

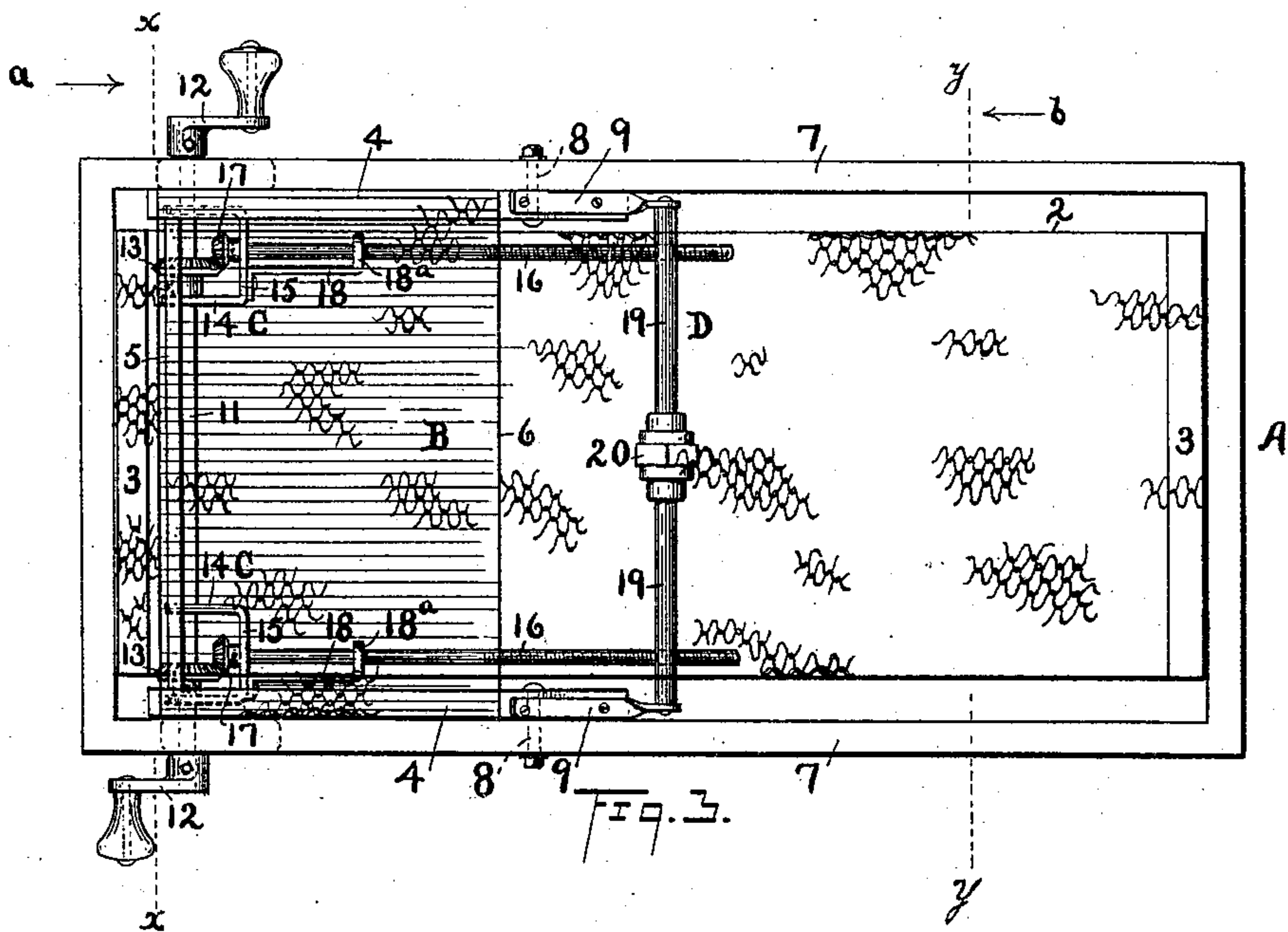
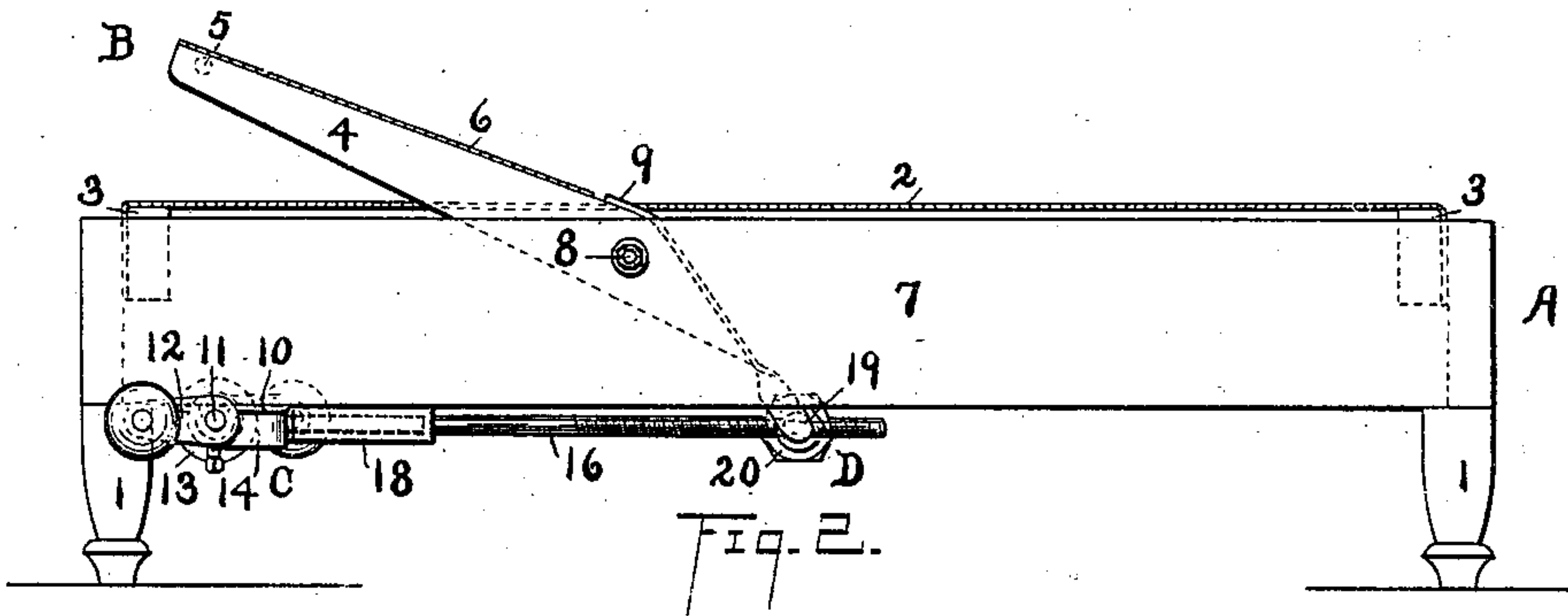
