M. GILLESPIE.
Invalid-Bedsteads.

No. 202,343. Patented April 16, 1878.

Fig. 1.

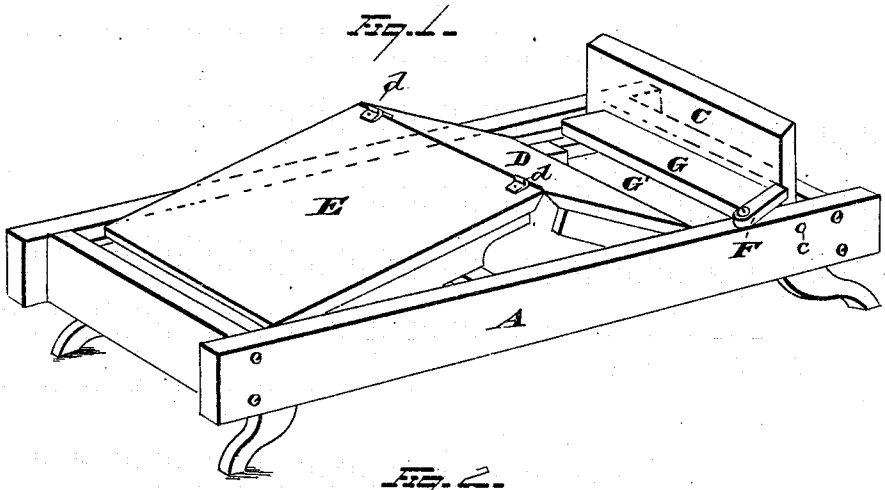


Fig. 2.

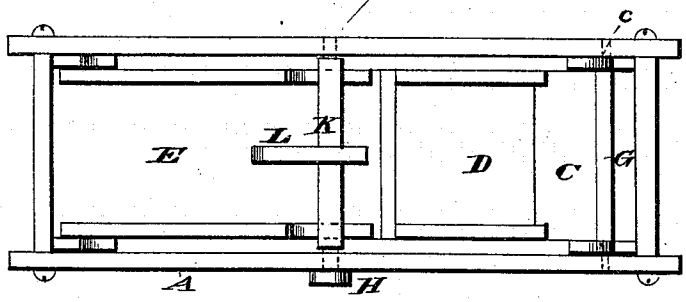
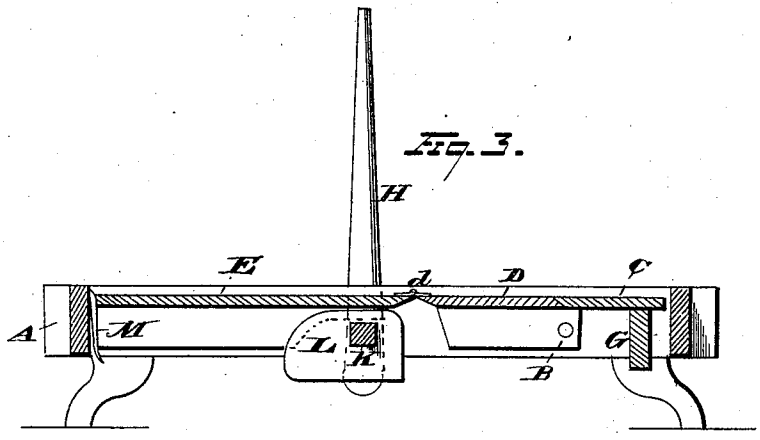


Fig. 3.



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UNITED STATES PATENT OFFICE.

MARTIN GILLESPIE, OF EAST LIVERPOOL, OHIO, ASSIGNOR OF ONE-HALF HIS RIGHT TO A. J. McDONALD, OF SAME PLACE.

IMPROVEMENT IN INVALID-BEDSTEADS.

Specification forming part of Letters Patent No. **202,343**, dated April 16, 1878; application filed August 2, 1877.

To all whom it may concern:

Be it known that I, MARTIN GILLESPIE, of East Liverpool, in the county of Columbiana and State of Ohio, have invented certain new and useful Improvements in Invalid-Beds; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to improvements in invalid-beds; and consists in a frame or lounge made with a transverse sectional bed, and provided with mechanism for elevating certain of these sections, so that the head-section may be in a horizontal line lower than that of the rest of the bed, thus giving those sections other than the head-section any degree of angular inclination relative to the plane of the latter, all as is hereinafter described and claimed. The object of this is to aid in the cure of pulmonary diseases by constructing such a bed for the patient to lie upon, face downward, that by adjusting the lower portions of the same the main body and the lower portion of the lungs may be raised above the line of the head, and given a degree of angular inclination, such as to assist in the discharge of effusive matter from the lungs.

