

R. L. EDGCOMBE.
INVALID BED.
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945,449.

Patented Jan. 4, 1910.

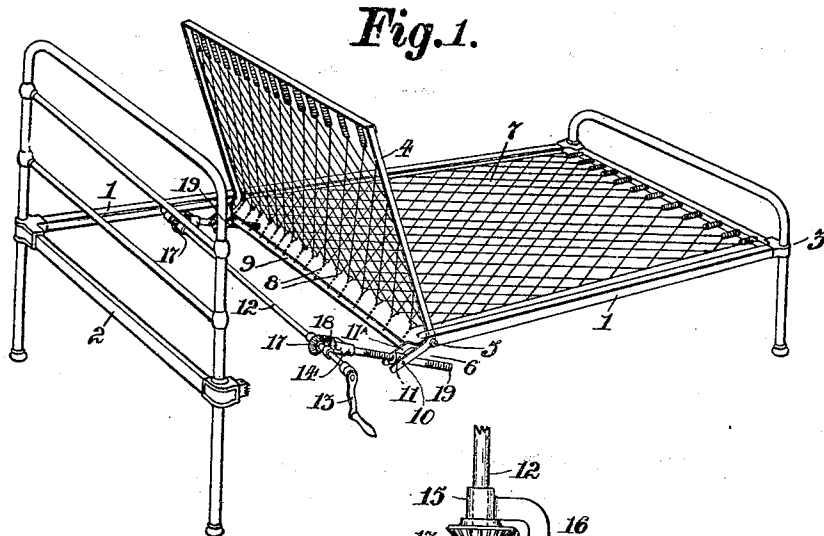
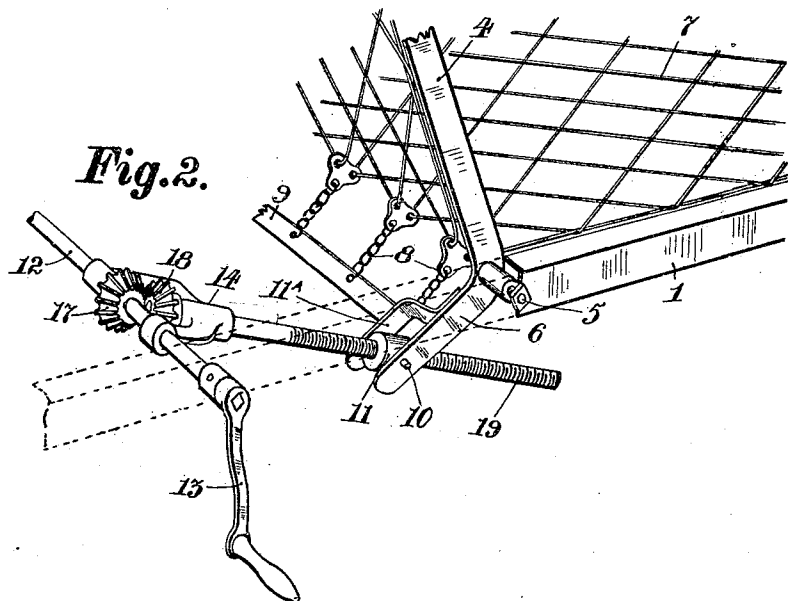
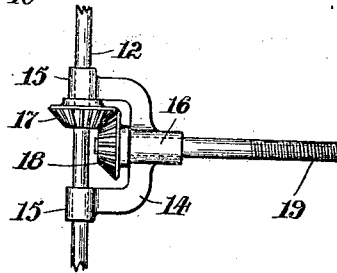


Fig. 3.



Witnesses.

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UNITED STATES PATENT OFFICE.

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INVALID-BED.

945,449.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ROBERT LAVERS EDGCOMBE, a subject of the King of Great Britain, and resident of the town of Waterville, in the Province of Quebec, in the Dominion of Canada, have invented certain new and useful Improvements in Invalid-Beds; and I do hereby declare that the following is a full, clear, and exact description of the same.

