(No Model.) 2 Sheets—Sheet 1.

P. HERBOLD.

FOLDING BED COUCH.

No. 457,349. Patented Aug. 11, 1891.

Fig. 1

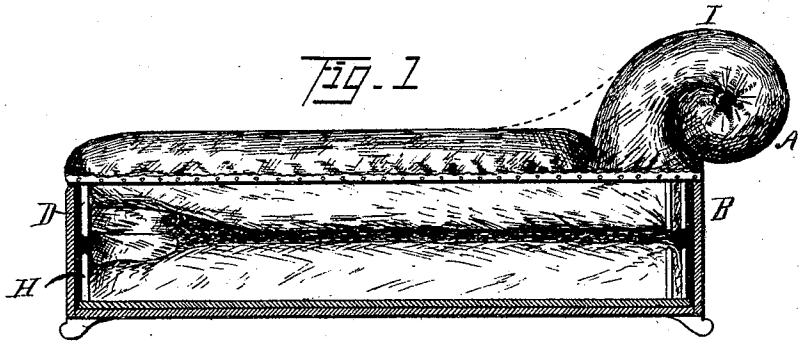


Fig. 2

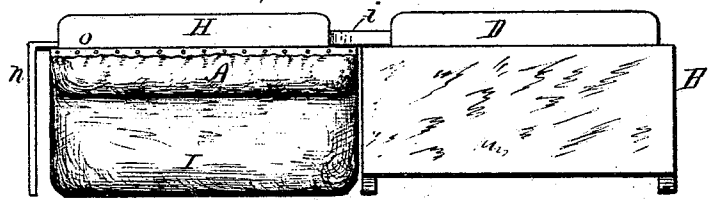


Fig. 3

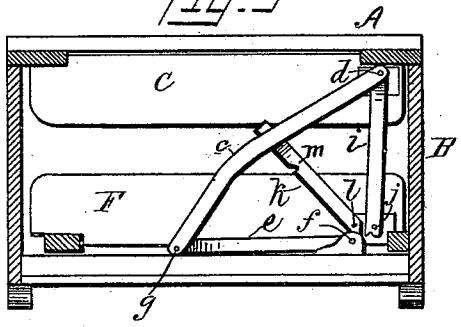
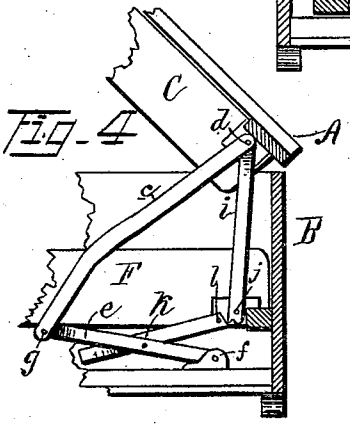


Fig. 4



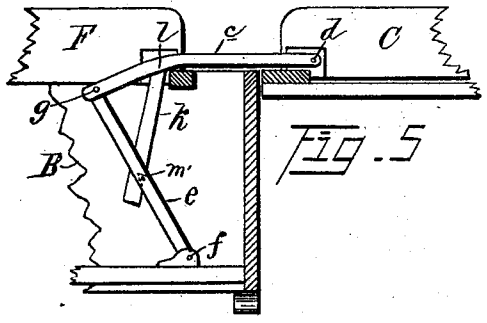


Fig. 5

Witnesses
W. A. Biddle
Henry Ford

Inventor
P. Herbold
W. H. Burridge Atty

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

(No Model.)

2 Sheets—Sheet 2.

P. HERBOLD.

FOLDING BED COUCH.

No. 457,349. Patented Aug. 11, 1891.

