

(No Model.)

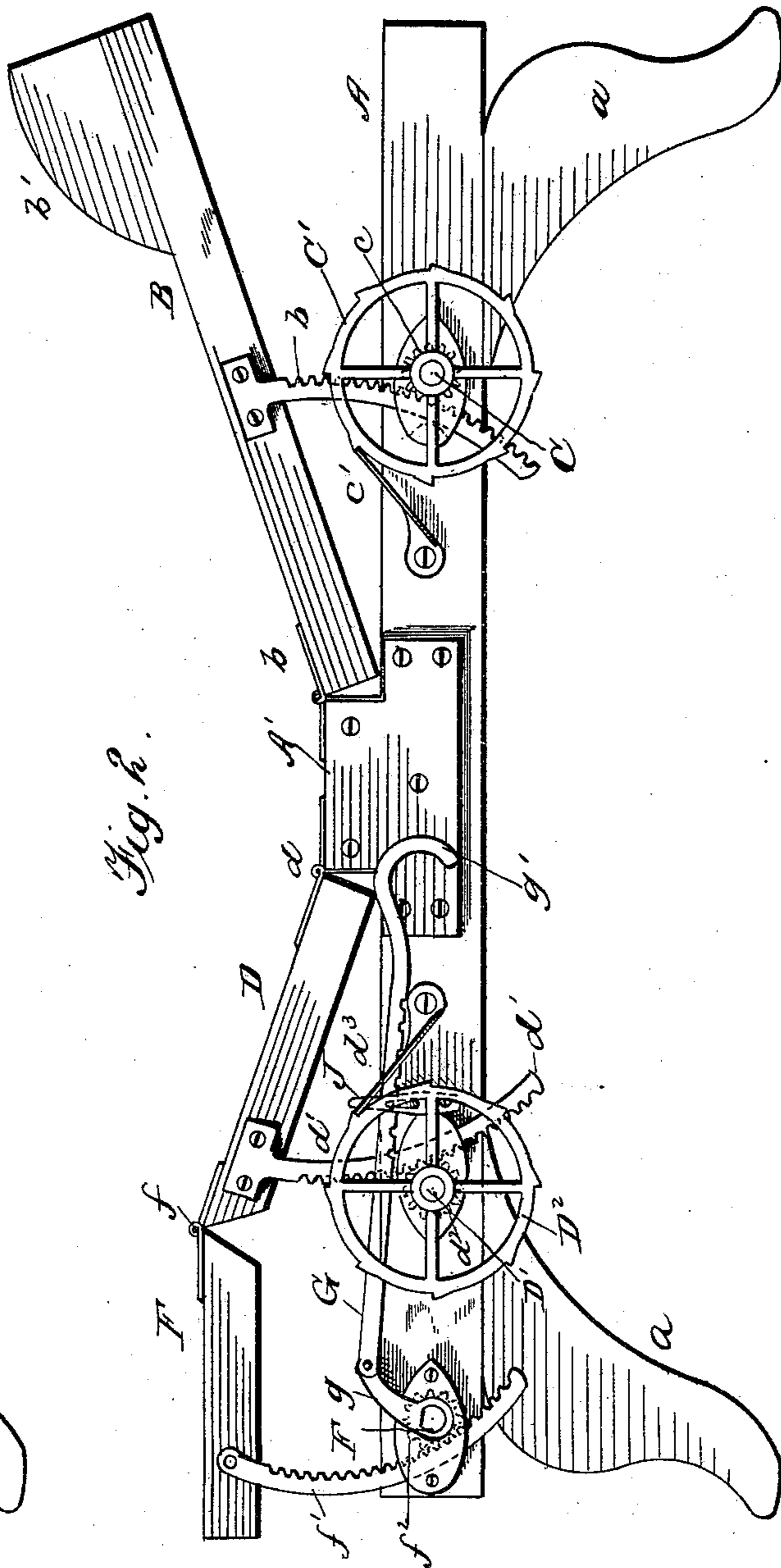
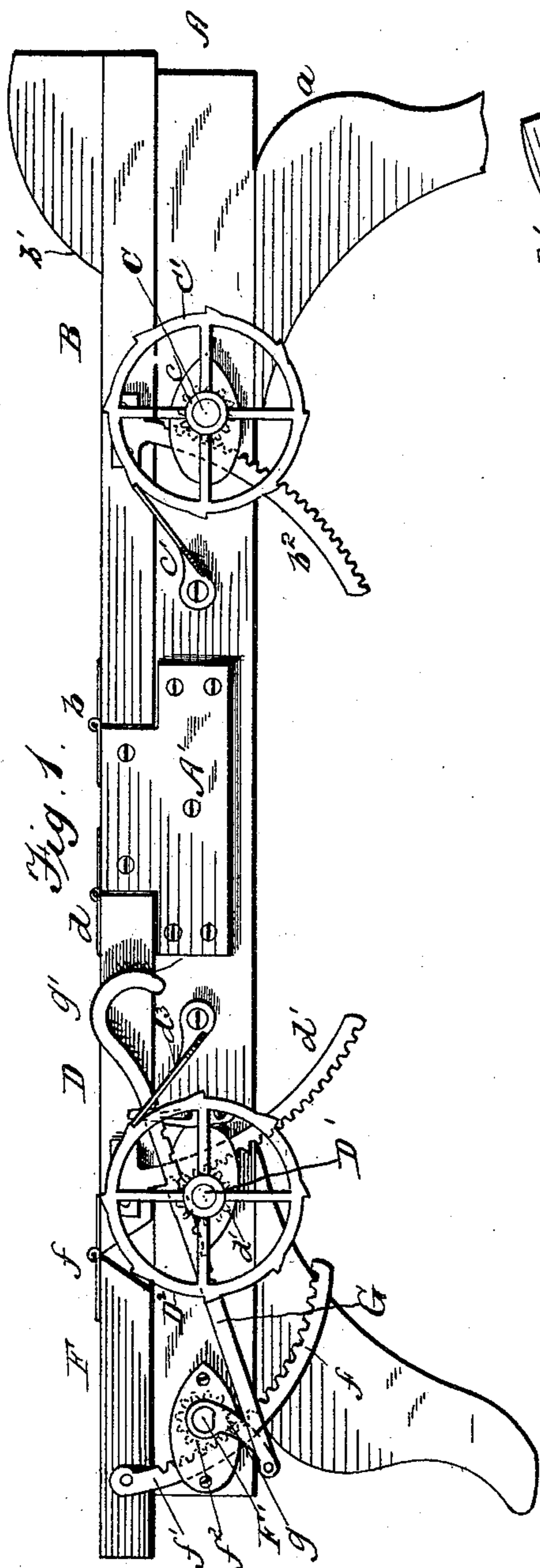
2 Sheets—Sheet 1.

