

I. McINTYRE.

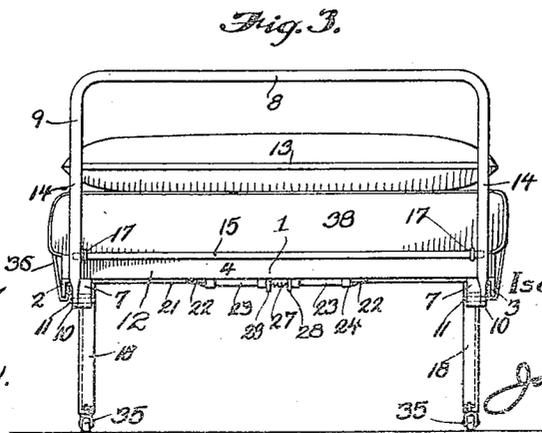
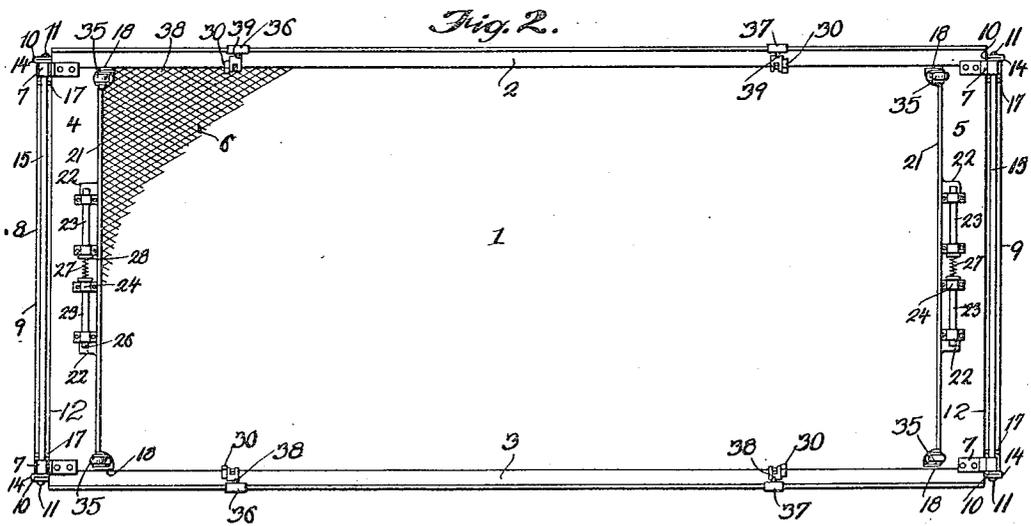
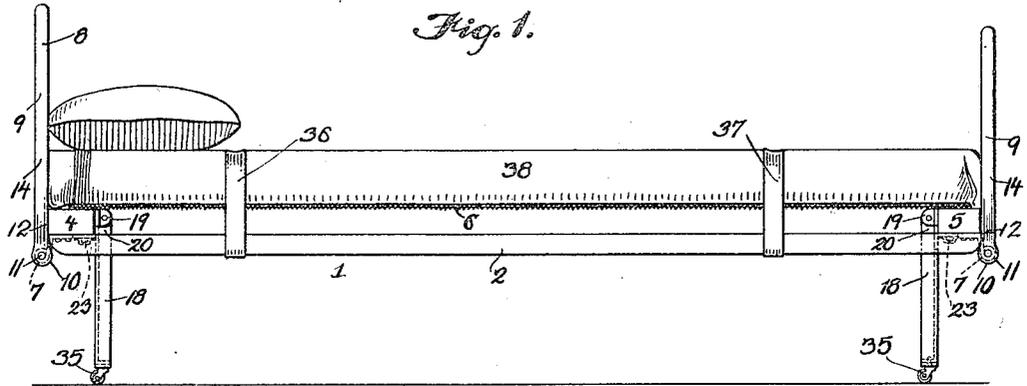
BED.

