

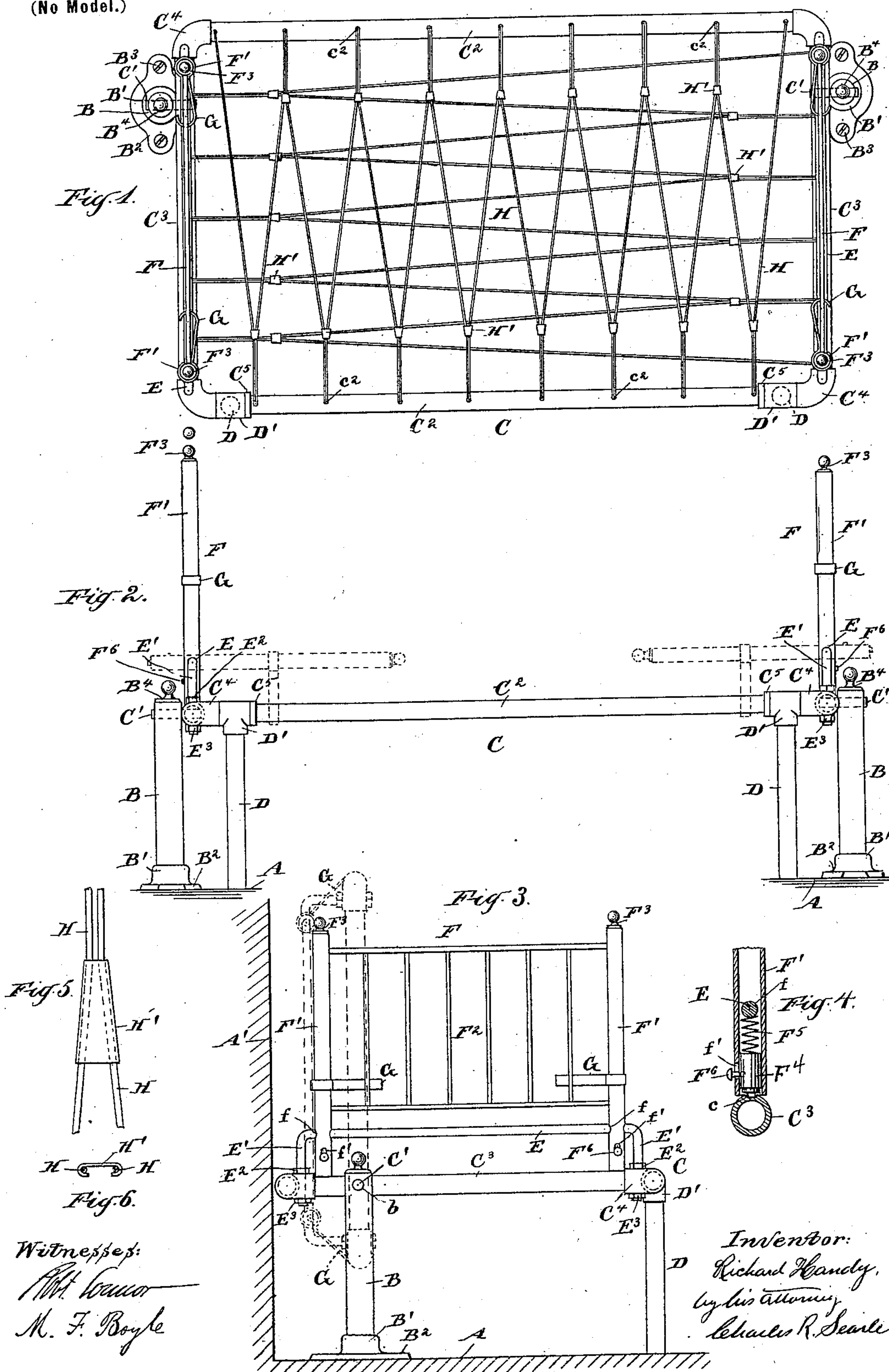
No. 641,450.

Patented Jan. 16, 1900.

