

H. FOSS.
INVALID ELEVATOR.
APPLICATION FILED JAN. 9, 1913.

1,078,090.

Patented Nov. 11, 1913.

Fig. 1.

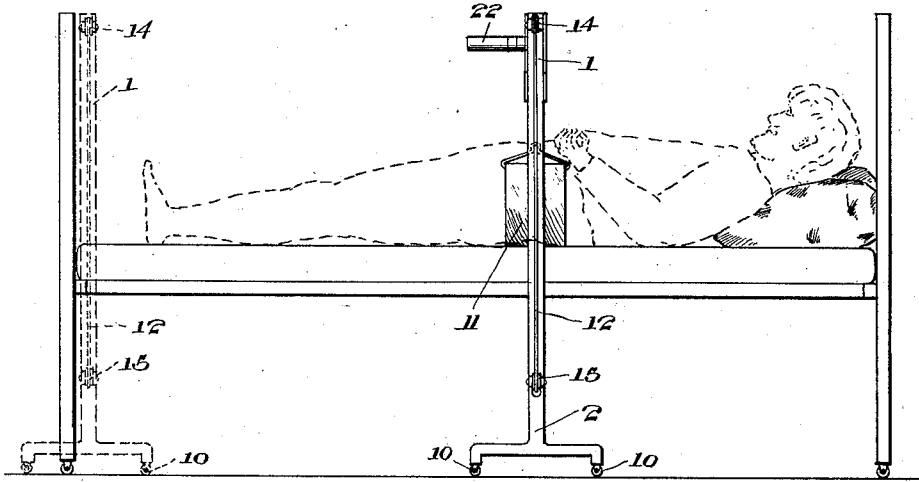


Fig. 2.

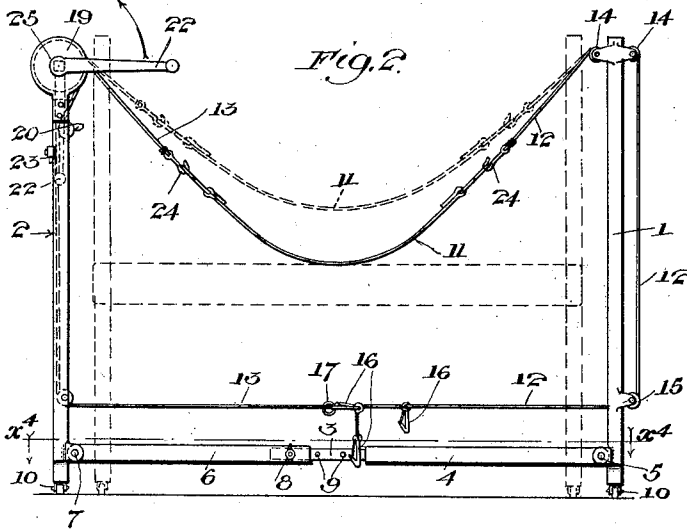


Fig. 7.

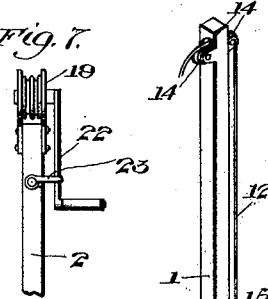


Fig. 5.

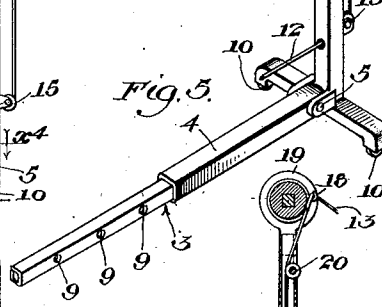


Fig. 6.

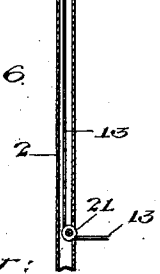
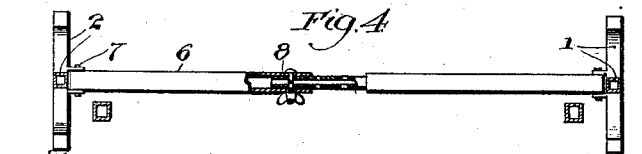


Fig. 3.



Fig. 4.



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UNITED STATES PATENT OFFICE.

HARRY FOSS, OF SANTA MARIA, CALIFORNIA.

INVALID-ELEVATOR.

1,078,090.

Specification of Letters Patent.

Patented Nov. 11, 1913.

Application filed January 9, 1913. Serial No. 741,111.

To all whom it may concern:

Be it known that I, HARRY FOSS, a citizen of the United States, residing at Santa Maria, in the county of Santa Barbara and State of California, have invented a new and useful Invalid-Elevator, of which the following is a specification.

This invention relates to a device adapted for lifting invalids a short distance from a bed, and the object of the invention is to provide a portable device which may be easily moved into position and operated with little effort to lift a person a short distance from the bed without unduly disturbing the person lifted.

