G. PAYNE.

HOSPITAL BED.

APPLICATION FILED MAR. 21, 1914.

1,132,614. Patented Mar. 23, 1915.

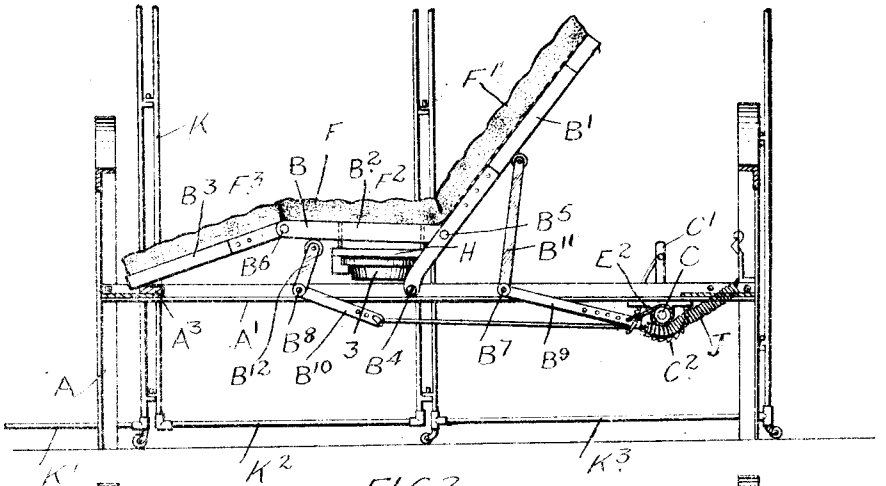


FIG. 2.

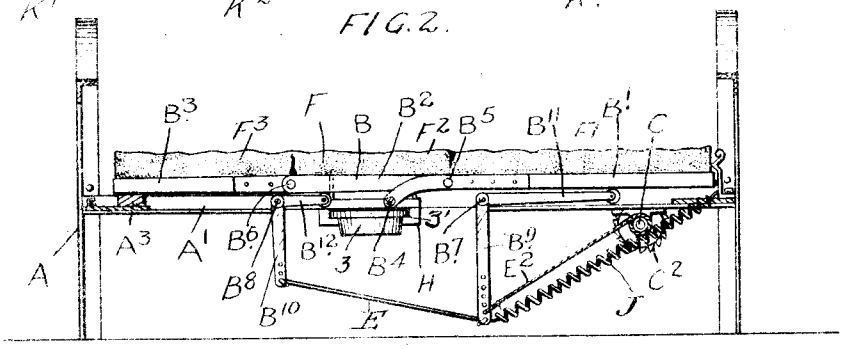


FIG. 1.

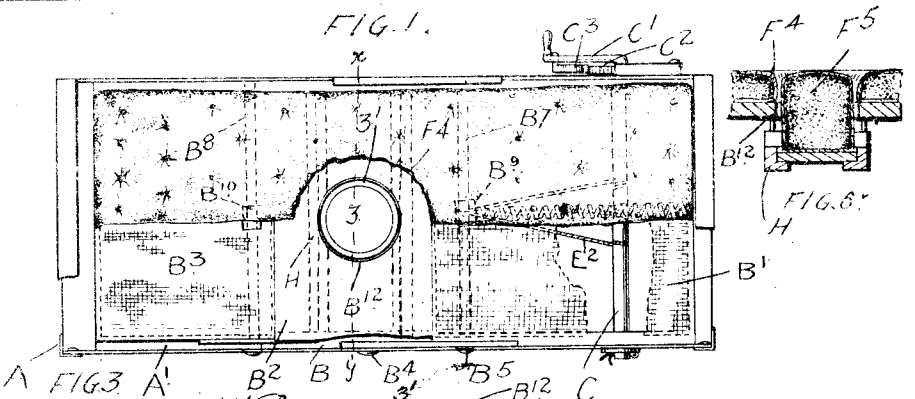


FIG 3.

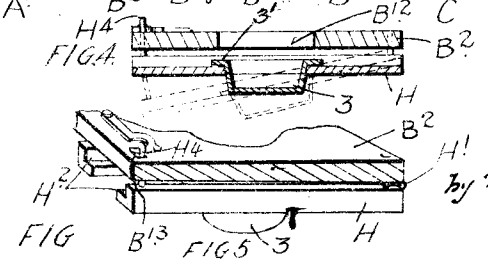


FIG 4.

FIG 5.

WITNESSES

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HOSPITAL-BED.

1,132,614. Specification of Letters Patent. **Patented Mar. 23, 1915.**

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To all whom it may concern:

Be it known that I, GEORGE PAYNE, of the town or Orillia, in the county of Simcoe, in the Province of Ontario, Canada, have invented certain new and useful Improvements in Hospital-Beds, of which the following is the specification.

