(No Model.) 2 Sheets—Sheet 1.

C. H. HORNER.

INVALID BEDSTEAD.

No. 348,910. Patented Sept. 7, 1886.

Fig. 1.

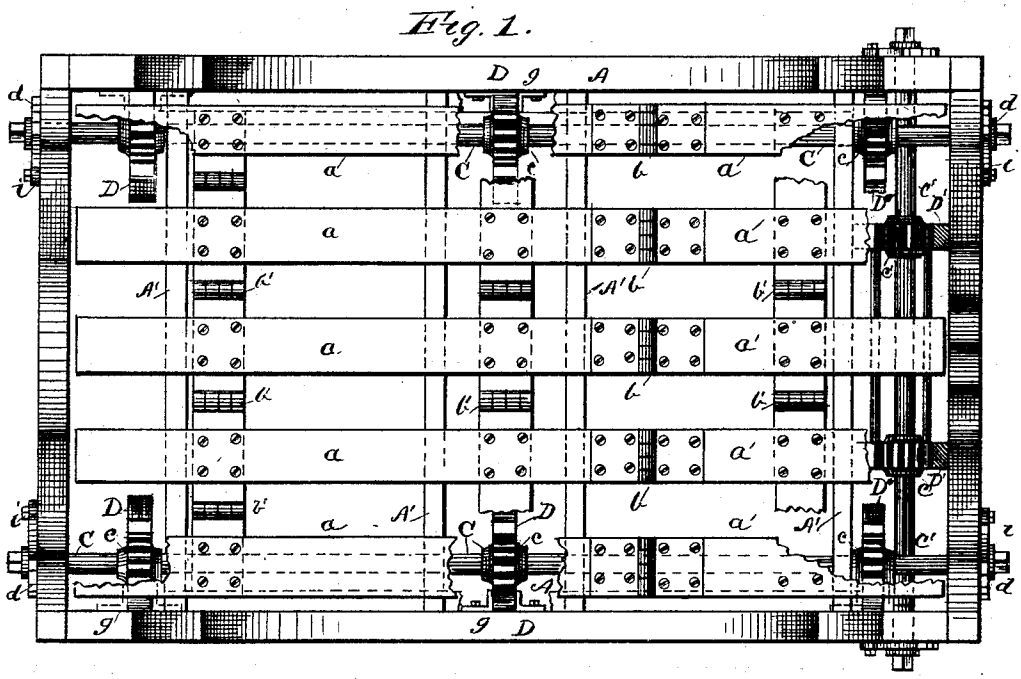
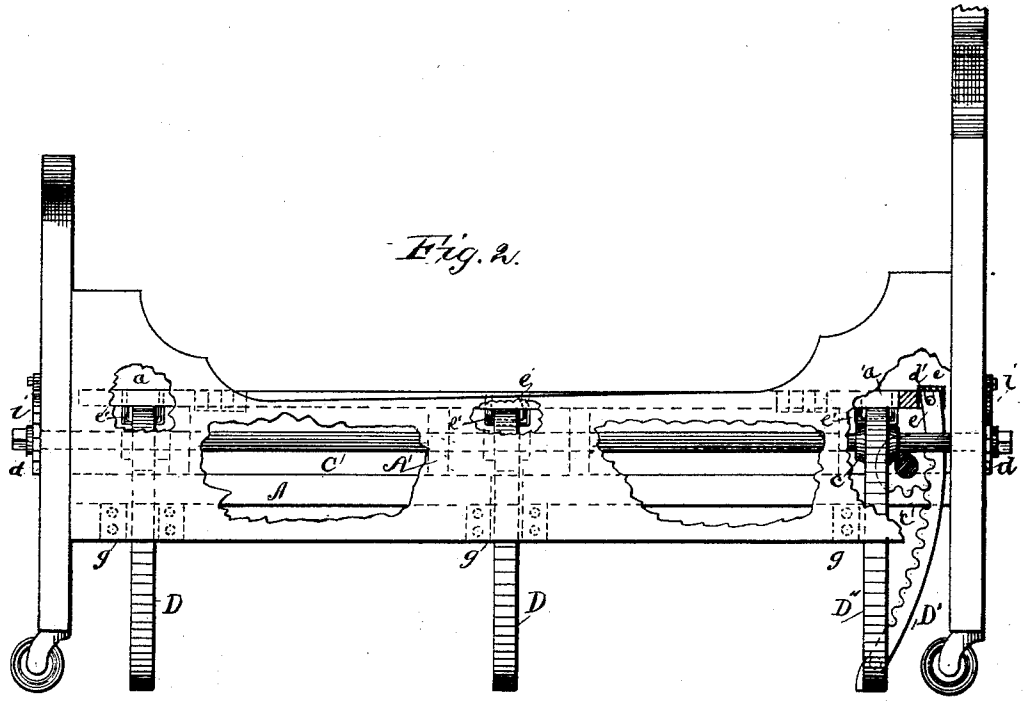


Fig. 2.



Witnesses.
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John C. Miller

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N. PETERS, Photo-Lithographer, Washington, D. C.

(No Model.)

2 Sheets—Sheet 2.

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Fig. 3.