APPLICATION FILED JUNE 6, 1917.

1,259,650.

Patented Mar. 19, 1918.

2 SHEETS--SHEET I.



Witnesses
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2 SHEETS—SHEET 2.

Fig. 5.

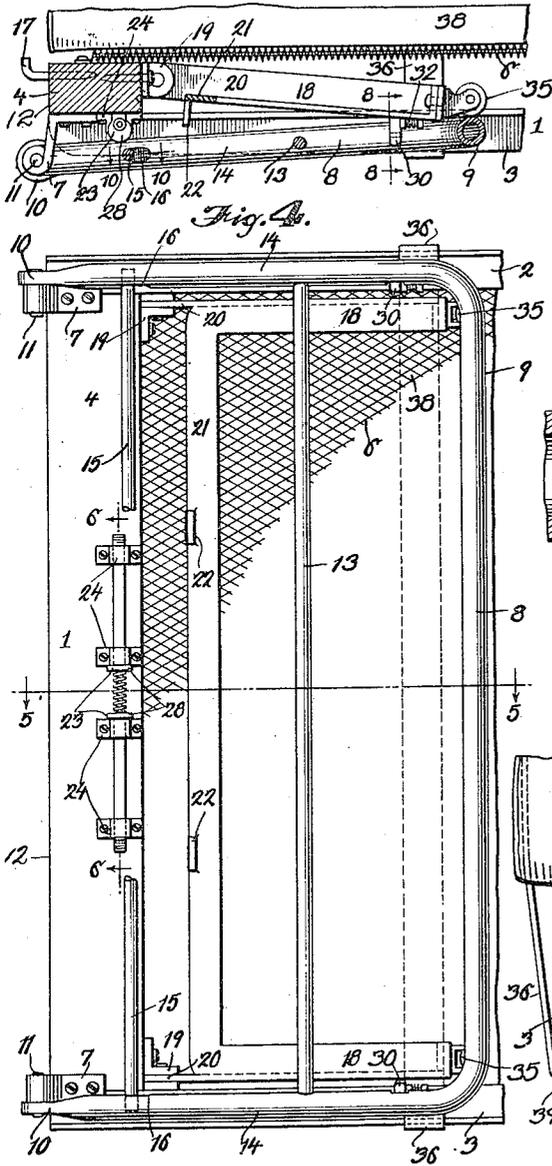


Fig. 8.

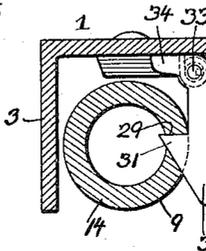


Fig. 9.

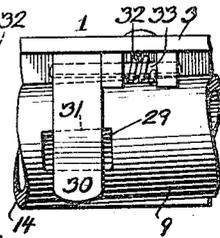


Fig. 10.

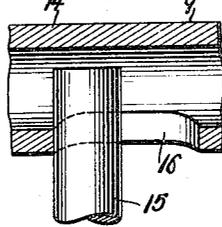


Fig. 6.

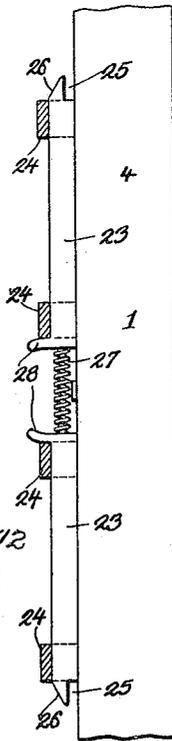
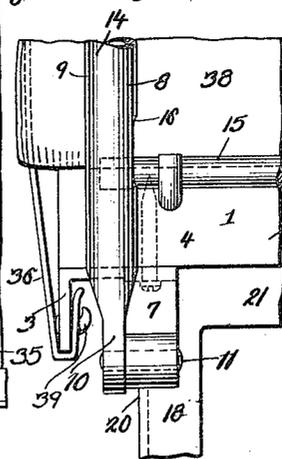


Fig. 7.



