

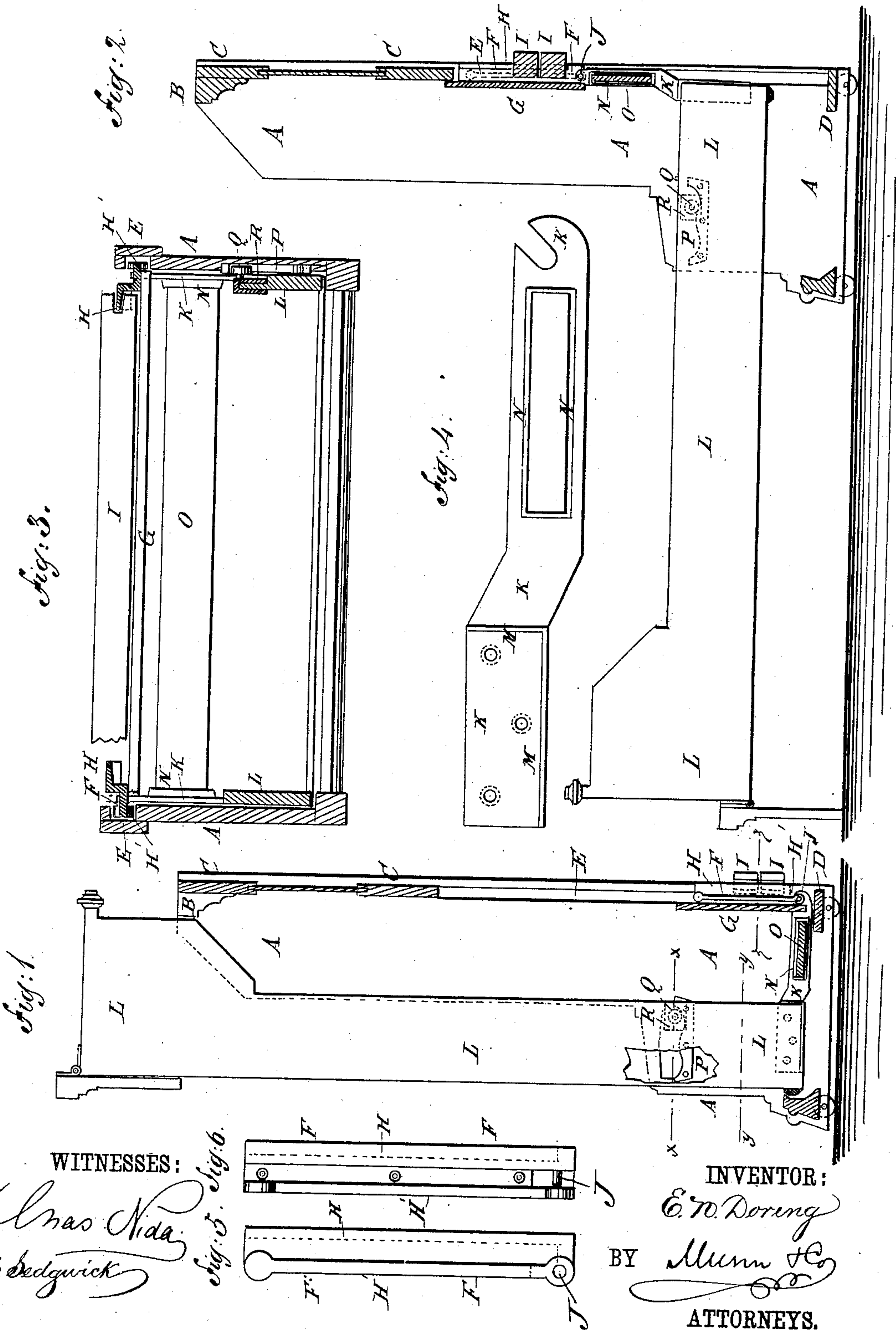
(No Model.)

E. N. DORING.

FOLDING BED.

No. 328,200.

Patented Oct. 13, 1885.



WITNESSES:

*Chas. Nida*  
*C. Sedgwick*

*Fig. 5.* *Fig. 6.*

INVENTOR:

*E. N. Doring*

BY *Munn & Co.*

ATTORNEYS.



# UNITED STATES PATENT OFFICE.

ERNST N. DORING, OF NEW YORK, N. Y.

## FOLDING BED.

SPECIFICATION forming part of Letters Patent No. 328,200, dated October 13, 1885.

