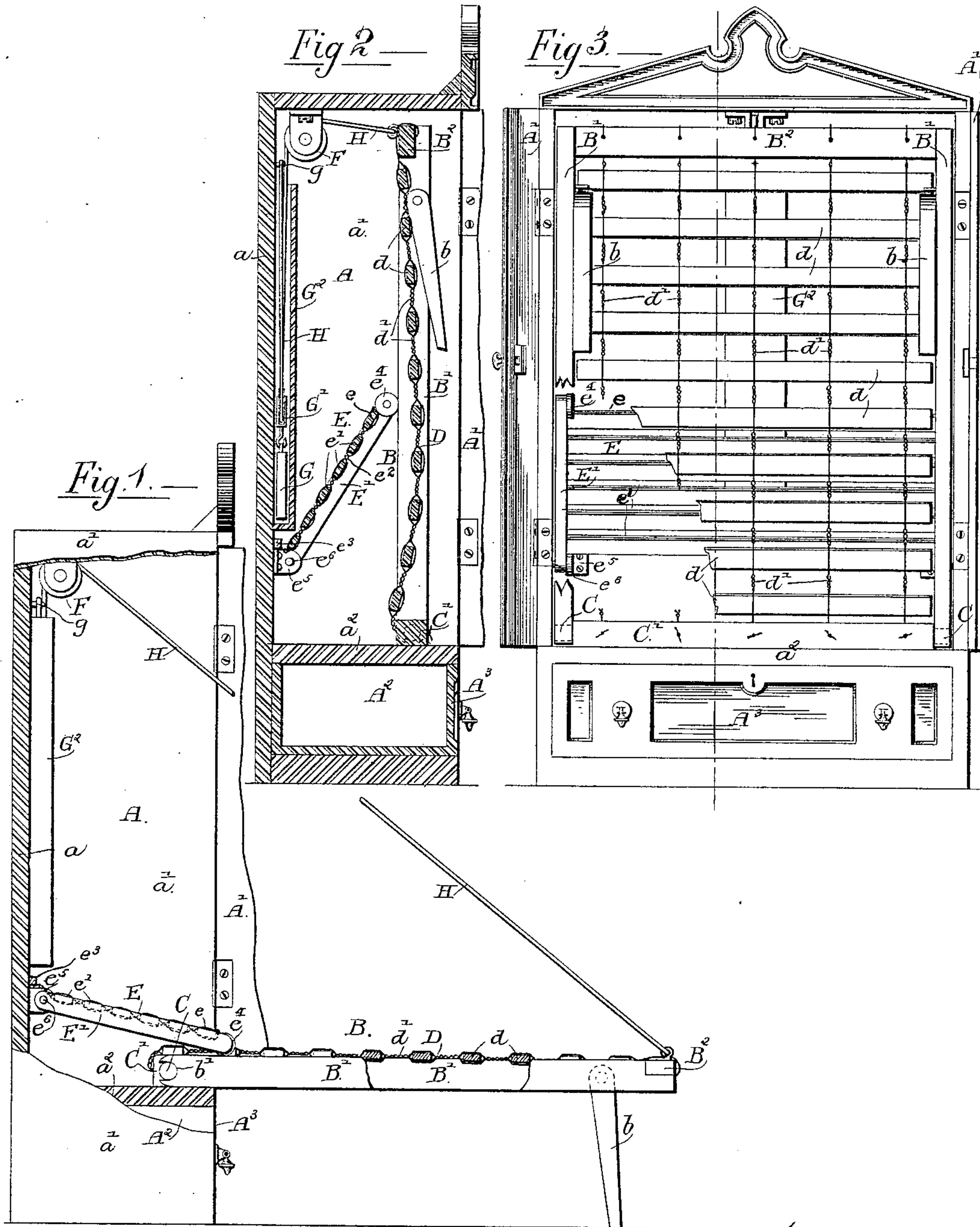


(No Model.)

E. T. SMITH.
FOLDING BEDSTEAD.

No. 386,662.

Patented July 24, 1888.



Witnesses.—
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UNITED STATES PATENT OFFICE.

EDWIN T. SMITH, OF FREMONT, NEBRASKA.

FOLDING BEDSTEAD.

SPECIFICATION forming part of Letters Patent No. 386,662, dated July 24, 1938.

Application filed May 16, 1887. Serial No. 238,312. (No model.)

To all whom it may concern:

Be it known that I, EDWIN T. SMITH, of Fremont, in the county of Dodge and State of Nebraska, 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to folding beds of that class known as "wardrobe-beds," or those in which a movable or swinging bed-frame is folded up vertically with a stationary casing when the bed is not in use.

The invention consists in the matters hereinafter described.

In the accompanying drawings, illustrating my invention, Figure 1 is a side elevation of a folding bed embodying my invention, with the swinging or movable part unfolded or in its horizontal position, the side of the casing being broken away to show the interior construction thereof. Fig. 2 is a vertical sectional view of the casing and folding bed-frame, with the latter folded and the doors open. Fig. 3 is a front elevation of the same.

As illustrated in the said drawings, A indicates as a whole the stationary part or casing of the bed, and B the swinging part or bed-frame. The casing A, comprising a rear wall, a , and side walls, a' a' , is provided with two doors, A' A' , for closing the front part of the casing. In its lower part the casing is desirably provided with a horizontal partition, a^2 , forming a compartment, A^2 , in which may be placed a drawer, A^3 , or which may be otherwise utilized.