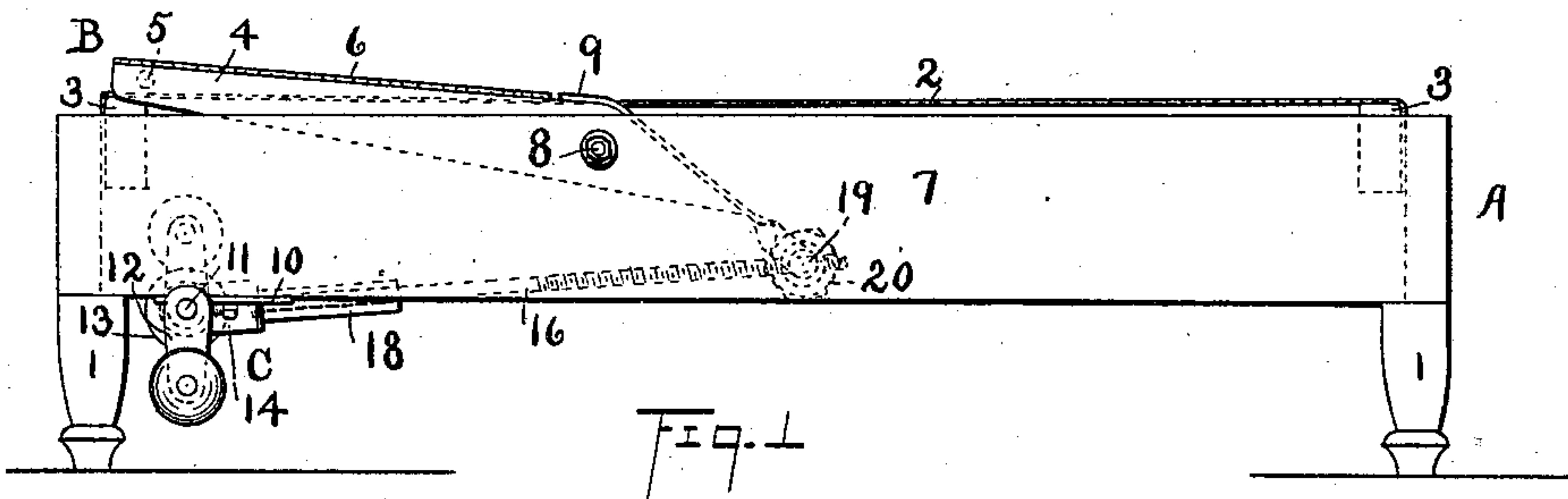
(No Model.)