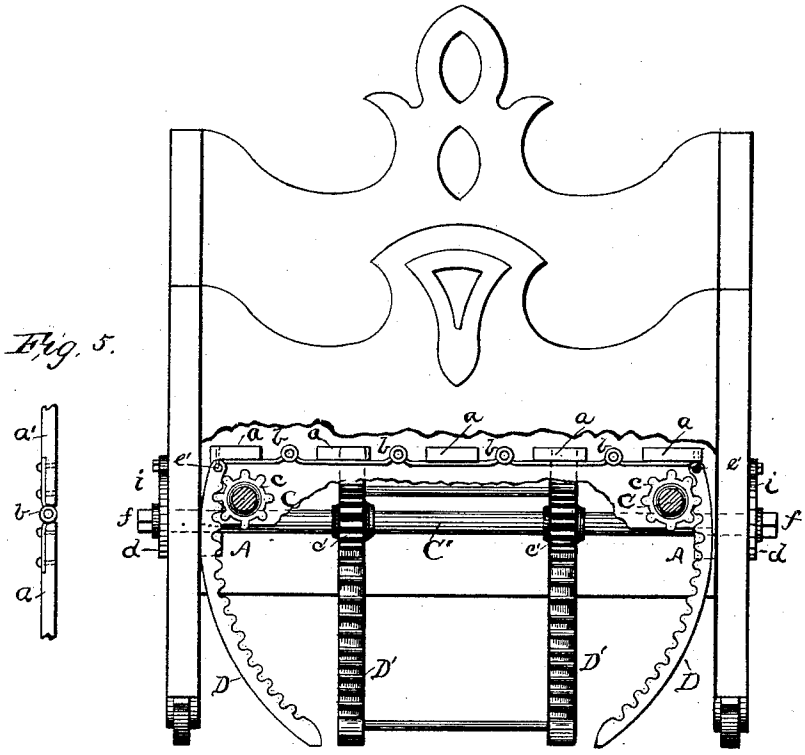


Fig. 5.

Fig. 4.

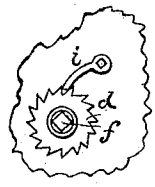
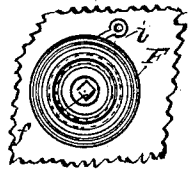


Fig. 6.



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UNITED STATES PATENT OFFICE.

CHARLES H. HORNER, OF XENIA, OHIO.

INVALID-BEDSTEAD.

SPECIFICATION forming part of Letters Patent No. 348,910, dated September 7, 1886.

Application filed December 2, 1885. Serial No. 184,386. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. HORNER, residing at Xenia, in the county of Greene and State of Ohio, have invented certain new and useful Improvements in Invalid-Bedsteads; 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 appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

The object of my invention is to produce an invalid-bedstead in which the occupant can be turned over or moved from one side to the other, or raised to a reclining position without being manipulated by the attendant. I accomplish the above by employing a series of revolving shafts and pinion-wheels working into segment-gear. One end of said segment being attached to the bed-slats, so as to raise or lower the same when engaged by the pinion-wheels.

My invention can be applied to any bedstead.

Figure 1 is a plan view of a bedstead showing in detail my invention. Fig. 2 is a side view of the same. Fig. 3 is an end view with the foot-board broken away, so as to show the transverse shaft and pinions at the head of the bed, also the segments at each side. Fig. 4 is the ratchet and pawl situated at the sides and ends of the bed. Fig. 5 is a detail view of the hinge connecting the slats. Fig. 6 shows the cap which covers the ratchet when not in use.

To describe my invention more specifically, A A are cleats, such as are found in all bedsteads, and upon which the slats or mattress are ordinarily placed.

A′ are cross-pieces, which rest upon or are fastened to cleats A. They also form a support for the shafts C. The slats *a* are joined together by means of hinges *b′*, and rest upon cross-pieces A′. The short slats *a′* are adjustably connected to *a* by the hinges *b′*.

C are the longitudinal shafts bearing pinion-wheels *c*.

C′ is the transverse shaft, and bears the pinion-wheels *c′*.

D, D′, and D² are segment-gears, situated at the sides and head of the bedstead, and are engaged by wheels *c* and *c′*, when it is desired to raise or lower the sides or head of the mattress. In the upper ends of D′ and D² are open mortises or slots *d′*, into which pins *e* work. In the corresponding ends of D are closed slots *d″*, in which staples *e* work.

g are guide-plates, which serve to keep the segment-gear in place. They are fully shown and marked in Fig. 1.

d is a ratchet-wheel placed upon the ends of the shafts C and C′, and is controlled by pawl *i*, so as to arrest the raising or lowering of the slats at pleasure. They may protrude beyond the surface of the foot-board or sides of the bed, and be shielded by cap F, as shown in Fig. 6; or they may be let into grooves in the same.

The ratchet *d* and pawl *i* are fully set forth in Fig. 4.

To operate the above-described device and raise side of bed it is only necessary to apply a crank to arm *f*, and by turning revolve shaft C, causing gear-wheels *c* to engage the segments D and D², which are carried upward, and raise the slats by pushing against the staples *e′* and pin *d″*. To lower the same the shaft C is revolved in an opposite direction.

In raising the head of the bed the crank is applied to the shaft C′, and the component parts are acted upon in substantially the same manner.

I am aware of the English Patent No. 5,605, January 15, 1828, showing segmental curved bars with pinions and shafts for elevating a bed-bottom; also the domestic Patent No. 156,318, October 27, 1874, showing a hinged bed-bottom with levers for elevating the hinged parts independently. I do not, therefore, claim these features broadly.

What I claim as new, and desire to obtain by Letters Patent, is—

In an invalid-bedstead, a bottom composed of longitudinal and cross slats made in sections hinged together, the pivoted curved segments D, D′, and D², the shafts C and C′, the pinion-wheels *c*, the ratchet-wheel *d*, and the pawl *i*, whereby either side or one end of the slat bottom can be independently raised, all arranged and operated substantially as shown.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES H. HORNER.

Witnesses:

SAMUEL C. CLINE,

JERRY PARKHILL.