(No Model.) 2 Sheets—Sheet 1.

S. S. BURR & C. TEUFEL.

FOLDING BED.

No. 406,814. Patented July 9, 1889.

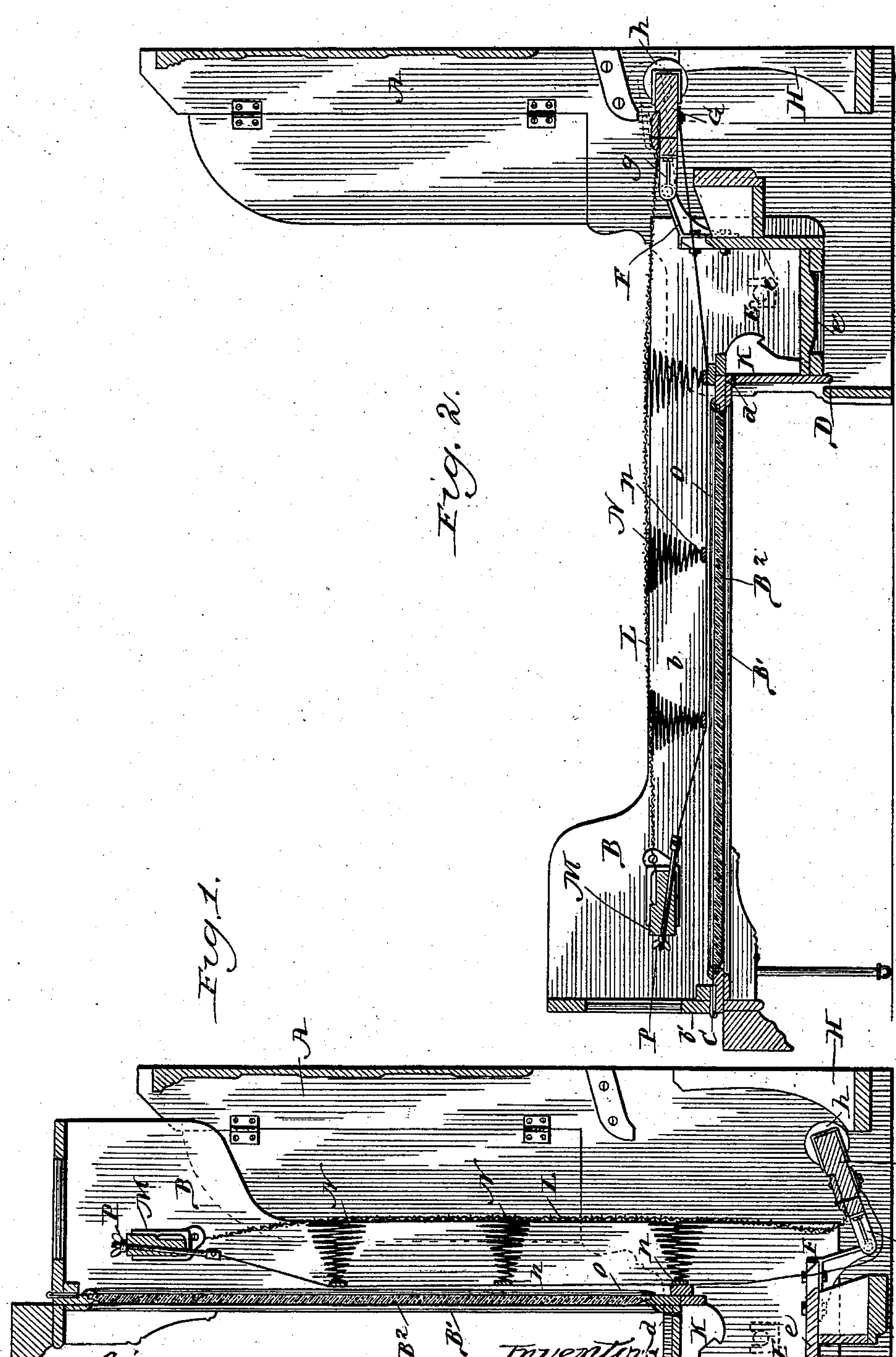

Fig. 2.

Fig. 1.

Witnesses
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(No Model.) 2 Sheets—Sheet 2.

