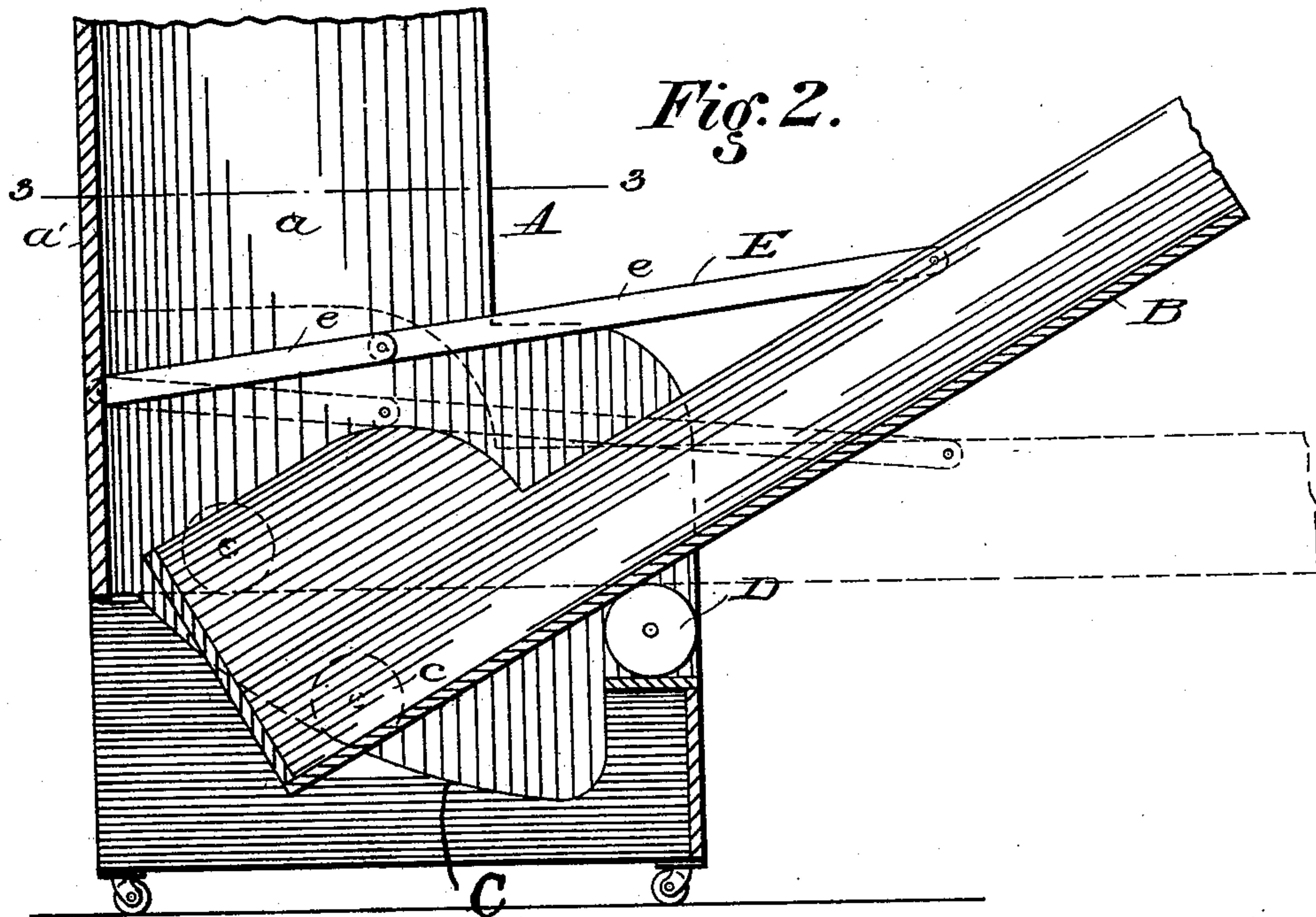
