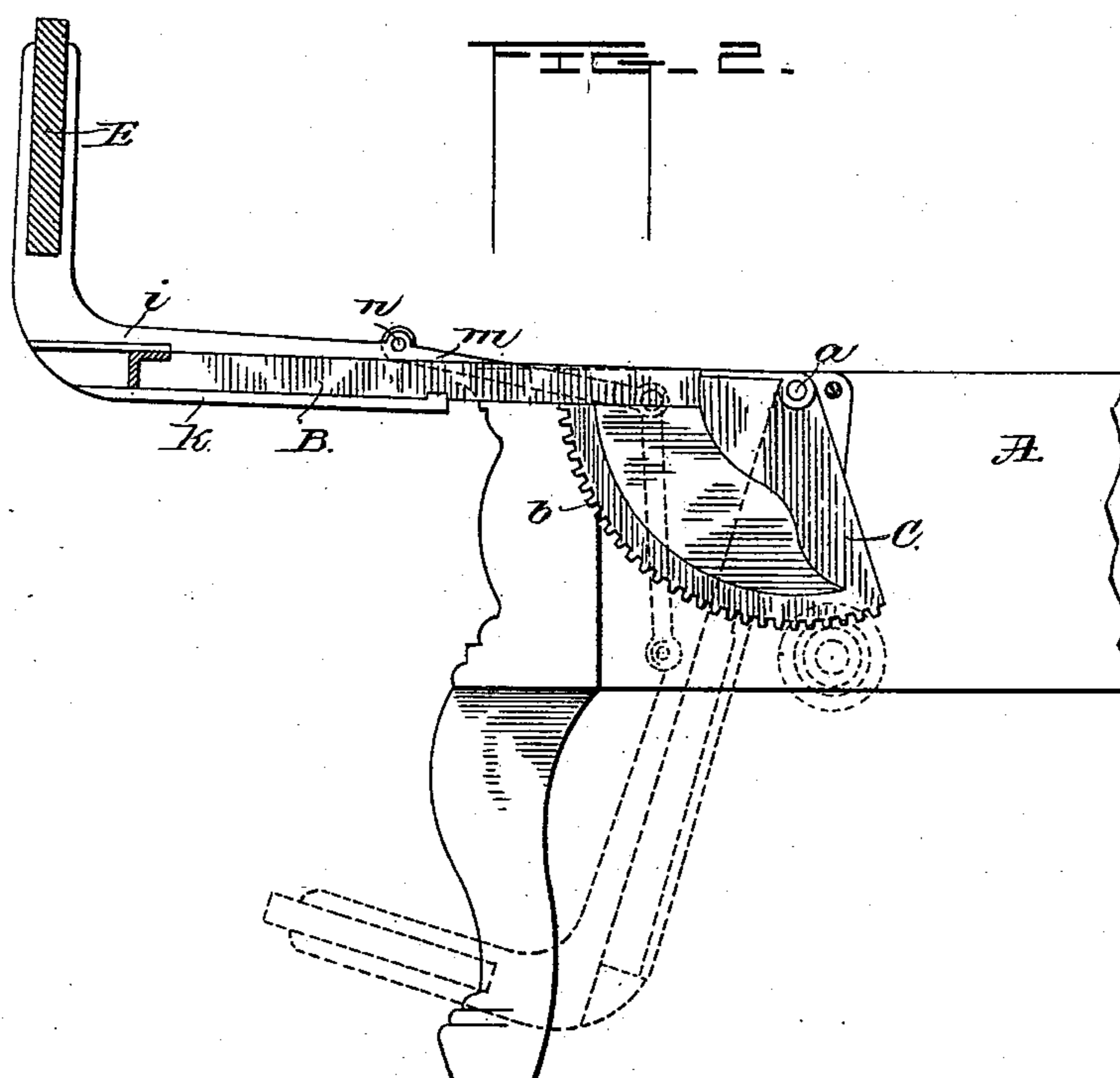
