(No Model.) 2 Sheets—Sheet 1.

J. S. ROE.

FOLDING BED

No. 390,805. Patented Oct. 9, 1888.

Fig. 1

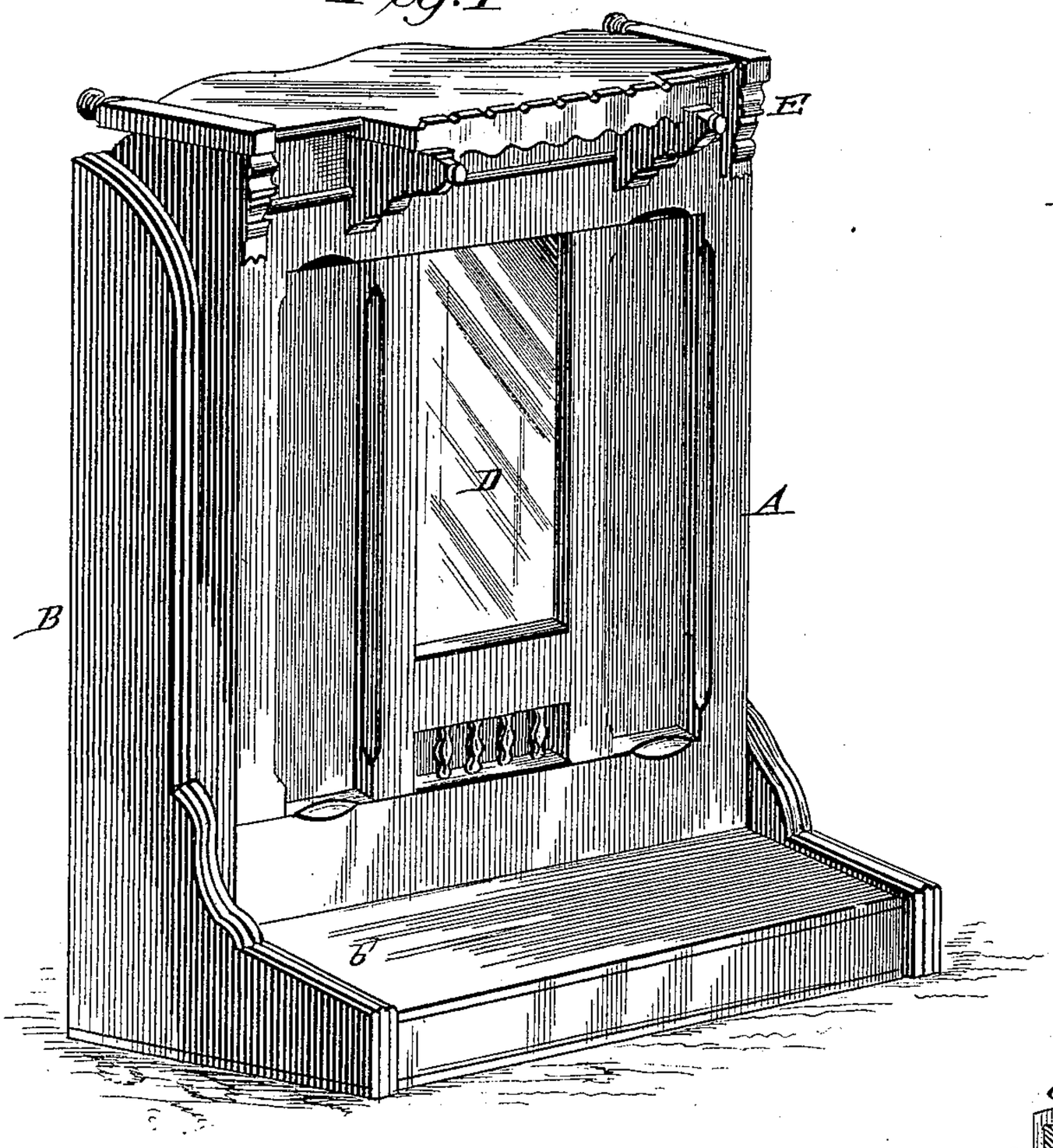


Fig. 2.

