

(Model.)

W. D. FISHER.

SOFA BED.

No. 273,352.

Patented Mar. 6, 1883.

Fig. 1

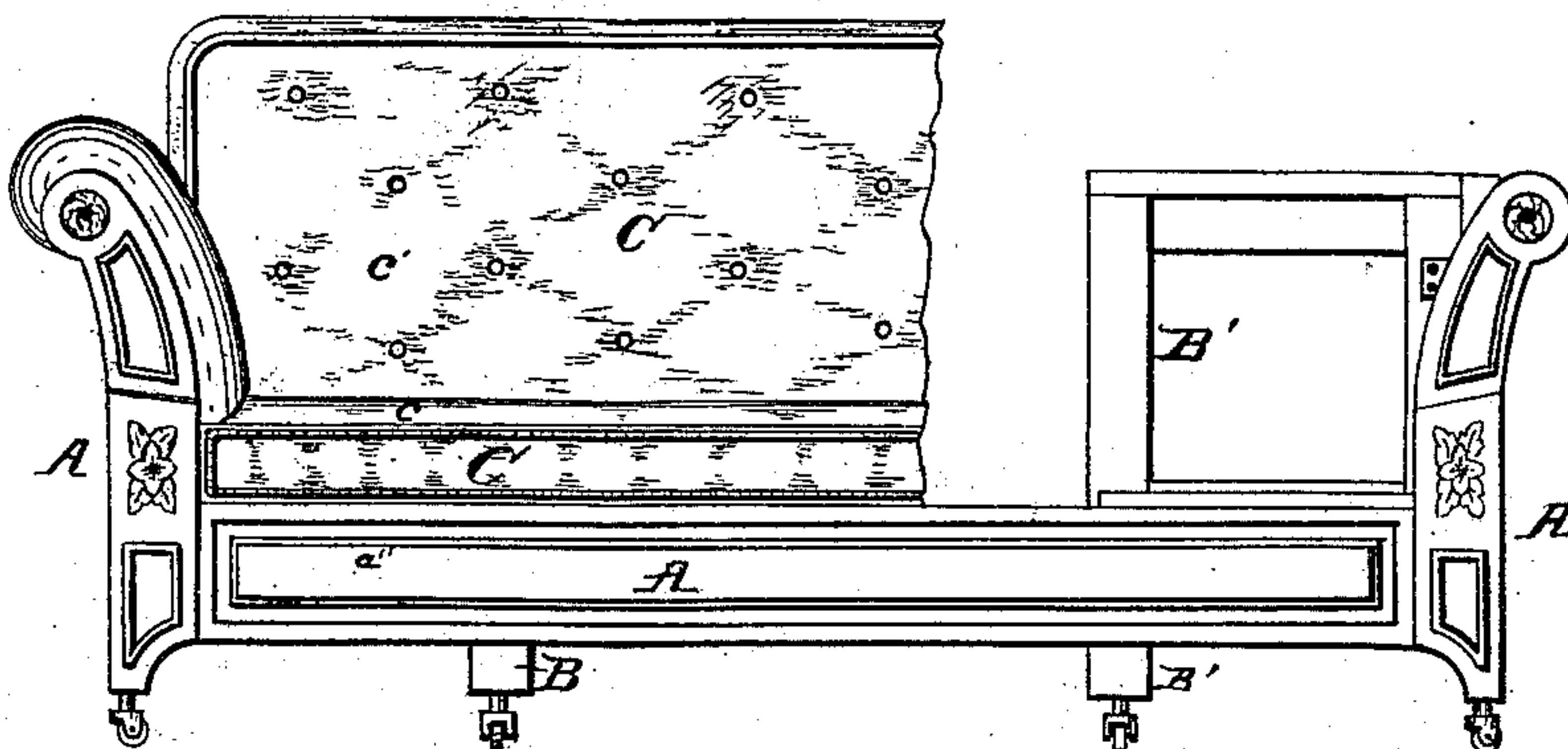


Fig. 2

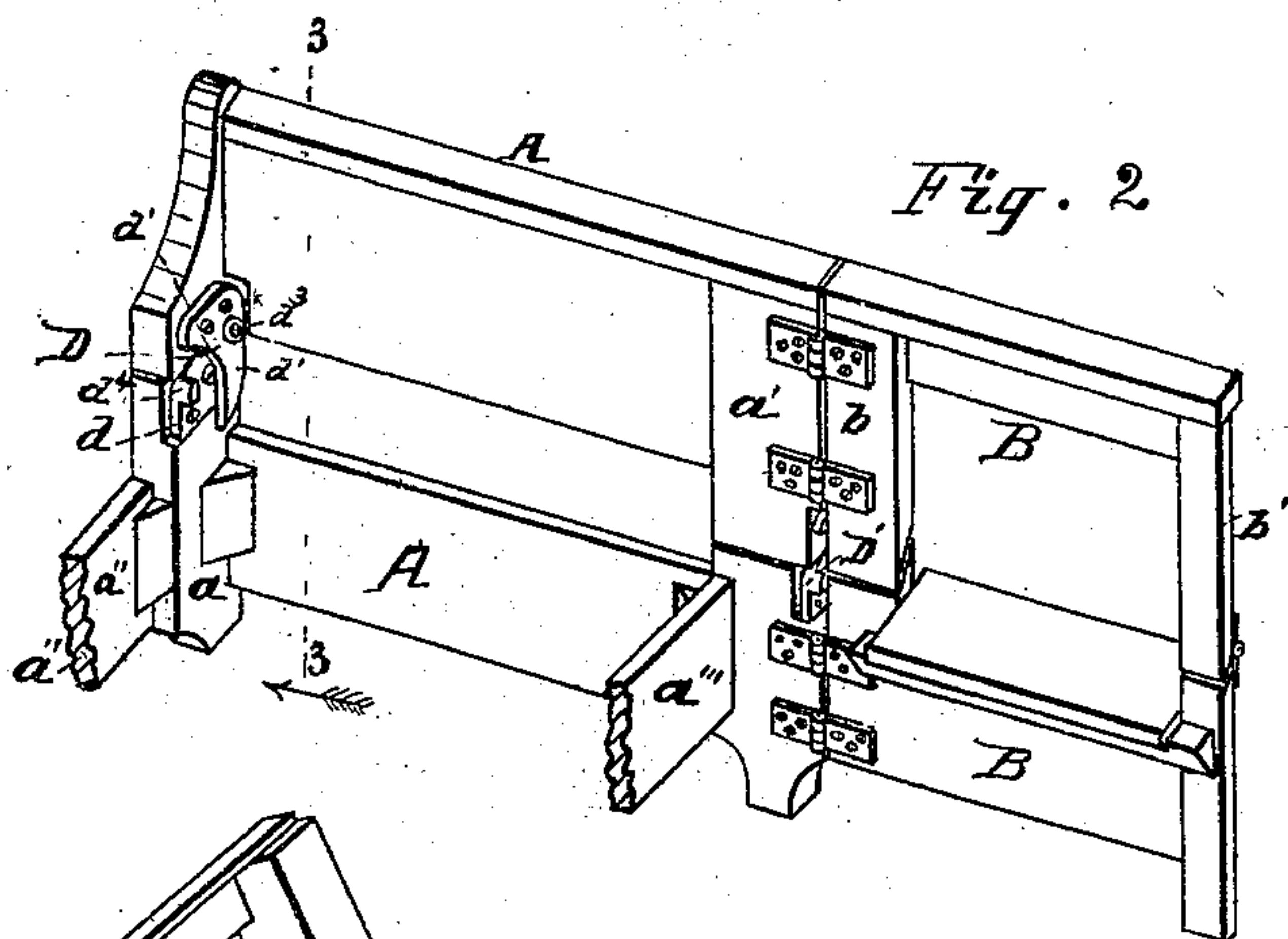


