

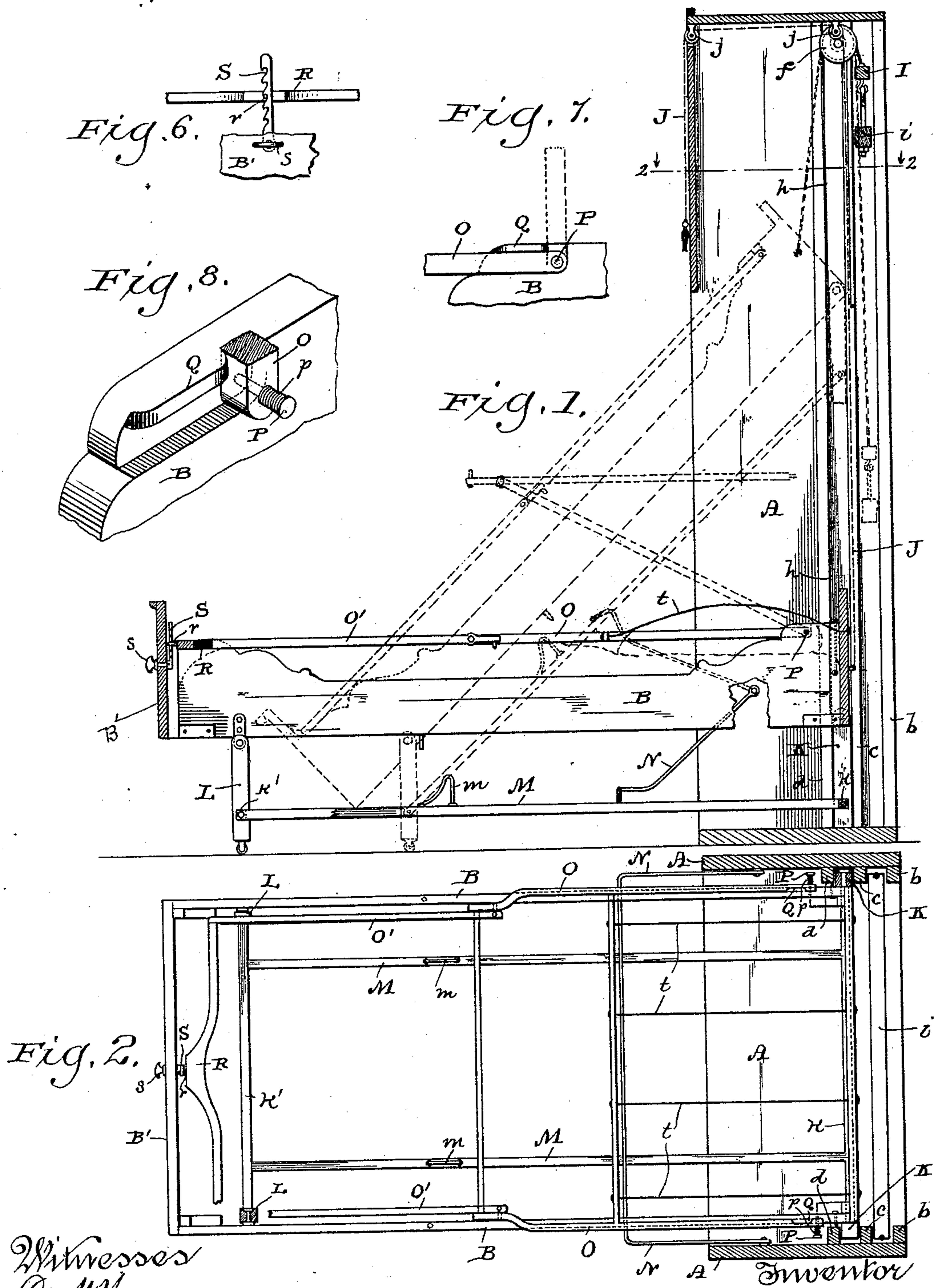
(No Model.)

2 Sheets—Sheet 1.

C. L. GILL.
FOLDING BED.

No. 460,574.

Patented Oct. 6, 1891.



Witnesses
Geo. W. Young
Jno. L. Condon

Inventor
Clark L. Gill,
By H. E. Underwood,
Attorneys

(No Model.)

