

No. 617,638.

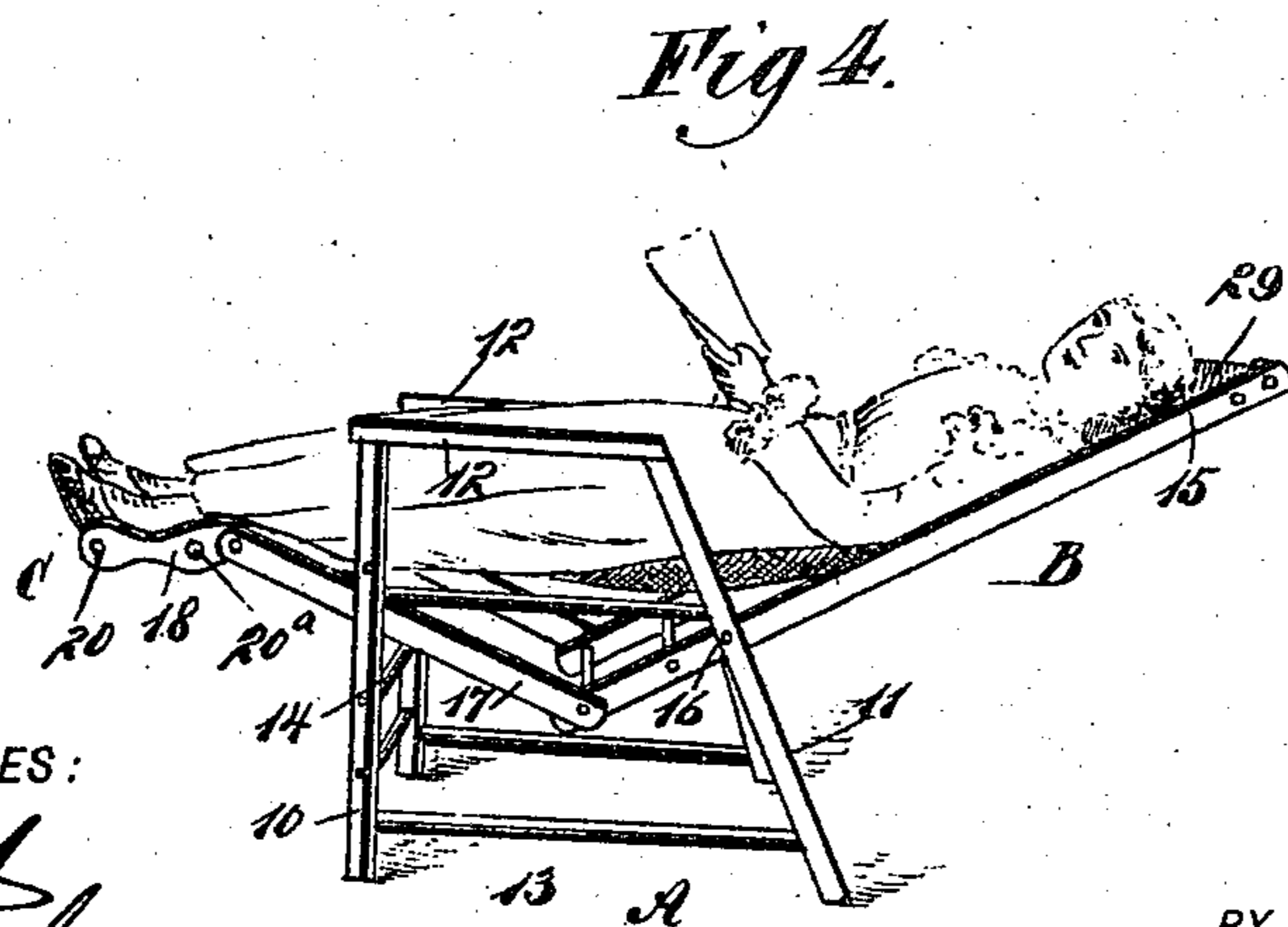
