

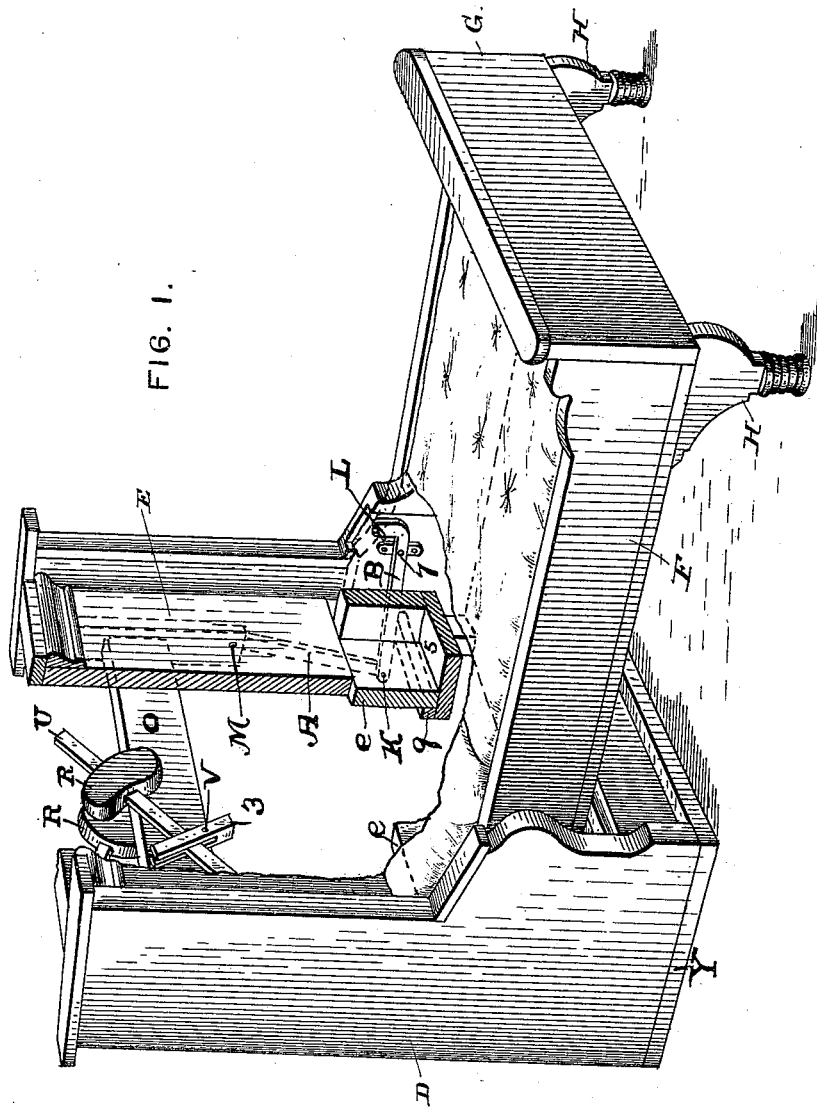
(No Model.)

2 Sheets—Sheet 1.

F. SCHNECK.
FOLDING BED.

No. 419,288.

Patented Jan. 14, 1890.



ATTEST.

J. Henry Kaiser.
Victor J. Evans.

INVENTOR.