2 Sheets—Sheet 2.

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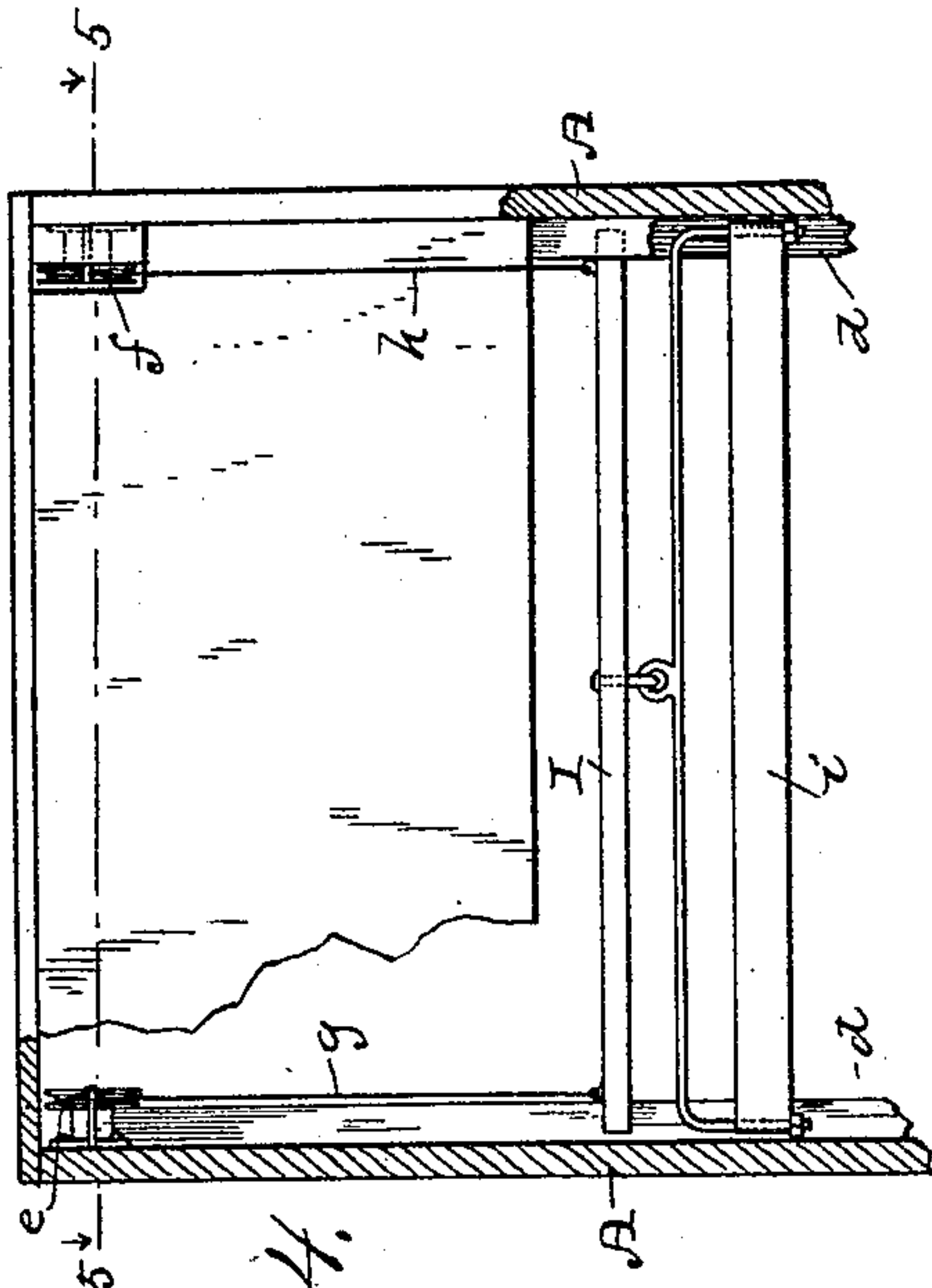


Fig. 4.

