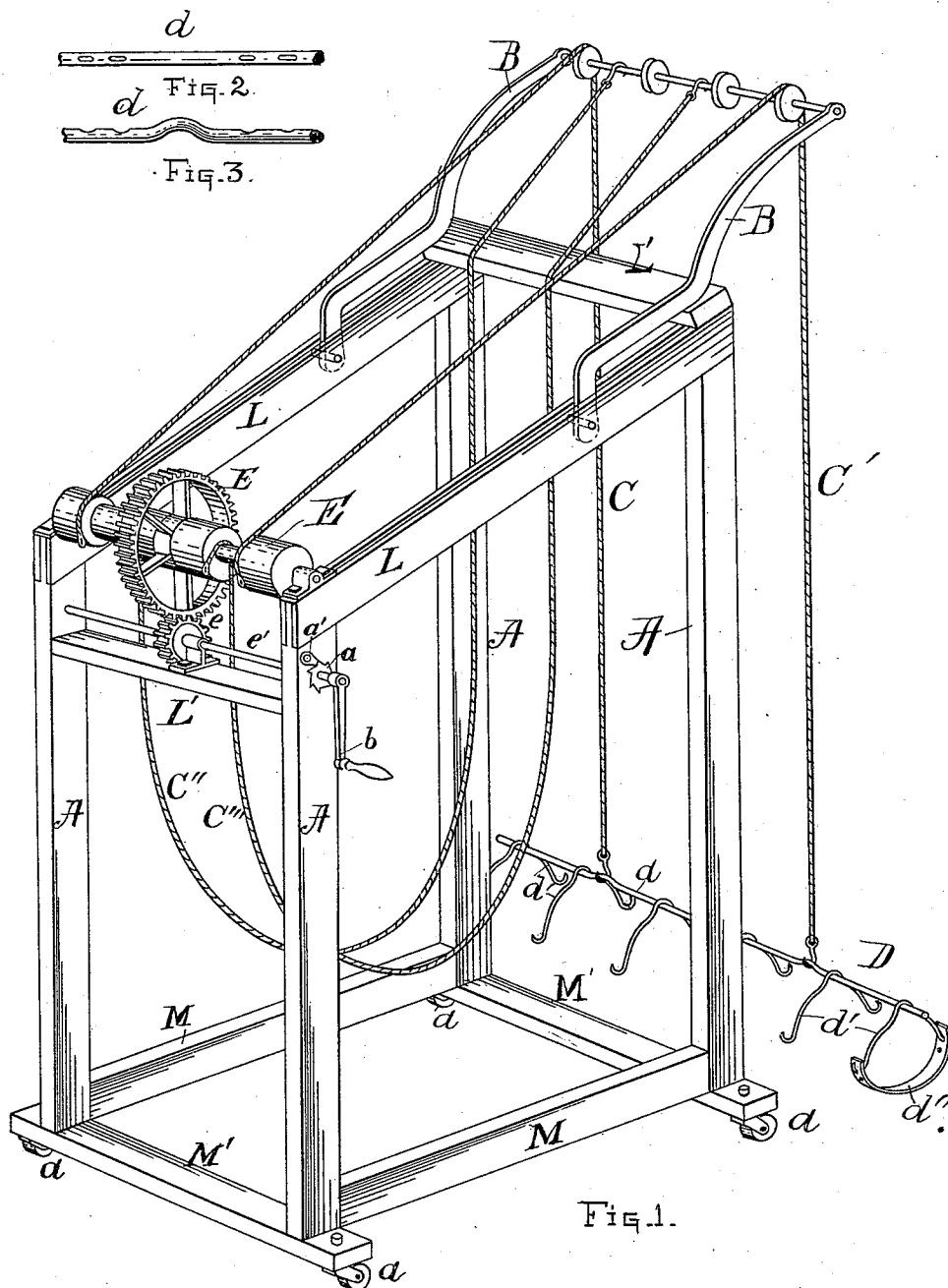


(No Model.)

J. G. THROWER.
SICK ROOM APPLIANCE.

No. 427,281.

Patented May 6, 1890.



Witnesses

L. F. Hayden

A. P. Wood

Inventor

JAMES G. THROWER.

By his Attorney

Albert A. Wood

UNITED STATES PATENT OFFICE.

JAMES G. THROWER, OF ATLANTA, GEORGIA.

SICK-ROOM APPLIANCE.

SPECIFICATION forming part of Letters Patent No. 427,281, dated May 6, 1890.

Application filed February 6, 1889. Serial No. 298,913. (No model.)

To all whom it may concern:

Be it known that I, JAMES G. THROWER, a citizen of the United States, and a resident of Atlanta, in the county of Fulton and State of Georgia, have invented a new and useful Appliance for Use by Invalids; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention relates to appliances for use in sick-rooms for handling invalids in such cases as it is necessary to exert the utmost care to prevent any muscular action on the part of the invalid or any sudden or injurious jar to the invalid in moving from one position to another.