J. T. GILBERT.

INVALID LOUNGE.

No. 349,089.

Patented Sept. 14, 1886.



Attest:
W. H. Knight
J. V. Edwards

Inventor:
James T. Gilbert
per Edson Bros.
Atty.

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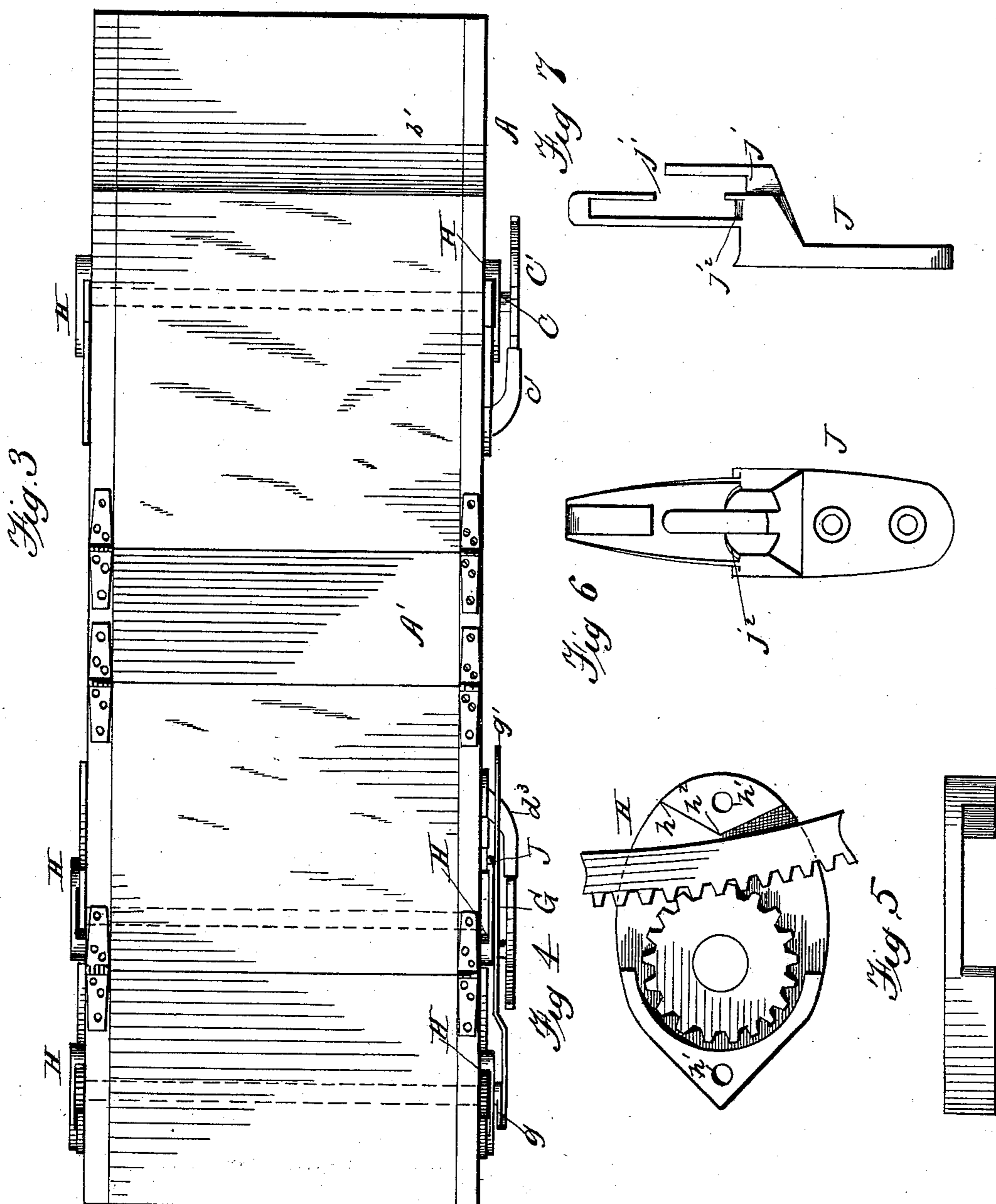
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UNITED STATES PATENT OFFICE.

JAMES T. GILBERT, OF AMHERST COURT-HOUSE, VIRGINIA.

INVALID-LOUNGE.

SPECIFICATION forming part of Letters Patent No. 349,089, dated September 14, 1886.

Application filed September 17, 1885. Serial No. 177,377. (No model.)

To all whom it may concern:

Be it known that I, JAMES T. GILBERT, a citizen of the United States, residing at Amherst Court-House, in the county of Amherst and State of Virginia, have invented certain new and useful Improvements in Invalid-Lounges, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to invalid or reclining lounges; and the novelty consists in the construction, arrangement, and adaptation of parts, as will be more fully hereinafter set forth, and specifically pointed out in the 15 claims.

I hinge my movable parts from a stationary central portion, and provide for various adjustments without leaving the reclining position on the lounge.

20 The movable parts of my improved lounge have segmental rack-bars which describe an arc of a circle having the pivot for a center, and they are constantly in mesh with multiplying gears upon transverse shafts having 25 hand-wheels of such size as to make adjustment easy. In the case of the foot-rest I employ a peculiar lever, which allows me to obviate and overcome a dead-center from the crank-arm.

30 The invention is illustrated in the accompanying drawings, which form a part of this specification, and in which—