The invention relates to improvements in invalid beds, as described in the present specification and illustrated in the accompanying drawings that form part of the same.

The invention consists essentially in the novel construction and arrangement of parts, whereby a screw shaft is operated through a corresponding nut by means of a gear mechanism, the function of said device being to operate a movable frame forming part of the bed construction.

The objects of the invention are to devise a form of invalid bed in which a considerable portion of the mattress at the head end of the bed may be lifted up in a very simple manner and to provide a mechanism simple as to its arrangement and cheap to manufacture.

In the drawings, Figure 1 is a perspective view of a bed showing the movable portion of the mattress in its raised position. Fig. 2 is an enlarged perspective detail of the gear mechanism and threaded shaft showing portions of the movable and rigid frames and correspondingly threaded nut. Fig. 3 is an enlarged detail view of the gearing, bearing and shafts, the latter being broken away.

Like numerals of reference indicate corresponding parts in each figure.

Referring to the drawings, 1 are the rigid sides of the bed frame secured to the head 2 and foot 3 of said bed frame.

4 is a movable frame preferably of rectangular shape and having rigid pivot pins 5, extending outwardly therefrom and journaled in the sides 1 intermediate of the length of said sides, so that when said frame 4 turns on its pivots to its downward position, the end bar of said frame is adjacent to the lower cross bar of the head 2.

6 are lever extensions from the ends of

the sides of the movable frame 4 extending downwardly at an angle to said sides from the pivot points.

7 is a wire mattress of any suitable make and secured at the head end to the movable frame 4 and at the foot end to the rigid sides 1 and foot 3, said members being immediately joined by links and chains 8 to the rigid bar 9 extending across from one lever extension 6 to the other.

10 are pins journaled at the lower end of the lever extensions 6 and supporting the threaded nuts 11 arranged between the angle bars 11^a and said lever extensions.

12 is a shaft journaled in the rigid sides 1 adjacent to the head 2. 13 is a crank handle on the end of said shaft.

14 are stirrups rigidly secured to and extending from the sleeves 15 and supporting the bearings 16, said sleeves loosely encircling the shaft 12.

17 are bevel gear wheels fixedly mounted on the shaft 12 between the sleeves 15.

18 are bevel gear wheels fixedly mounted on the threaded shafts 19, the latter being journaled in the bearings 16 and extending through the correspondingly threaded nuts 11.

In the operation of this device, the crank handle 13 is turned, which rotates the shaft 12 and the bevel gear wheels 17, said bevel gear wheels 17 coact with the bevel gear wheels 18 and rotate the shafts 19. The shafts 19 turn in the threaded nuts 11 and therefore draw the lever extensions 6 either toward the shaft 12 or drive said lever extensions away from said shaft 12, the consequence being that the movable frame 4 is raised or lowered as the case may be. This accomplishes the main object of the invention in providing a bed whereby a patient may be raised without any physical exertion on his part and very slight manual exertion on the part of the nurse or other attendants.

What I claim as my invention is:

In an invalid bed, a rigid frame, a frame pivotally secured to said rigid frame toward the head portion of the bed and having forked lower extensions from its sides, a nut pivotally secured within each one of said forks, a shaft journaled in said bed frame between said forked extensions and

the head of the bed, yokes pivotally secured
on said shaft, each of said yokes having a
central sleeve therefrom extending at right
angles thereto, bevel gear wheels fixedly
5 mounted on said shaft within said yokes,
threaded rods journaled in said sleeves in
said yokes and extending through said nuts
and said forks and a bevel gear wheel fixedly

mounted on the end of said rods within said
yokes.

Signed at Sherbrooke, Canada, this four-
teenth day of May, 1909. 10

ROBERT LAVERS EDGCOMBE.

Witnesses:

THOS. C. GALE,
ALEXINA JONCAS.