**R. HANDY.
FOLDING BED.**

(Application filed Oct. 16, 1899.)

(No Model.)



UNITED STATES PATENT OFFICE.

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FOLDING BED.

SPECIFICATION forming part of Letters Patent No. 641,450, dated January 16, 1900.

Application filed October 16, 1899. Serial No. 733,720. (No model.)

To all whom it may concern:

Be it known that I, RICHARD HANDY, a citizen of the United States, residing in the city of New York, borough of Manhattan, in the
5 county and State of New York, have invented a certain new and useful Improvement in Folding Beds, of which the following is a specification.

The improved bed is intended for service
10 in apartment-houses and like situations where economy of floor-space is important; and the object of the invention is to provide a strong, light, and inexpensive construction which may be easily and quickly folded against the
15 wall and when thus folded will allow space below for cleaning the floor beneath it.

The invention consists in certain details of construction and arrangement of parts to be hereinafter fully described.

20 The accompanying drawings form a part of this specification and show the invention as I have carried it out.

Figure 1 is a plan view of the bed in position for use. Fig. 2 is a corresponding front
25 elevation. The dotted lines show the head and foot boards folded down. Fig. 3 is an end view corresponding to Fig. 1. The dotted lines show the bed in the completely-folded condition. The remaining figures show details on a larger scale. Fig. 4 is a vertical
30 section showing the means for locking the head and foot boards in the open condition. Fig. 5 is a plan view showing a tightening means for mattress-supporting wires, and Fig. 6 is
35 a corresponding end view.

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

40 A is the floor of the apartment, and A' one of the side walls, against which the bed is placed.

B B are uprights, preferably of iron or steel tubing, of sufficient strength and stiffness, secured in sockets B', fastened to the floor by screws B³ or other fastening means extending
45 through the flanges B². The uprights extend to a little above the plane of the bed-frame and may be finished at the upper end by ornamental caps B⁴. They are separately supported to allow the bed-frame C to lie between

them and support the frame by means of
50 studs or pivots C', fastened in the end rails C³ and received in the holes b.

The bed-frame is rectangular and, like the uprights, is preferably composed of tubing. It consists of the longitudinal side rails C²
55 and end rails C³, screwed into elbows C⁴ at the corners, as will be understood. In a hole drilled through each end rail near one end is secured one of the pivots C', received in its upright B, as before described, and support-
60 ing that side of the frame next the wall. The front side is supported by tubular legs D D, screwed into ordinary T-connections D', loosely inclosing the front rail C² and free to
65 turn thereon. Each connection D' is confined between a collar C⁵ and the adjacent end of the elbow C⁴.

Upon each end rail C³ is a rod or small tube E, bent at a right angle at each end to form a short upright E', passing through holes
70 drilled one near each end of the rail and secured by the nuts E² and E³, as shown. The rod E lies parallel with the rail and elevated above the latter to about the usual thickness of the mattress and bed-covering and carries
75 each a frame F, serving as the head or foot board. They are alike except as to height, and a description of one will suffice. It consists of two end tubes F', drilled at f to allow the rod E to pass loosely through, connected
80 by a light ornamental framework F² and finished at the upper ends by caps F³. The lower end of each tube F' reaches to the upper face of the end rail when the head or foot board is in the open condition and inclosing a bolt
85 F⁴, actuated by a spring F⁵ and operated by a lateral stud F⁶, extending through a slot f'. The bolts are secured in cavities c on the upper faces of the end rails and serve to hold the head and foot boards in the upright con-
90 dition, as shown in Fig. 4.

G G are hooks loosely attached to the tubes F' and adapted to engage the side rails C² when the head and foot boards are folded
95 down.

The mattress may be supported upon the frame by cross-pieces or slats, as usual; but I prefer the wire construction shown in Figs.

