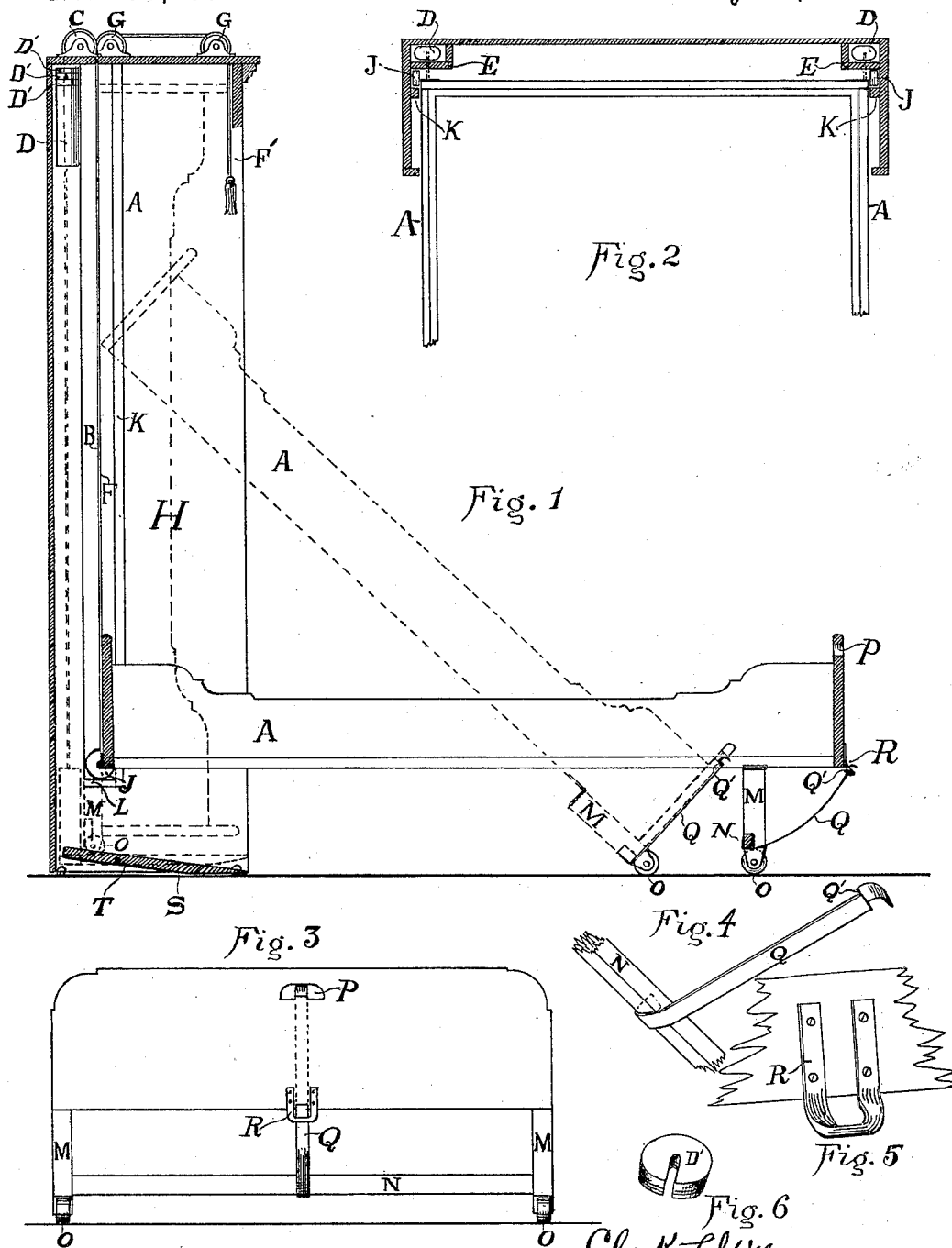


(No Model.)

C. L. GILL.
FOLDING BED.

Patented July 30, 1889.

No. 408,171.



WITNESSES:

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UNITED STATES PATENT OFFICE.

CLARK L. GILL, OF MADISON, WISCONSIN.

FOLDING BED.

SPECIFICATION forming part of Letters Patent No. 408,171, dated July 30, 1889.

Application filed August 17, 1888. Serial No. 283,035. (No model.)

To all whom it may concern:

Be it known that I, CLARK L. GILL, a citizen of the United States, residing at Madison, in the county of Dane and State of Wisconsin, have invented a new and useful Improvement in Folding Beds, of which the following is a specification.

My invention relates to that class of beds in which, when not in use, the bed-frame, together with the mattress thereon, may be folded into a vertical position within an upright case.

The object of my invention is to furnish a bed that may be folded into small space, that is simple in construction, and easy to operate.

My invention consists in providing means for folding the foot-legs against the bed-frame, so as to reduce the necessary depth of the case into which it is folded, and in using weights to draw the bed-frame into the case that stands at the head thereof, the construction and operation being fully described and set forth hereinafter.