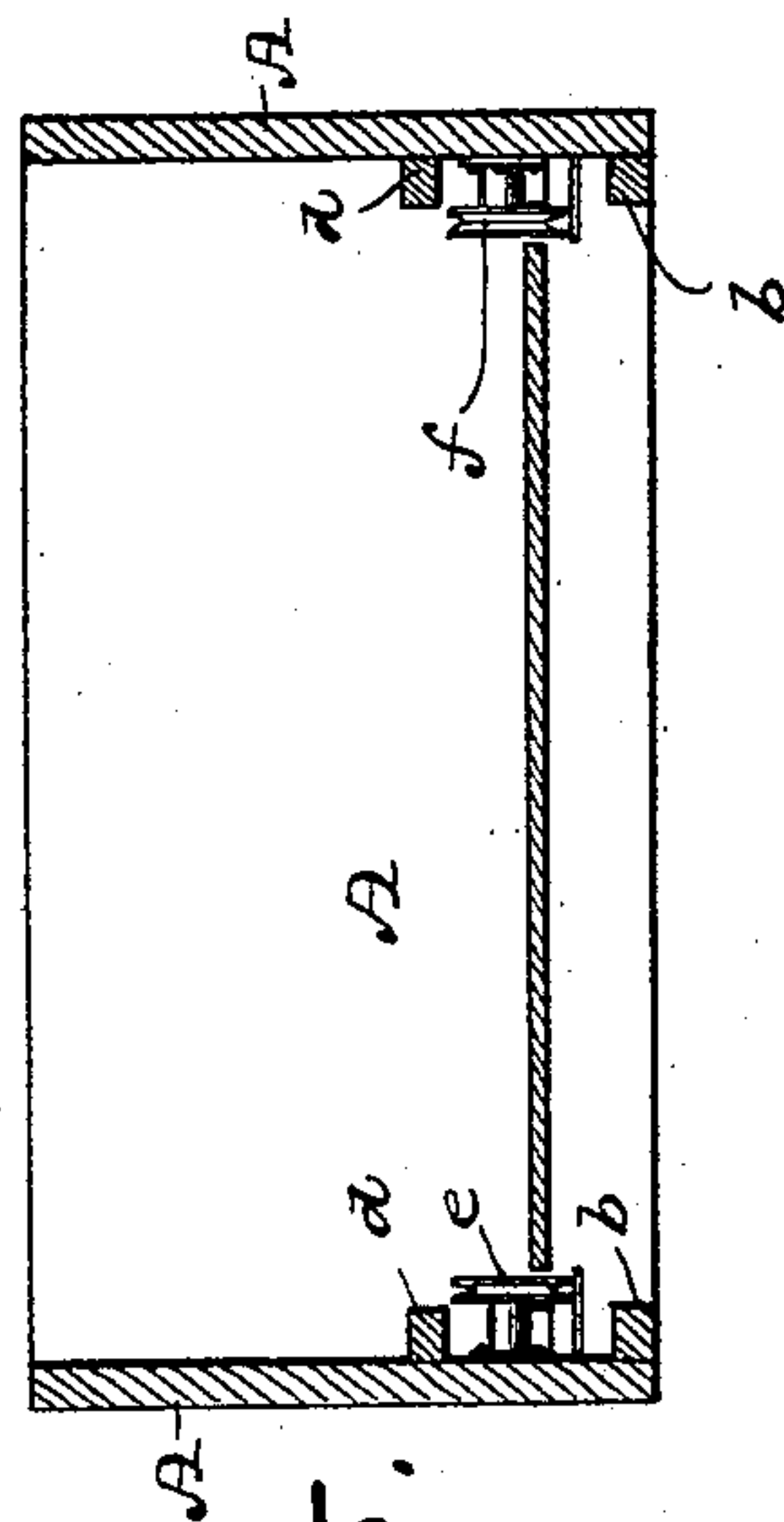


Fig. 5.