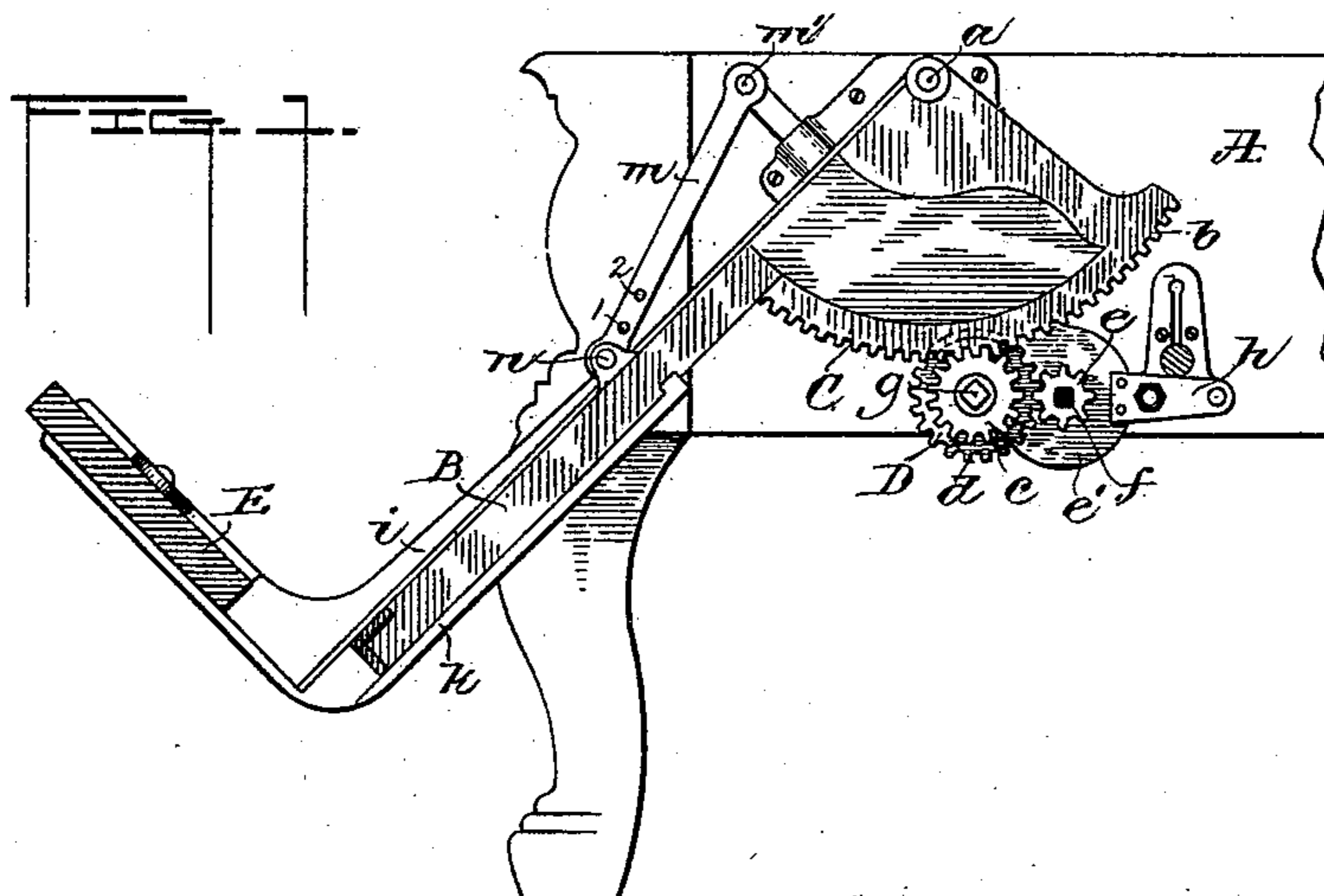


