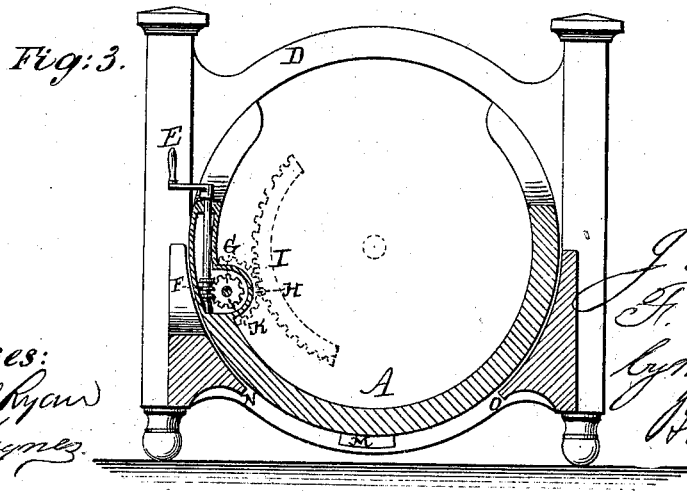
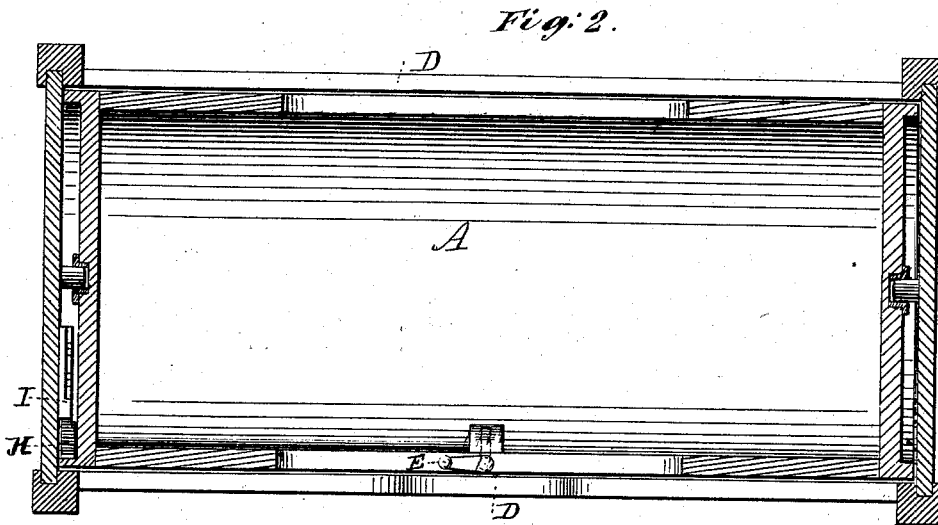
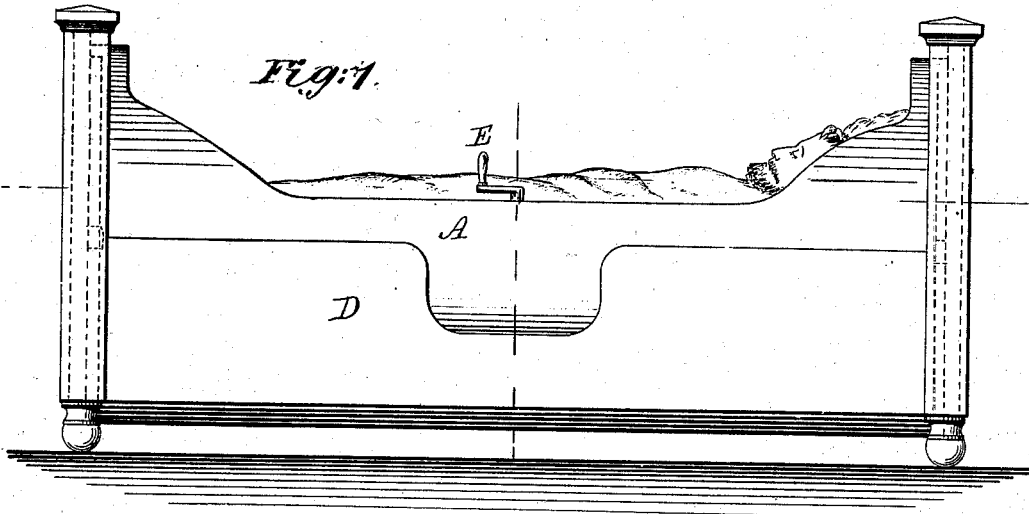


J. DENEFF & F. WILKIN.

Invalid Bedstead.

