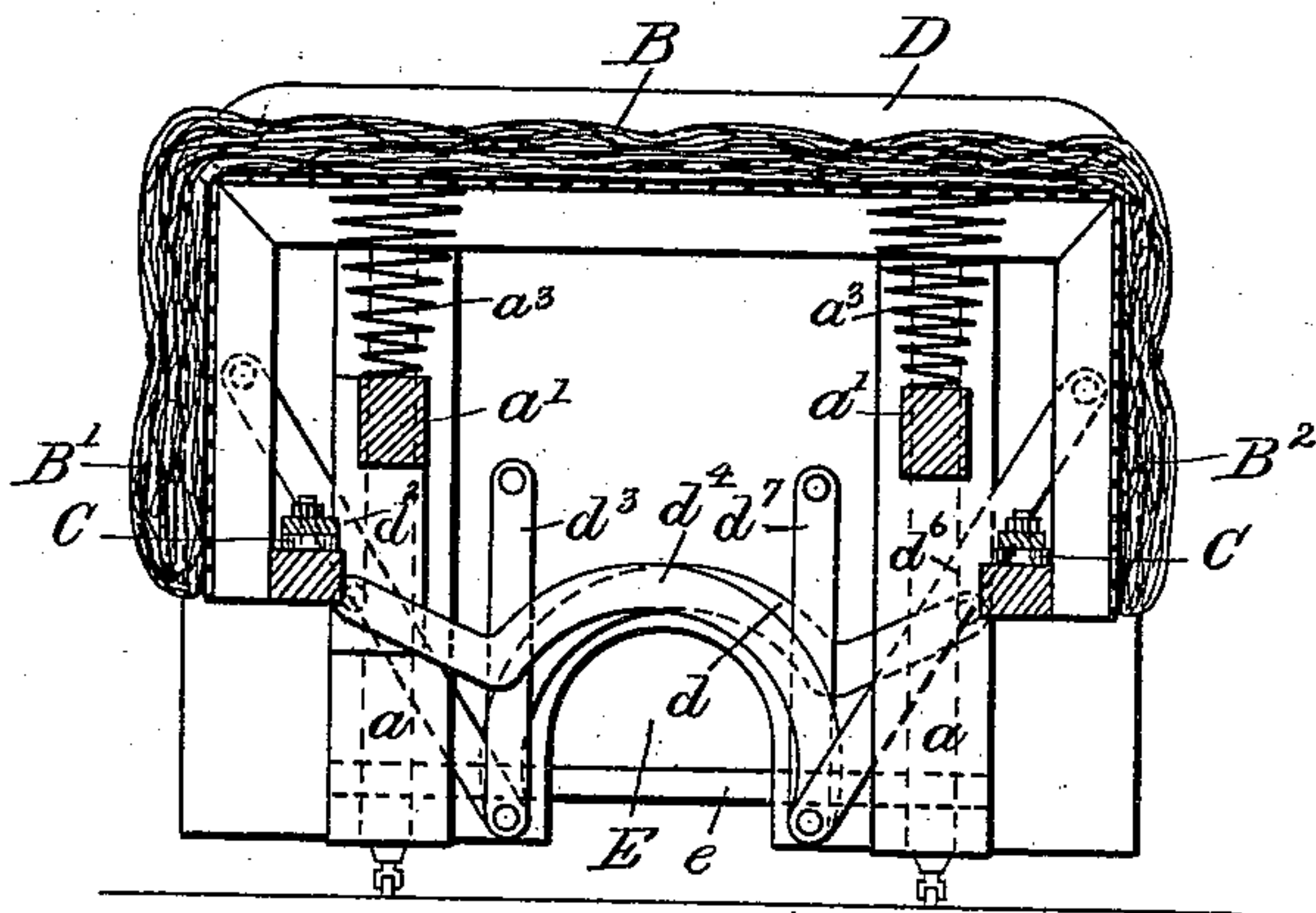


Fig-4.

WITNESSES.

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UNITED STATES PATENT OFFICE.

NATHAN WEBSTER, OF MELROSE, MASSACHUSETTS.

COUCH-BED.

SPECIFICATION forming part of Letters Patent No. 547,529, dated October 8, 1895.

Application filed January 21, 1895. Serial No. 535,742. (No model.)

To all whom it may concern:

Be it known that I, NATHAN WEBSTER, a citizen of the United States, residing at Melrose, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Couch-Beds, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, in explaining its nature.

The invention relates to a couch convertible into a couch-bed; and it comprises a frame upon which is mounted the main body or part of the couch, to each side of which is attached sections, which constitute part of the bed when extended to a horizontal position and which form the sides of the couch proper, the sides then having a vertical position relative to the main portion or depending from the side edges thereof; and the invention consists especially in devices connecting these swinging side sections with a vertically-moving foot-board, whereby the upward movement of the board swings or lifts the side sections to a horizontal position and the downward movement of the foot-board lowers them to their original vertical position.

Referring to the drawings, Figure 1 is a view in plan of the couch when used as a bed or with the sides in a horizontal position. Fig. 2 is a vertical section upon the dotted line xx of Fig. 1. Fig. 3 is a view in transverse vertical section upon the dotted line yy of Fig. 1 and in elevation of the parts back of this line. Fig. 4 is a view in transverse section representing the sides in their vertical or depending position, as when the bed is converted into a couch.