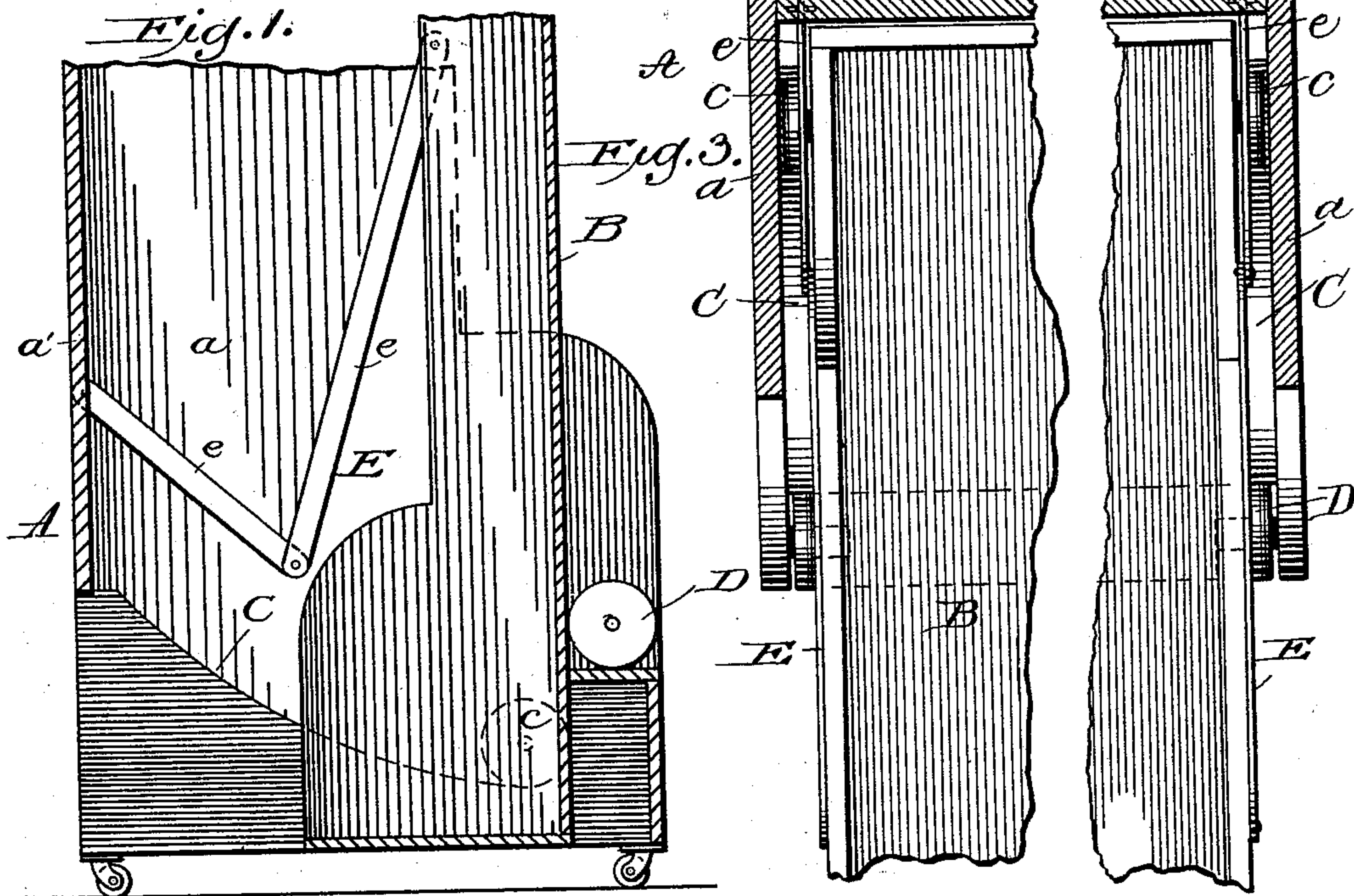