2 Sheets—Sheet 1.

G. H. GOVE.
INVALID BED ATTACHMENT.

No. 547,607.

Patented Oct. 8, 1895.



WITNESSES

Belle S. Louie
 E. A. Drury

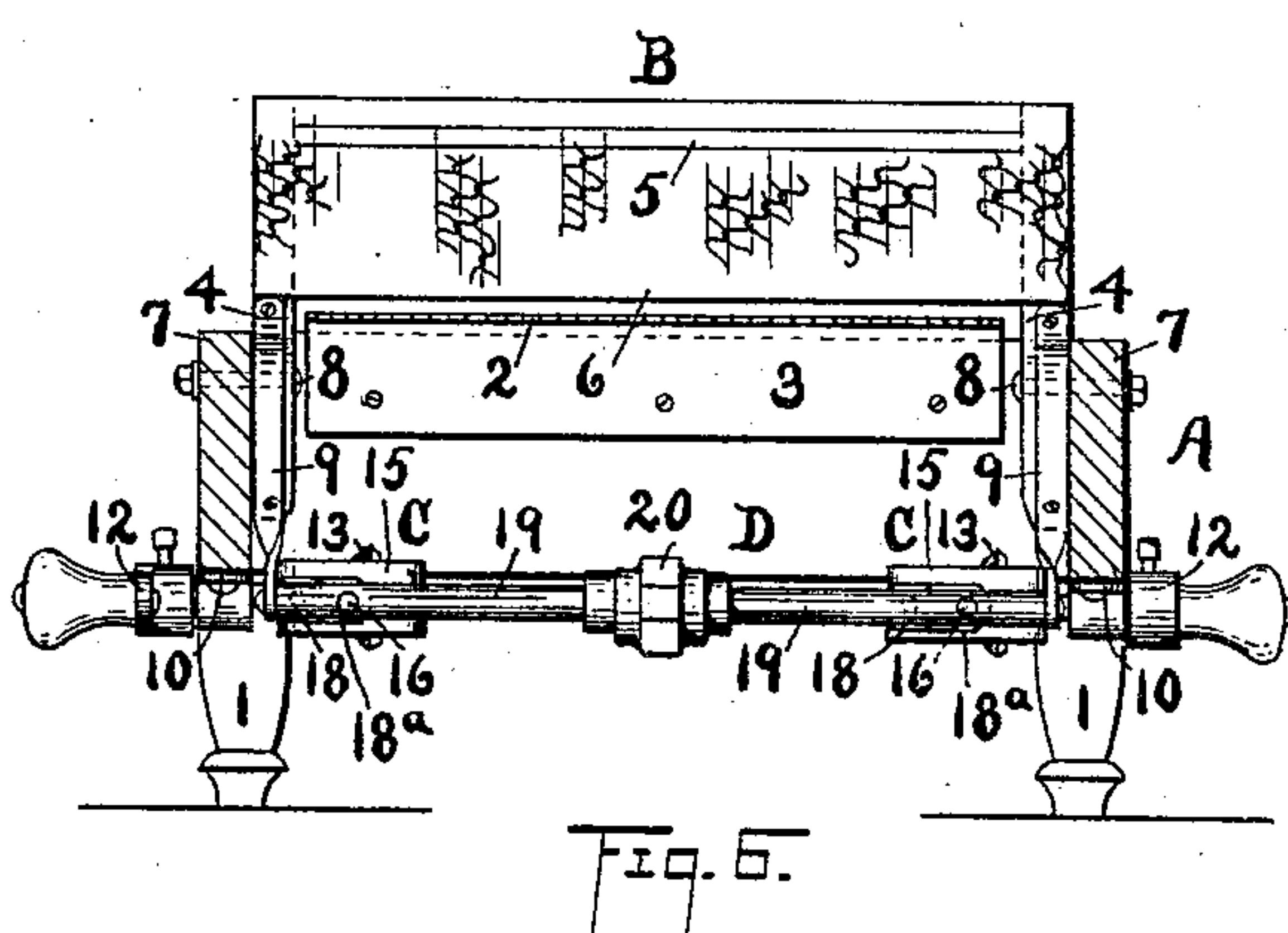
