No. 723,847. PATENTED MAR. 31, 1903.

P. W. DOHONEY.

LIFTER AND CONVEYER FOR INVALIDS.

APPLICATION FILED SEPT. 20, 1902.

NO MODEL.

Fig. 1.

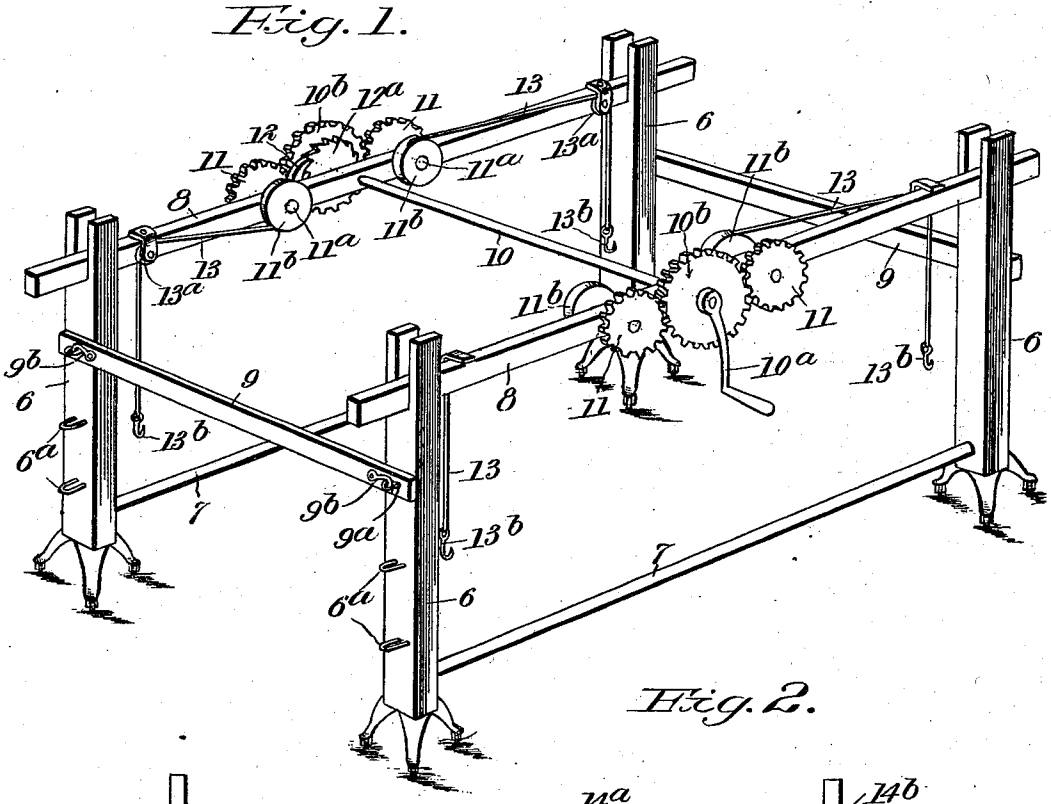


Fig. 2.

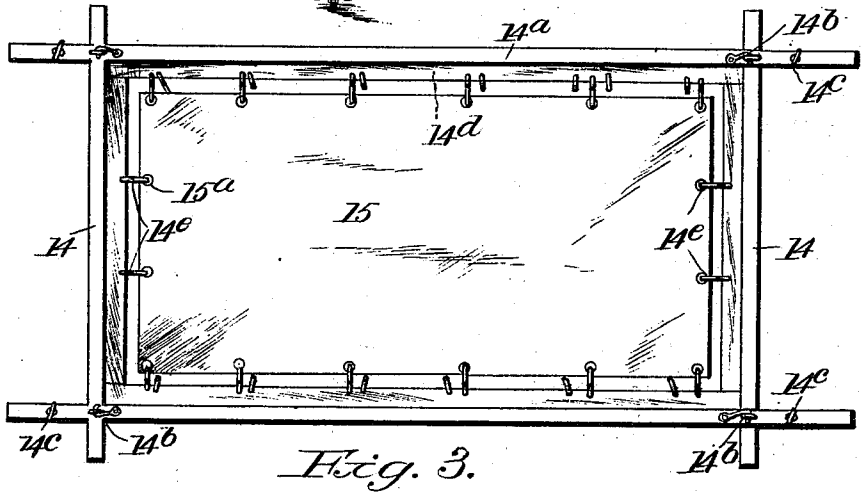
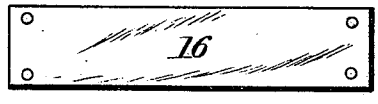


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

PRISCILLA W. DOHONEY, OF COLUMBIA, KENTUCKY.