Fig. 4

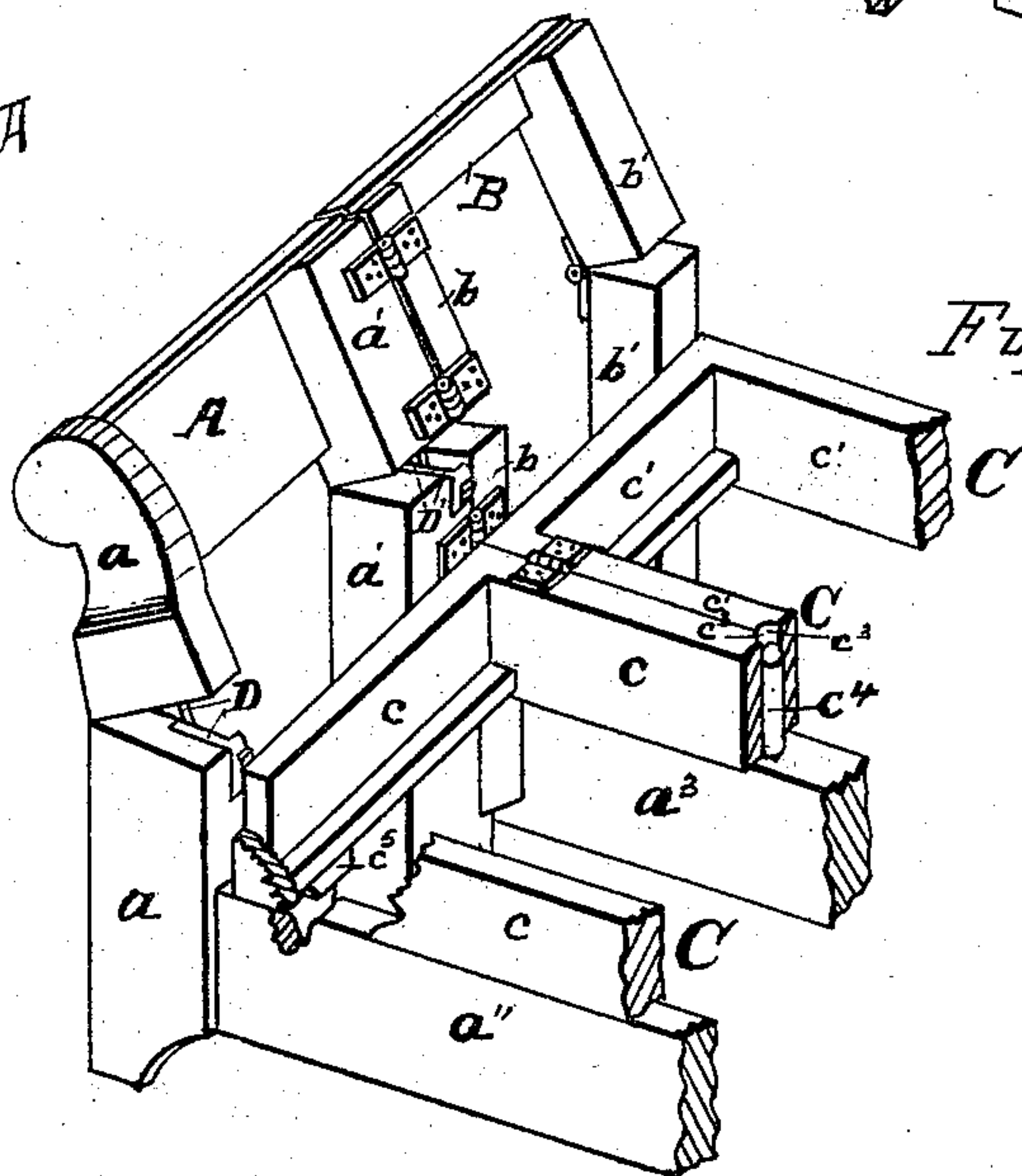
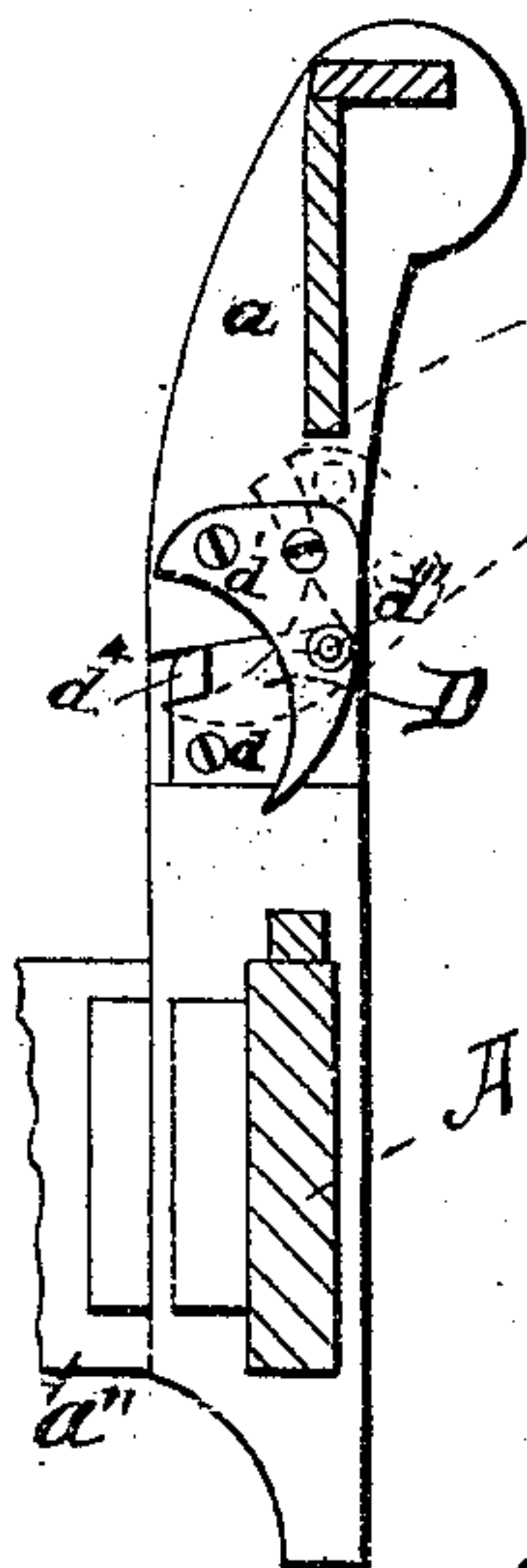