The bed-frame B consists, principally, of two side rails, B' B' , and end rail, B^2 , rigidly attached to the side rails, and two folding legs, b b , pivoted to the bed-frame. The frame B is pivotally connected with the casing by pivots C C, herein shown as formed upon the ends of a bar, C' , which is affixed horizontally to the top surface of the partition a^2 , near the front of the casing. Said pivots C C engage open slots or bearing-apertures b' b' in the side rails, B' B' . The open slots or bearing-apertures b' b' are arranged to extend inwardly from the end faces of the side rails. Such slots obvi-

ously allow the frame B to be removed from the casing without disconnecting any of the parts, with the exception of the bed-bottom, which is attached to the folding frame and casing in the manner hereinafter described. The bed-bottom D consists of a flexible fabric attached to the end rail, B^2 , of the folding frame B and to the top edge of the bar C' . Such top edge of the bar is located in a plane somewhat above the level of the pivotal axis of the bed-frame, so that when the bed-frame is folded up horizontally the fabric will be loosened, and when said frame is brought into its horizontal position the fabric will be drawn taut. One important advantage gained by the construction in which the frame B is pivoted to the bar C' , and in which the fabric D is attached at its upper end to said bar, is that the strain upon the parts caused by the tension of the fabric when the bed is occupied is brought directly upon the parts of the rectangular frame, consisting of the bars C' , B' B' , and B^2 , and not upon any intermediate parts or pieces, as common in beds as heretofore made.

As a novel construction in a fabric for bed-bottoms, I make the said fabric of transverse pieces or slats d d and longitudinal wires d' d' , the said wires being arranged in pairs with the strips between them and twisted between the strips in a manner common in the manufacture of wire-picket fencing. The wires d' d' are attached at the foot and head of the bed to the end piece, B^2 , and bar C for sustaining the fabric in place. A bed-bottom made as above described is obviously not only cheap and simple to construct, but easily and conveniently attached to the bed.

In connection with the main parts of the folding bed described any suitable construction in a support or head-rest to occupy the space at the head of the bed between the bar C and the back wall of the casing may be used.

I have shown in the drawings a novel device for this purpose, consisting of a folding or swinging support or head-rest, E. Said head-rest E consists of two side bars, E' E' , pivoted to the casing, near the back wall of the latter, and resting at their front or free ends against the top surfaces of the side rails, B' B' , of the folding frame B in such manner that the said side bars will rest in a horizontal or inclined

position, Fig. 1, when the frame B is horizontal, and will be lifted and stand in a nearly vertical position, Fig. 2, when the bed is folded, the said front ends of the side bars being constructed to travel or slide on the folding frame B as the latter is moved. The two side bars, E' E', are connected by means of a cross-bar, e, near their free ends, and the space between said cross-bar and the rear wall of the casing is filled by a series of cross-slats, e' e', which are supported by twisted wires e² e², attached at their ends to the said cross-bar e, and to a cleat, e³, attached to the said rear wall of the casing. The said bars E' E' are provided with anti-friction rollers e⁴ e⁴ at their front ends, which rest upon the rails B' B', and thereby allow a free movement of the parts in opening and closing the bed. The pivoted connections between the bars E' E' and the casing may be made in any desired or preferred manner. As illustrated, such connections are formed by brackets e⁵ e⁵, affixed to the rear wall, a, of the casing, near the side walls thereof, and pivot-pins e⁶ e⁶, held at their ends in said brackets, and in the side walls, a' a'.

For counterbalancing the weight of the bed-frame B, so that the latter may be easily raised and lowered, I have herein shown devices as follows: F is a pulley attached to the top of the casing A, inside of the latter. G is a vertically-movable weight to which is attached a pulley, G', and H is a cord or rope which is attached to the lower end of the frame B, and is carried upwardly over the pulley F, then downwardly and around the pulley G', and is then carried upwardly and attached at g to the top of the casing. The weight G in this construction will obviously exert a constant tension upon the rope, tending to raise the lower end of the bed, so that by making the weight

sufficiently heavy the weight of the folding frame may be practically counterbalanced, and this made to move with little exertion. The weight G is desirably located close against the rear wall, a, of the casing, and is preferably covered by a housing, G², forming a tubular guide for the weight and concealing it from view. It is to be understood, however, that as far as the other features of construction in the folding bed shown are concerned a counterbalance-weight may or may not be used.

I claim as my invention—

1. The combination, with a folding-bed casing, of a swinging bed-frame, B, a horizontal stationary bar, C, attached to the casing, pivots attached to the ends of the bar and engaging the upper ends of the sides of the frame, and a bed bottom consisting of a flexible fabric attached to the said stationary bar C and to the lower end of the frame, substantially as described.

2. The combination, with a stationary folding-bed casing provided with a fixed horizontal partition, of a bed-frame, B, consisting of an end rail and two side rails and a stationary horizontal bar, C, attached to the said partition and provided at its ends with pivots engaging the ends of the side rails of the frame, and a flexible bed-bottom secured to the stationary bar C and to the lower end of the frame, whereby when the bed is lowered for use the bed-bottom is stretched, substantially as described.

In testimony that I claim the foregoing as my invention I affix my signature in presence of two witnesses.

EDWIN T. SMITH.

Witnesses:

FRANK FOWLER,
HENRY GUMPert.