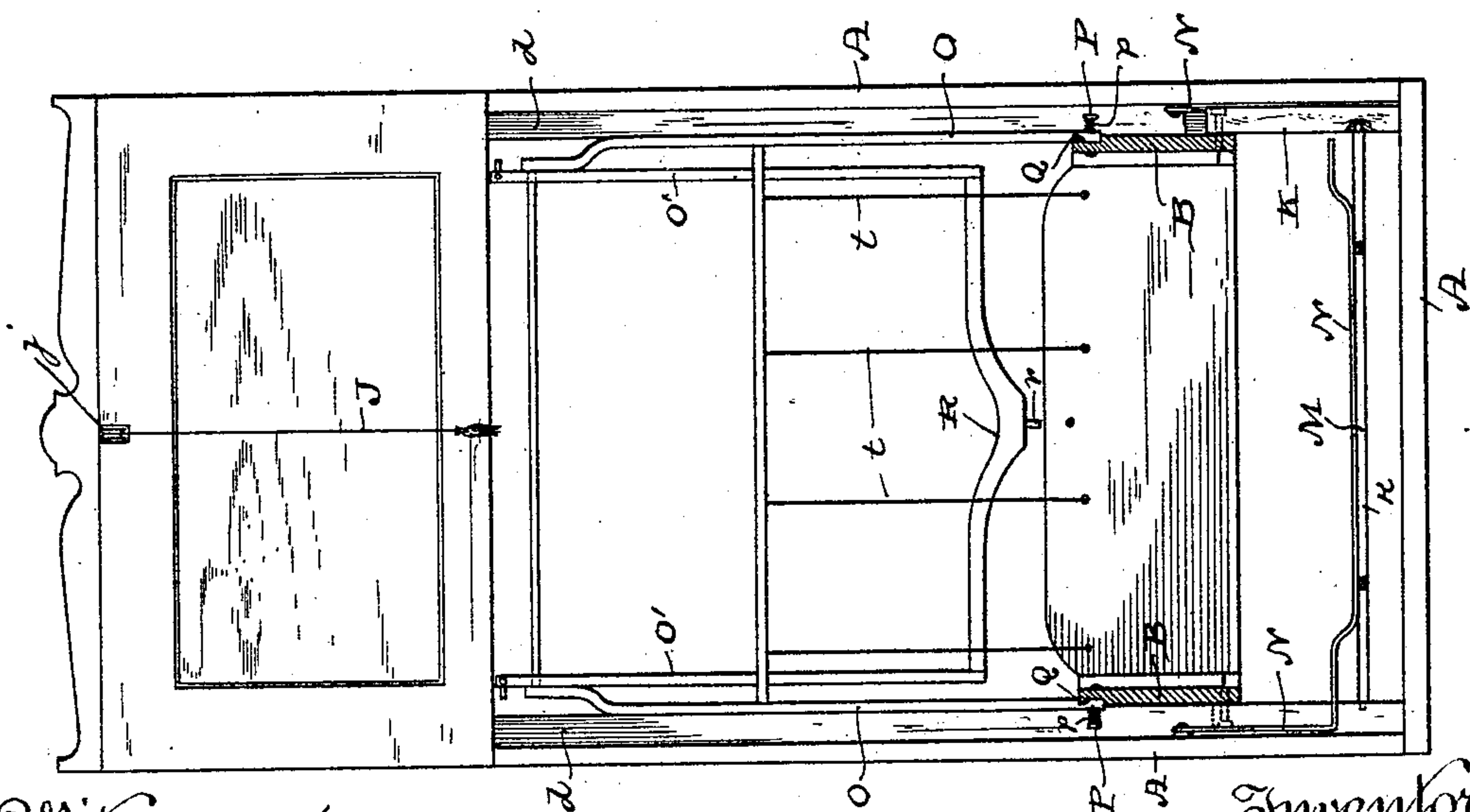


Fig. 3.

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UNITED STATES PATENT OFFICE.

CLARK L. GILL, OF MADISON, WISCONSIN.

FOLDING BED.

SPECIFICATION forming part of Letters Patent No. 460,574, dated October 6, 1891.

Application filed November 12, 1890. Serial No. 371,180. (No model.)

To all whom it may concern:

Be it known that I, CLARK L. GILL, of Madison, in the county of Dane, and in the State of Wisconsin, have invented certain new and useful Improvements in Folding Beds; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates to folding beds of the kind in which the bedstead or frame is raised vertically at its head end, so as to stand vertically within and be entirely inclosed by a vertical casing or frame, such a folding bed being shown, for example, in Letters Patent No. 408,171, granted to me July 30, 1889; and my present invention consists in certain peculiar and novel features of construction and arrangement, as hereinafter described, and pointed out in the appended claims.

In order that my invention may be fully understood, I will proceed to describe it with reference to the accompanying drawings, in which—

Figure 1 is a vertical longitudinal section of my improved folding bed with the bed-frame extended out of the casing. Fig. 2 is a plan view of the same, the upper portion of the casing being removed, on the line 2 2 of Fig. 1. Fig. 3 is a front elevation of the bed in folded condition. Fig. 4 is a rear elevation, partially in vertical cross-section, of the upper portion of the casing. Fig. 5 is a horizontal section of the casing on the line 5 5 of Fig. 4. Figs. 6, 7, and 8 are detached views of certain details of construction hereinafter described.

The objects of my invention are to produce a folding bed which shall be simple and durable in construction and easy to fold up into and unfold out of its inclosing case, and which shall when folded up occupy the minimum amount of space, and thus permit the inclosing casing to be made very shallow and compact.

A further object of the invention is to provide means for effectively retaining the mattress, bedclothing, and pillows in proper position upon the bed when the latter is folded up, and also to insure the automatic folding and extension of the foot-legs when the bed is folded up into and brought outward from the inclosing casing.