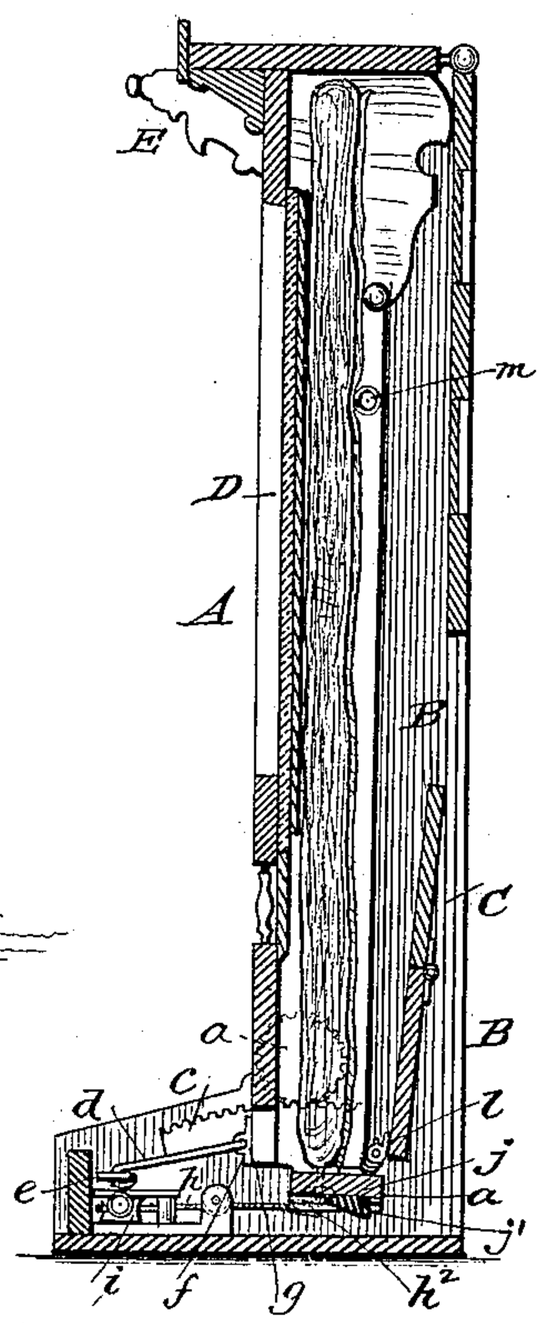
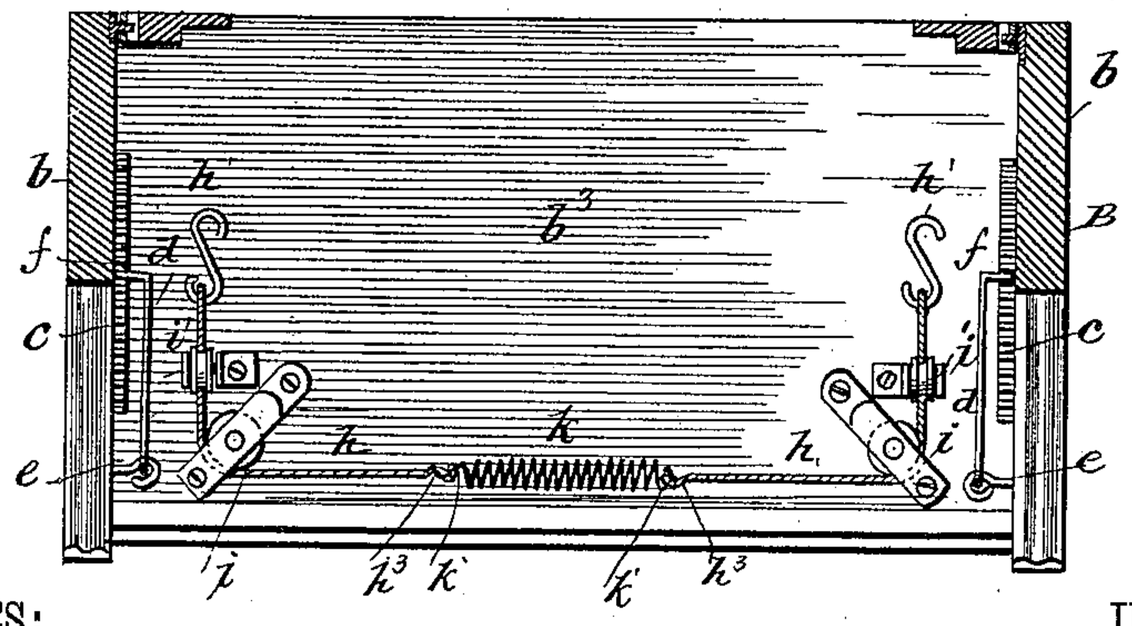


Fig. 3



WITNESSES:

Fred G. Dieterich,

Chas. R. Wright.