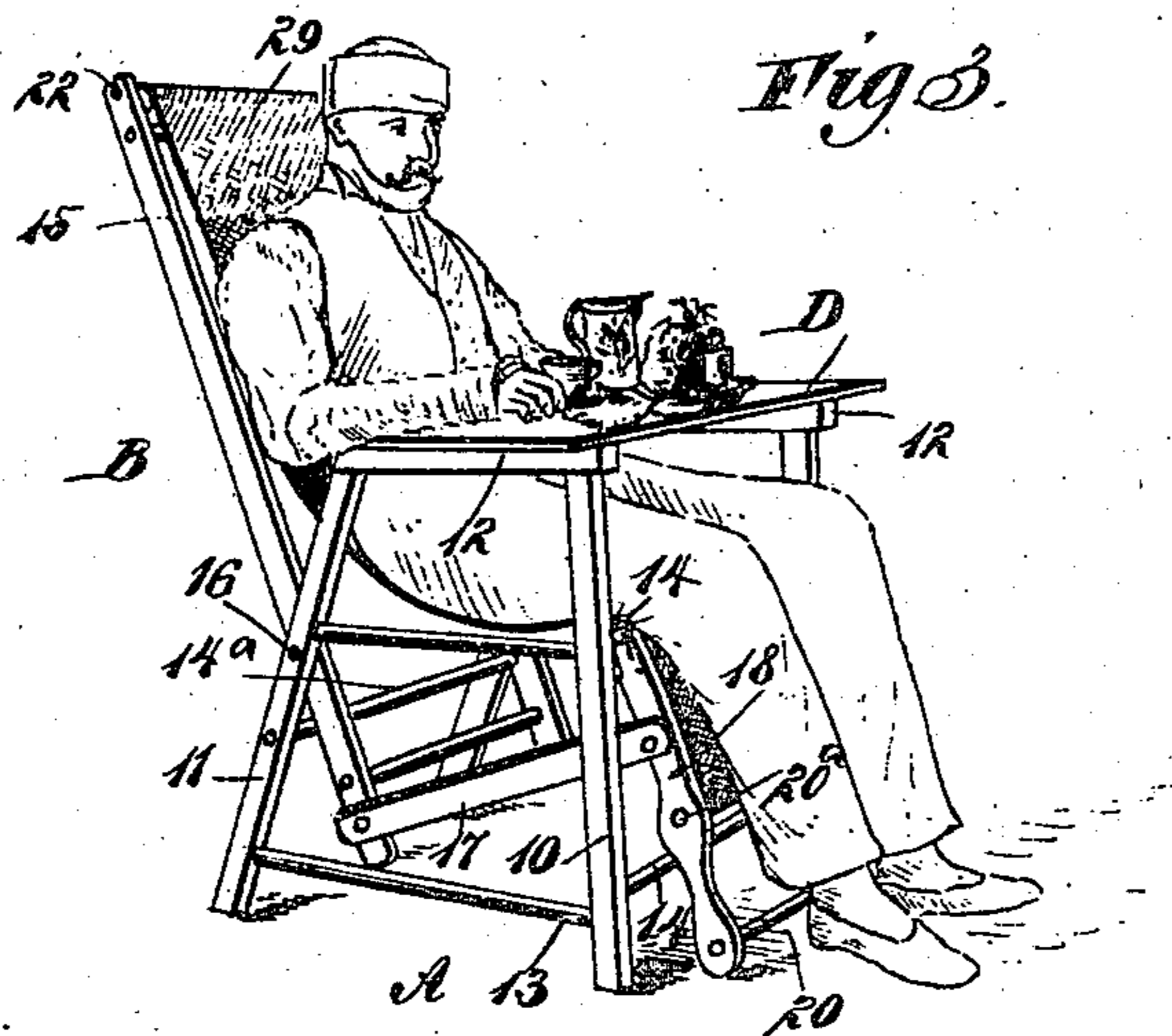
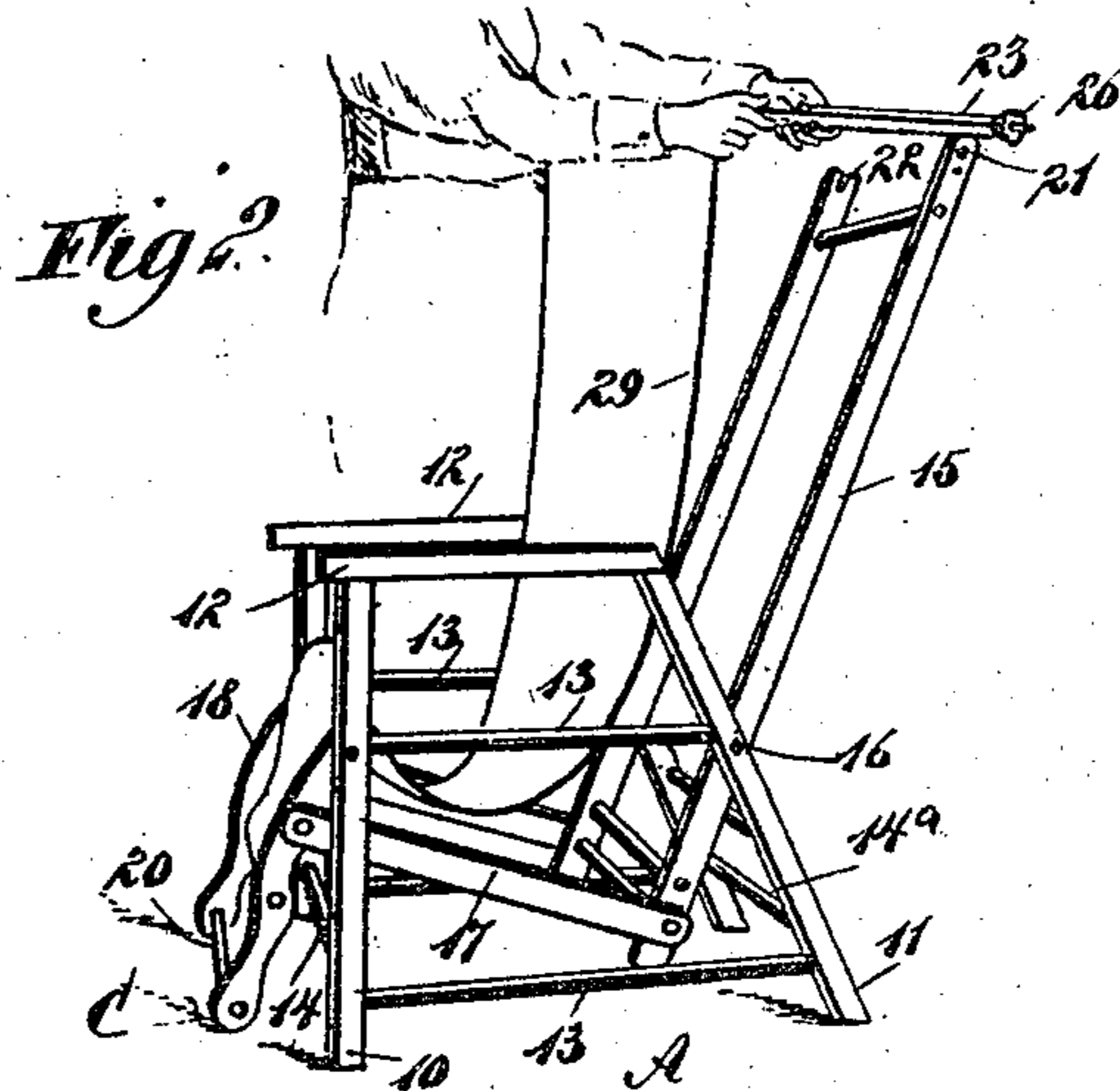