1, 5, and 6. A series of small holes c^2 are drilled vertically in the side rails, those in one rail being located intermediately to those in the other and receiving steel wires H, which
 5 may be of the quality known as "piano-wire," stretched transversely of the frame from one hole to another and forming a series of angles. The wires are tightened by means of triangular slides H', each having its side edges
 10 curled to form curved flanges matching to and receiving adjacent wires and by sliding inward toward the center line of the bed-frame draw the wires parallel to each other for such portion of their traverse and thus take up any
 15 slack.

The operation of folding the bed consists in first releasing the head and foot boards and turning them inward upon the mattress, pillows, and bed-clothes, (not shown,) compressing the latter sufficiently to allow the hooks G to engage the side rails C^2 . The front rail is then grasped and raised, the pivots C' turning in the uprights, and the whole frame, with its contents thus held, is folded back against
 25 the wall A', as shown by the dotted lines in Fig. 3, preferably passing the centers $C' C'$ and inclining slightly toward the wall. The foot-legs swing idly and assume by gravity a position about in the plane of the frame. The
 30 whole may be concealed by a curtain (not shown) attached to the wall and extending below the frame. It will be observed that the floor is practically clear, the only obstructions being the uprights B B and their sockets B' B', which are at a sufficient distance from the wall to allow a broom or other implement to be freely used. In again conditioning the bed for occupancy the above operations are reversed, care being taken to place the front
 35 legs in a vertical position and thus better support the structure and avoid strain on the uprights.

The construction is simple and inexpensive and will serve efficiently.

45 In transporting the bed from one apartment to another the bed is folded, as before, with the bed-clothes in place and the screws B^3 withdrawn. The uprights B may then be folded inward toward the front legs D D and fastened in place, with the latter, by strong
 50 twine, and the whole is ready for removal.

Modifications may be made in the forms and proportions within wide limits. Instead of the tubular construction shown the rails
 55 and other portions may be flat or angle iron, provided with pivotal connections at the points of folding. I prefer the construction shown.

The material is not essential and the whole
 60 may be ornamented to suit the taste.

In situations where it is not convenient to place the bed near the side wall it may be

supported in the upright position by other means.

I claim—

1. A bed-frame, and a pair of uprights adapted to be secured to the floor and located at the ends of the frame near one side, pivotally supporting said frame at the rear, in combination with legs jointed to said frame at the front, rods E E mounted on the ends of said frame, head and foot boards pivotally mounted on said rods above said ends and adapted to fold downward upon said frame, and locking means for holding said boards in an upright position relatively to said rods when required, the said frame and its connections arranged to be folded against an adjacent wall and supported in an elevated position upon said uprights, all substantially as herein
 65 70 75 80 specified.

2. The bed-frame, comprising the side rails $C^2 C^2$ and end rails $C^3 C^3$, the elevated rods E E on the latter, head and foot boards F F carried by said rods and adapted to fold downward upon said frame, in combination with each other and with the uprights B B, secured to the floor, the pivots $C' C'$ connecting the said end rails and uprights near the rear, and the legs D D loosely connected to said frame at the front all substantially as and for the purposes herein specified.

3. The bed-frame comprising the side rails $C^2 C^2$ and end rails $C^3 C^3$, the elevated rods E E on the latter, the head and foot boards F F carried on said rods and adapted to be folded downward upon said frame, and locking means for holding said boards in the upright and folded conditions, in combination with each other and with the uprights B B, secured to the floor, the pivots $C' C'$ connecting the said end rails and uprights near the rear, and the legs D, D, loosely connected to said frame at the front, all substantially as and for the purposes herein specified.

4. In a folding bed the frame comprising the side rails $C^2 C^2$ and end rails $C^3 C^3$, the elevated rods E E on the latter, the head and foot boards F F carried on said rods and adapted to be folded downward upon said frame and bed-clothing thereon, the sliding bolts $F^4 F^4$ adapted to engage in centers $c c c$, in said end rails, and the hooks G G adapted to engage said side rails, and means for supporting said frame, all combined and arranged to serve substantially as herein specified.

In testimony that I claim the invention set forth above I affix my signature in presence of two witnesses.

RICHARD HANDY.

Witnesses:

CHARLES R. SEARLE,
 M. F. BOYLE.