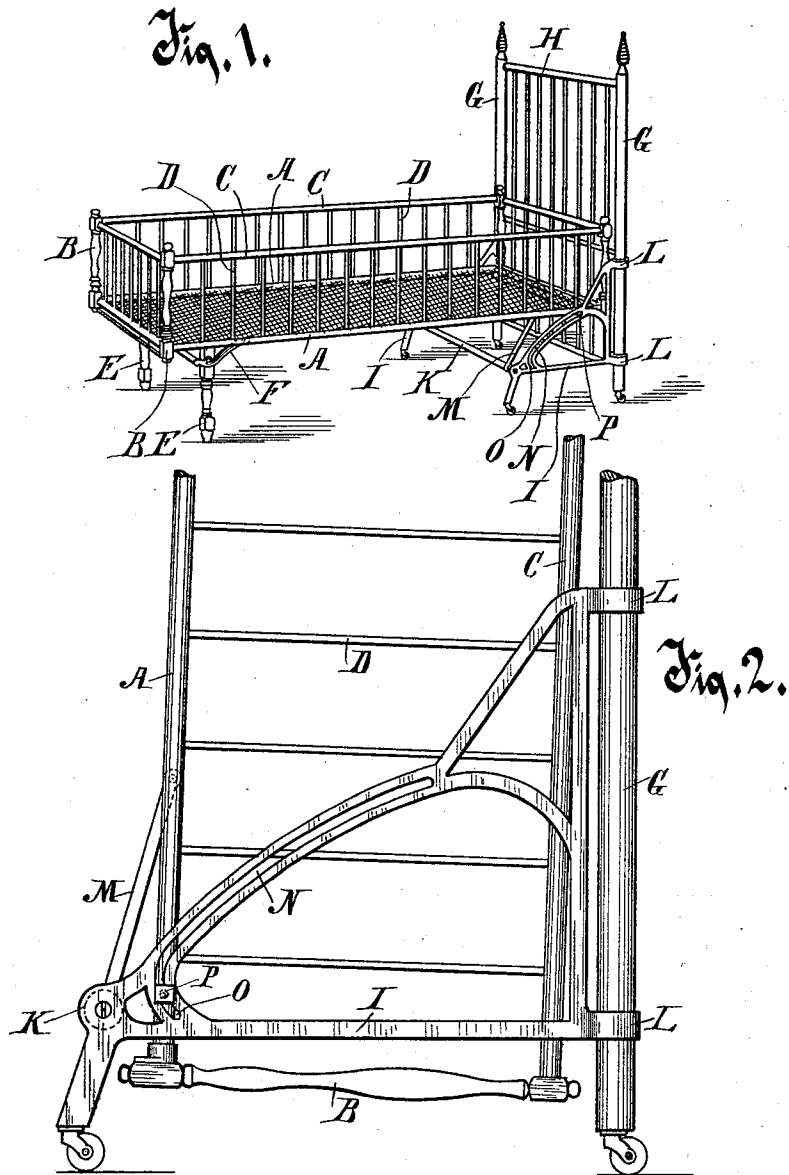


(No Model.)

F. C. HANNAHS.
FOLDING BED.

No. 506,316.

Patented Oct. 10, 1893.



Witnesses.
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UNITED STATES PATENT OFFICE.

FRED C. HANNAHS, OF KENOSHA, WISCONSIN, ASSIGNOR TO THE KENOSHA CRIB COMPANY, OF SAME PLACE.

FOLDING BED.

SPECIFICATION forming part of Letters Patent No. 506,316, dated October 10, 1893.

Application filed June 20, 1893. Serial No. 478,254. (No model.)

To all whom it may concern:

Be it known that I, FRED C. HANNAHS, of Kenosha, in the county of Kenosha and State of Wisconsin, have invented a new and useful Improvement in Folding Beds, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

The object of my invention is to provide a device for supporting a bed, especially a small bed or child's crib, in such manner that it can be folded up, which device is simple and inexpensive in construction, is strong and enduring in character, is easily manipulated, and is not liable to get out of repair.

The invention consists of the device and its parts in combination with the bed, as hereinafter described and claimed or their equivalents.

In the drawings, Figure 1, is a perspective view of a child's bed, embodying my improvements. Fig. 2, is a detail enlarged, of the principal features of my novel device.

My invention is adapted to be embodied in all forms of bedsteads, but for convenient illustration, I have shown a child's crib, with which my invention is especially adapted for use.

In this folding bed, there is the bed frame which consists of the lower end and side rails A A, the corner posts B, B, the top rails C C and the spindles D D. These as put together form a rigid rectilinear bed frame. The foot of this bed frame is conveniently supported by the thereto pivoted swinging legs E E. A hinged latch F is also provided adapted to retain the legs releasably in the position shown in Fig. 1. The features thus far described are in common use and form no part of my invention.