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BED.

1,259,650.

Specification of Letters Patent. Patented Mar. 19, 1918.

Application filed June 6, 1917. Serial No. 173,081.

To all whom it may concern:

Be it known that I, ISABELLA McINTYRE, a citizen of the United States, residing at Bryn Mawr, in the county of Montgomery and State of Pennsylvania, have invented certain new and useful Improvements in Beds, of which the following is a specification.

My invention consists of an improved bed. One object of my invention is to provide a strong and durable bed which when not desired for use, can be quickly and easily folded into a compact form and will require but little storage space. Thus, beds made in accordance with my invention are especially desirable for use in hospitals, hotels, or other places where extra beds are often temporarily needed.

Another object is to so construct my improved bed that when folded all of the parts will be locked so that the beds can be quickly and conveniently moved from one place to another.

A further object is to make the bed of a comparatively simple construction and so that it will be neat in appearance.

These objects, and other advantageous ends which will be described hereinafter, I attain in the following manner, reference being had to the accompanying drawings in which—

Figure 1 is a side elevation of my improved bed.

Fig. 2 is an inverted plan view of Fig. 1.

Fig. 3 is an end elevation of Fig. 1, both ends being of the same construction.

Fig. 4 is an enlarged fragmentary inverted plan of one end of the bed in a folded state, one of the rods being broken away to reveal certain locking means which forms a part of my invention.

Fig. 5 is a section on the line 5—5 of Fig. 4.

Fig. 6 is an enlarged section on the line 6—6 of Fig. 4.

Fig. 7 is an enlarged fragmentary end view of a portion of my invention as illustrated in Fig. 3.

Fig. 8 is an enlarged section on the line 8—8 of Fig. 5.

Fig. 9 is a side view of Fig. 8.

Fig. 10 is an enlarged section on the line 10—10 of Fig. 5.

Referring to the drawings, 1 represents the main frame which, as illustrated, is formed by two angle rails 2 and 3 which ex-

tend lengthwise of the bed and are joined at the head and foot portions by two transversely extending beams 4 and 5. The beams 4 and 5 are preferably made of wood and support a flexible and resilient bed bottom 6 which can be made of any suitable spring fabric or other material in common use in bed construction.

Since the head and foot portions are of substantially the same construction, I will describe in detail only one end of the bed, and it will be understood that the opposite end of the bed has substantially the same elements for performing similar functions as the end portion which is described in detail.

Brackets 7 depend from the under surface of the beam 4 and provide a pivotal bearing for a head frame 8. The head frame 8, in the present instance, consists of a metallic pipe or tube 9 which is flattened at its opposite ends 10, and these flattened ends form the pivotal connection with pivot pins 11 which extend through the brackets 7, it being noted that the axes of the pivot pins 11 extend forwardly of the front face 12 of the beam 4 so that the frame 8 is permitted to assume a substantially vertical position when in use as shown in Fig. 1.

A bar 13 extends transversely between the post portions 14 of the frame 8 and is secured thereto. A rod 15 also extends transversely between the posts 14 of the frame 8 and the ends of the rod 15 extend through slots 16 in said posts and are free to slide longitudinally within said slots. The slots 16 extend lengthwise of the posts 14, so that while the rod cannot be moved longitudinally to any appreciable extent, it can be freely raised and lowered to the extent of the length of said slot 16.

The rod 15 acts as a locking member with hooks 17 which project forwardly from the surface 12 of the beam 4. The hooks 17 are so positioned that when the frame 8 is moved into a vertical position as shown in Fig. 1, the rod 15 can be raised to pass over the tops of the hooks and afterward permitted to fall between the hooked ends of the hooks 17 and the beam 4, such position being clearly illustrated in Figs. 3 and 7.