Fig. 3



WITNESSES

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# UNITED STATES PATENT OFFICE.

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## SOFA-BED.

SPECIFICATION forming part of Letters Patent No. 273,352, dated March 6, 1883.

Application filed February 14, 1882. (Model.)

*To all whom it may concern:*

Be it known that I, WILLIAM D. FISHER, of Chicago, Illinois, have invented a new and useful Sofa-Bed, of which the following is a specification.

My invention relates to that class of sofa-beds in which the back of the sofa is turned down to form with the seat a double bed, and which have end-gates for the support of the back.

My invention consists in certain combinations and arrangements of parts, as will be more fully hereinafter described, and pointed out in the claims.

Reference is made to the accompanying drawings, in which Figure 1 is a front elevation of my sofa, with a portion of the back and seat broken away to show the end-gate turned for the support of the back; Fig. 2, a detailed view of the head of the sofa-frame, shown in perspective; Fig. 3, a section on the line 3 3 of Fig. 2, showing in dotted lines the action of the stop and hinge controlling the falling head. Fig. 4 is a detailed view of the head of the bed, showing the falling head dropped, the bed-frame in its position when used for a bed, and the devices for securing it to the sofa-frame.

Similar letters of reference refer to similar parts throughout the several views.

A A represent a sofa-frame, constructed in the manner usual with this class of sofa-beds.

$a a'$  are respectively the front and back legs of the head of sofa-frame;  $a'' a'''$ , respectively the front and back rails of sofa-frame.

