

(No Model.)

2 Sheets—Sheet 1

A. LESLIE.
INVALID HAMMOCK.

No. 266,167.

Patented Oct. 17, 1882.

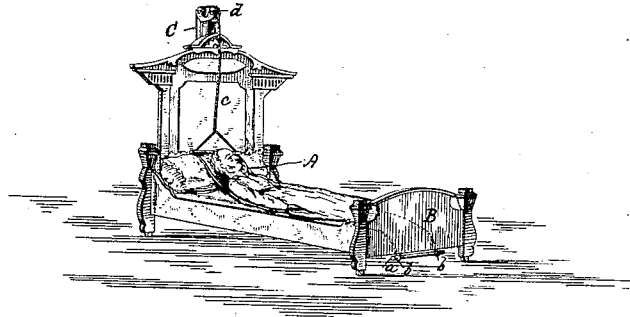


Fig 1.

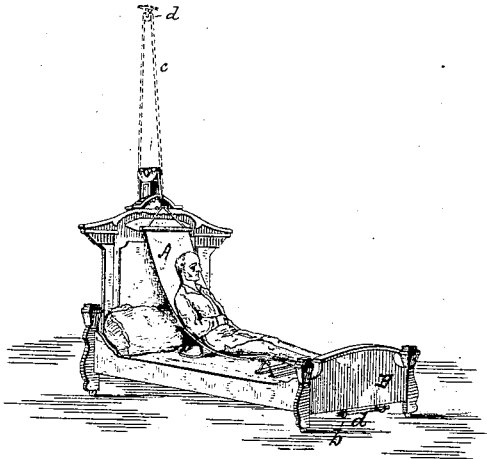


Fig 2.

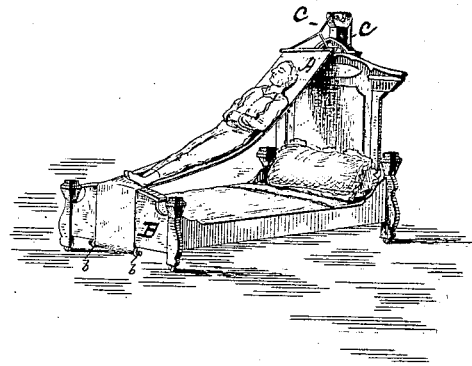


Fig 3.

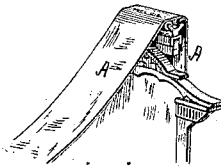


Fig. 4.

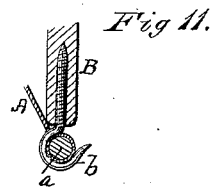
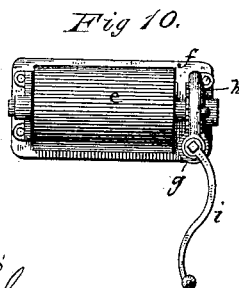
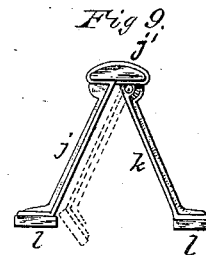
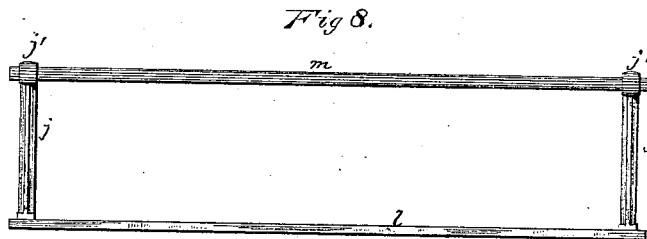
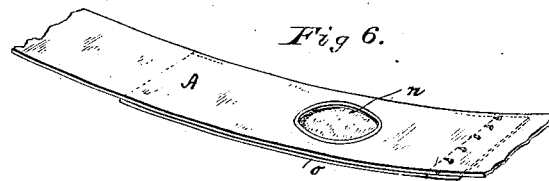
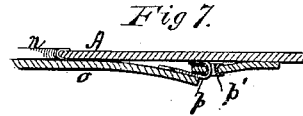
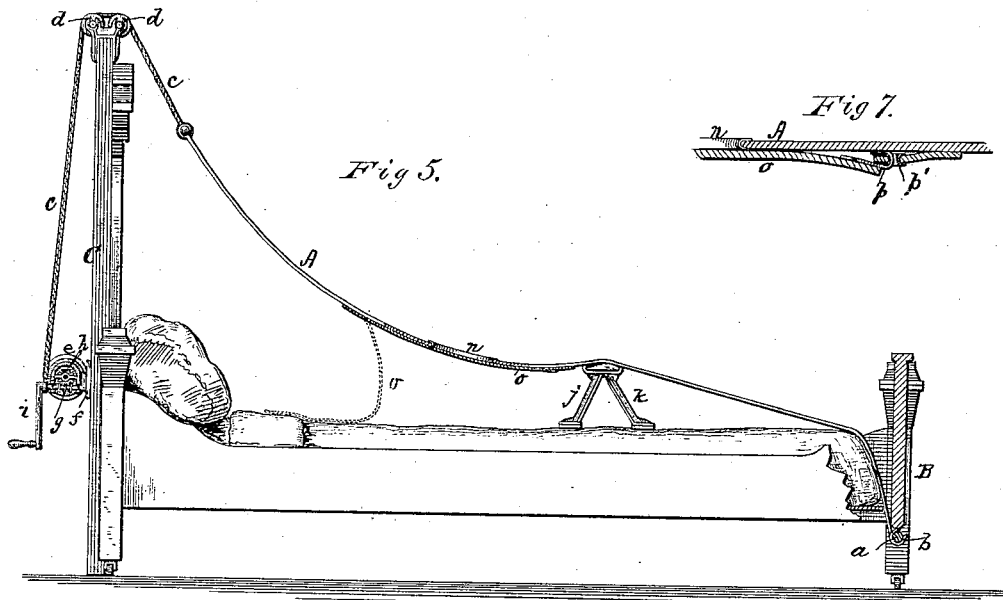
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UNITED STATES PATENT OFFICE.