INVENTOR:

Jno. S. Roe,

BY Munn & Co

ATTORNEYS.

(No Model.) 2 Sheets—Sheet 2.

J. S. ROE.

FOLDING BED

No. 390,805. Patented Oct. 9, 1888.

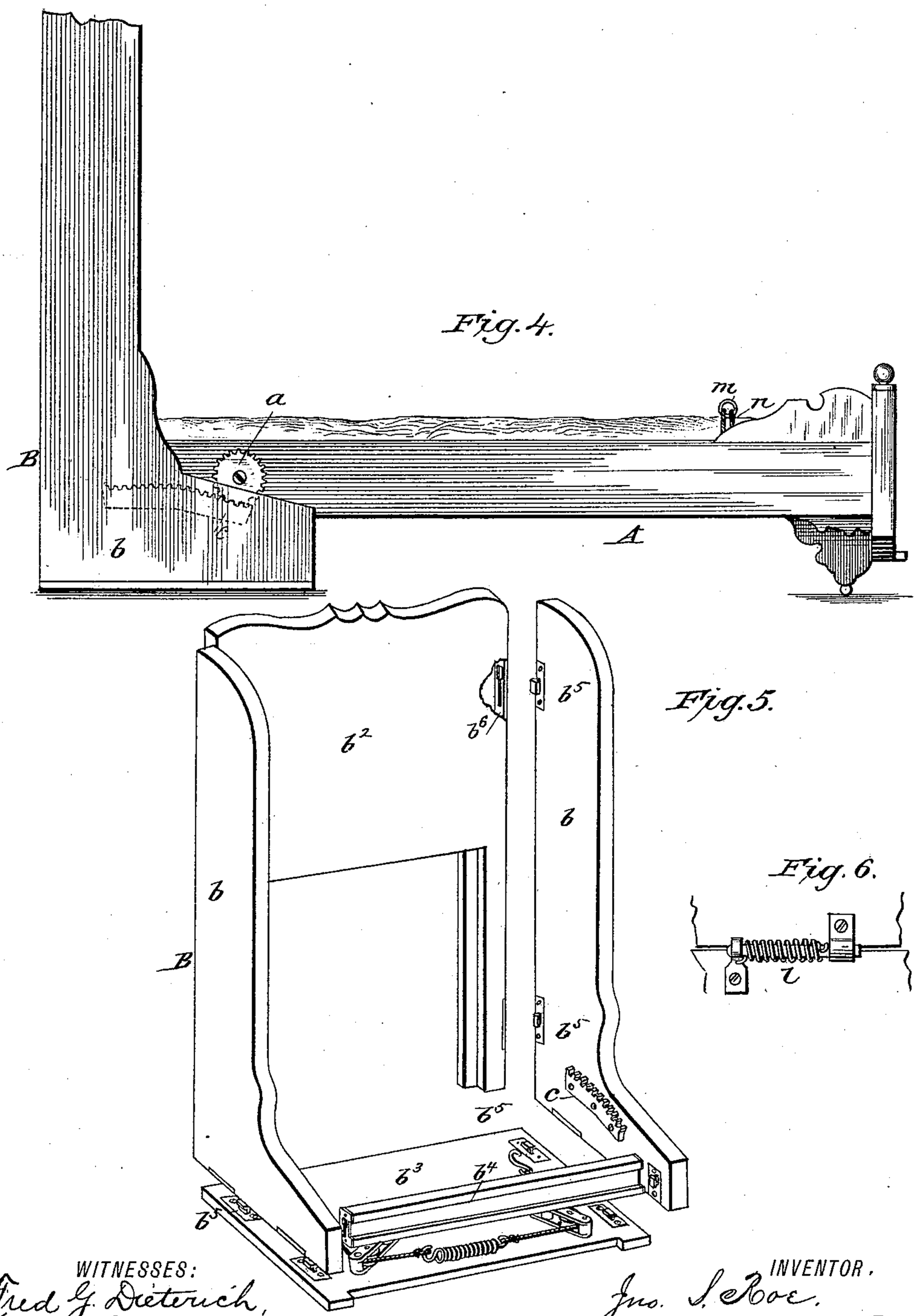


Fig. 4.

Fig. 5.

Fig. 6.

WITNESSES:
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UNITED STATES PATENT OFFICE.

JOHN SIDNEY ROE, OF CHICAGO, ILLINOIS.

FOLDING BED.

SPECIFICATION forming part of Letters Patent No. 390,805, dated October 9, 1888.

Application filed February 27, 1888. Serial No. 265,442. (No model.)