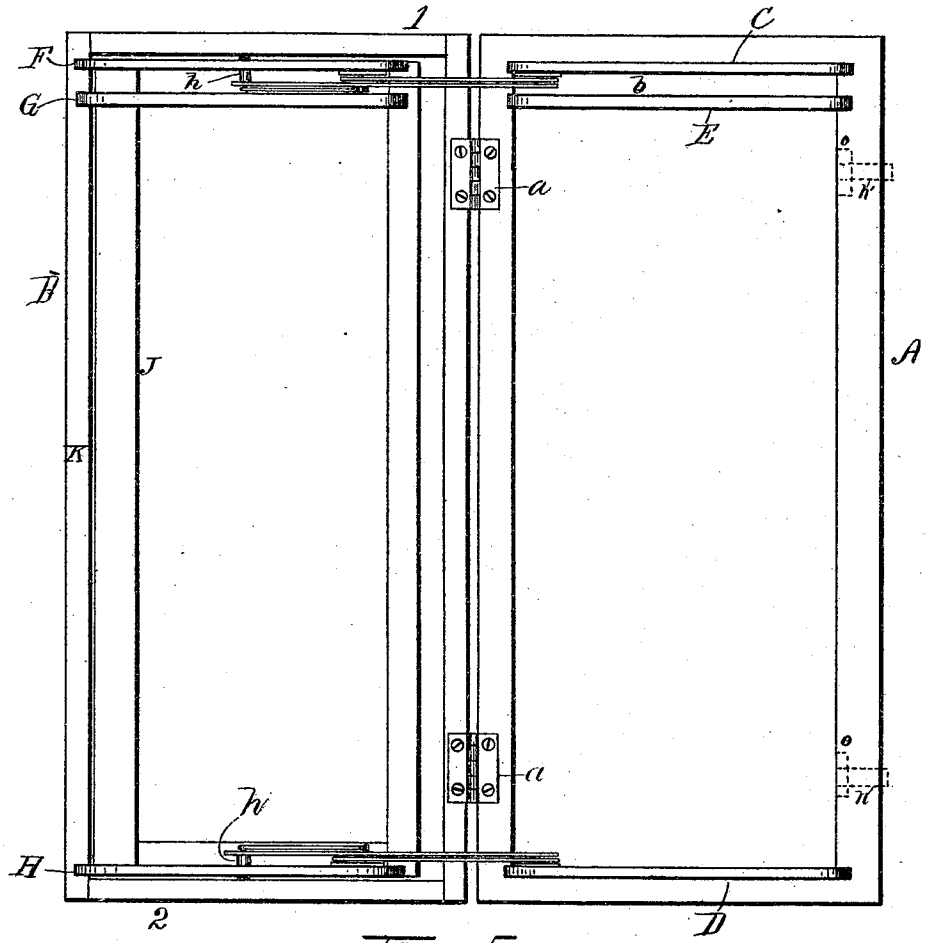


Fig. 6

Witnesses
W. A. Biddle
Henry Ford

Inventor
P. Herbold
W. A. Burridge
Atty.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

PHILIP HERBOLD, OF GALION, OHIO.

FOLDING BED-COUCH.

SPECIFICATION forming part of Letters Patent No. 457,349, dated August 11, 1891.

Application filed November 12, 1890. Serial No. 371,261. (No model.)

To all whom it may concern:

Be it known that I, PHILIP HERBOLD, a citizen of the United States, residing at Galion, in the county of Crawford and State of Ohio, have invented certain new and useful Improvements in Folding Bed-Couches, of which the following is a full, clear, and complete description.

The nature of my invention relates to the construction and arrangement of the various parts of a bed-couch, together with certain mechanical devices used in connection therewith in closing, opening, or folding said couch, as hereinafter fully set forth and described.

That the invention may be seen and fully understood, reference will be had to the following specification and annexed drawings, forming part thereof, in which—

Figure 1 is a side elevation of the improved couch with the front of the lower portion removed, showing the bedclothes within. Fig. 2 is an end view of the couch open. Figs. 3, 4, and 5 are detached sections hereinafter fully explained. Fig. 6 is a plan view of my improved couch when open for use.

Like letters of reference designate like parts throughout the drawings and specification.