35 Figure 1 is a side elevation with the several parts folded and at rest. Fig. 2 is a similar view with the several movable and operating parts in use and adjusted to provide a restful reclining-surface. Fig. 3 is a top plan view. Figs. 4, 5, 6, and 7 are details which will be identified in the following description.

40 Referring to the drawings, A designates the main frame, having supports *a*, and a central stationary body, A', the upper surface of which is flush with the folding parts when said parts are closed down or not in use.

45 Hinged at *b* to the part A' is the back-support B, having head-support *b'*, and carrying upon either side a toothed segment, *b*². Each segment is an arc of a circle having the pivot *b* for a center, and its toothed periphery is 50 engaged upon either side of the lounge or bed by a pinion, *c*, rigid upon a shaft, C,

journalled transversely in the frame A, and carrying also a toothed hand-wheel, C', which is controlled by a spring-pawl, *c'*. The rack-arm *b*², passing between the shaft C and pawl *c'*, allows said pawl to resist pressure upon the support B, while the location of the hand-wheel C' is such that the said support may be elevated without materially disturbing the recumbent position of the operator. 55 60

Hinged at *d* to the base or body A' is the thigh-support D, carrying upon either side segmental rack-bars *d'*, which engage pinions *d*² upon a transverse shaft, D', having a rigid hand-wheel, D², controlled by a spring-pawl, *d*³. 65 These supporting and operating parts of the thigh-support D are of construction and arrangement coinciding with similar parts of the back-support B, which have been described, but are arranged reversely with reference to 7c the body A'.