In the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts, Figure 1 is a side elevation of a bed embodying my invention, in which the bed is unfolded; Fig. 2, a horizontal section through the case and a portion of the bed-frame when the bed is unfolded; Fig. 3, an elevation of the foot of the bed when the bed is unfolded; Fig. 4, the catch-brace Q, with a fragment of the bar N, drawn to an enlarged scale; Fig. 5, the catch R enlarged, with a fragment of the foot-board; and Fig. 6, a view of one of the supplementary weights D'.

To the head of the bed-frame A the cords B are attached, which pass over the pulleys C to the weights D, to which they are secured, the weights being made heavy enough to nearly counterbalance the bed. To effect the changes in the sizes of the weights to meet the necessary changes in the amount of bedding, the supplementary weights D' are provided, which may be removed or replaced as required. The weights move up and down within the boxes E in the corners of the case.

To facilitate the folding of the bed, the cord F F' is attached to the middle of the head-board and passed over the pulleys G, so that

the loose end F' falls in front of the case within easy reach from either side of the bed. In order to keep the head of the bed in its proper course within the case, the rollers J on the bed-frame are made to move between the cleats K and the boxes E. At the lower ends of the cleats K are placed the pieces L, upon which rest the rollers J when the bed is unfolded. The foot-legs M are connected by the bar N, provided with the rollers O, and hinged to the bed-frame at such a distance from the foot that when folded the bar N will be flush with the foot of the bed, and so that the rollers O will be outside of the frame to act as rollers when the frame is being drawn into a vertical position.

For convenience in handling the foot of the bed the opening P is made through the foot-board near its upper edge. The catch-brace Q, which is constructed of flexible metal and provided with the offset Q', is secured to the bar N at its middle and serves the double purpose of retaining the foot-legs in either a folded or unfolded position, first, when folded, by the lower side of the offset Q' clasping over the edge of the foot-board within the opening P, and, second, when unfolded, by the upper side of the offset Q' engaging with the catch R, through which it passes at the bottom of the foot-board, the catch being given an obtuse angle, so as to project in such a way that the catch-brace Q can pass through it when the foot-legs are in either a folded or unfolded position. To the inside of the case, near the floor on either side, is pivoted the foot-shelf S, its pivot T being so near the inner end that when the bed is unfolded the outer end will of its own weight drop to the floor. The outer end is beveled on the under side, so that the upper end inclines to the floor. When the bed is being folded, the rollers O mount the incline until they pass the pivots T, when the inner ends are depressed and the outer ends raised from the floor, which makes it possible to roll the case about the room upon its own casters.

To unfold the bed, the foot thereof is rolled outwardly upon the rollers O, when, the weights having been properly adjusted, the head descends slowly into a horizontal position. The foot is then raised, and the catch-

brace Q released from the edge of the foot-board, when the legs, turning upon their hinges, drop into a standing position. To fold the bed, the catch-brace Q is released from the catch R, the foot-legs folded against the bed-frame, and the head of the bed drawn into the top of the case by drawing on the loose end of the cord F', the foot of the bed by the same operation folding into the bottom of the case.

10 I am aware that folding beds have been made with a roller-and-track connection between the movable and stationary parts, which construction I do not claim, broadly.

15 Having fully described the construction and operation of my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a folding bed, the combination, with the case H and bed-frame A, the foot-board of said bed-frame being provided with the opening P near the upper edge thereof, of the catch R on the lower edge of said foot-board, foot-legs M, hinged to the bed-frame so as to fold flush with the foot thereof, bar N, connecting said foot-legs, and the flexible catch-brace Q, attached to the middle of said bar N and passing through said catch R and having the direct offset Q', whereby said foot-legs may be retained in a folded position by the lower side of said offset clasping over the edge of the foot-board within the opening P and in an unfolded position by the upper side of

said offset engaging with said catch R, substantially as set forth.

2. In a folding bed, the combination, with the case H and bed-frame A, of the rollers J on the front end of said bed-frame, connecting same with said case, pulleys C and G in the top of the case, cords B, attached to the head of said bed-frame and passing over said pulleys C, boxes E in the corners of the case, variable weights D D', attached to said cords B and moving in said boxes E, whereby the head of the bed-frame is drawn upward into the case, foot-legs M, hinged to the bed-frame, as described, and provided with the connecting-bar N, catch-brace Q, and rollers O, foot-shelves S, pivots T, connecting said foot-shelves to the sides of the case near the bottom thereof, said pivots being placed near enough to the inner ends of said foot-shelves to cause their outer ends to drop to the floor, thereby forming an incline for the rollers O to mount when the foot-legs are folded and when the bed-frame is being drawn into the case, and the cord F F', attached to the middle of the head-board of the bed-frame and passing over the pulley G, substantially as set forth.

CLARK L. GILL.

In presence of—

WALTER D. HICKMAN,
EMILY A. MAYERS.