As the system or arrangement of the lever mechanism for opening and closing the bed-couch is alike at both ends 1 and 2, it is deemed only necessary to fully describe one end of the said mechanism to avoid prolixity, though both are jointly referred to when it is thought expedient.

The upper portion or section A of the couch is hinged to the lower portion B, as shown at *a a*, Fig. 6, and has the cleats C and D attached to each end and running clear across, forming a head-board and a foot-board for the couch when open and used as a bed. Across one end (that which is used for the foot) is the cleat E, similar in form to the cleats C and D. An open space *b*, between the cleats E and C, admits the bedclothes to be tucked in. A frame is arranged within the lower portion of the couch, having the cleats F, G, and H attached thereto, corresponding to the cleats C, D, and E of the upper portion. When the couch is closed the said frame is in the position shown in Fig. 3, or in the bottom of the couch. When the couch is open, the frame is raised to a plane with the upper portion by a system of levers operating as follows, (best shown in Figs. 3, 4, and 5:) A lever *c* is pivoted to the cleat C at the point *d*. Another lever *e* is pivoted to the bottom of the couch at a point *f*. These two levers *c* and *e* are pivoted to each other at *g*. The roller *h* is also pivoted to the two levers at the ends *g*, being their points of connection with the roller. The rollers *h* extend under the cleats F and H (seen in Fig. 6) of the frame and facilitate the raising of the frame from the position shown in Fig. 3 to that for a bed shown in Fig. 6. A third lever *i* is pivoted to the cleat C at a common point with the lever *c*. It is also pivoted to the lower cleat F at *j*. A brace *k* is pivoted to the cleat F at a point *l* near the point *j*.

I have described the system of levers at one end of the couch only, the arrangement and operation of the lever mechanism at the other end being identical with that above described.

Upon opening the couch the levers will raise the frame from the bottom of the lower portion of the couch to a plane with the upper portion, in the manner shown in Figs. 3, 4, and 5. When the said frame has reached a plane with the upper portion of the couch, the ends of the cleats F, G, and H will rest on the upper edge of the side of lower portion, as shown in Fig. 6, and the brace *k*, having a notch *m*, Fig. 3, in its edge, will catch on a pin or lug at *m'* on the lever *e*, (shown by dotted lines in Fig. 5,) thus holding the frame in firm position.

The upper portion of the couch is supported when open by the head-piece I resting on the floor and by one leg *n*, as shown in Fig. 2; or it may rest on two legs, as shown by *n* and *n'*, Fig. 6. The legs may be attached in any manner, those shown in the drawings being a piece of iron at a right angle and slipped into a staple *o* on the frame of the upper portion beyond the edge of the lower portion.

The side or part J, Fig. 6, which may be either front or back, according to the position of the couch, is supported when open by means of the cleats F and H lapping over the rail K for the purpose of supporting or holding up the sides J, as indicated in Fig. 6. This occurs on opening the couch to form the

bed, as by so doing the cleats F and H are raised up from within the couch to the position shown in Fig. 6 and lap over the rail K, as and for the purpose stated.

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

1. In a folding bed-couch, the upper portion A, the lower portion B, hinged thereto, in combination with the pivoted levers *c* and *i*, connected at one end with the part A and acting at the other upon a movable frame in the part B, and the lever *e*, pivoted to the part B and connecting with the lever *c*, substantially as described.

2. In a folding bed-couch, the parts A and B, a movable frame in the part B, the levers *c i*, extending between the movable frame and the part A, the lever *e*, pivoted to the part B at one end and to the lever *c* at the other, and the brace between the movable frame and the lever *c*, substantially as described.

3. In combination with the parts A and B, the cleats D and E in the part A serving as head and foot board, a third cleat C, with a space between it and the cleat E, a movable frame in B, similar cleats F G in said frame, and operating-levers between the part A and the movable frame, the levers at one end being in the space between the adjacent cleats, substantially as described.

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

PHILIP HERBOLD.

Witnesses:
W. H. BURRIDGE,
F. GRISWOLD.