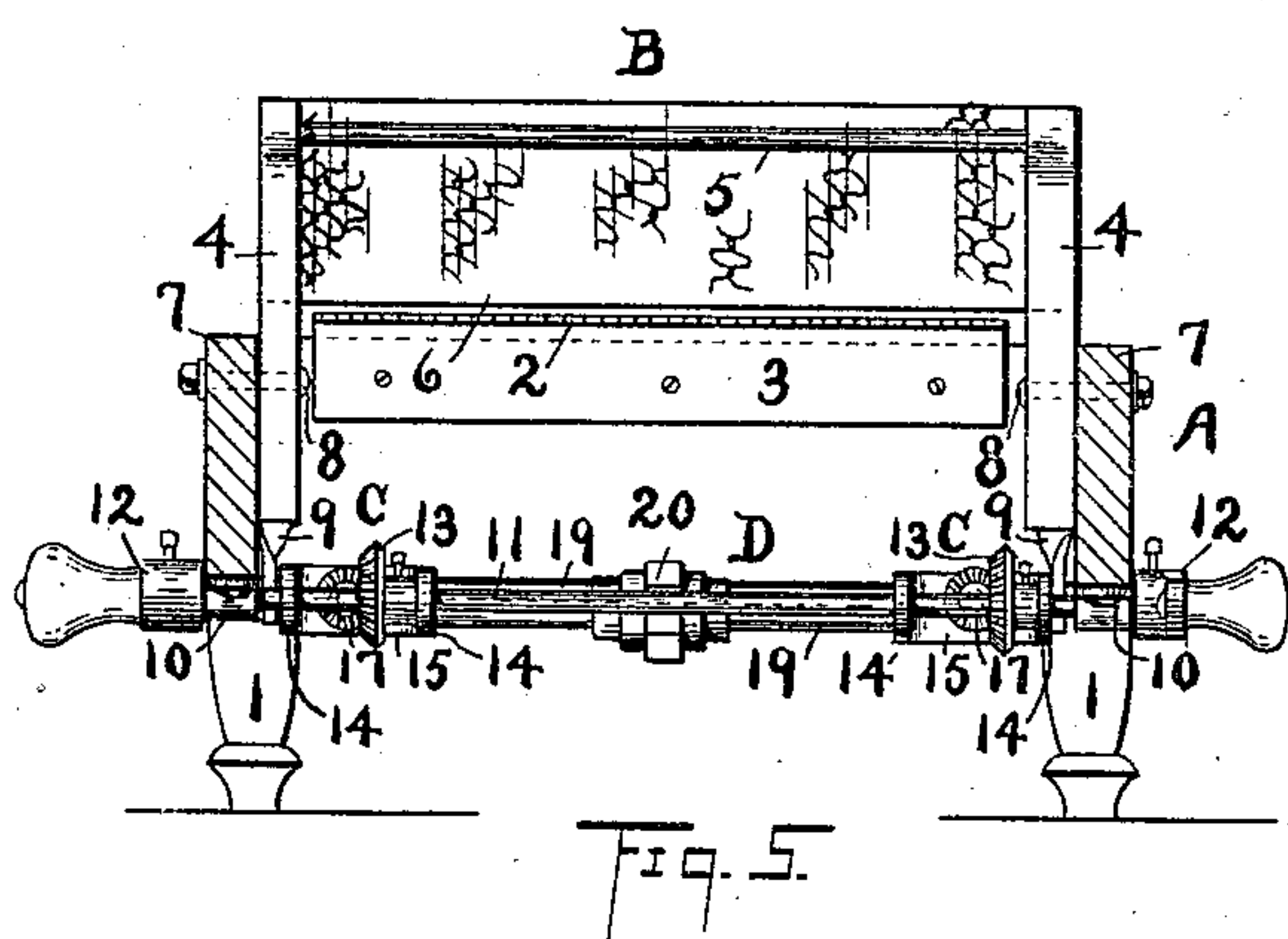
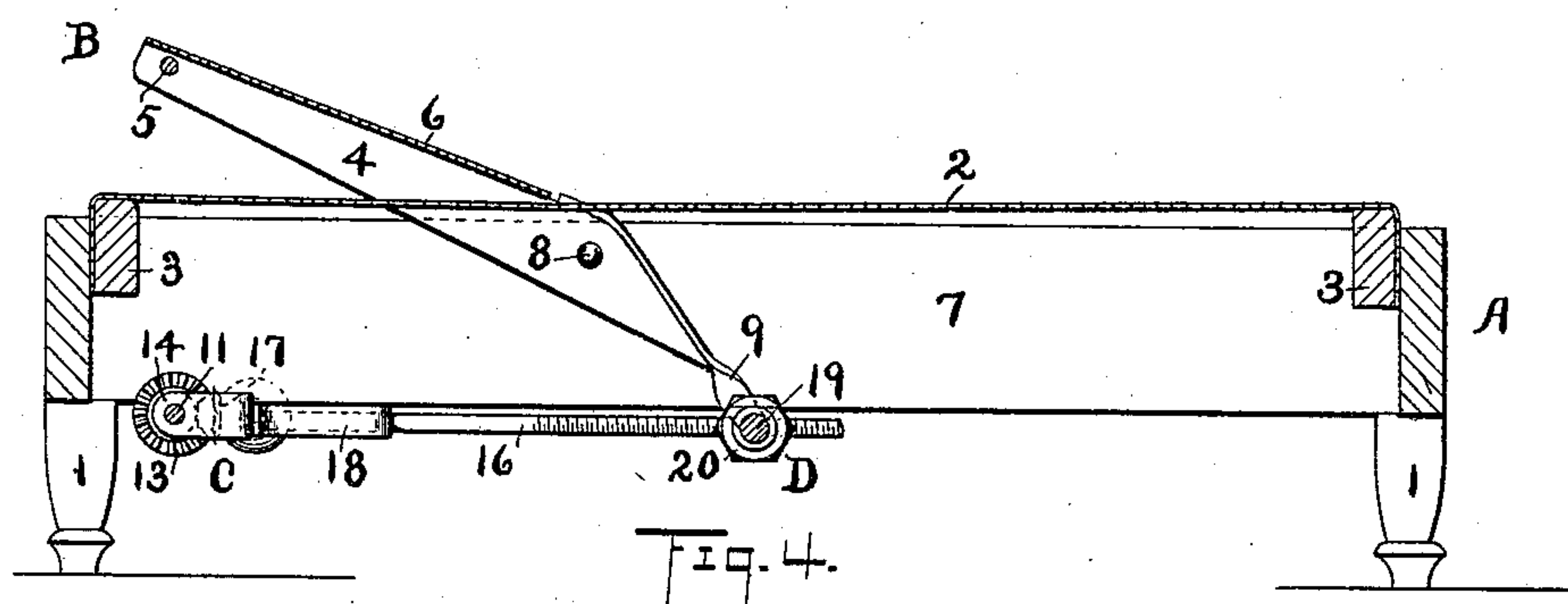
INVENTOR

