(No Model.)

A. M. BRAINARD.

FOLDING BED.

No. 507,103. Patented Oct. 24, 1893.

Fig. 1.

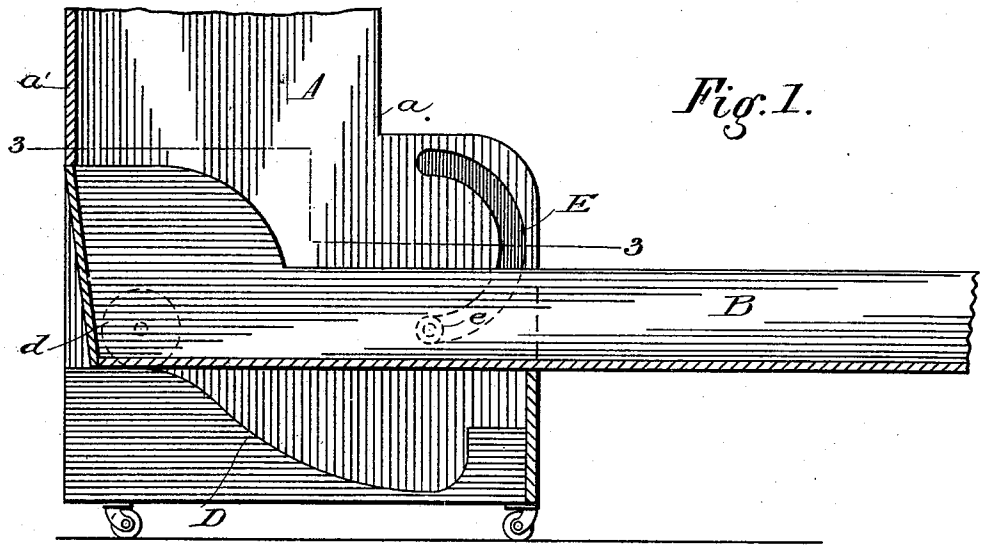


Fig. 2.

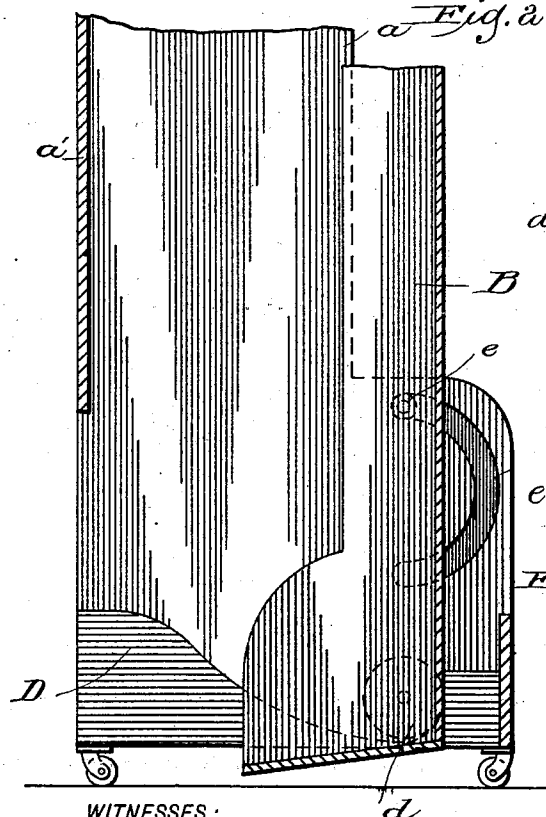
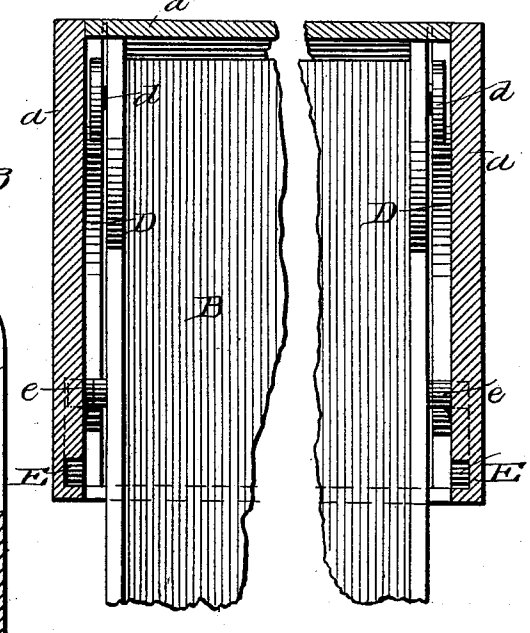


Fig. 3.



WITNESSES:

Patrick S. Elmore,

Raymond H. Barnes.

INVENTOR

A. M. Brainard

BY

P. T. Dodge

ATTORNEY.