Referring to the drawings:—Figure 1 is a side elevation, showing the device as in use, dotted lines showing the position of the elevator when not in use. Fig. 2 is a front elevation, dotted lines illustrating the bed. Fig. 3 is a plan view. Fig. 4 is a sectional view on line x^4-x^4 Fig. 2, part of the telescopic rod being broken away. Fig. 5 is a perspective view of one standard and the associated telescopic portion. Fig. 6 is a longitudinal section on line x^6-x^6 Fig. 3. Fig. 7 is a front elevation of the reel and part of the standard.

The device comprises two standards 1 and 2, which are adjustably connected with each other by means of a telescopic rod 3, comprising a tubular member 4 pivoted at 5 to the standard 1, and a tubular member 6 pivoted at 7 to a standard 2. The member 4 telescopes inside the member 6 and a bolt 8 may be inserted in one of several holes 9 to regulate the length of the telescopic connection and hold the standards the desired distance apart. The standards are provided with casters 10 which enable them to be easily rolled about the floor.

11 designates a wide flexible supporting band which at its ends is detachably connected to cables 12 and 13. Cable 12 extends through the upper end of standard 1, over pulleys 14, thence down along the standard 1, over a pulley 15 and through the standard, and is attached by a hook 16 to an eye 17 in the end of cable 13. Several hooks 16 are provided at different distances on the cable 12 to permit of adjusting its length. The cable 13 extends from the band 11 over a hook 18 on a reel 19, which is journaled in the upper end of the standard 2 and passes down over a pulley 20, through the inside of the hollow standard 2, and over a pulley 21,

and thence out, and connected at its eye 17 with the hook 16. A crank 22 is connected to the reel 19 to turn the same and a finger 23 is pivoted on the standard 2 to act as a removable stop to hold the crank 22.

In operation the band 13 will normally lie at all times under the invalid, while the standards may stand at the foot of the bed, as shown in dotted lines in Fig. 1, or if desired for use with other beds the standards may be easily disconnected and rolled from the bed to another bed. To elevate the patient the standards are rolled from the position shown in dotted lines in Fig. 1 to the position shown in full lines in Fig. 1, and the ends of cables 12 and 13 are connected by hooks 24 to the band 11, the latter having been placed under the small of the back of the patient. It should be understood that the band having been once placed in this position need not be removed, as the standards may be simply unhooked from the bands and rolled away when desired. The cables 12 and 13 having been hooked to the band the crank 22 is then turned from position shown in dotted lines in Fig. 2 to position shown in full lines in Fig. 2, thereby rotating reel 19 and pulling on both cables 12 and 13 to lift the band into the position shown in dotted lines in Fig. 2, and lifting the patient with it. The cables will thus be pulled in opposite directions from the band 11, so that the latter is not moved laterally of the bed, and its position is thus maintained centrally under the patient and the patient is not moved sidewise but is lifted straight up.

What I claim is:

1. An invalid elevator comprising standards adjustable toward and from each other and adapted to be placed on each side of a bed, a band adapted to pass under the patient, cables connected to opposite ends of said band, and extending to the respective standards, said cables being connected together, and means mounted solely on one of said standards for drawing said cables in opposite directions from the band to lift the band and patient.

2. An invalid elevator comprising standards adapted to be placed on each side of a bed, a band adapted to pass under the patient, cables connected to opposite ends of said band, and extending to the respective standards, said cables being connected together, and means on one of said standards for drawing said cables in opposite direc-

tions from the band to lift the band and patient, a telescopic connection between said standards below the bed, said connection comprising two members each of which is
5 pivoted to its associated standard, and means for detachably holding said members together.

3. An invalid elevator comprising two standards adjustable toward and from each
10 other and adapted to stand on opposite sides of a bed, casters supporting the standards, a flexible band adapted to be arranged under the patient, said band being connected with both of said standards, and means mounted
15 solely on one of said standards for lifting both ends of said band to elevate the patient.

4. An invalid elevator comprising standards, a band adapted to be arranged under the patient, cables connected to opposite ends
20 of said band, sheaves on the upper end of one of said standards and at an intermediate part of said standard, a reel at the upper end of the other standard, and a sheave at an intermediate point of the latter stand-
25 ard, a hook on said reel, one of said cables being looped over said hook and passing over the sheaves on the associated standard, the other of said cables passing over the

sheaves on the other standard, said cables being connected together below the bed, and
30 a crank for turning the reel.

5. An invalid elevator comprising standards, a band adapted to be arranged under the patient, cables connected to opposite
35 ends of said band, sheaves on the upper end of one of said standards and at an intermediate part of said standard, a reel at the upper end of the other standard, and a sheave at an intermediate point of the latter
40 standard, a hook on said reel, one of said cables being looped over said hook and passing over the sheaves on the associated standard, the other of said cables passing over the sheaves on the other standard, said cables be-
45 ing connected together below the bed, a crank for turning the reel, means for locking said crank from rotation, and means for adjustably connecting together the lower
50 ends of said cables.

In testimony whereof, I have hereunto
set my hand at Los Angeles, California, this
2d day of January, 1913.

HARRY FOSS.

In presence of—

GEORGE T. HACKLEY,
MARTHA LANGE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."