No. 165,075.

Patented June 29, 1875.



Witnesses:
Michael Ryan
Fred Hayes

J. Deneff.
F. Wilkin
Cyrus W. Hodge
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UNITED STATES PATENT OFFICE.

JOSEPH DENÉEFF AND FÉLIX WILKIN, OF LIEGE, BELGIUM.

IMPROVEMENT IN INVALID-BEDSTEADS.

Specification forming part of Letters Patent No. **165,075**, dated June 29, 1875; application filed April 10, 1875.

To all whom it may concern:

Be it known that we, JOSEPH DENÉEFF and FÉLIX WILKIN, both of the city of Liege, in the Kingdom of Belgium, have invented an Improved Invalid-Bed; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing.

The object of our invention is to construct a bed which will admit of various changes of position without shock or inconvenience to a sick, wounded, or aged person occupying the same, and will admit of such person occupying such positions as to have the weight of the body supported on the back or on either side, at pleasure.

My invention consists in the combination, with a swinging bed and a fixed frame, of a stationary rack secured to the frame, and a toothed wheel mounted on a horizontal shaft, which engages with the rack, said shaft being also provided with a pinion, which meshes with a worm attached to, and moving with, the swinging bed, whereby the said bed may be oscillated on its axis either by the occupant of the bed or by an attendant, as will hereinafter appear.

In the accompanying drawing, Figure 1 is a side elevation of our improved bedstead. Fig. 2 is a horizontal section of the same, taken in the line *xx* of Fig. 1. Fig. 3 is a transverse vertical section, taken in the line *yy* of Fig. 1.

A is a swinging bed, having its ends provided with gudgeons *aa*, working in bearings in the head and foot boards of the frame D of the bedstead. The bed A is preferably of semi-cylindrical construction, and the interior of the frame is of corresponding form. E is a crank or handle on the upper end of a vertical shaft, the lower end of which carries a worm, F. G is a horizontal shaft, having its ends provided with bearings in one side of the swinging bed A. At one end of the shaft G is a pinion, K, with which the worm F engages to give a rotary motion to said shaft. The other end of the shaft G carries a toothed wheel, H, which meshes into a stationary curved rack, I, attached to the head-board of the frame of the bedstead D. By turning the crank or handle E, the worm F, engaging with the pinion K, rotates the shaft G; and by the engagement of the toothed wheel H with the stationary rack I, the

swinging bed is inclined on its axis toward one side or the other, according to the direction in which the crank or handle is turned. The horizontal shaft G may be placed on either side of the swinging bed A, and the vertical shaft, with its worm and handle, may be arranged at any convenient point, so as to be within reach of the occupant of the bed, or of an attendant in the room. The crank or handle is removable from the upper end of the vertical shaft, so that when the bed has been inclined to the desired position the handle may be removed, and the bed will remain in such position without danger of accidental displacement.

The bottom of the swinging bed is provided with a stop, M, which, by contact with abutments N O on either side of the frame D, limits the motion of the swinging bed in one direction or the other. The bed is also provided with a counterbalance-weight.

In a bedstead constructed as herein described, a sick, wounded, or aged person occupying the same can have the position changed, so as to throw the weight of the body upon the back, or upon either side, at pleasure. The mechanism is so simple, and the required application of power so slight, that the bed may be easily manipulated by any attendant, or by the occupant of the bed; and the motion is so gentle and regular that the occupant experiences no shock or inconvenience in consequence of the oscillation of the bed.

Although the invention is particularly intended for application to invalid-bedsteads, yet it may be applied to chairs or cradles by a proper arrangement of the parts.

What we claim as new, and desire to secure by Letters Patent, is—

The combination, with the swinging bed A and fixed frame D, of a stationary rack, I, attached to the frame, and a toothed wheel, H, a horizontal shaft, G, a pinion, K, and a worm, F, attached to and moving with the swinging bed, for oscillating said bed on its longitudinal axis, as herein shown and described.

JOS. DENÉEFF.
FÉLIX WILKIN.

Witnesses:

J. NORTON,
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