ANDREW LESLIE, OF ST. LOUIS, MISSOURI.

INVALID-HAMMOCK.

SPECIFICATION forming part of Letters Patent No. 266,167, dated October 17, 1882.

Application filed September 2, 1882. (No model.)

To all whom it may concern:

Be it known that I, ANDREW LESLIE, of St. Louis, in the State of Missouri, have invented a certain new and useful Invalid-Hammock, of which the following is a specification.

The apparatus in which my invention is comprised is designed more particularly with a view to being used as an attachment to or in connection with a bedstead of any ordinary or suitable construction, although it may of course, if so desired, be used alone. The foot of the hammock is adapted to be connected to the foot of the bed, and is preferably connected to the foot-board of the bed by hook or equivalent fastenings, which will permit the hammock to be readily detached and removed. The other end of the hammock, which extends up toward the head of the bedstead, is provided with or connected to means whereby it can be raised or lowered, as desired, these means being preferably attached to and carried by the bedstead, so that the latter can be moved freely about the room, carrying with it the hammock and its attachments. The hammock itself is preferably constructed or formed with a hole or opening at the point where the buttocks of the occupant of the hammock would usually come, the object being to permit the occupant to conveniently use a commode or bed-pan without quitting the hammock; and with the hammock thus formed I combine a flap which can be drawn over the hole or opening, so as to close and protect it, and is held in that position by hook and eye or other suitable fastening devices which will permit the flap to be detached at one end, so as to uncover the hammock-opening whenever desired.

The nature of my improvements can best be explained and understood by reference to the accompanying drawings, wherein I have represented the form and arrangement of apparatus which I believe to be best adapted to carry my invention into effect.

In the drawings, Figures 1, 2, and 3 are perspective views of a bedstead with the invalid-hammock attachment, representing some of the various positions in which the hammock can be placed. Fig. 4 is a modification, to be hereinafter referred to. Fig. 5 is a sectional

side elevation, on enlarged scale, of a bedstead with a hammock in place thereon. Fig. 6 is a perspective view of a portion of the body of the hammock. Fig. 7 is a sectional view, representing the means for fastening in place the covering-flap hereinbefore referred to. Fig. 8 is a side elevation, and Fig. 9 is an end elevation, of a folding knee-rest, adapted to be used in combination with the hammock. Fig. 10 is an elevation of the lifting and lowering device. Fig. 11 is a sectional view, representing, on enlarged scale, the manner of securing the lower end of the hammock to the foot-board of the bedstead.

The apparatus is simple, and consists of few parts.

The hammock proper (shown at A) consists of a strip of canvas-duck of suitable length and width, which, when in use, is to be fastened to the lower edge of the foot-board B of the bedstead by any convenient means, consisting in the present instance of a round stick, *a*, contained in a loop or fold at the lower end of the canvas, and two hooks, *b*, screwed into the lower edge of the foot-board, in which hooks the laterally-projecting ends of the stick are caught. The opposite end of the hammock is attached to a cord, *c*, which runs over one or more pulleys, *d*, set on top of a post, C, fastened to the back of the head-board of the bedstead, and thence extends down and is securely fastened to the drum *e* of the hoisting device. This device consists of a bed-plate, *f*, provided with suitable bearings for the drum, and also for the worm *g*, by which the latter is rotated. On the axle of the drum, at one side, is fixed a worm-wheel, *h*, engaging the worm *g*, as indicated in Fig. 5. A detachable winch or handle, *i*, is provided for rotating the worm-shaft. This device is so powerful that a child can readily raise and lower the hammock when it contains an adult, and its parts are so arranged that the drum cannot rotate unless power be applied to it through the medium of the worm *g*.

