

No. 616,282.

Patented Dec. 20, 1898.

W. A. ALLEN.  
INVALID ELEVATOR.

(Application filed Aug. 25, 1898.)

(No Model.)

Fig. 1

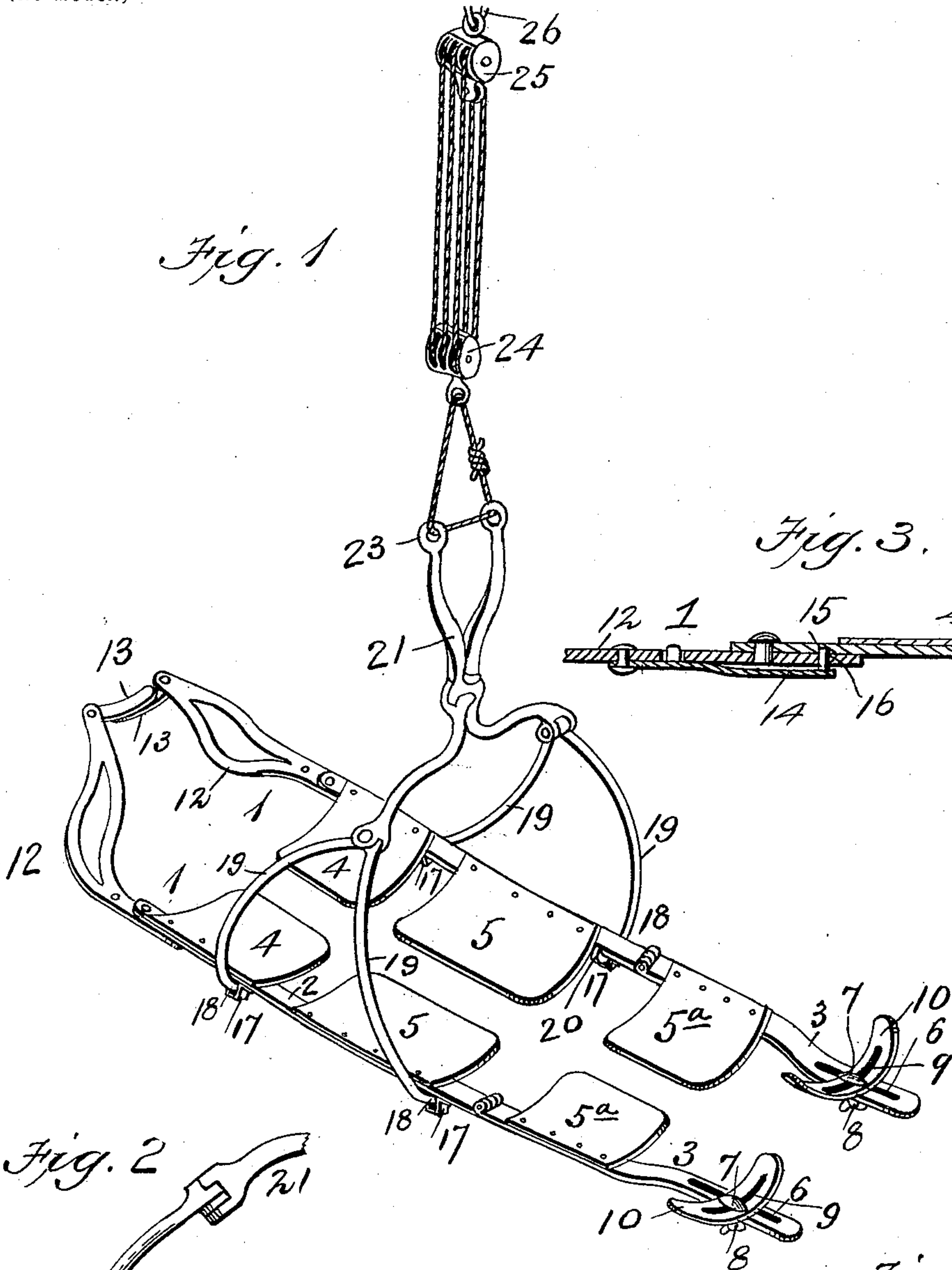


Fig. 3.