B is the end-gate hinged to head, and  $B'$  the end-gate hinged to foot, of sofa-bed;  $b b'$ , respectively the front and back legs of gate B.

C is the sofa-bed frame, made in two sections;  $c$ , the seat of sofa or front section of bed, and  $c'$  the back of sofa or rear section of bed. These sections are hinged together, as shown in Fig. 4.

D D' are "stop-hinges," formed by riveting or otherwise suitably securing the plates  $d d'$  together at  $d'''$ , so as to form a pivotal connection at that point.

$d^4$  is a lug rigidly projecting from plate  $d$  and lying just within the arc described by the lower end of the plate  $d'$ , turning on its pivot at  $d'''$ .

The legs  $a a'$  of the sofa and  $b b'$  of the end-

gate are divided into two sections each, the division being made on an inclined plane passing through the legs a little above their horizontal center when the gate is thrown open into the same line as the head of sofa. The sections of the legs  $a a'$  are hinged together, as shown, by the stop-hinges D D'. The section of legs  $b$  and  $b'$  are hinged together in any suitable manner. The gate B is hinged to leg  $a'$ , preferably by four hinges; but two broad hinges may be used, or any other secure mode of hinging the lower section of  $a'$  to lower section of  $b$  and upper section of  $a'$  to upper section of  $b$ .

$c^3 c^3$  are semi-cylindrical grooves, exactly opposite each other, in the adjacent longitudinal rails of the sofa-bed frame C, and two of which are half shown in section in Fig. 4.

$c^4 c^4$  are pins projecting from the top of rail  $a^3$ .

$c^5 c^5$  are cleats having vertically-inclined front faces, and are rigidly secured to the under side of the front of the end rails of bed-frame C, and arranged so as to abut against the inner face of rail  $a''$ .

The grooves  $c^3 c^3$  of bed-frame fit accurately over the pins  $c^4 c^4$  projecting from sofa-frame rail  $a^3$ .

A pin or other means of support projects from inside of each folding end-gate to receive section  $c$  of bed-frame when extended horizontally.

In order to make the description of my invention clear, I will give a brief review of the operation of the different parts of my sofa-bed.

If the sofa-frame is opened into the position partly shown in Fig. 2, the bed may be lifted into sofa-frame until the cleats  $c^5 c^5$  are stopped by the rail  $a''$  of sofa-frame. The back rail of section  $c$  of frame C should then be lowered. The grooves  $c^3 c^3$  will be found to embrace on one side the pins  $c^4 c^4$ . The frame C is thus locked in place, the cleats  $c^5 c^5$  preventing it from going forward and the pins  $c^4 c^4$  from shifting backward. If, now, the section  $c'$  is raised into a vertical position and the end-gates closed against it, the device will be arranged for a sofa, as shown in Fig. 1. If then the gates are turned back into line with the head and foot of sofa, the back lowered into line with the seat, and the head drawn back, the bed will be formed, the stop-hinge acting as a substantial and secure means of support-

ing the head at an angle giving the greatest amount of comfort to the occupant of the bed, besides adding to the bed the full length of the falling head. The operation of the stop-hinge is clearly shown in Fig. 3 of the drawings.

Having thus fully described my invention, what I desire to claim and secure by Letters Patent is—

10 1. The combination of the sofa-frame, falling heads, and folding end-gates provided with means described for supporting the bed-frame when extended.

15 2. In a sofa-bed, the combination of the falling heads and folding end-gates with the stop-hinges D, as and for the purposes set forth.

3. In a sofa-bed, the combination, with the frame C, carrying the cleats  $c^3 c^3$ , and provided with grooves  $c^3 c^3$ , of a sofa-frame having its back rail provided with vertically-projecting pins, as and for the purposes shown. 20

4. The combination, in a sofa-bed, of the folding gates with the falling head, the stop-hinges D, and the bed-frame C, all substantially as shown, and for the purposes set forth. 25

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Witnesses:

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