G. H. Gove,
by Burridge & Cutter,
ATTORNEYS

2 Sheets—Sheet 2.

No. 547,607.

Patented Oct. 8, 1895.



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UNITED STATES PATENT OFFICE.

GEORGE H. GOVE, OF MEDINA, OHIO.

INVALID-BED ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 547,607, dated October 8, 1895.

Application filed April 10, 1895. Serial No. 545,162. (No model.)

To all whom it may concern:

Be it known that I, GEORGE H. GOVE, a citizen of the United States, residing at Medina, in the county of Medina and State of Ohio, have invented certain new and useful Improvements in Invalid-Bed Attachments, of which the following is a full, clear, and exact description.

My invention relates to that class of invalid-beds having a tilting rest for the purpose of elevating the head or feet, or both, of a sick person; and it consists of a crank-shaft carrying gears and box-bearings, a connecting-rod at the base of said rest, screw-threaded shafts engaging threaded holes in said rod at their forward ends and provided with gears meshing with said crank-shaft gears at their opposite ends, and finger-braces to assist in supporting said threaded shafts, as hereinafter more fully set forth and claimed.

The object of my improvement is to provide an inexpensive, strong, and easily-operated attachment for use on beds of the class designated, manipulating with an even steady movement, without jar or jolt, and capable of being quickly and readily attached to or detached from a bed or stretcher. My appliance may be attached to either end of a bed, or two appliances may be used, one at each end.

That my invention may be seen and fully understood by others, reference will be had to the following specification and annexed drawings, forming a part thereof, in which—

Figure 1 is a side view of my invention, the rest being depressed; Fig. 2, a side view, the rest being elevated; Fig. 3, a top view, the rest elevated; Fig. 4, a longitudinal section, rest elevated; Fig. 5, a cross-section on lines *x x*, Fig. 3, looking in the direction indicated by the arrow *a*; and Fig. 6 a cross-section on lines *y y*, Fig. 3, looking in the direction of the arrow *b*.

Similar letters and figures of reference designate like parts in the drawings and specification.