These objects I attain by means of the construction which I will now proceed to describe.

In the said drawings, A designates the inclosing casing for the bedstead B, said casing being of rectangular form and usually constructed to resemble a wardrobe or similar article of furniture. On the opposite inner surfaces of each of the sides of this casing are secured three vertical parallel beads *b*, *c*, and *d*, as shown, and at the upper ends of the sides of said frame or casing are mounted two grooved pulleys *e* *f*, the axes of which are coincident with the upper ends of the grooves formed between the beads *c* and *d*. Two cords *g* *h* extend over the pulleys *e* *f*, and each of these cords is attached at one end to the head of the bedstead. The opposite ends of these cords are connected to a bar I, to which an elongated counter-weight *i* is connected, the arrangement being such that the head end of the bedstead is nearly counter-balanced by the weight *i* when said bedstead is extended out horizontally, as shown in Figs. 1 and 2.

A cord J is attached at one end to the head of the bedstead and extends upward and forward over pulleys *j* in the top of casing A, the free end of the cord hanging out from the front of the casing, so as to be readily reached from either side of the bedstead. It will thus be seen that by drawing down upon the cord J the head of the bedstead will be brought upward, as indicated by the dotted lines in Fig. 1, and the entire bedstead will be caused to stand vertically within the casing A, so as to be concealed thereby. Very little power is necessarily exerted to thus raise the bedstead, because it is so nearly balanced by the weight *i*. As the bedstead is raised this weight descends, as indicated by the dotted lines in Fig. 1, and the weight rises when the bedstead is drawn out into position for use. In order to bring the bedstead into its horizontal position, it is simply necessary to take hold of the foot-board B' and draw it outward, and at the same time exert a slight downward pressure upon the bedstead, so as to cause its head end to slide downward toward the bottom of casing A.

K designates the legs which support the head end of the bedstead, and L designates

the legs which support the foot end thereof. These legs are pivoted at their upper ends to the side rails of the bedstead, and the legs K slide between the beads *c* and *d*, so as to properly guide the head end of the bedstead in its upward and downward movements. The legs K and L are connected by a pair of bars M, connected at their ends to the cross-bars *k k'* of each pair of legs K L, respectively, so that as the legs K turn on their pivots while the head end of the bedstead is being raised they will correspondingly turn legs L on their pivots and cause them to fold upward against the bedstead. These movements of the legs are guided by a U-shaped bar N, pivoted at its ends to the inner sides of the casing A and coming into contact with stops or projections *m* on the upper sides of the bars M, so as to insure the effective folding movement of the legs as the bedstead is raised up into casing A.

Upon the upper side of the bedstead is placed a rectangular frame, the sides of which are formed each of two bars O O', jointed together, as shown. The bars O are pivoted upon pins P, surrounded by spiral springs *p*, which press outwardly upon said bars, so as to force them beneath lugs Q on the inner sides of the bed-rails and thus hold the frame down securely upon the bedclothing. The cross-bar R of the outer or lower section of the frame O O' is provided with a pin *r*, which enters one or another of a series of serrations in a bar S, which is secured to the inner side of the foot-board B' by a clamping-screw S, and thus the frame O' is securely held down upon the bedclothing to retain the same in position when the bedstead is raised up into casing A. In this event the pillows are held by wires or strings or other flexible devices *t*, extending longitudinally in the upper section O of the frame.

Thus it will be seen that I have produced a simple and durable form of folding bed, which may be readily manipulated to effect its folding up and its opening out for use, and one which is so compact as to take up but little space when folded.

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

1. In a folding bed, the combination, with a vertical casing, of a counterbalanced bedstead working at its head end in vertical guides in said casing, and legs pivoted to the head and foot of the bed and connected together by a longitudinally-extending frame, the legs at the head of the bedstead also working in vertical guides in the casing, substantially as and for the purpose described.

2. The combination, with a folding bedstead, of a frame comprising upper and lower parts hinged or pivoted together, the upper part of said frame being pivoted to the head end of the bedstead, and a catch at the foot of the bedstead adapted for engagement with the lower end of said frame, substantially as set forth.

3. The combination, with a folding bedstead, of legs pivoted to the head and foot of the bed and connected together by a longitudinally-extending frame, and a guiding-bar pivoted to the bed-casing and engaging stops or projections on the connecting-frame, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand, at Madison, in the county of Dane and State of Wisconsin, in the presence of two witnesses.

CLARK L. GILL.

Witnesses:

J. M. CLIFFORD,
A. W. POTTER.