Legs 18 are preferably made of angle iron and are pivotally connected to brackets 19 which are secured to the inner surface of the beam 4. The opposite legs 18 as clearly shown in Fig. 4, are preferably made from a single piece of angle iron in which one

arm portion 20 forms the pivotal connection with the brackets 19 above mentioned, and the other arm portion 21 is bent transversely and forms a connecting bar between the legs 18. By this construction, legs are provided which can be folded between the spring bed bottom 6 and the rails 2 as clearly shown in Figs. 4 and 5.

The connecting bar 21 is provided with lugs 22 which project at an angle therefrom and are designed when the legs 18 are moved into their operative positions, as shown in Fig. 1, to lie flat against the under surface of the beam 4 (see Fig. 2).

The lugs 22 are adapted to be secured adjacent the lower surface of the beam 4 so as to hold the legs 18 in their upright positions. The securing means for the lugs 22 consists of bolts 23 which are slidably mounted in hangers 24, the latter being secured to the under surface of the beam 4. The bolts 23, at their outer free ends, are spaced from the lower surface of the beam 4 to provide room to receive the lugs 22, the space being clearly illustrated at 25 in Fig. 6.

The lower surfaces of the bolts 23, adjacent their ends, are beveled as shown at 26, and the adjacent opposite ends of the bolts are engaged by a spring 27, said spring serving to push the bolts 23 in opposite directions. The adjacent ends of the bolts 23 are provided with extensions 28 which form stops for limiting the movement of the bolts by the spring 27. These extensions also provide means whereby the bolts may be manually slid to release the lugs 23 when it is desired to fold the legs as will be hereinafter more fully described.

The beveled portions 26 are so positioned that when the legs 18 are moved from their folded position, the lugs 22 will engage said beveled portions and slide the bolts 23 longitudinally against the action of the spring 27. After the lugs have been moved into engagement with the lower surface of the beam 4 and are entirely within the space 25 above mentioned, the spring 27 will move the bolts 23 so that the lugs 22 will be confined between the lower surface of the beam 4 and the ends of the bolts, thereby securely locking the legs in position.

As a means for locking the head frame 8 and the legs in their folded positions, I preferably form a hole 29 in each of the posts 14 and provide two hasps 30 which I preferably secure to the opposite rails 2 and 3. Each of the hasps 30 has an angular extension 31 designed to enter a respective hole 29, the portion 31 being moved into the hole through the medium of a torsion spring 32 which surrounds the pivot 33 of the hasp.

The inward and locking movement of the hasp by the torsion spring 32 is limited by

an extension 34 on the hasp which contacts with the under surface of the rail upon which the hasp is mounted (see Fig. 8).

Since the legs 18 fold between the rails 2 and 3, and the bed bottom 6, it is obvious that if the legs are first folded into their position between the rail and the bed bottom 6 and the frame 8 is then moved into the position shown in Figs. 4 and 5, so that the hasps 30 engage the holes 29 in the posts 14, it will be impossible for the legs 18 to move outwardly until permitted to do so by the releasing of the frame 8.

I preferably provide the legs 18 with casters 35 and as illustrated, the arrangement is such that the casters 35 rest upon the tube 9 of the frame 8 and thereby the legs 18 are prevented from moving out of their folded positions. The beam 5, at the foot of the bed, acts in the same capacity as the beam 4 at the head of the bed and elements similar to those, which are connected to the beam 4, are also connected to the beam 5.

The rails 2 and 3 form securing means for straps 36 and 37 which are designed to hold the mattress 38 in its proper position on the bed bottom 6. The straps 36 and 37 preferably have their ends hooked over pins 39 which are mounted on the rails 2 and 3 so that they can be detached therefrom.

To unfold the bed, it is merely necessary to remove the hasps 30 and to swing the frames 8 into a vertical position to abut the outer surfaces of the beams 4 and 5. The bars 13 can be dropped back of the hooks 17 and the legs 18 can be moved into a vertical position so that the lugs 22 will engage behind the bolts 23. The bed is then ready for use.