The bed or stretcher frame A rests upon the legs 1 and is provided with the wire mattress 2, held in place by the cleats 3 3. The rest B consists of the arms 4 4, the rod 5, connecting said arms at the top, and the wire mattress 6, secured to the upper edges of said arms. The

arms 4 are pivotally connected to the sides 7 7 of the bed A, on the inside thereof, by the screws or pins 8 8. The lugs 9 9 are secured to the bases of the arms 4 and are perforated. The bearings 10 10 are attached to the under edges of the sides 7, near one end, and carry the shaft 11, which is provided on one or both ends with the cranks 12. The beveled gears 13 13 are fast on the shaft 11, and the box-bearings C C are loose on said shaft. Each box-bearing C consists of the end pieces 14 14, perforated to receive the shaft 11, and the side 15, also perforated. The shafts 16 16 are threaded at their forward terminals and have the beveled gears 17 17 secured to their heads. The gears 17 mesh with the gears 13 in the interior of the bearings C, and the shafts 16 pass through the perforations in the sides 15. One of the end pieces 14 of each bearing C bears against the gear 13. Hence said bearing is not permitted to move laterally on the shaft 11, because said gear is fast to said shaft, and the meshing gear 17 is fast to the head of the shaft 16, which bears in the side 15; but said bearing may turn upon shaft 11. The finger-braces 18 18, having the perforated bent terminals 18^a 18^a, are riveted to the sides 15 of the bearings C, and the shafts 16 pass through the perforations in said terminals. The braces 18 assist in supporting the shafts 16 and serve to keep the gears 17 in perfect mesh with the gears 13.

The connecting-rod D consists of the sections 19 19 and the coupling 20. The rod D extends between the rest-lugs 9 and is pivotally attached thereto. Threaded holes are provided in the sections 19 to receive the threaded terminals of the shafts 16. The rod D may be made in one piece, omitting the coupling 20, and detachably connected to the lugs 9, if desired.

The operation of my device is as follows: To elevate the rest B, turn the shaft 11 and the gears 13 to the left by means of one or both cranks 12, and the gears 17 revolve with the shafts 16 in the direction necessary to reciprocate the rod D toward said shaft 11 by screwing the threaded terminals of said shafts 16 into and through the rod-sections 19. As the shafts 16 turn in the perforated sections 19 and draw them toward the shaft 11, said sections turn upon their pivotal connections

with the lugs 9 and draw them downward, causing the arms 4 to rotate on the pins 8 and raise the upper part of the rest B, while at the same time the box-bearings C turn downward on said shaft 11 with the gears 17 and said shafts 16. After elevating the rest B to the desired angle cease turning the cranks 12, and said rest is held immovable through the frictional contact of the bearing parts, as will be readily understood. To depress the rest B, revolve the shaft 11 to the right, and a reverse motion is thereby imparted to the several movable parts.

The gears 17 are smaller than the gears 13 in order to impart greater speed to the shafts 16 and accelerate the movement of the rest, also to increase the holding power of said gears.

Both gears 13 may be brought close to the sides 7 with teeth adjacent to each other, if desired, and right and left hand threads cut on the shafts 16 and in the perforated rod-sections 19, respectively; but the arrangement shown and described is deemed to be the best.

To remove my device from the frame A it is only necessary to unfasten the bearings 10, uncouple the rod-sections 19, take out the pins 8, and separate the shafts 16 from said sections.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination in a bed attachment, of

a rest pivotally attached to the sides of the bed and provided with lugs at the bases of its arms, a rod pivotally connecting said lugs and having threaded perforations thereon, a crank shaft journaled to said sides, gears fast on said shaft and perforated box-bearings loose thereon, perforated finger-braces secured to said bearings, shafts extending through the perforations in said bearings and braces having threaded terminals for engagement with said perforated rod, and gears fast on the heads of said threaded shafts meshing with the gears on said crank shaft within said box-bearings, substantially as and for the purpose set forth.

2. In combination with a bed having a tilting rest, a crank shaft journaled to the sides of the bed, gears fast on said shaft and perforated box-bearings loose thereon, shafts extending through the perforations in said bearings having threaded terminals for engagement with a perforated rod pivotally connecting the arms of said rest, and gears fast on the heads of said threaded shafts meshing with the gears on said crank shaft within said box-bearings, substantially as and for the purpose set forth.

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

GEORGE H. GOVE.

Witnesses:

A. M. PULSIFER,
W. H. COLE.