Hinged at *f* to the thigh-support D is a leg-support, F. A segmental rack-bar, *f'*, is carried upon either side of the support F, and these rack-bars *f'* engage pinions *f*², rigid upon 75 a transverse shaft, F', journalled in the main frame A.

As thus far described, the improved lounge comprises a main frame, back and thigh supports pivoted thereto, means for elevating 80 them at any desired adjustment, and a leg-rest pivoted to the thigh-support. Now, it is important that the necessary manipulation of parts to secure the necessary adjustment should be performed with the least possible 85 disturbance to the operator, and that the adjustment may be changed at will without having the person leave the recumbent position; hence the hand-wheels C' and D² are arranged within easy reach of the operator, 90 either while sitting or lying. The shaft F' and its connections for raising the leg-support are too distant for a hand-wheel to be within reach, and for this shaft I provide different and novel operating means. 95

Secured upon one side of the main frame is a cast-metal frame, J, having a tooth-engaging part, *j*, and a rounded fulcrum-bearing, *j*². These parts *j* *j*² are separated by an open partition, *j'*, as seen in Fig. 7. 100

Rigid upon the shaft F' is a crank-arm, *g*, and a lever-arm, G, having a handle; and *g'* is,

by a proper crank-pin, engaged with the crank g , and extended through the frame J. When the teeth of the lever-arm G are engaged with the part j of the frame J, the shaft F' is locked in any desired position of adjustment, and when the crank-pin is on a center the leg-rest F may be raised or lowered at will by pushing or pulling the lever-arm G, according to the location of the crank above or below the axis of motion of the shaft F', and according to the direction in which it is desired to move the said leg-rest. When, however, the crank-pin is on the center, it is evident that pushing or pulling on the lever-arm G will be ineffectual to rotate the shaft F'. To obviate the difficulty in this respect, I provide the frame G. By this means the operator has only to pass the lever G through the open partition j' and bring it to bear on the part j'' as fulcrum, when, by pressing upon the handle end g' , the crank g may be readily moved away from the center. This is important in my device, as it allows the leg-support to be adjusted within wide limits without material change of position in the operator. Directly above the fulcrum-rest j'' is another fulcrum, j''' , arranged in reverse position. When it is desired to throw the crank-arm below the line of its dead-center, the free arm of the lever is raised against this latter fulcrum, as is obvious.

I provide brackets or bearings H, which are secured upon opposite sides of the main frame A, and provide journal-bearings for the shafts C, D', and F'. The inner face is cut away to form a recess, h , of a depth to allow the free working of the several pinions and their accompanying segmental arms b^2 , d' , and f' , between such brackets H and the sides of the main frame A, and each bracket has two bearing-faces, h' . One of these bearing-faces has a projection, h^2 , which bears against the smooth back of each toothed arm to hold it continuously and reliably in mesh with its appropriate pinion. These brackets are also important features of my invention, for the reason that they not only afford convenient

and efficient journal-bearings for the shafts, and provide reliable guides to hold the toothed bars and pinions in mesh, but to cover the engaging teeth from sight and effectually prevent the catching of clothing or couch-drapery therein while the device is in use or being adjusted.

From the foregoing description, the operation and advantages of my device will be apparent.

In details of construction modifications may be made without departing from the principle or sacrificing the advantages of my invention.

Parts of the invention may be used without the whole.

I am aware that it is not new to make a lounge in sections and provide it with toothed segments, whereby the different sections can be adjusted to different planes.

What I claim as new is—

1. In an adjustable lounge, as set forth, the leg-rest F and segment f' , combined with a crank-shaft and pinion, and with a lever extending forward of the bed, and arranged to rotate the shaft and to break the dead-center of the crank at will, as set forth.

2. The foot or leg support E, pivoted to the adjustable thigh-support D, and having toothed arms f' , combined with the shaft F', having pinions f^2 and crank-arm g , the toothed lever G, having handle end g' , and the bracket or frame J, having tooth-engaging part j , fulcrum-bearings $j'' j'''$, and open partition j' , as set forth.

3. The brackets H, having bearings h' , recess h , and projection h^2 , combined with the movable parts, the toothed arms, and the shafts and pinions, as set forth.

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

JAMES T. GILBERT.

Witnesses:

H. C. JAYNES,
R. C. PENDLETON.