I here remark that the pulley or pulleys *d* may, if desired, be fastened into the ceiling of the room where the apparatus is used, as indicated by dotted lines in Fig. 2, and in this event the hoisting device can also be fastened

to the floor or other convenient part of the room, instead of to the bedstead. I have, however, found it preferable to place them on the bedstead, as represented, both because they
5 are more secure, and also because when they are thus arranged the bedstead can be moved freely about the room.

I can, if it be deemed desirable, dispense altogether with the head cord or cords by using,
10 as indicated in Fig. 4, a longer strip of canvas, which should pass over a roller and then down to a drum, with proper gearing for winding the canvas upon the drum. The cord arrangement already described, however, is more
15 simple and economical, and is equally safe.

For use in connection with the hammock I provide a folding knee-rest, (shown in Figs. 8 and 9,) consisting of end castings, *j k*, hinged
20 together and provided with feet for attachment of the longitudinal wooden foot-bars *l*. One casting, *j*, of the pair of castings at each end has a loop, *j'*, these loops forming sockets for securing in place the wooden top bar, *m*, of the device.

To enable the occupant to conveniently use a commode or bed-pan without quitting the hammock, I form in the latter an opening or
25 hole, *n*, at the point where the buttocks usually come, and I combine with the hammock a covering flap, *o*, placed on the under side of the hammock, with one of its edges secured thereto, either permanently or otherwise, and
30 provided at the opposite edge with hooks *p*, which can be made to engage eyes *p'* in the hammock whenever it is desired to draw forward the flap and close the hole in the hammock.

The foregoing comprises a description of the several parts of my improved apparatus. The
40 manner in which the same can be practically used will be readily understood by reference to Figs. 1, 2, and 3.

In Fig. 1 the patient is represented as in bed on the hammock in the usual recumbent position. The lower end of the hammock is passed
45 down between the lower end of the mattress and the foot-board, and the stick is dropped into the hooks, thus securing the lower end of the hammock. The hoisting-cord from the upper end of the hammock runs to the drum of the hoisting device.

Fig. 2 represents the hammock elevated, with the knee-rest in place and in use. This brings the patient to a sitting posture, for rest
55 in that position, or for what is practically of more importance, the use of a commode or bed-pan. In order to change from the position shown in Fig. 1 to that shown in Fig. 2, the folded knee-rest, while the patient is still reclining, is passed under the hammock at the
60 point where the knees come, and is then opened and placed as shown in the drawings. The hammock and patient are then by means of the hoisting apparatus elevated to the position shown in the drawings, Fig. 2, the covering-flap *o* is unhooked and drawn aside, the commode or bed-pan is placed on the bed under

the patient, and the hammock is then lowered until the patient is conveniently placed thereon. This arrangement permits the commode
70 to be easily placed and removed. When the patient desires the use of the hammock merely for the comfort of the sitting posture the covering-flap need not be removed.

Fig. 3 represents the hammock and patient
75 in position for changing bedding. For this position the lower end of the hammock should be drawn out from between the lower end of the mattress and foot-board, and should be thrown entirely outside of the foot-board and fastened
80 to the hooks, which latter for this purpose should be turned about a half-circle from the position shown in Figs. 1 and 2. The hammock is then by the hoisting device elevated to the position shown in the figure, thus raising
85 the hammock and patient from contact with the bedding, which can then be changed at pleasure.

The apparatus can be used effectively and to great advantage in a sick-room. It admits
90 of the cleanly and easy use of a commode or bed-pan without removing the patient from the bed. It facilitates changing the patient from a recumbent to a sitting position without pain or discomfort, and also enables a change of
95 bedding to be made whenever desired without inconveniencing the patient. These are but a few of the many uses to which the apparatus may be put, which will suggest themselves to the skillful nurse. Moreover, the apparatus
100 itself is exceedingly simple, and can be applied to any bed by a person of average intelligence.

What I claim as new and of my invention is—

1. The combination, with a bedstead of ordinary or suitable construction, of a hammock
105 placed over the bed and attached at its lower end to the foot of the bedstead and a hoisting device connected with the other end of the hammock and adapted to raise or lower and
110 sustain that end of the hammock, substantially as and for the purposes hereinbefore set forth.

2. The combination of the bed, the hammock secured at its lower end to the foot of the bed,
115 and a hoisting device attached to and carried by the bed and connected by a cord or equivalent instrumentality to the head of the hammock, substantially as and for the purposes hereinbefore set forth.

3. The folding knee-rest, constructed and adapted for use in connection with the bed and hammock, substantially as hereinbefore set forth.

4. The hammock formed with a hole or opening, as described, in combination with the covering-flap and flap-fastening devices on the under side of the hammock, substantially as hereinbefore set forth.

In testimony whereof I have hereunto set my hand this 29th day of August, 1882.

Witnesses: ANDREW LESLIE.

CLARENCE POMEROY,

CHAS. WOODROFFE.