The frame has posts or legs a connected by horizontal side bars or rails a' , and each pair of legs at each end is connected by a cross-rail a^2 . The frame supports, through the medium of the springs a^3 , which rest upon the rails a' , the wire or flexible fabric A, which is upholstered in any desired way upon its upper surface and which forms the top of the couch and the central section of the bed, the wire or other flexible fabric being attached at its edges to a frame a^4 . This central section is lettered B, and to each side there is attached by suitable hinges the side sections B' B², respectively, each of which comprises

a suitable frame, upon which the wire or other flexible fabric of the base A extends, and it is also upholstered. These sides, when the device is used as a couch, swing downwardly from the edges of the central section, occupying the position represented in Fig. 4, and when it is converted into a couch-bed they are swung to a horizontal position and then bear the relation to the central section represented in Fig. 3. Each side has folding legs or supports C, which are pivoted at c to the rail b of each side and upon the inner side thereof, to be swung lengthwise, and they are connected by the cross-bar c' , which is pivoted at c^2 to each of the legs midway their height, so that the legs when in a vertical position are braced by it, and also so that the movement of the one to the horizontal position along the rail b will cause the other to be correspondingly moved.

At the foot end of the couch or bed is the foot-board D, which has vertical movements upon the end of the frame, and it is connected with the sides B' B², respectively, by links and levers, as follows—namely, with the side B' by the lever d , pivoted at d' and connected at its free end with the link d^2 , extending to the frame of the section B', and by the link d^3 with the foot-board to which it is pivoted, and with the side section B² by a corresponding lever and links—namely, the lever d^4 , pivoted at d^5 , and connected at its moving end by the link d^6 with the side B² and by the link d^7 with the foot-board D. When the foot-board is in its raised position, the lever and links bear the relation to each other represented in Fig. 4, and when the sides are moved by the foot-board to a horizontal position in relation to each other as represented in Fig. 3. The levers d d^4 have sections, curved upwardly as represented, to provide space for the insertion of the foot that it may bear upon the cross-rail e when it is desired to lift the foot-board, and the foot-board has hand-holds e' or other means by which it may be grasped while being lifted.

It will be seen that the lever d and link d^2 and the lever d^4 and link d^6 constitute a pair of toggles, and that each toggle is connected at its center with the foot-board by a link. This construction affords a powerful and cheap structure and one very easy to operate.

F is the head-board of the couch or bed, and it is made in two parts—namely, part f , which is permanently attached to the drawer f^2 to be movable therewith, forming when closed a continuation of the head-board, and also acting when closed or opened as the front of the drawer. The drawer is of large size and is suspended from ways f^3 , attached to the frame of the couch, and it is very useful for holding bed-clothing, pillows, &c., and occupies such position that it can be utilized whether the sides of the couch be elevated or depressed.

It will be seen that by this organization there is a movable foot-board, which, in the case of the couch, is depressed, and is raised when the couch is converted into a couch-bed. It will also be seen that the two sides are so connected that they are simultaneously swung to either of their positions—that is, moved upward to the horizontal in forming the bed and depressed to their vertical in forming the couch, and that this is done by the movement of the foot-board into and out of position, although, of course, this may be done by the head-board or by any other moving part. It will also be observed that the two sides are connected, so that the movement of one side will cause a corresponding action or movement of the other side, so that in certain cases the movable foot-board could be dispensed with.

While I have described the foot-board as being alone movable and the top connected with the sides in the manner described, I do not limit myself to that construction, but include a construction where the head-board alone or both head-board and foot-board are movable.

Having thus fully described my invention, I claim and desire to secure by Letters Patent of the United States—

1. In a combined couch and couch-bed the combination of a vertically movable board, the hinged sides of the couch and a series of links which connect the sides with the movable board, as and for the purposes described.

2. In a combined couch and couch bed the

combination of a vertically movable foot board, the hinged sides of the couch and a series of links which connect the sides with the movable foot board, as and for the purposes described.

3. In a couch bed having an intermediate section B and two hinged or swinging sections B' , B^2 each of which swings downwardly from the intermediate section, the combination of the said intermediate section B, the said swinging sections B' , B^2 , the toggle links d , d^2 , d^5 , d^6 , the connecting links d^3 , d^7 , and the board or link D, whereby the downward movement of the one swinging section will permit or cause the other section to be moved downward in relation to the intermediate section B, and whereby also the upward movement of one of the said swinging sections to a horizontal position will also move the other swinging section upwardly to a horizontal position, converting the couch into a couch bed.

4. A couch bed having the central section B, the swinging side sections B' , B^2 , the rails b , the legs C connected with each other and the rail, the vertically movable foot-board D connected with the sides and with the frame by the toggle links d' , d^2 and connecting links d^3 and toggle links d^4 , d^6 and connecting links d^7 respectively, substantially as described.

5. A couch bed having the central section B, the swinging side sections B' , B^2 , and the vertically movable foot-board or section D, connected with the sides and with the frame by the toggle links d' , d^2 , and connecting link d^3 , and toggle links d^4 , d^6 and connecting links d^7 , respectively, substantially as described.

6. In a couch the combination of the vertically movable foot-board D, the swinging sides B' , B^2 , the arched toggle links d , d^4 , the straight toggle links d^2 , d^6 , and the connecting links d^3 , d^7 , and the frame having the support e , as and for the purposes described.

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Witnesses:

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J. M. DOLAN.