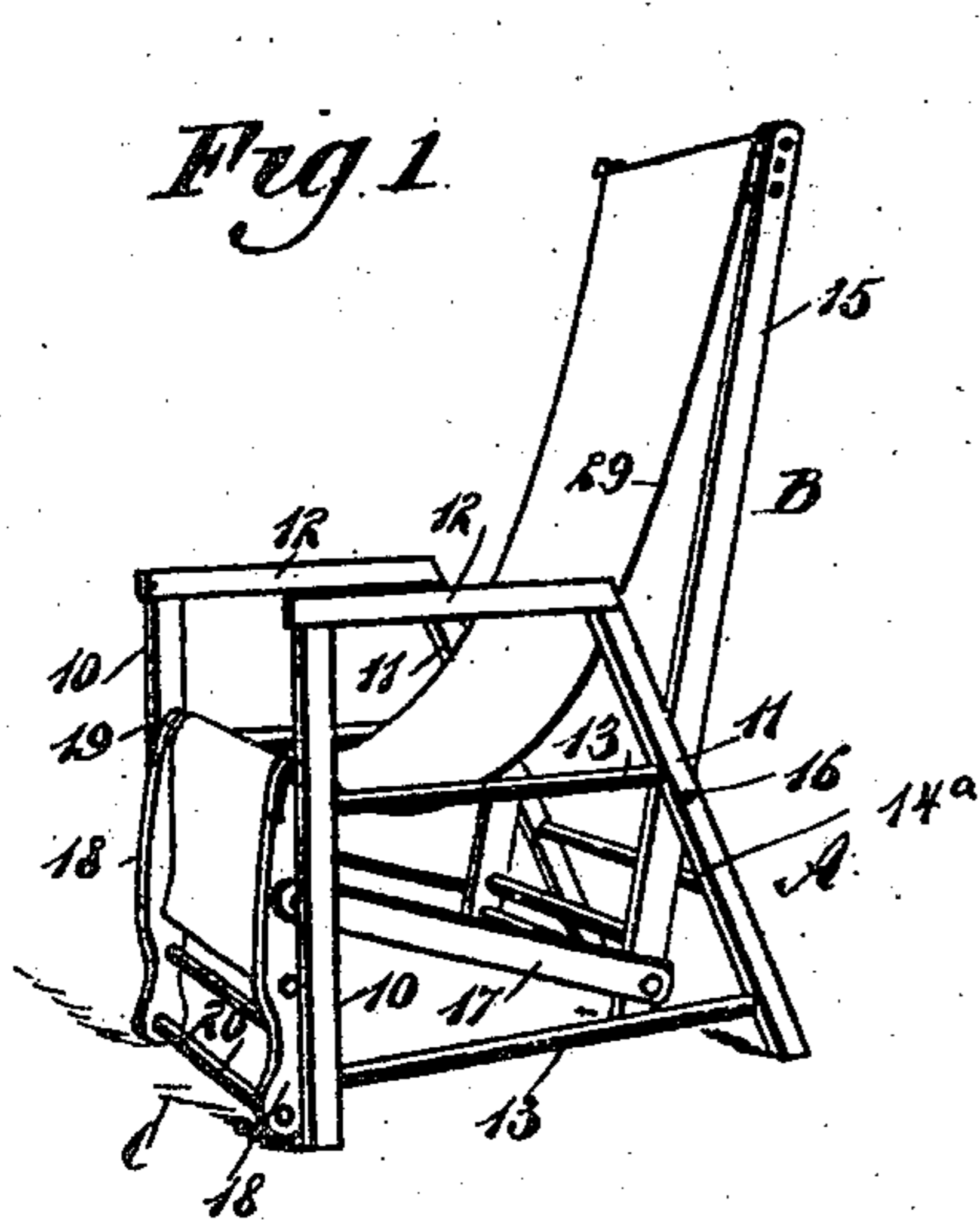
Patented Jan. 10, 1899.