My invention relates to improvements in hospital beds and the object of the invention is to devise means whereby a patient may be easily moved from a lying to a sitting position without jar or exertion on the part of the patient or attendant and in which means are provided for receiving through the bed excreta and for easily removing the same and it consists essentially of a bed frame, a mattress frame divided into three sections, the head section being swung between the side bars of the bed frame at its inner end, the center section being swung between the head section intermediately of its length and a foot section being pivotally connected to the center section at its inner end, a rock shaft supported in the main frame, depending arms secured to the rock shafts, normally horizontal arms extending from the ends of the rock shafts beneath the side bars of the center and head sections, a link connecting the depending arms, a revolving drum mounted beneath the frame, a crank for operating the same and a cord connection between the drum and depending arms, an orifice formed in the center mattress section, a pivoted frame secured at one end beneath the same and provided with a suitable fastening clip at its opposite end and having guide-ways, and a receptacle designed to be slid laterally within the guide-ways beneath the orifices of the mattress as hereinafter more particularly explained by the following specification.

Figure 1, is a sectional elevation of a hospital bed constructed in accordance with my invention. Fig. 2, is a similar view to Fig. 1 showing the mattress frame raised to carry the patient to the sitting position. Fig. 3, is a plan view. Fig. 4, is a cross sectional view on line *x*—*y* Fig. 3. Fig. 5, is a perspective detail of the parts shown in Fig. 4. Fig. 6, is a detail of the mattress closing plug.

In the drawings like letters of reference indicate corresponding parts in each figure.

A is a bed frame provided with side bars A′.

B is a mattress frame comprising a head section B′, center section B^2 and foot section B^3. The head section B′ is swung between the side bars A′ of the bed A at B^4. The center section B^2 is swingably connected to the head section B′ at B^5 and the inner end of the foot section B^3 is swingably connected at B^6 to the center section B^2. The outer end of the foot section rests upon the cross bars A^3 forming part of the bed frame.

B^7 and B^8 are rocking shafts journaled in the frame of the bed beneath the head and center mattress sections.

B^9 and B^{10} are normally depending arms extending from the rocking shafts B^7 and B^8 respectively.

B^{11} and B^{12} are arms extending in a normally horizontal direction from the ends of the shafts B^7 and B^8 and beneath the side bars of the mattress sections B′ and B^2, the ends of such arms being provided with suitable friction rollers contacting with such side bars.

C is a drum journaled in suitable bearings secured to the side bars of the bed. The drum C is provided with an operating crank C′ and ratchet C^2 with which the swinging gravity dog C^3 engages to hold the drum C in a stationary position.

E^2 is a cord secured at one end to the drum C from whence it extends downwardly to the arm B^9.

E is a link connecting the arms B^9 and B^{10} together.

F is an ordinary mattress divided into three sections F′, F^2 and F^3 corresponding to the head, center and foot sections of the mattress frame. The center section F^2 is provided with an orifice F^4 provided with a mattress plug closure F^5 (see Fig. 6).

It will be readily seen that when it is desired to change the position of the patient from the lying to a sitting position or vice-versa all that it is necessary to do is to rotate the crank C′ and drum C so as to wind the cord E^2 thereon thus drawing the arms B^9 and B^{10} from the position shown in Fig. 1 to the position shown in Fig. 2. When it is desired to deposit the excreta all that it is necessary to do is to remove the plug F^5.

H is a frame hinged at one end to the center section of the bed frame at H′. The frame H is provided with side guides H^2 and an eye pin H^4 extending through the slot B^{13}.

It will be understood that the center, head and foot sections of the mattress frame are provided with suitable spring mattress por-

tions. The center section is formed by a board having a central orifice B^{12} and a slot B^{13}, a leather cover being provided which is suitably laced to the edges of the spring mattress fabric.

3 is a receptacle provided with a flange 3′ slidably held in guide-ways H^2, the upper end of the receptacle bearing against the center mattress section around the orifice B^{12}.

H^3 is a hook pivotally connected to the top of the center section and designed to engage with the eye H^4 projecting upwardly through the slot B^{15} thereby locking the frame H in a horizontal position.

In order to remove the receptacle when necessary, all that is required to do is to release the hook H^3 and swing the frame H downwardly toward the inclined position (see dotted lines in Fig. 4) when the receptacle 3 may be easily slid therefrom.

J is a tension spring connected at one end to the bed frame and at the opposite end to the arm B^9. The spring J serves to compensate to a certain extent to the weight of the patient.

K is a screen frame comprising sections K′, K^2 and K^3 hinged together, the end section K^3 having a hinged connection to the bed frame.

From this description it will be seen that I have devised a very simple form of hospital bed by which a patient may be easily removed from a lying to a sitting position without discomfort to the patient and without undue labor on the part of the attendant.

What I claim as my invention is—

In a hospital bed the combination with a bed frame provided with the usual side bars, of a mattress comprising a head, center and foot sections, said head and foot sections being pivotally connected to said center section, arms secured to the sides of said head section and extending beyond the inner end thereof, pivotal connections between the inner ends of said arms and the side bars of the frame, a bell crank pivoted to said side bars and having one end bearing against said head section, a similar bell crank having one end bearing against said center section, a link connecting the free ends of said bell crank and a winding drum secured to said frame and connected to the free end of said first mentioned bell crank, as and for the purpose specified.

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Witnesses:

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