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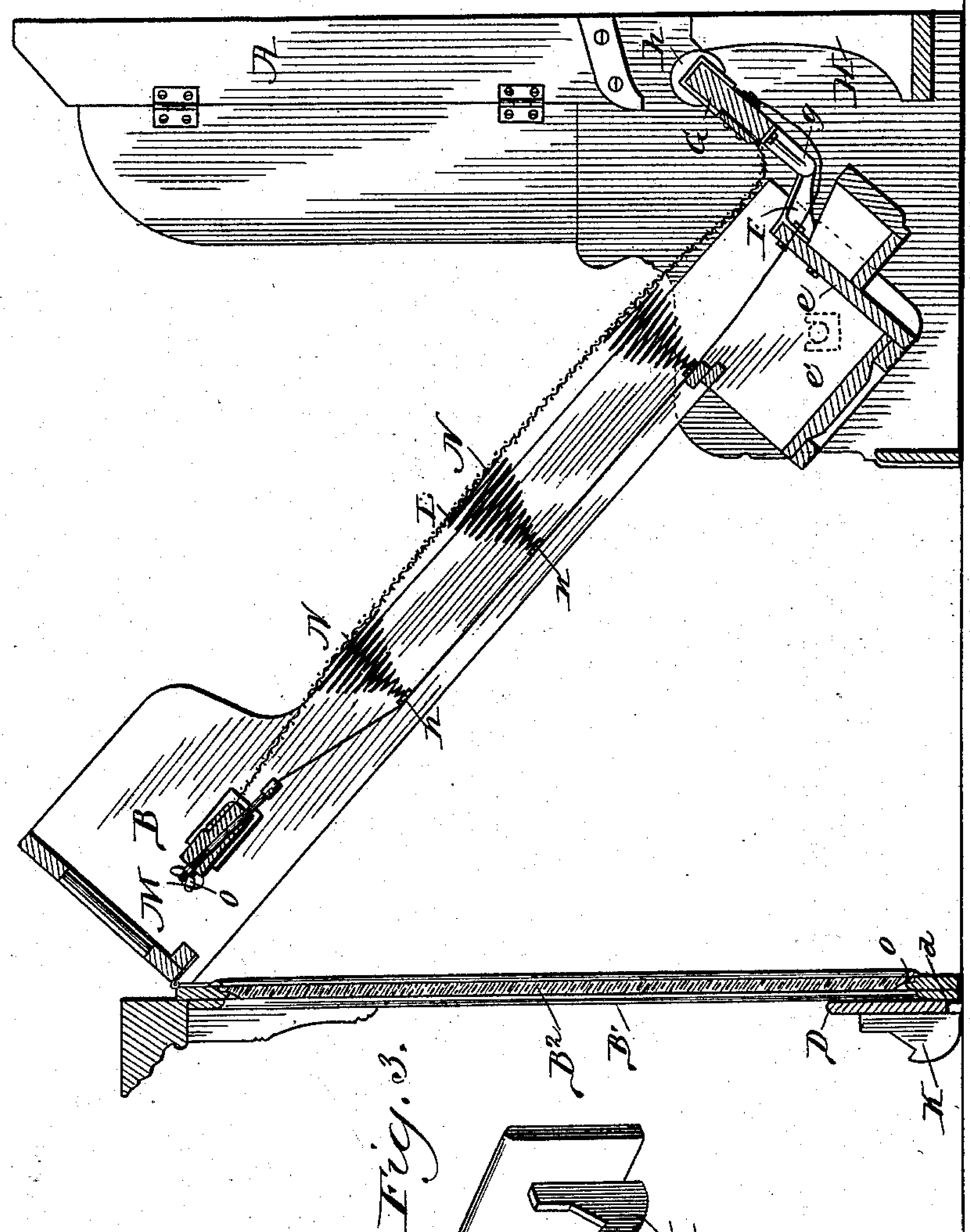

Fig. 3.