D. E. CARTER.
ADJUSTABLE CHAIR.

(Application filed Feb. 5, 1898.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES:
Paul J. ...
Edw. A. ...

INVENTOR
D. E. Carter.
BY *...*
ATTORNEYS.

No. 617,638.

Patented Jan. 10, 1899.

D. E. CARTER.
ADJUSTABLE CHAIR.
(Application filed Feb. 5, 1898.)

(No Model.)

2 Sheets—Sheet 2.

Fig 5.

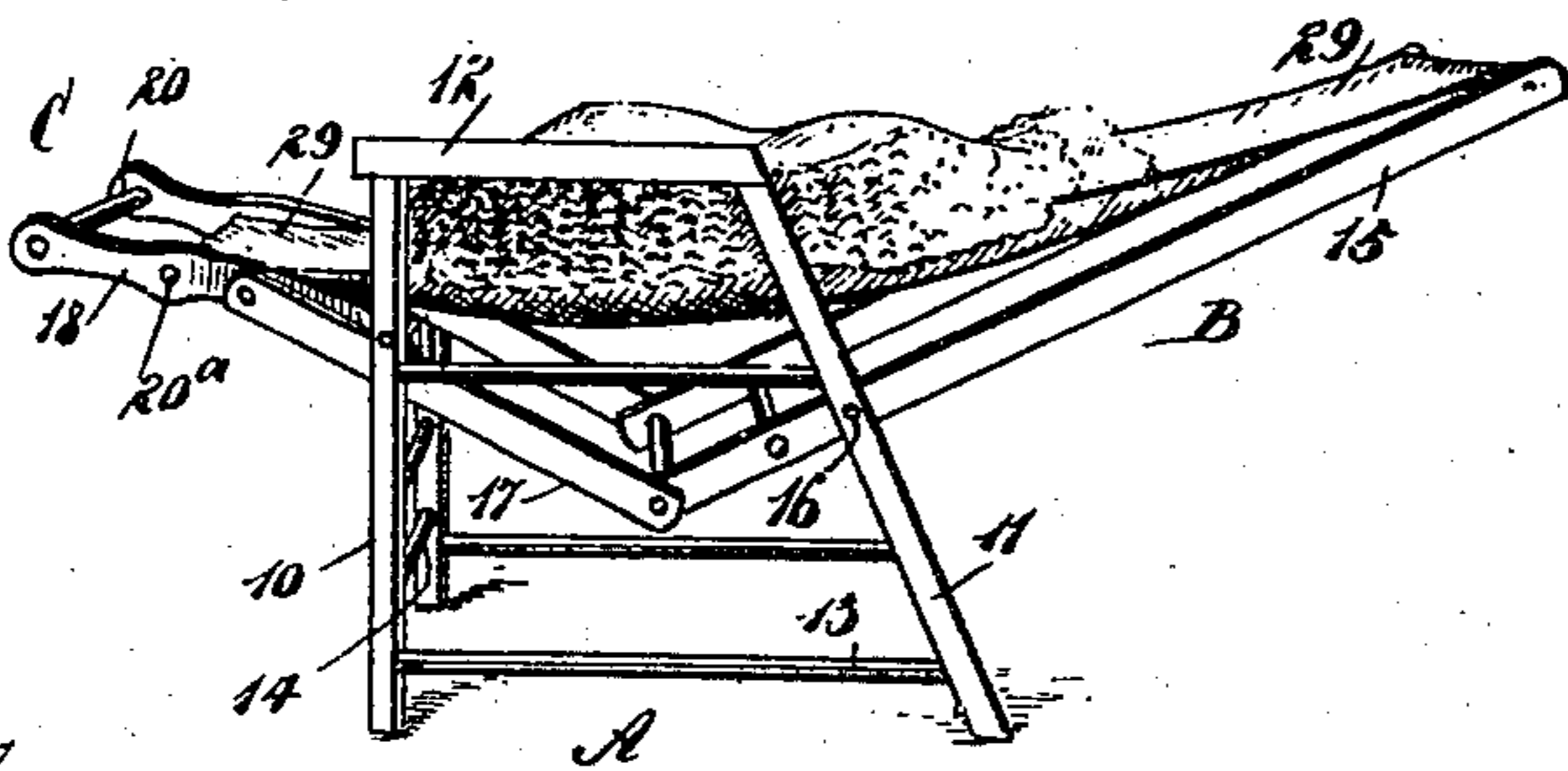


Fig 7.