LIFTER AND CONVEYER FOR INVALIDS.

SPECIFICATION forming part of Letters Patent No. 723,847, dated March 31, 1903.

Application filed September 20, 1902. Serial No. 124,216. (No model.)

To all whom it may concern:

Be it known that I, PRISCILLA W. DOHONEY, a citizen of the United States, residing at Columbia, in the county of Adair and State of Kentucky, have invented certain new and useful Improvements in Lifters and Conveyers for 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 the figures of reference marked thereon, which form a part of this specification.

This invention relates to lifters and conveyers for invalids; and the object of it is to provide an apparatus which may be arranged to span a bed and to lift the invalid therefrom for the purpose of changing the bed or upon other occasions.

Speaking generally, the invention comprises a supporting framework which may be so positioned as to span a bed and which has a lifting device with ropes attachable to a sheet-carrying frame.

Referring to the accompanying drawings, Figure 1 is a perspective view of the device. Fig. 2 is a plan view of the sheet-holding frame removed from the lifting apparatus. Fig. 3 is a detailed view of one of the supporting straps or bands.

Referring specifically to the drawings, the lifting-frame comprises four posts 6, which are so placed that they will stand beside the corners of the bed, the posts on each side being connected at the bottom by a bracing-rod 7. The head and foot posts are joined by cross-bars 9, which are vertically adjustable, so as to span beds of different heights. The vertical adjustment is effected by means of a series of staples 6^a on the corner-posts, which enter slots 9^a, formed in the ends of the cross-bars and held together by hooks 9^b.

The standards are forked at the top to removably receive the bars 8, of which there is one on each side. These bars support a windlass device comprising a shaft 10, which extends across the bed and between the bars, which shaft can be turned by a hand-crank 10^a and carries gear-wheels 10^b, meshing with pinions 11, on the shafts 11^a of which the drums 11^b are fixed. The shafts of the gear-wheels are journaled in the bars 8, and the drums are preferably located on the inside of the bars, as shown. Pawl 12 and ratchet 12^a serve to prevent slip. Each gear-wheel operates two pinions, and each of the four lifting-ropes 13 is attached to one of the drums and passes thence over a suitable pulley 13^a and is provided with a hook 13^b at its lower end.

The sheet-frame is formed of end bars 14 and side bars 14^a, which are joined together to form a rectangular frame. The bars are joined at the corners by a staple, slot, and hook, (indicated at 14^b,) so that they may be readily separated. The side bars have eyes 14^c, into which the hooks 13^b engage. Firmly secured to the end and side bars are strips of fabric (indicated at 14^d) having hooks 14^e, which engage in eyelets 15^a of the sheet 15. A number of straps or bands 16, as indicated in Fig. 3, may be substituted for the sheet, if desired.

The feet of the posts 6 are provided with casters 6^b to facilitate the movement of the apparatus.

In operation the lifting-frame is rolled to the bed, the cross-pieces 9 being placed at sufficient height to pass over the footboard. The bars of the sheet-frame are then hooked to the sheet and connected to the lifting-ropes. By operation of the windlass the sheet-frame and invalid will be lifted from the bed and may be conveyed as desired. The bars 8 and the windlass parts may be readily lifted from the forks of the posts. So, if desired, the side posts may be located on either side of the bed and the cross-bars 9 and the bars 8 afterward set in place.

What I claim as new is—

1. The combination, in an apparatus of the class described, of a lifting-frame comprising posts forked at the top and connected by vertically-adjustable cross-bars, side bars set in the forks of the posts on each side, and a windlass device carried by each side bar, hav-

ing a crank-shaft extending across between the bars to simultaneously operate the devices on both sides.

2. The combination, in an apparatus of the class described, of a supporting structure adapted to span a bed, and provided with a lifting device, and a sheet-frame comprising end and side bars detachably joined together and having strips of fabric joined thereto, a sheet, and fastening devices between the sheet and strips, and means to attach the sheet-frame to the lifting device.

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

PRISCILLA W. DOHONEY.

Witnesses:
G. W. STAPLES,
R. P. BROWNING.