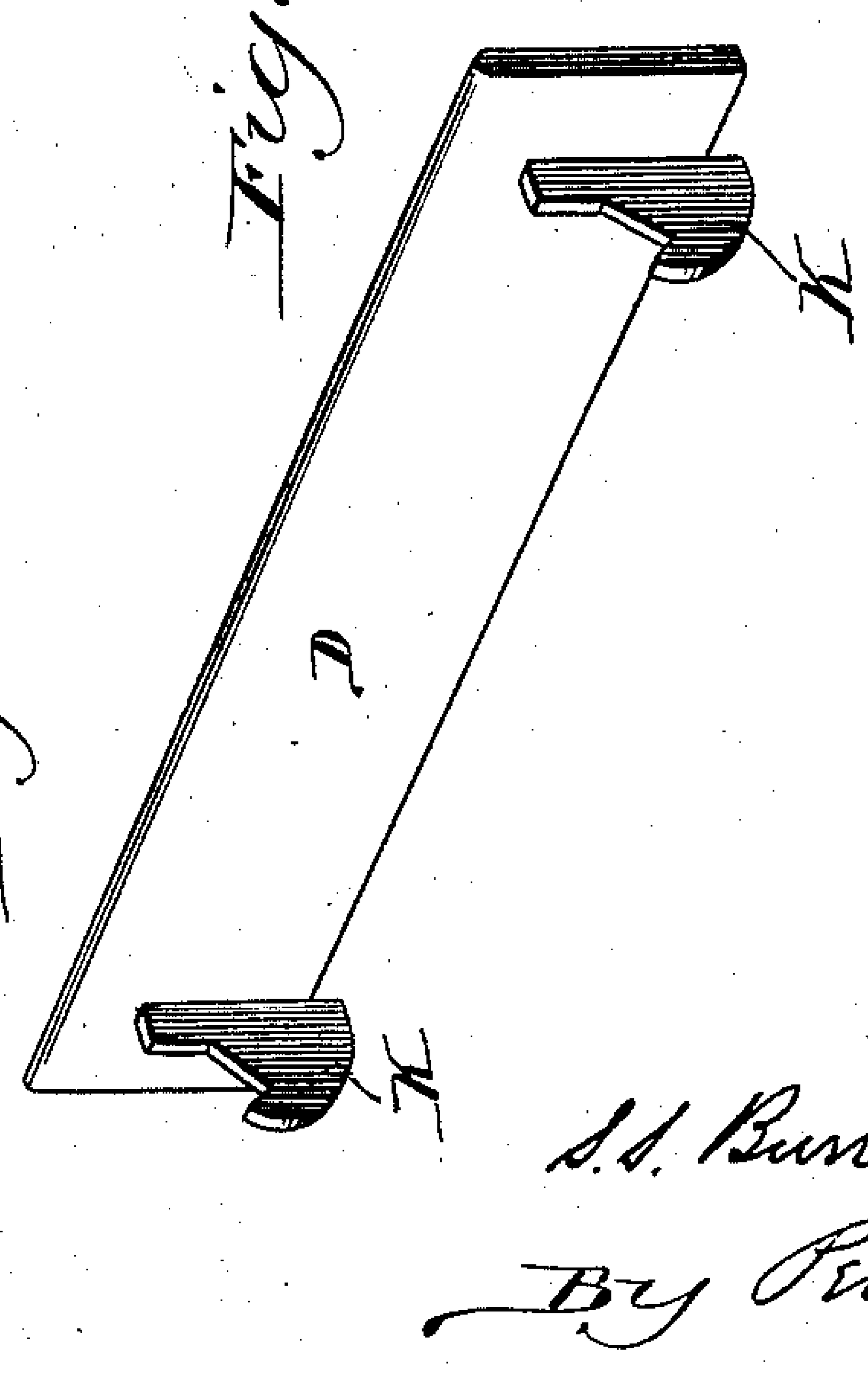

Fig. 4.

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UNITED STATES PATENT OFFICE.

SANFORD S. BURR, OF WINNETKA, AND CHARLES TEUFEL, OF CHICAGO, ASSIGNORS TO THE A. H. ANDREWS & COMPANY, OF CHICAGO, ILLINOIS.

FOLDING BED.

SPECIFICATION forming part of Letters Patent No. 406,814, dated July 9, 1889.

Application filed April 9, 1889. Serial No. 306,556. (No model.)

To all whom it may concern:

Be it known that we, SANFORD S. BURR and CHARLES TEUFEL, citizens of the United States, residing, respectively, at Winnetka, in the county of Cook and State of Illinois, and Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Folding Beds, of which we do declare the following to be a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

Our present invention has relation more particularly to that class of beds commonly known as "wardrobe-beds," in which the bed-frame that sustains the mattress is connected with the casing near its bottom in such manner as to permit the frame to be swung upwardly when the bed is to be turned from an open to a closed position.

The object of our invention is to provide the bed with a hinged front adapted to be swung away in such manner as to permit free access to the inner side of the front of the bed-frame, and to the under side of the springs, &c., which sustain the mattress, and to provide improved means whereby the swinging front may be temporarily locked during the ordinary operation of opening and closing the bed-frame, and yet may be disconnected in such manner as to permit the front to be freely swung outward, when desired.

To this end our invention consists in the novel features of construction hereinafter described, illustrated in the accompanying drawings, and particularly pointed out in the claims at the end of this specification.

Figure 1 is a view in longitudinal section of the improved bed, showing the same in closed position. Fig. 2 is a like view with the bed open. Fig. 3 is also a similar view showing the bed partially open, the frame standing at an incline and being upheld by the swinging front. Fig. 4 is a detail perspective view of the hinged ledge.