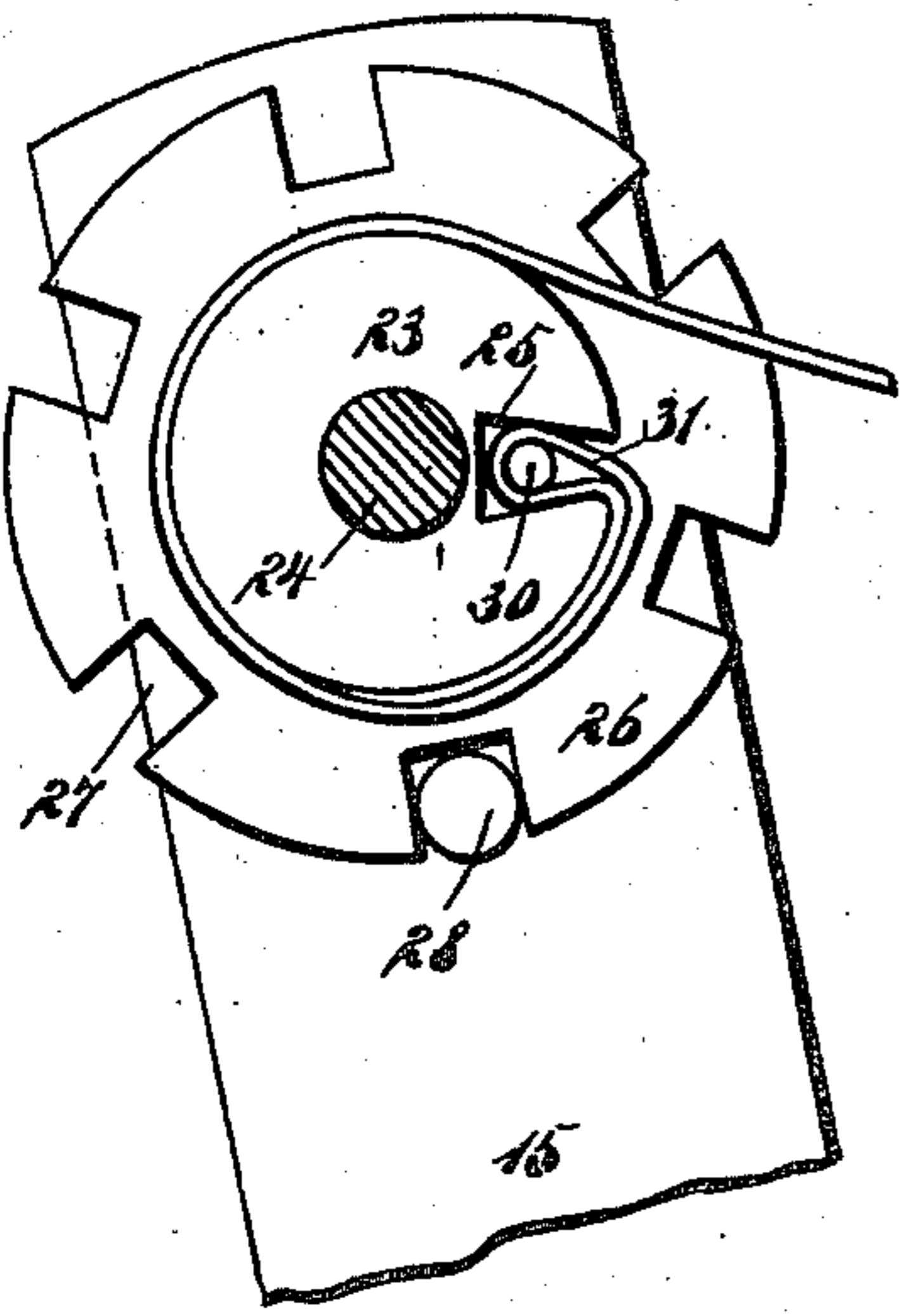