To all whom it may concern:

Be it known that I, JOHN SIDNEY ROE, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Folding Beds, of which the following is a specification.

My invention relates to improvements in folding beds; and the invention consists in the peculiar construction and arrangement of parts, as hereinafter described, and pointed out in the claims.

Figure 1 is a perspective view of my improvement folded. Fig. 2 is a vertical section of the same with the top board removed. Fig. 3 is a horizontal section. Fig. 4 is a side elevation with the bed lowered. Fig. 5 is a perspective view of the case, showing the parts detached; and Fig. 6 is a detail view.

Similar letters of reference indicate corresponding parts in all the figures.

Referring to the drawings by letter, A represents the bed, and B the casing in which the bed folds. The casing consists of the sides *b*, the back b^2, the bottom b^3, and the front b^4. The several parts are secured together by T-shaped catches b^5, engaging correspondingly slotted and beveled plates, b^6, whereby it can be readily put together and taken apart and packed in a small space for transportation or otherwise. To the sides of the bed A, and a short distance from the inner end thereof, are secured the toothed wheels *a*, which travel on the racks *c*, secured to the inner faces of the side pieces, *b*, of the casing. The outer ends of the racks *c* are inclined downward, for a purpose hereinafter described.

The bed A is pivotally connected to the casing B by means of the rods *d*, pivoted to the under side of the bed and to the casing. I prefer to connect the rods *d* permanently to the casing by screw-eyes *e*, or equivalent means, and provide them with hooks *f* at their other ends for engaging eyes or sockets *g* on the bed, as clearly shown in the drawings.

To hold the bed folded in the casing, I secure to the under side of the head of the bed the ends of the ropes *h*, which pass under and around the pulleys *i i'* on the bottom of the casing, and have their other ends connected to the spiral spring *k*. This spring not only holds the bed within the casing, but also holds the toothed wheels into engagement with the racks. The ends of the ropes are provided with hooks *h'*, for engaging screw-eyes h^2 on the bed, and the spring *k* with hooks *k'* to receive the loops h^3 in the ends of the said ropes to facilitate disengaging them when taking the bed apart.

In ways *j* on the outer surface of the end piece, *a'*, of the bed, is detachably secured a weight, *j'*, to assist the spring in holding the bed vertical and within the casing. A sectional and hinged head-board, C, is hinged to the end piece, *a'*, by spring-hinges *l*, which, as the lid is lowered, automatically inclines backward against the back of the casing.

It will be seen that when the bed is lowered into a horizontal position the head of the bed will be lowered, owing to the inclined outer ends of the racks *c*, so that the cords attached to the spring will act in a more direct line, and thereby permit a smaller spring and less weight to be used. While I prefer to use both weight and spring for holding the bed in the casing, yet it is evident that a spring of sufficient size could be employed and the weight omitted. For holding the bed-clothing on the bed when the bed is folded, I employ a spring, *m*, having at its ends cords or straps *n*, which are attached to the side pieces of the bed.

The under side of the bed, which forms the front of the casing when folded in the same, is provided with a mirror, D, and with the brackets E, which latter, when the bed is in position for use, serve as feet. It can be further ornamented as may be desired.

When the bed is folded in the case, I employ a top board, b^7, which closes the lower part of the case in front of the bed and gives the article a neat and finished appearance.

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

1. In a folding bed, the combination, with a casing and racks secured to the sides thereof, of a bed, toothed wheels on the sides of the bed, rods pivotally connected to the casing and to the bed, and a spring for holding the toothed wheel into engagement with the rack and the bed in a vertical position, substantially as herein shown and described.

2. In a folding bed, the combination, with a

casing and racks having downwardly-inclined outer ends, of a bed, toothed wheels on the sides of the bed, rods pivotally connected to the bed and casing, a spring, ropes having their ends connected to the spring and to the bed, and guide-pulleys on the casing, substantially as herein shown and described.

3. A folding bed consisting of the casing B, provided with the racks *c*, having downwardly-inclined outer ends, the bed A, provided with the sectional and hinged head-board C, the toothed wheels secured to the sides of the bed a short distance from its inner end and meshing with the said racks, the rods *d*, pivoted to the casing and to the bed, the spring *k*, the ropes *h*, secured to the opposite ends of the spring and provided with hooks *h'* on their free ends engaging eyes on the bed, and the guide-pulleys *i i* on the bottom, under and around which pass the ropes *h*, substantially as herein shown and described.

JOHN SIDNEY ROE.

Witnesses:
RANDALL W. BURNS,
GEO. W. FRANKLIN.