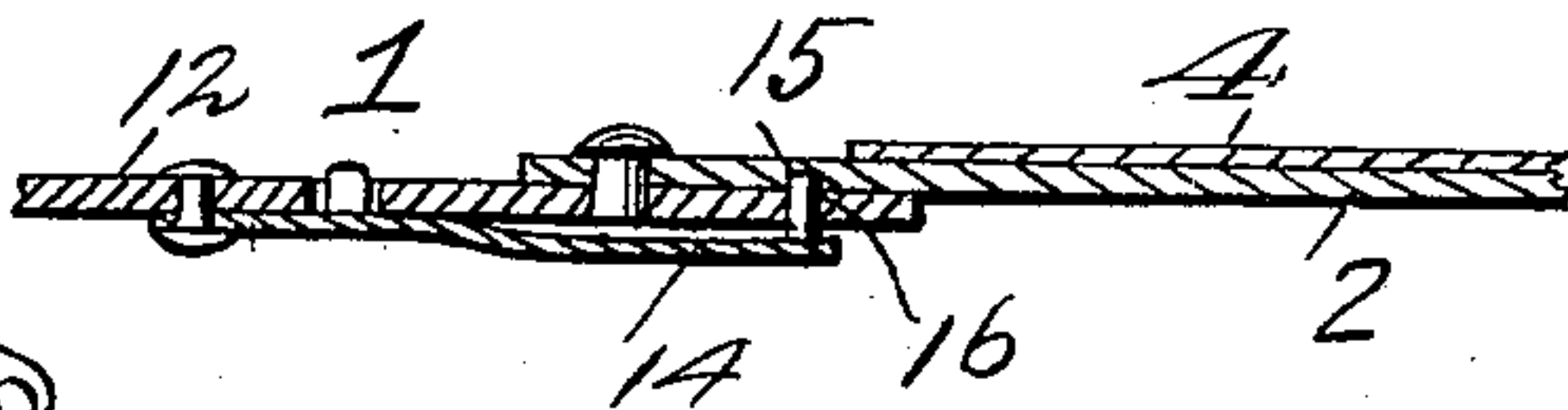


Fig. 2

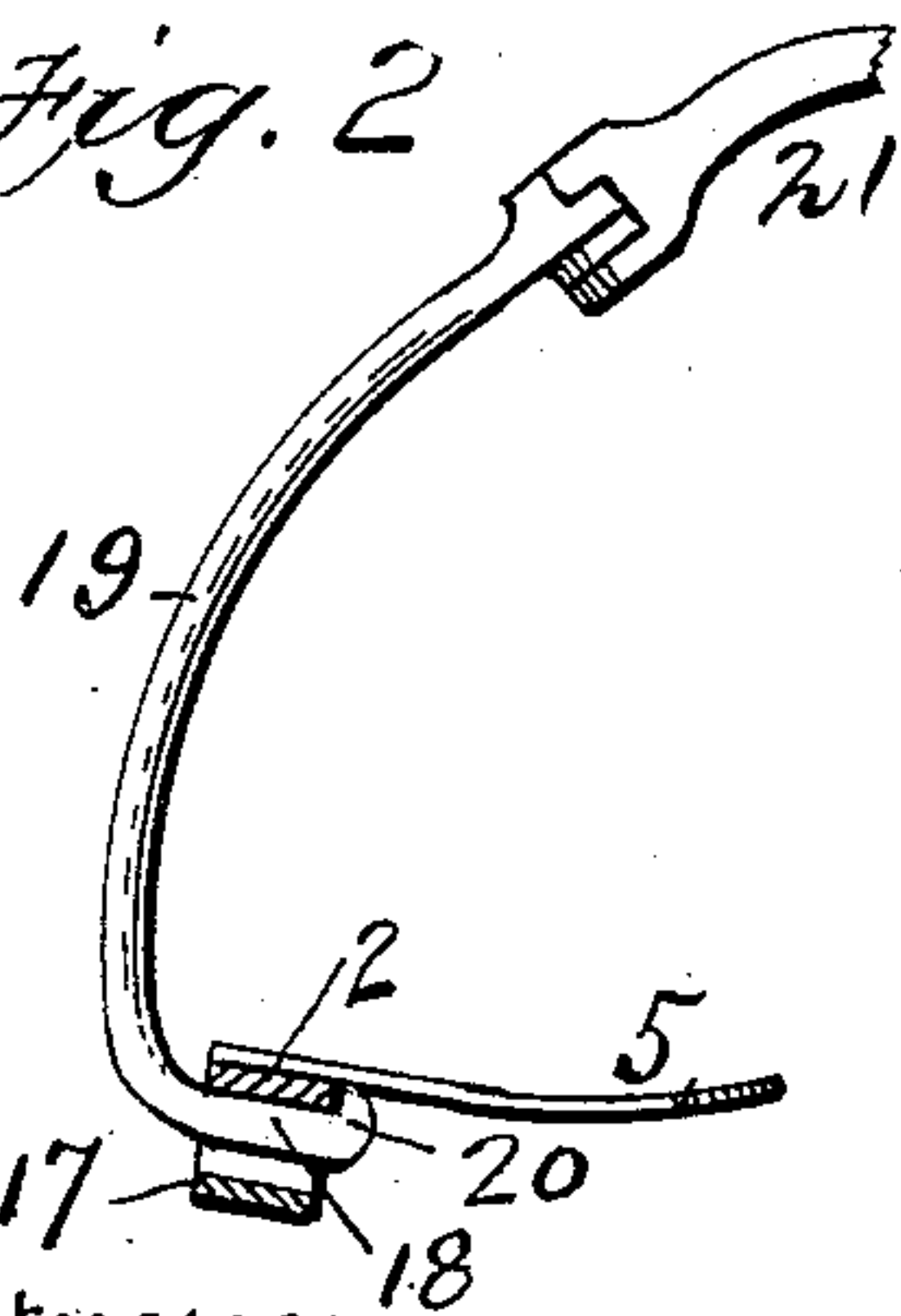


Fig. 4

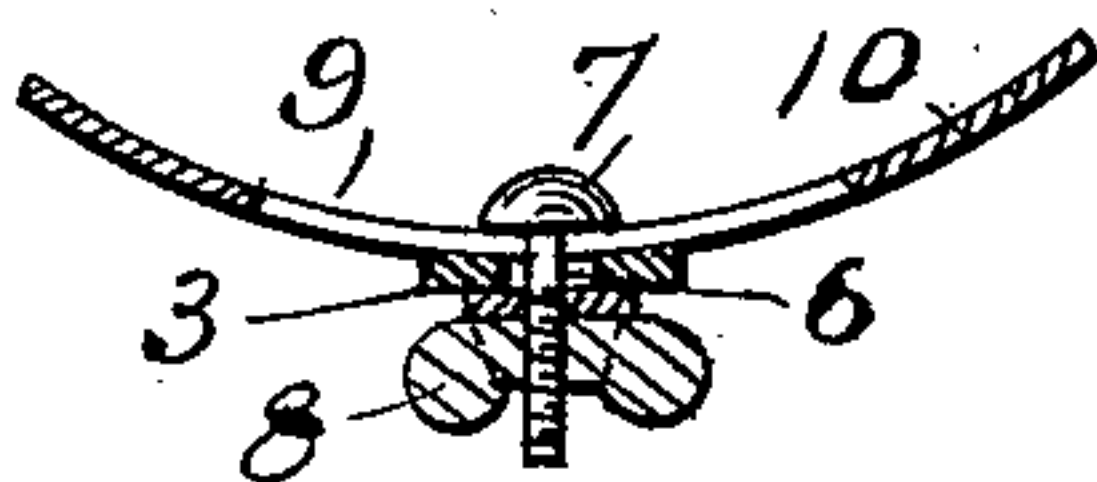
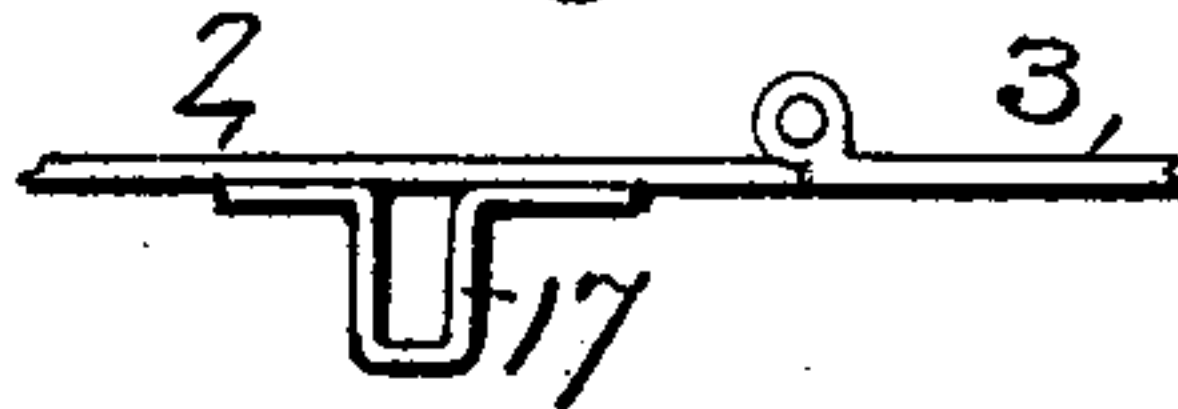


Fig. 5.



Witnesses:  
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# UNITED STATES PATENT OFFICE.

WILSON A. ALLEN, OF ROCHESTER, MINNESOTA.

## INVALID-ELEVATOR.

SPECIFICATION forming part of Letters Patent No. 616,282, dated December 20, 1898.

Application filed August 25, 1898. Serial No. 689,498. (No model.)