Fig. 6

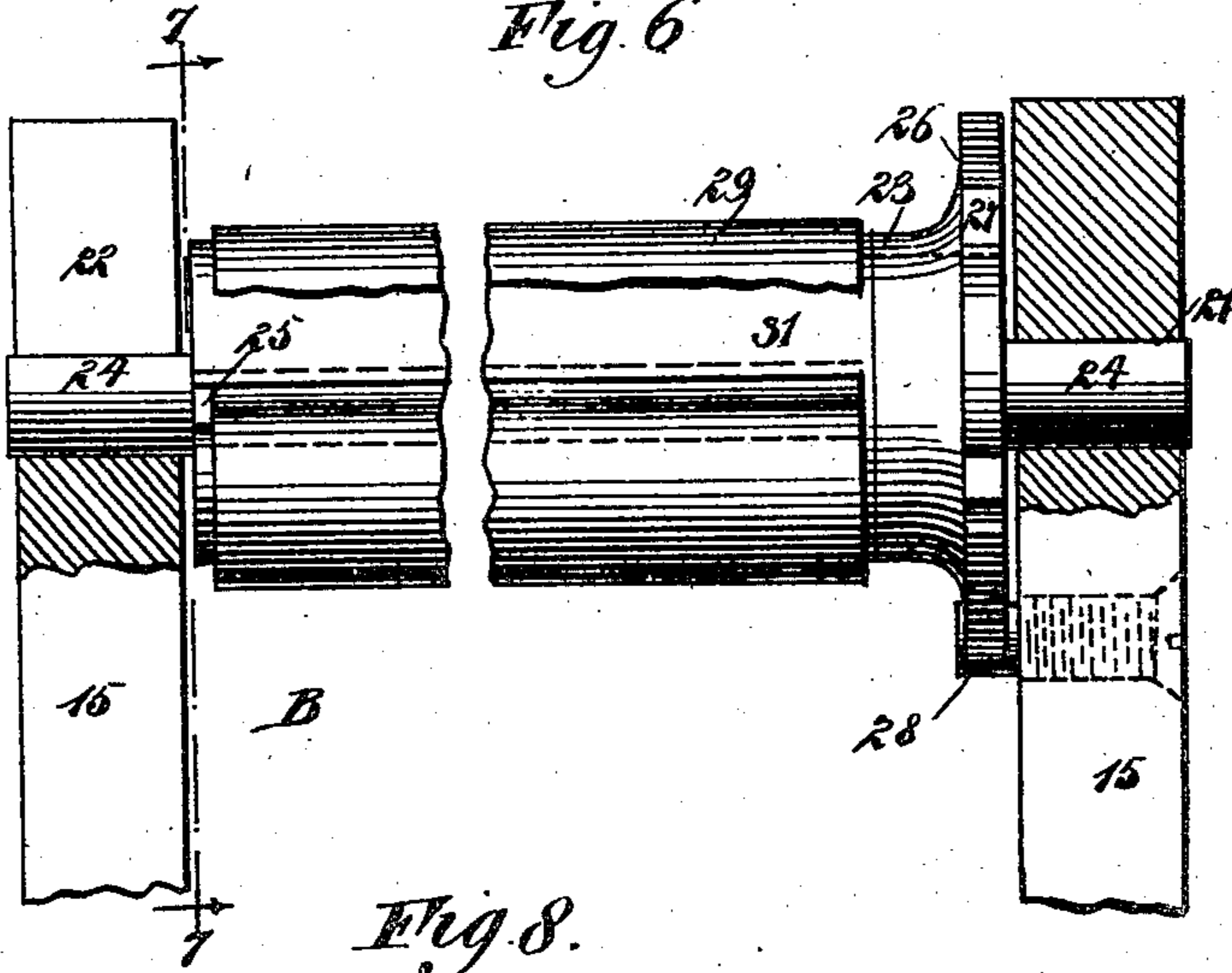