It will be further noted that by having each pair of the legs 18 coupled by a connecting bar 21, it is not necessary to move the legs of each pair separately, since the movement of one leg will cause the movement of the other. This permits the legs to be quickly moved into their operative positions.

While I have described my invention as taking a particular form, it will be understood that the various parts of my invention may be changed without departing from the spirit thereof, and hence I do not limit myself to the precise construction set forth, but consider that I am at liberty to make such changes and alterations as fairly come within the scope of the appended claims.

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

1. A bed having a frame including a transversely extending beam, legs pivotally connected to said beam, securing means on said beam at a position remote from said

pivot connection, and means on said legs for engagement with the securing means, substantially as described.

2. A bed including a main frame, an end frame movably connected to said main frame, means for holding the end frame in an upright position, the movable connection between the end frame and the main frame being positioned to permit the end frame to be folded under the main frame, and legs movably mounted on said main frame and designed to be folded between the end frame and the main frame, substantially as described.

3. A bed having a frame including a transversely extending beam, legs pivotally connected to said beam, a bolt slidable on said beam at a position remote from said pivot connection, and a lug on said legs movable into locking position with said bolt when the legs are moved to an operative position, substantially as described.

4. A bed including a main frame, an end frame pivoted to the main frame and designed to swing thereunder, hooks on said main frame, and a rod slidably mounted on said end frame and designed to be moved into and out of engagement with said hooks to hold the latter in an upright position and to release the latter to permit it being swung under the main frame, substantially as described.

5. A bed including a main frame, an end frame pivoted to the main frame, said end frame having slots formed therein, hooks supported by said main frame and having upwardly extending ends, and a transverse bar on said pivoted frame and movable within said slots to be swung past the ends of said hooks and designed to drop between said hooked ends and the main frame to hold the pivoted frame in an upright position, substantially as described.

6. A bed including a main frame, legs pivoted to the main frame and designed to be swung in a folded position within the frame, a pivoted end frame designed to be swung under the main frame and to engage and hold said legs in their folded position, and means for locking the end frame against pivotal movement when in its position under the main frame, substantially as described.

7. A bed including a main frame, legs pivoted to the main frame and designed to be swung in a folded position within the frame, a pivoted end frame designed to be

swung under the main frame and to engage and hold said legs in their folded position, said pivoted frame having holes formed therein, and hasps on the main frame having portions designed to enter the holes in the end frame and hold the latter against pivotal movement.

8. A bed including a main frame, legs pivotally mounted on the main frame and designed to be swung thereunder, a bolt on said main frame, and means connected to said legs and designed to be moved under said bolt to retain the legs in an operative position, said bolt having a beveled portion whereby the bolt is moved longitudinally by said means to permit said means to occupy a position between the bolt and the frame, substantially as described.

9. A bed including a main frame, legs pivotally mounted on the main frame and designed to be swung thereunder, a bolt on said main frame, said bolt having a portion spaced from the main frame, and a lug connected to said legs and movable into said space between the bolt and the main frame, substantially as described.

10. A bed including a main frame, legs pivotally mounted on the main frame and designed to be swung thereunder, a bolt on said main frame, said bolt having a portion spaced from the main frame, said bolt having a beveled portion, and a lug connected with said legs and designed to engage the beveled portion and to thereby move the bolt to permit the lug to occupy the space between said bolt and the main frame, substantially as described.

11. A bed including a main frame, legs pivoted to the main frame and designed to swing thereunder, said legs having a connecting bar extending substantially parallel to a transverse portion of said main frame, two bolts slidably mounted on said transverse portion of the main frame, two lugs on said connecting bar and designed to engage between the ends of the bolts and said transverse portion, and a single spring designed to move said bolts to hold the lugs between the ends of the bolts and said transverse portion, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ISABELLA McINTYRE.

Witnesses:

MARY A. INGLAR,
CHAS. E. POTTS.