A designates the sides of the inclosing-casing, to the lower extended portion of which is pivotally connected in suitable and well-known manner the head portion of the bed-frame B. This pivotal connection between the inclosing-casing and the bed-frame may consist of studs projecting from each side of the bed-frame, and sustained by corresponding sockets on the bed-frame, as indicated by dotted lines in the drawings; or each side of the bed-frame may be provided with a rack-bar adapted to engage with a corresponding rack-bar attached to the sides of the inclosing-casing; or, indeed, any of the other familiar forms of pivotal connection may be employed, as our present invention in no wise relates thereto. This bed-frame B consists of the side rails *b*, the top *b'*, and the front B'. This front B' is shown as formed of a suitable frame having a mirror B^2 fitted therein, although it will be readily understood that this swinging front may be constructed in any other suitable manner—as, for example, with panels more or less ornamental.

The swinging front B' is connected by hinges C at its upper end with the top *b'* of the bed-frame, and at its lower end is connected by hinges *d* with a ledge D, adapted to rest upon the front extension E of the bed-frame, which in practice serves as a receptacle for the pillows or other articles. From the back plate *e* of this extension E extend suitable brackets F, to which are pivotally connected the arms *g* of the swinging end board G, this end board being provided with friction-rolls *h*, that ride upon the curved faces of the cam blocks or rails H, that will be affixed to the back part of the inclosing-casing. The friction-rolls *h*, by bearing against the cam-blocks H during the opening and closing of the bed, cause the swinging end board G to turn about its pivot-points, so that when the bed is in folded position, as seen in Fig. 1 of the drawings, the swinging end board will not necessitate so high a bed-frame as would be required if it were not pivotally connected. When the bed-frame is turned from its upright to its horizontal position, the tension of the cables beneath the coiled springs will serve to draw the swinging head-board downward, causing the friction-rolls *h* to follow the cam-blocks H until the head-board is in substantially horizontal position, as seen in Fig. 2 of the drawings. Upon the inner side of the hinged ledge D are affixed the re-

taining-blocks K, one or more in number, which terminate at a distance from the outer edge of the ledge D, so that when the bed is in the closed position shown in Fig. 1 the blocks K will rest within the front extension E, while the ledge D rests upon the upper edge of the front plate *e'* of this extension. When the parts are in the closed position shown in Fig. 1 and it is desired to open the bed, it will simply be necessary to turn the bed downwardly about its pivot-points, during which operation the swinging end board G will ride upward along the rails H until it assumes the horizontal position seen in Fig. 2 of the drawings. During this operation of turning the bed-frame from the vertical to the horizontal position the front B' will be prevented from swinging outward by reason of the fact that the squared ends of the blocks K will at such time engage with the front *e'* of the extension E, as seen in Fig. 2 of the drawings.

To the inner face of the plate *e* of the extension E is preferably attached an open box adapted to receive suitable weights for counterbalancing the bed-frame, although as this forms no part of our present invention it is obvious that the bed-frame may be counterbalanced in any other convenient manner. To the swinging end board G is connected one end of a woven-wire bed-bottom L, the opposite end of this bed-bottom being connected to a suitable cross-bar M, that extends between the side rails *b* of the bed-frame, and this bed-bottom is sustained upon suitable coiled springs N, that are carried in well-known manner by cross-bars *n*, that rest upon the sustaining-cables O, these cables O being connected to the swinging end board G and at the opposite end to the cross-bar M by means of suitable adjusting-rods P. On folding the hinged ledge D (see Fig. 3) against the face of the hinged front B', the fastener K no longer retains the front when the bed-frame is turned downward, and accordingly the front B' swings away into the position shown by Fig. 3, in which relation easy access is allowed to the bottom of the bed-frame, the front itself serving as a prop to sustain the frame at an incline.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a folding bed, the combination, with the main casing, of a bed-frame pivoted thereto, said bed-frame being provided at its lower portion with an extension E, and being provided, also, with a front B', hinged at its top in a manner permitting it to swing outwardly, said hinged front being provided at its bottom with a ledge D, hinged thereto, and having a suitable block or blocks K affixed thereto and adapted to engage with the front of the extension E, to retain said hinged front in normally-closed position, substantially as described.

2. In a folding bed, the combination, with the main casing, of a bed-frame pivoted thereto, a front for said frame hinged thereto near its upper end, and a fastener to hold said front and frame normally together, said front, on release of said fastener, being free to swing away from the bed-frame at its lower portion to permit access to the under side of the bed-frame, substantially as described.

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