UNITED STATES PATENT OFFICE.

ADELBERT M. BRAINARD, OF CHICAGO, ILLINOIS, ASSIGNOR TO THOMAS KANE, TRUSTEE, OF SAME PLACE.

FOLDING BED.

SPECIFICATION forming part of Letters Patent No. 507,103, dated October 24, 1893.

Application filed December 12, 1892. Serial No. 454,917. (No model.)

To all whom it may concern:

Be it known that I, ADELBERT M. BRAINARD, of Chicago, 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 what are generally known as folding-beds, in which the bed frame is connected to the head board or casing in such manner that the frame may be folded to a vertical position or extended horizontally for use.

My invention consists in the construction hereinafter described and claimed by means of which I am enabled to dispense with the usual cumbersome and expensive weights, and other complicated connections and produce a bed of few parts which will be inexpensive and simple, and in which the folding operation may be easily and quickly effected.

The invention also consists in the details of construction and combination of parts hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a vertical longitudinal section through a folding bed embodying my invention, the parts being in the position occupied when the bed is to be used. Fig. 2 is a similar view with the parts in a folded position. Fig. 3 is a section on the line 3—3 of Fig. 1.

Referring to the drawings, A represents a stationary frame or casing which is composed as usual of two vertical side walls *a*, connected by a head board *a'*.

B represents a bed frame which is adapted to receive and support the mattress, and which has its head end extended between the sides of the casing.

D represents two tracks or guides fixed to the opposite sides of the casing on its interior. These guides extend vertically at their front ends to form stop shoulders and then rearward and upward in a curved path, and are adapted to receive and sustain two large rollers *d*—*d*, mounted on opposite sides of the bed frame at its head, the arrangement being such that as the bed frame is moved the rollers will travel on the tracks and afford a support for the bed frame.

E—E represents two semi-circular grooves or slots formed in the side of the casing and extending forward, downward and rearward as shown. They are arranged to receive and guide the two rollers *e*—*e*, projecting laterally from the side of the bed frame.

Under the foregoing construction it will be seen that when the bed frame is drawn forward from its vertical position the rollers *e*—*e* will travel in the forward and downwardly extending semi-circular grooves and will cause the large rollers on the bed frame to travel up the inclined tracks until the bed frame is in a horizontal position as shown in Fig. 1. In this position the rollers *e*—*e* will have reached the lower ends of the semi-circular slots and will be afforded a direct vertical support from beneath, so that the weight of the bed frame will be borne by the rollers.

On folding the bed the large rollers will be caused to descend the tracks, the small rollers at the same time moving forward and upward in the semi-circular slots until the bed frame is in the vertical position when the large rollers will engage the vertical stop shoulders at the front ends of the tracks and be sustained slightly above the horizontal portion of the same, and the small rollers will be in the upper ends of the semi-circular slots. In this position as in the horizontal position of the bed frame the small rollers will be supported directly from beneath, and will sustain the weight of the frame.

In certain cases I propose to so construct the parts that when the bed frame is in a vertical folded position, the large rollers will rest upon and be supported by the horizontal portion of the tracks so that the weight of the frame will be borne jointly by the small and large rollers.

It is to be understood that while I have shown and described the semi-circular grooves as being formed in the sides of the casing and the rollers carried by the bed frame it is obvious that the parts may be reversed, that is to say the semi-circular slots or grooves may be formed in the bed frame and engaged by rollers sustained by the casing, the action in both cases being identical. It is also to be understood that the tracks or casing may be variously constructed, and that the rollers of

the bed frame to engage the same, may be replaced by other and equivalent devices provided the operation of the parts will be substantially as indicated above.

Having thus described my invention, what I claim is—

1. In a folding bed the combination with the casing provided at its base with the rearwardly and upwardly inclined tracks and above said tracks with the semi-circular grooves or slots having their ends projecting backward, of the bed frame arranged to be sustained near its head end by the tracks, and provided with projections engaging in the slots.

2. In a folding bed the combination with the casing provided with the guides and semi-circular slots, of the bed frame arranged to be sustained at its head end by the guides and provided with rollers engaging in the slots, said parts so arranged that the rollers will be supported vertically by the walls of the slots when at the ends of the same.

3. In a folding bed, the combination with the casing provided at its base with the upwardly and rearwardly extended tracks and above said tracks with the slots, having horizontal seats at their upper ends of the frame adapted to travel at its head end on the tracks, and provided with rollers engaging in the slots, said parts so disposed that the bed frame will be sustained wholly by the rollers when in an upright folded position.

In testimony whereof I hereunto set my hand, this 19th day of November, 1892, in the presence of two attesting witnesses.

ADELBERT M. BRAINARD.

Witnesses:

JOHN B. CARSE,

COPLIN JAMES.