(No Model.)

A. J. GOODWIN.  
INVALID BED.

No. 453,237.

Patented June 2, 1891.



**WITNESSES**

John F. C. Prentiss  
Frederick L. Emory -

**INVENTOR**

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by John L. Edwards  
Atty

# UNITED STATES PATENT OFFICE.

ASAHEL J. GOODWIN, OF BROOKLINE, MASSACHUSETTS.

## INVALID-BED.

SPECIFICATION forming part of Letters Patent No. 453,237, dated June 2, 1891.

Application filed September 26, 1885. Renewed May 18, 1889. Serial No. 311,305. (No model.)

*To all whom it may concern:*

Be it known that I, ASAHEL J. GOODWIN, a citizen of the United States, residing at Brookline, in the county of Norfolk and State of Massachusetts, 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 invention, which will enable others skilled in the art to which it appertains to make and use the same.

This invention has for its object the construction of a novel leg-support especially adapted to be used with invalid beds or chairs; and it consists, essentially, in the combination, with the main frame, of a pivoted leg-support and a sliding foot-rest thereon connected by separate pivotal attachments to the said main frame, substantially as will be described.

Figure 1 is a central longitudinal section of a portion of the main frame of the bed or chair and its attached pivoted leg-support, the foot-rest being partially raised. Fig. 2 is a like section showing by full lines the leg-support in its extended horizontal position and by dotted lines the leg-support in its lowest position.

The main frame A of the bed or chair has pivoted to it, as at *a*, the lower carrier or leg-support B. The upper part of this carrier or leg-support is herein shown as shaped to form a geared segment C, the teeth *b* of which engage with the smaller gear *c* of the double gear-wheel D. The larger gear *d* of the said wheel engages with the pinion *e*, fast on a suitable crank-shaft *f*, having its bearings in the main frame A. The double gear D revolves on a stud *g*, projecting from the inner side of the main frame. When it is desired to change the inclination of the leg-support B, the shaft *f* is turned by a suitable handle applied thereto, the pinion *e* and gears *c* and *d* causing the segment C to turn on its pivot *a*, carrying therewith the leg-support. The pinion *e* may have attached thereto a flange *e'*, which rotates between friction-plates *h*, the friction of the said plates upon the flange being sufficient to retain the leg-support in any position in which it may be left. The

foot-rest E is attached to a frame *i*, which embraces, by means of the flanges *k*, the carrier or leg-support B and has a sliding connection therewith. A rod *m* is pivoted at one end to the main frame at *m'* and at the other end to the sliding frame *i* at the point *n*.

When the bed or chair is brought from a sitting to a horizontal position, the foot-rest E is not needed, and when the leg-support B is raised and approaches a position in line with the two pivotal points *a* and *m'* the rod *m* pushes forward the sliding frame *i*, and when the leg-support descends the frame is drawn back. The rod *m* is provided with holes 1 2 (see Fig. 1) at different distances from the end, in order that the foot-rest may be secured thereto at different points and thereby made adjustable to legs of different lengths.

In Fig. 2 the lowest position of the leg-support is shown in dotted lines.

I have shown herein a friction device for holding the leg-support in elevated position; but such construction I do not herein claim.

I claim—

1. The combination, with the main frame, of a pivoted leg-support and sliding foot-rest thereon, connected by separate pivotal attachments to the said main frame, as and for the purpose set forth.

2. The combination, with the main frame, of a pivoted leg-support and sliding foot-rest thereon, connected by separate pivotal attachments to the said main frame, and means for varying the length of slide of said foot-rest, substantially as and for the purpose set forth.

3. In an invalid-bed, the combination, with the main frame, of an extensible foot portion, consisting of a leg-support having arms and pivoted to the main frame, a frame having flanges to engage and slide upon the said arms, a foot-rest secured to the said frame, separate pivotal connections between said flanged frame and main frame, and gearing, substantially as described, to raise and lower said pivoted leg-support, substantially as described.

ASAHEL J. GOODWIN.

Witnesses:

ANSON M. LYMAN,

MELVILLE P. BECKETT.