Application filed September 26, 1884. Serial No. 144,049. (No model.)

*To all whom it may concern:*

Be it known that I, ERNST N. DORING, of the city, county, and State of New York, have invented certain new and useful Improvements in Folding Beds, of which the following is a full, clear, and exact description.

Figure 1 is a sectional side elevation of one of my improved folding beds shown closed, and part being broken away. Fig. 2 is a sectional side elevation of the same shown opened. Fig. 3 is a sectional plan view of the same, taken through the lines *xyyz*, Fig. 1. Fig. 4 is a side elevation of one of the hook-arms enlarged. Fig. 5 is a side elevation of one of the sliding brackets enlarged. Fig. 6 is a front elevation of the same.

The object of this invention is to facilitate the opening and closing of folding beds and promote convenience in the use of such beds.

The invention consists in the construction and arrangement of parts, as will be hereinafter fully described and claimed.

A represents a side of the stationary part of a folding bed. The stationary sides A are connected by a top molding, B, a back, C, and a base or bottom board, D.

The side pieces, A, have grooves E formed in them near their rear edges, to receive the sliding metal brackets F, which are secured by screws to a connecting-board, G, and are provided with flanges H, having shoulders at their lower ends to receive the weight-bars I for counterbalancing the bed.

The brackets F are also provided with flanges H', to slide in the grooves E, and the ends of the said flanges are rounded, as shown in Figs. 1, 3, 5, 6, and in dotted lines in Fig. 2, to lessen the friction as the said brackets move up and down.

At the lower end of each bracket F is a pin, J, with which engages the hook of the arm K. The hook-arms K are placed at the inner sides of the sides A, are made with an offset, as shown in Figs. 1, 2, and 4, and their shanks are secured by screws to the outer sides of the lower ends of the sides L of the movable part of the folding bed. The shanks of the hook-arms K are provided with flanges M, to receive the ends of the sides L, and the forward parts of the said hook-arms are provided with flanges N, to receive the ends of the boards O,

to prevent the formation of too large an opening below the board G when the bed is opened.

To the sides A are permanently attached tracks P, which may be made of metal or other suitable material, and upon which rest small wheels Q, pivoted to the sides L, and strengthened in position by metal plates R, bolted to the said sides.

With this construction when the movable part L of the bed is moving between a vertical and horizontal position the brackets F and their attachments move up and down vertically, and the engagement with the said brackets of the hooks of the arms K causes the movable part to move out and in, the wheel Q rolling upon the track P so that the weight of the upper part of the bed will be counterbalanced in all positions, the leverage of the weight-bars I being increased and diminished automatically, as required.

The tracks P may be straight; but I prefer to make them curved, as shown in Figs. 1 and 2, so that the friction-wheels Q will have a slight downward and upward movement when the bed is being opened and closed to assist the weight-bars I in counterbalancing the said part. The highest point of the tracks P should be at their inner ends to prevent the bed from closing with too much force.

I am aware that folding beds have been made with a roller and track connection between the movable and stationary parts; also, that the stationary part has been provided with a vertically-sliding open frame to receive the balancing-weights, and said open frame being connected with the movable part, and I do not claim such in this application as of my invention. This construction I do not claim, broadly; but,

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

1. In a folding bed, the combination, with the stationary sides A and the movable sides L, of the tracks P, curved as described, and the pivot-wheels Q, substantially as herein shown and described, whereby the pivoting-points of the movable sides will adjust themselves as the bed is being opened and folded, as set forth.

2. In a folding bed, the combination, with

the stationary sides A, having grooves E, and the movable sides L, of the tracks and pivot-wheels P Q, the hook-arms K, the sliding weight-carrying brackets F, having weight-receiving flanges H, flanges H', fitting in grooves E, and the pins J, for the hook-arms to engage, and the connecting-board G, substantially as herein shown and described, whereby the weight-carrying brackets can move up and down vertically as the bed is being opened and folded, as set forth.

3. In a folding bed, the combination, with the hook-arms K, having flanges N, of the connecting-board O, substantially as herein shown

and described, whereby the opening formed by raising the sliding brackets and their connecting-board will be partially closed, as set forth. 15

4. In a folding bed, the sliding weight-carrying brackets F, made substantially as herein shown and described, with flanges and end 20 shoulders to receive the weight-bars, and flanges having rounded ends to slide in grooves in the stationary sides, as set forth.

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Witnesses:

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