It consists of means whereby the person may be taken up, together with the surrounding bedclothes, if desired, and the position changed and the person carried to any desired place, the details of construction necessary to carry out which object are hereinafter fully described, and the parts thought to be new pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view of the device, showing the operative parts, the litter therein shown being arranged for the purpose of lifting the person straight up from a horizontal position, but one of the straps for encircling the person being shown, the others being like it in every respect. Fig. 2 is a view of a portion of the main bar of the litter, showing the preferable construction thereof. Fig. 3 is a side elevation of a portion of said bar, further showing the construction.

In the figures, like reference-marks indicating corresponding parts in the several views, A is the frame on which the device is supported, consisting of the uprights A A, connected at their tops and bottoms by the longitudinal cross-pieces L and M and the transverse cross-pieces L' and M'. On the projecting ends of the transverse cross-pieces M' are the casters a, of sufficient size to make the device pass over the floor smoothly.

B are hangers, which carry several ropes, two of which are marked C and C' in the draw-

ings, and all of which extend to the windlass E and the litter D. The hangers B are pivoted to the frame, in order that they may be turned back, if desired, out of the way, and when the litter is placed in between the posts of the frame, which is capable of being done, the hangers can be turned backward, so that the ropes C' will be in position to raise the litter when so placed.

It will be obvious by reference to Fig. 1 in the drawings that the windlass E has several different diameters and that several of the largest are of the same diameter and that there are four ropes, each attached to one end of one of the largest cylinders of the windlass contiguous to one of the cylinders of small diameter, comparatively. Any one of the ropes so attached may be wound on the larger or the smaller of the parts of the windlass nearest to it at pleasure, thus being capable of adjustment as regards the speed of the winding of the ropes thereon, the purpose of and the necessity for such adjustment being hereinafter set forth.

The litter D is preferably constructed as shown in Fig. 1—that is, of a main bar *d* and the bails *d'*, which bails have on their extremities hooks for the attachment of straps *d''* for encircling the person to be lifted. To each end of the main bar *d* is attached, preferably by hooks, one of the ropes C, C', C'', or C''', which by being wound on the windlass will raise or lower the two ends of the litter at such relative speed as will change the position of the person lifted from a horizontal to an inclined position without bending the body. The main bar *d* has numerous corrugations upon its upper surface, so as to keep the bails from sliding, and it is also bent for a like purpose for the ropes attached at these points. For example, suppose it is desired to raise the upper part of a patient without changing his position from a straight line. He is strapped to the litter, and the rope connecting with the litter nearer his head is passed over one of the larger rollers, and the rope at the other end is passed over a smaller roller. The roller is turned, causing the upper part of the patient to rise much faster than the lower. This change in position is accomplished by having one of the two ropes attached to the litter to wind on a

small drum and the other on one of the large drums of the windlass. By this means one of the ropes is wound up on the drum faster than the other, thereby causing one end of the litter to rise faster than the other. If both
 5 ropes are wound on equal-sized drums, the litter will remain in its original position in regard to the horizontal. When it is desired to raise a person from a bed and place him
 10 on a chair or other place, the litter is dispensed with, and one or more of the ropes are attached to suitable bands to sustain and raise the person so lifted to the desired height and
 15 move him to any desired place by moving the device around on the casters *a*. These ropes will also lend assistance to a person in walking, and thus allow the best kind of exercise for a sick person without danger of muscular strain to any undue extent.

20 To the winding-drum *E* is attached a gear-wheel *E'*, which engages with a pinion *e* on the shaft *e'*. To this shaft is secured the ratchet-wheel *a*, which engages with the pawl *a'*. The shaft *e'* is also provided with a crank-handle
 25 *b*. In place of the pinion *e* and handle *b*, a worm and tiller wheel may be substituted without materially altering the device.

Having thus described my invention, what

I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In an apparatus for handling invalids, the combination of the transportable frame, the roller supported thereon having different diameters, the mechanism for operating the same, the hangers *B*, pivoted to said frame
 35 and having their upper ends connected by a rod carrying pulleys, and the ropes *C'*, passing over said pulleys to the roller, substantially as and for the purpose set forth.

2. In an apparatus for handling invalids, the combination of the transportable frame, the roller supported thereon having different diameters, the mechanism for operating the same, the hangers *B*, pivoted to said frame
 40 and having their upper ends connected by a rod carrying pulleys, the ropes passing over said pulleys from the litter to said roller, and a litter consisting of the rod *d*, bails *d'*, and the band *d''*, all arranged substantially as
 45 and for the purpose set forth.

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

JAMES G. THROWER.

Witnesses:

A. P. WOOD,

G. BURROUGHS.