(No Model.)

A. M. BRAINARD.
FOLDING BED.

No. 507,104.

Patented Oct. 24, 1893.



WITNESSES:

Fabius J. Elmore
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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. 507,104, dated October 24, 1893.

Application filed December 12, 1892. Serial No. 454,918. (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 as to what are known in the art as folding beds, in which the bed frame is jointed at its head end to the casing so that it may be folded when not in use to an upright position or extended horizontally for use.

The invention consists in a casing provided with guides or tracks to sustain the head end of the bed frame, rollers or equivalent supports to receive the weight of the same, and jointed connections between the casing and bed frame to assist in guiding and maintaining the frame in the proper position.

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 a folded position. Fig. 2 is a similar view with the parts in a partially extended position, the position of the parts when wholly extended being indicated by dotted lines. Fig. 3 is a section on the line 3—3 of Fig. 2.

Referring to the drawings, A represents a stationary frame or casing, consisting as usual of the vertical side boards α connected by a traverse board α' .

B represents a bed frame designed to receive the mattress, the head end of this frame being extended between the two side boards of the casing as is usual in beds of this character.

C represents two tracks or guides fixed to the sides of the casing, on its interior and extending vertically at their front ends and then in a curved path rearward and upward. These tracks are designed to be traversed by rollers c mounted on the sides of the bed frame near its head end, so that a support is thus afforded for the bed frame during the movement of the same, as more fully described hereinafter.

D represents two stationary rollers which are mounted at the front of the casing on its inside, in such position that they will afford a support for the bed frame during its movement and assist in sustaining the same when extended horizontally.

E represents two jointed links or levers each comprising two rods e , jointed together at their inner ends and having their outer ends pivoted respectively to the casing and the sides of the bed frame, their office being to assist in guiding the bed frame.

The operation of folding and extending the bed is as follows: Assuming that the bed frame is in an upright position as shown in Fig. 1 on drawing it outward it will rest and turn on the stationary rollers D as a fulcrum, the rollers c at the same time moving up the tracks C. This movement will continue until the parts assume the position indicated in Fig. 2, the jointed links being extended in line. On further moving the frame, the rollers at its head end will continue to ascend the tracks and the foot end will be lowered until the frame is in a horizontal position. When in this position the bed frame will be supported from beneath by the stationary rollers on the casing and the large rollers at head of bed frame. On folding the bed frame to an upright position the rollers on its head end will descend the tracks, and the frame be supported by the stationary rollers on which it will turn as a fulcrum, as above.

It is to be noted that when the bed frame is in an upright position the two rollers at its head end will wholly support the same and the stationary rollers will serve as stops to prevent the frame from falling accidentally forward.

Under the construction set forth it has been found that very little if any counter-balance of the frame will be required; when ever such is needed I propose to provide the casing with a vertical sliding head board, mounted in guides on the casing and arranged to be countered and lifted by the head end of the bed frame as the latter is extended horizontally.

While I have shown and described my invention as embodied in the form which I deem

preferable as to details, it is to be understood that various changes which may suggest themselves to the skilled mechanic may be adopted without departing from the limits of my invention provided the operation of the device 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 guides to sustain the head end of the frame and with stationary rollers at the front of the bed frame adapted to said guides and rollers to be supported thereby in its opening and closing movements, and a jointed connection between the casing and the frame.

2. In a folding bed the combination with the casing provided with tracks and rollers at the front of the same, of the bed frame provided with rollers to traverse the tracks, and

jointed links connecting the bed frame with the casing.

3. In a folding bed the combination with the casing provided with the guides and the stationary rollers, of the frame adapted to be sustained at its head end by the guides and to be supported by the stationary rollers, and the jointed links connected at one of their ends to the stationary frame and at the other ends to the bed frame at points in advance of the stationary rollers when the frame is extended.

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.