*To all whom it may concern:*

Be it known that I, WILSON A. ALLEN, a citizen of the United States, residing at Rochester, in the county of Olmsted and State of Minnesota, have invented new and useful Improvements in Invalid-Elevators, of which the following is a specification.

My invention relates to apparatus for elevating invalids from cots or beds for the purpose of making up the latter, transferring the invalid to another point or place, or holding him suspended for treatment; and its object is to provide an improved construction of the same by which the invalid can be safely elevated without injury and the device when not in use be folded up, so as to occupy but little space in the transportation or storage.

The invention consists in the novel construction and combination of parts herein-after fully described and claimed.

In the accompanying drawings, Figure 1 is a perspective view showing a device or apparatus constructed in accordance with my invention. Figs. 2, 3, 4, and 5 are detail views.

In the said drawings the reference-numeral 1 designates two frames, each consisting of two bars 2 2 and 3 3, curved to conform to the contour of the trunk and legs of a human being. The said bars 2 are provided with inwardly-extending curved plates 4 and 5, the plates 4 being adapted to engage with the shoulders of an invalid or patient when lying down and the plates 5 adapted to engage with the lower portion of the trunk or body. The said bars 3 are provided with inwardly-extending curved plates 5<sup>a</sup>, which are adapted to engage with the thighs of the patient. The bars 3 are hinged to bars 2, so as to be folded thereupon, and near the outer or free ends are formed with slots 6, with which engage screw-bolts 7, provided with thumb-nuts 8. These bolts also pass through slots 9 in curved plates 10, which serve as foot-rests. These slots are in planes at right angles to each other, so that the said plates can be adjusted both longitudinally and transversely to accommodate different-sized persons. The bars 2 at the upper or outer ends are provided with head-rests 12, each consisting of an arm pivotally connected near the inner end with said bars.

These arms each consist of two bars contracted and connected together at the ends and the outer ends provided with a short pivoted arm 13. The head-rests near the inner ends are provided with a flat spring 14, the free end of which is provided with a stud 15, adapted to engage with a recess 16 in the under side of the bars 2, and thus hold the head-rests in position when in use.

Secured to the under sides of the bars 2, near each end, are U-shaped lugs 17, with which are adapted to engage the inwardly-turned ends 18 of the curved arms 19 of a pair of grapples. The ends 18 are formed with upwardly-extending projections 20, which engage with the inner sides of the bars 2 when said ends are passed through the lugs 17. The arms 19 at their lower ends are spread apart and contracted at the upper ends and pivotally connected with two curved cross-levers 21, fulcrumed at or near the centers and provided with eyes 23 at the upper ends, with which is connected a pulley 24, which in turn is connected with a pulley 25, adapted to be secured to a ceiling by a rope 26.

In using the device the plates of the bars 2 and 3 are pushed under the patient and the head-rests turned inwardly under the pillow upon which the head of the patient rests, the springs holding them in place. The ends of the arm 19 of the grapple are then engaged with the lugs 17, and the patient or invalid can then be raised or elevated by pulling upon the rope 26. The patient can thus be suspended while the cot or bed is being made or while being given an injection or an enema. By connecting the upper pulleys with a carriage traveling upon a suitable track the patient can be conveyed to another point or place. The frame is sufficiently resilient to allow the legs to be spread apart when desired.

When not in use, the bars 3 and the head-rests can be folded, and the levers of the grapple, being loosely pivoted together, can be disconnected, so that the device will occupy but little space.

Having thus fully described my invention, what I claim is—

1. The combination with the bars provided

with inwardly-extending plates, and the bars hinged thereto formed with slots near the outer ends, of the slotted foot-rests and the screw-bolts and nuts, substantially as described.

2. In an apparatus of the character described, the combination with the bars provided with inwardly-extending plates, the pivoted head-rests and the slotted bars hinged to said first-mentioned bars, of the slotted foot-rests and the screw-bolts and nuts, substantially as specified.

3. The combination with the bars provided with inwardly-extending curved plates and formed with holes near the upper ends, and the folding head-rests pivoted to said bars, and the springs secured to said head-rests provided with pins or projections engaging with said holes, of the hinged and slotted bars,

the slotted foot-rests, the screw-bolts and the nuts, substantially as described.

4. The combination with the bars provided with inwardly-extending curved plates and with U-shaped lugs on the under sides, the folding bars provided with adjustable foot-rests and the pivoted head-rests, of the grapple comprising the loosely-pivoted levers and the curved arms pivoted thereto and having their free ends turned inwardly and provided with projections, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

WILSON A. ALLEN.

Witnesses:

F. R. MASSE,  
GEO. J. ALLEN.