Fred Schneck
By Jm Vale
Attorney

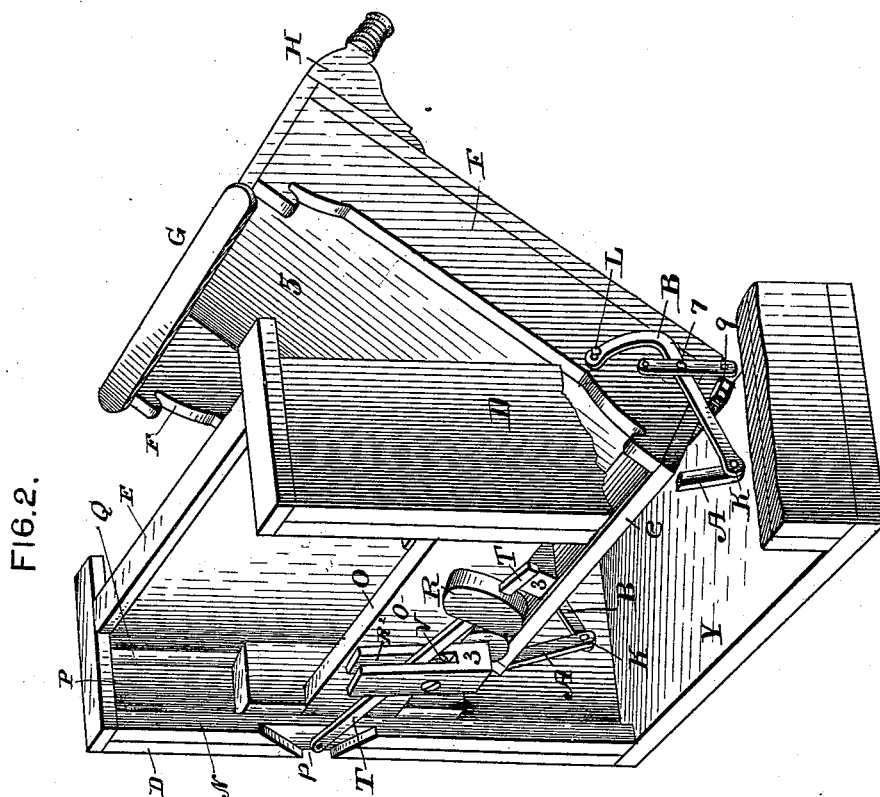
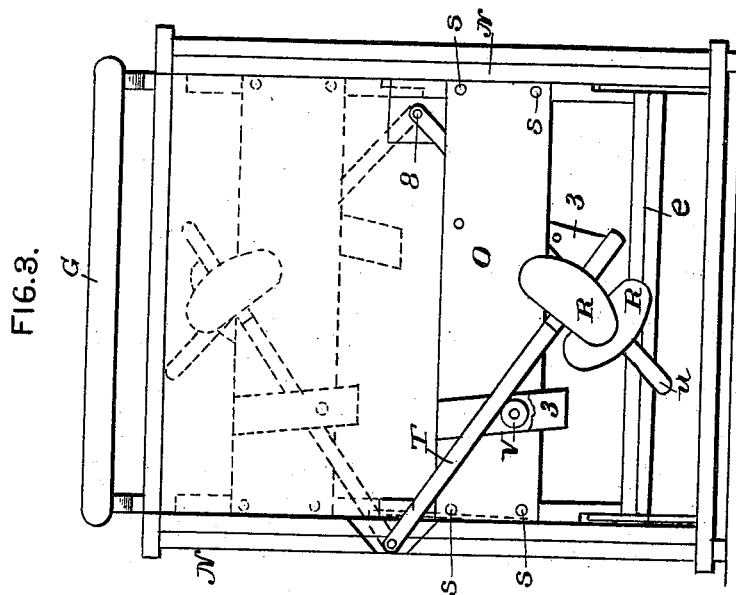
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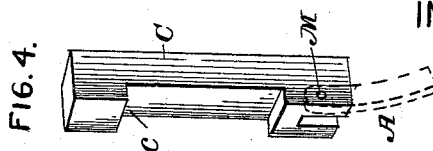


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UNITED STATES PATENT OFFICE.

FRED SCHNECK, OF BUCHANAN, MICHIGAN.

FOLDING BED.

SPECIFICATION forming part of Letters Patent No. 419,288, dated January 14, 1890.

Application filed March 30, 1889. Serial No. 305,424. (No model.)

To all whom it may concern:

Be it known that I, FRED SCHNECK, a citizen of the United States of America, residing at Buchanan, in the county of Berrien and State of Michigan, have invented certain new and useful Improvements in Folding Beds, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to that class of folding beds in which a counter-weight is used to counteract or overcome the weight of the foot-end of the folding frame while under the operation of opening or closing the bed, and the object is to reduce the amount of effort required in opening and closing the bed; and the invention consists of the construction and arrangement hereinafter described and claimed.

In the accompanying drawings, which illustrate my invention, Figure 1 is a perspective view of the front of the bed, shown partly in section and with parts broken away. Fig. 2 is a rear perspective view, partly in section, the bed partly closed. Fig. 3 is a rear view showing movement in dotted lines, bed closed. Fig. 4 is a detail of the traveler C, showing in dotted lines the attachment of the connecting-rod A to the traveler C.

Similar letters and figures refer to similar parts throughout the several views.

The upright stationary frame is composed of two sides D, resting on the base Y, connected and held together by the cross-brace E. The cross-brace E serves as the upper part of the head-board when the bed is open for use. The folding or movable frame is composed of the side rails F, connected at the head by the cross-piece *e* and at the foot by the foot-board G, supported when open by the legs H and face-panel 5, Fig. 2, which serves the purpose of the bottom of the bed when open and an ornamental front when closed. I do not limit myself to any style of ornamentation of this panel.