For supporting the head of the bed frame in such manner that the frame can be tilted up endwise, or folded up, the head of the frame is secured movably to the bed posts G G. The posts G G are intended to stand vertically and are located at a distance apart a little greater than the width of the bed frame, and are secured to each other rigidly, in this instance by transverse bars and interposed vertical spindles forming a rigid frame or head piece H. Side pieces I I, conveniently

constructed of cast iron are secured to the posts G G and project forwardly therefrom a distance slightly greater than the vertical height of the bed frame. These two side pieces I I are preferably reinforced and connected rigidly to each other near their front extremities by a transverse rod K affixed at its extremities thereto. In the form shown in the drawings the side pieces I are provided at their rear edge with eyes L L in which the posts G G are inserted and fitted, whereby the side pieces are supported at that edge. At the front the side pieces rest on the floor and are adapted to support the posts vertically. Two arms M one at each side are pivoted at their lower extremities on the side pieces I at a distance from the posts G a little greater than the height of the bed frame, conveniently by being pivoted directly on the rod K. At their upper extremities these arms M are pivoted to the lower rails A A of the bed frame at a distance from its head less than the distance between the posts G and the point in front thereof at which the arms are pivoted to the side pieces I. These arms M are of such length and are so pivoted to the side pieces I as to support the bed frame in a substantially horizontal position, in connection with the legs E, in the manner shown in Fig. 1. The side pieces I are provided with oblique slots N N inclined downwardly forwardly from their upper rear ends to near the front of the frame, and then preferably for a short distance downwardly and rearwardly as seen at O. The walls of these slots serve as ways or guides, directing and limiting the movements of the pins P P passing through the slots movably and fixed respectively in the side rails A A of the bed frame near its head. The arrangement of these parts is such that as the foot of the bed frame is lifted from the position shown in Fig. 1, the head of the frame, swinging on the arms M M, which also swing on the rod R, is, guided by the pins P P traveling in the ways N, moved forwardly and downwardly so that the frame clears the head piece H as the bed folds up, until finally when the bed frame has been carried to a vertical position it is at the rear of a vertical plane through the rod R, or axis of the arms M and by gravity it assumes the position shown in

Fig. 2, slightly inclined at its proper extremity toward the head piece H.

In folding up the bed frame when it has passed the vertical plane through the rod R, the arc described by the free ends of the arms N commences to descend, and the pins P in the bed frame enter and correspondingly descend in the reversed oblique ways O until they are seated in the extremities of these slots O, being thereby held against further movement rearwardly toward the head piece, while the bed frame is held against tilting forwardly by gravity and by the inclination and bracing positions of the arms M, the thrust of which is again toward the head piece. When the bed is unfolded or thrown down the reverse movement of the head of the bed frame takes place, guided as before by the pins P in the ways N. It will be observed that the bed frame when folded up in the position indicated in Fig. 2, will automatically retain this folded position by gravity, without danger of its unfolding or tipping down without the aid of extrinsic force. Also that when the bed is unfolded in the position shown in Fig. 1 that the arms M are inclined rearwardly, whereby the thrust of the arms against the bed frame is rearwardly, thus holding the bed up to the head piece the pins R being seated in the upper extremities of the slots N, and preventing it from moving forward longitudinally and dropping down at the head.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a folding bed, the combination of a vertically disposed head piece, side pieces rigid thereto projecting forwardly therefrom adapted to support the head piece against tilting forwardly, a movable bed frame, swinging arms pivoted to the side pieces and to the bed frame near its head in such manner that

the arms are inclined toward the head piece upwardly, both when the bed frame is let down and when the bed frame is closed up, so that the thrust of the arms against the bed frame is toward the head piece both when the bed is open and when it is folded up, and oblique ways in the side pieces adapted by suitable means to guide the movements of the bed frame and limit its movement, substantially as described.

2. In a folding bed, the combination of a vertically disposed head piece, side pieces rigid thereto projecting forwardly therefrom adapted to support the head piece against tilting forwardly, a bed frame narrower than the distance between the side pieces, swinging arms pivoted thereto and to the side pieces and oblique ways in the side pieces inclined downwardly forwardly and then downwardly rearwardly, to which the bed frame is connected movably, adapted to guide the movements of the bed frame, substantially as described.

3. In a folding bed, a vertically disposed head piece, side pieces secured rigidly thereto projecting forwardly therefrom and adapted to support the head piece against tilting forwardly, a bed frame, swinging arms pivoted at one extremity on the side pieces at a distance from the head piece greater than the height of the bed frame and at the other extremity pivoted on the bed frame at a distance from its head less than the distance from the head piece to the axis of the arms, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

FRED C. HANNAHS.

Witnesses:

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T. S. CARTER.