In certain stages of the different pulmonary diseases, and at different times in difficulties of this nature, it is desirable to give the patient an easy position, and one at the same time adapted to render less suffering the flow of matter peculiar to sickness of this type; and with this end in view my invention is designed.

Referring to the drawings, Figure 1 is a view, in perspective, of a lounge or supporting frame-work, provided with a sectional bed made according to my invention, and showing the sections arranged as in use. Fig. 2 is a bottom plan of the bed, the sections being all laid in the same plane. Fig. 3 is an inner side elevation of the same.

The lounge or frame-work A may be of any desired construction, and that shown in the drawings is only given as an example of a suitable support for the sectional bed. This bed is made of three sections, C, D, and E, of which the head-section C is detached from, and made independent of, the remaining or body-sections of the bed. This head-section is transversely pivoted to the supporting frame-work at *c* on either side of the same, so that it may have free swinging movement, and when raised, as shown in Fig. 1, the sliding catch or pawl F serves to maintain it in such position, while the head of the patient rests upon the right-angular extension G. A full opening or space, G′, is thus formed between the body-sections and the head-support G, which is greater or less, according to the degree of vertical adjustment of the body-sections. Through this opening the patient can discharge into a suitable vessel placed beneath, as is seen fit, and according to any special circumstances.

The body-sections D and E are hinged together at *d*, and the portion of section D nearest the head-section is also connected by pivotal engagement B with the supporting-frame. This pivotal connection may be, by separate screws or pins, with either side of the lounge, as shown in the drawings; or a single rod may extend beneath the bed, passing through both sides of the section and also of the supporting-frame.

The mechanism for adjusting the two lower or body sections at any angle of inclination to the horizontal is shown by the lever-handle H, rock-shaft K, and eccentric or cam L. No particular form of construction is necessary, it only being required to exert a pressure upon the under side of section E, such as to raise the latter, and also to carry with it the middle section D, both together with the body of the patient.

If desired, instead of using a single central cam, as shown, two or more may be employed at equal distances along the transverse rock-shaft, and by their combined pressure adjust the sections properly in their angular inclination.

As the lower body-section E rests loosely upon the supporting frame-work, and is not engaged therewith, it has sliding bearing thereon, and is moved freely by the lever and cam mechanism.

One or more springs, M, are secured to the inner side of the foot-board or lower end piece

of the supporting-frame. They may be metallic or rubber, and their object is to give a cushioned end bearing to the adjustable sections as the latter are lowered in place. A further use of such spring or springs is to tend to thrust the section E up against section D, and thus give the latter an angular inclination, such as to raise the inferior or lower portion of patient's lungs above the portion nearer the head.

In using this adjustable apparatus, the patient is laid, face downward, upon the bed; then, by operating lever-handle H, the cam mechanism raises the lower sections of the bed, and places the lower portions of the patient's body in a raised or elevated position over that of his head, which latter rests wholly upon the head sectional extension G. Thus the parts of the patient's body and of his lungs most remote from his head are placed in a plane of angular inclination such as to readily allow of the discharge of effusive matter from the lungs. In this manner relief can be afforded to the patient suffering, at the same time that he is placed in a position to most easily free himself from discharges incident to pulmonary diseases.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. An apparatus for use in the treatment of pulmonary diseases, consisting, essentially, in a bed made with vertically-adjustable body-sections and an independent head-supporting section, the same being made and adapted to be adjusted as described, whereby a space or opening suitable for the discharge from the lungs of the patient is formed between the head and the body sections, substantially as described.

2. In apparatus for use in treating pulmonary diseases, the combination, with suitable adjusting mechanism, of the upper body-section of the bed, pivoted to the supporting framework, and the lower body-section, the two sections being hinged together, and the said lower body-section having free sliding bearing upon the supporting-frame, substantially as described.

3. The combination, with the body-sections of the bed, hinged together, and adapted to be adjusted in opposite planes of angular inclination, as described, of the lever-handle, the transverse rock-shaft, and the cam formed on the latter, substantially as described.

4. The combination, with the pivoted head-section, provided with a head-rest, of the catch or pawl for locking the same, substantially as described.

5. The combination, with the body-sections of the bed, suitably hinged together, of the spring or springs, giving a cushioned or elastic end bearing thereto, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand this 25th day of July, A. D. 1877.

MARTIN GILLESPIE.

Witnesses:

JAS. J. JOHNSON, M. D.,

J. T. ROBINSON, M. D.