The levers B are loosely attached to the side rails F at L, and pivoted to sides D at 7, Fig. 1, thus supporting the head of the folding or movable frame. The pivot 7 forms the fulcrum of lever B and the pivot upon which the folding or movable frame swings.

The mechanism forming the counter-weight

to assist in opening and closing the bed is loosely attached to the long ends of the levers B and to the travelers C by the connecting-rods A at the joints K and the points M, and consists of the travelers C, operating in the vertical grooves P, formed by guides N and Q. The travelers C are attached at each end of the carrier O by screws *s s s s*, Fig. 3. Slotted blocks 3, having anti-friction rollers V, playing in slots R², are attached to the outer and inner sides of carrier O. The swinging-rods T and U, bearing the counter-weights R, play across the anti-friction rollers V. Rod T is swung on the outside of carrier O, and is loosely attached to one of the sides D at the point *p*, the side and guide N being cut away in a V shape to admit of play of the rod. Swinging rod U is loosely attached to a block 8, rigidly fastened to the inside of the cross-brace E. Rod T operates in front and rod U in the rear of the carrier O.

When the movable or folding frame of the bed is raised or lowered in opening or closing, a vertical motion is communicated to the travelers C by means of the levers B and connecting-rods A, and the counter-weights R will be reciprocally lowered or raised and the effort required to open or close the bed reduced. The manner of hanging the bed upon its bearings and the adjustment of the counter-weights is such as to require a minimum of power in opening and closing. The bed-frame is balanced when standing at an angle of about forty-five degrees.

When the bed is open and standing evenly upon the horizontal floor, the legs H will rest firmly on the floor, and the upper edge of the cross-piece *e* will conform to the lower edge of the cross-brace E. At the same time the ends of the lever B at joint K come in contact and firmly rest against the outer guide N, forming a stop in the downwardly-swinging motion of the foot of the folding frame and arresting such movement even in the absence of legs H, and at the same time serving to steady the bed when open. A cleat 9 is rigidly attached to the cross-piece *e* across its base on the outer side, with ends projecting slightly beyond the side rails F and fitting closely within the sides D. The extended ends form a convenient carrier and rest for the long arms of levers B when the bed is open, and

serve to steady the bed and prevent a lateral motion at the head.

What I claim as my invention, and desire to secure by Letters Patent, is—

- 5 1. In a folding bed, the combination of a stationary case, the folding or movable frame attached to the short arm of the levers B, which are pivoted to the sides of the stationary case, the pivot-supports forming the fulcrums
- 10 of the levers, the levers B, the counter-weights adjustable upon swinging arms loosely attached at one end to the stationary case and riding in slotted projections 3, mounted on the carrier O, the carrier O, the travelers C, sup-
- 15 porting said carrier, moving in vertical ways, and the connecting-rods A, pivoted to the carriers C and to the long ends of the levers B, as and for the purposes described.

- 20 2. In a folding bed, the combination of the stationary case, the folding or movable frame attached to the short arms of levers B, which are pivoted to the sides of the stationary case, the pivot-supports forming the fulcrums of the levers, the levers B, the travelers C, mov-
- 25 ing in vertical ways connected to the long ends of levers B by rods A, the rods A, the carrier O, supported by the travelers C and having slotted projections mounted thereon,

with anti-friction rollers, and the swinging arms T and U, riding thereon, carrying weights R, as and for the purposes described. 30

3. In a folding bed, the combination of the stationary case, the folding frame having the cleat 9, rigidly attached to the cross-piece e, forming the head-board thereof, with ends 35 projecting beyond the side rails, fitting closely within the casing, the folding frame being attached to the short arm of the levers B, which are pivoted to the sides of the stationary case, the pivot-supports forming the ful-
- 40 crums of the levers, the levers B, the counter-weights adjustable upon swinging arms loosely attached at one end to the stationary case and riding in slotted projections 3, mounted on the carrier O, the carrier O, the
- 45 travelers C, supporting said carrier, moving in vertical ways, and the connecting-rods A, pivoted to the carrier C and to the long ends of the levers B, as and for the purposes de-
- 50 scribed.

In testimony whereof I affix my signature in presence of two witnesses.

FRED SCHNECK.

Witnesses:

ALISON C. ROE,
JOHN M. ROE.