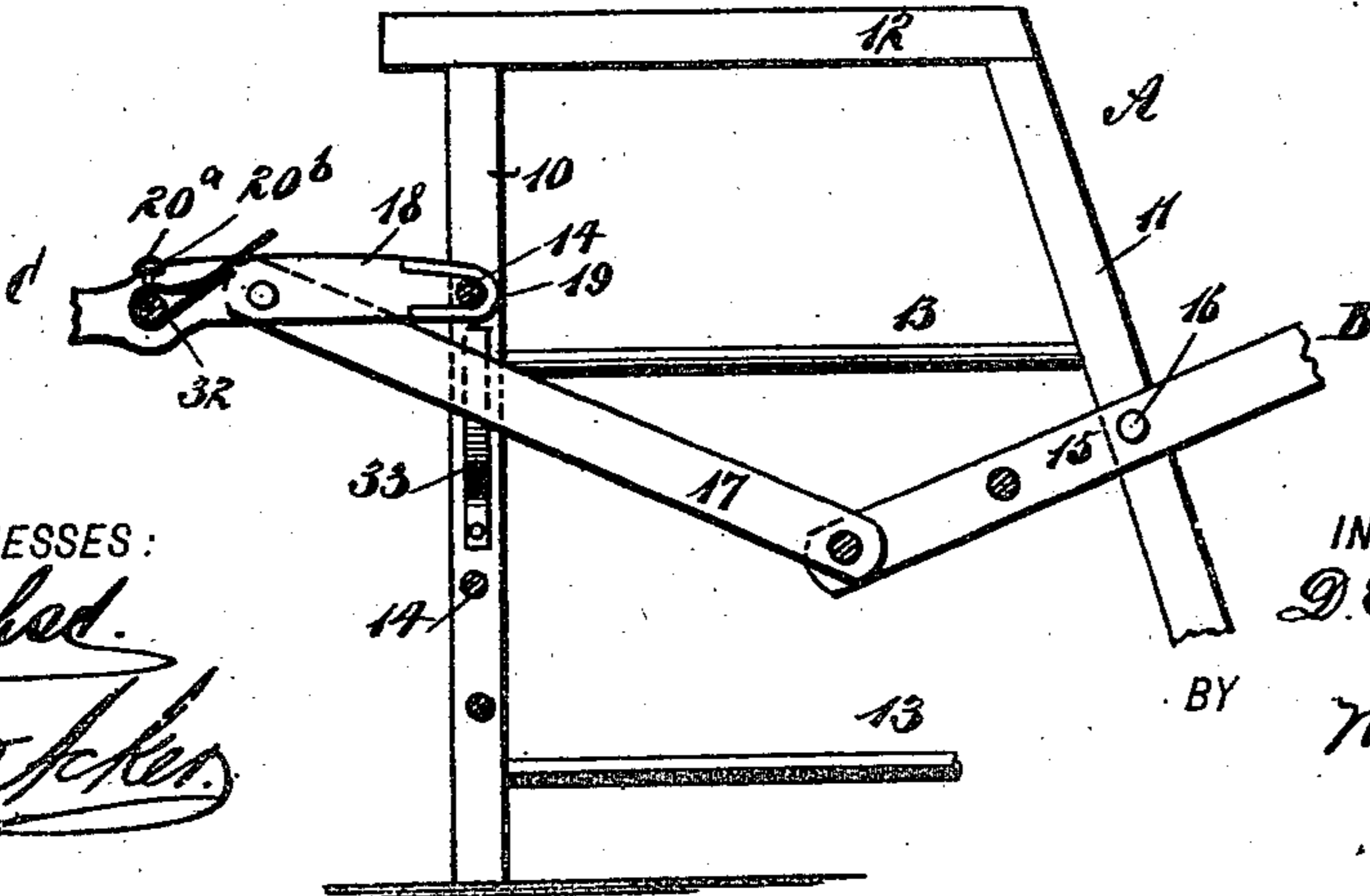


Fig. 8.



WITNESSES:

Paul Jones.

INVENTOR

D. E. Carter.

BY

Murray
ATTORNEYS.

UNITED STATES PATENT OFFICE.

DAN E. CARTER, OF TRAVERSE CITY, MICHIGAN.

ADJUSTABLE CHAIR.

SPECIFICATION forming part of Letters Patent No. 617,638, dated January 10, 1899.

Application filed February 5, 1898. Serial No. 669,226. (No model.)

To all whom it may concern:

Be it known that I, DAN E. CARTER, of Traverse City, in the county of Grand Traverse and State of Michigan, have invented a new and Improved Adjustable Chair, of which the following is a full, clear, and exact description.

The object of my invention is to provide a chair of simple, durable, and economic construction, which is capable of use as a lawn-chair, a reclining-chair, or an invalid's chair, and which may also be converted into a couch, when desired, or employed as a stretcher.

Another object of the invention is to so construct the chair that the back, seat, and direct support for the lower limbs of the person occupying the chair may be made of canvas or a similar material, and whereby the canvas or fabric employed may be placed under any desired or necessary tension in a convenient and expeditious manner.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of the chair arranged for use in the ordinary manner. Fig. 2 is a perspective view of the improved chair, the fabric forming the back and seat being shown as disengaged from the back of the frame, the said Fig. 2 likewise illustrating the manner in which the pliable back may be attached to the rigid back portion of the chair. Fig. 3 is a perspective view of the chair, illustrating the application of a table thereto. Fig. 4 is a perspective view of the chair, illustrating it used for reclining purposes. Fig. 5 is a perspective view of the chair adapted for use as a couch. Fig. 6 is a sectional view of the upper portion of the back of the chair, drawn on an enlarged scale and illustrating the tension device for the flexible back and seat of the chair. Fig. 7 is a vertical section on the line 7 7 of Fig. 6, and Fig. 8 is a sectional view through the stationary frame of the chair and through a portion of the adjustable frame, Fig. 8 being likewise drawn on an enlarged scale.

The chair may be said to comprise a fixed or stationary frame A and a movable or adjustable frame B. The fixed frame A preferably comprises two sides suitably connected, each side consisting of a front upright 10, a downwardly and rearwardly inclined rear member 11, a top bar 12, connecting the front and the rear members, rungs 13, which likewise serve to connect the front and rear member of each side piece, forward rungs 14, connecting the uprights 10 of the two sides, and rear rungs 14^a, which connect the rear members of the two sides, as illustrated in the drawings.

The adjustable frame B of the chair consists of a back, a foot-rest C, and a connection between the foot-rest and the back. The back comprises two parallel side members 15, connected by pivot-pins 16 with the inner faces of the rear members 11 of the stationary frame, the pivot-pins 16 being located between the center of the side pieces and their lower ends. Suitable rungs connect the side pieces of the back portion of the adjustable frame at the top and at the bottom and a connecting-bar 17 is pivotally attached to each side piece 15 of the back of the chair at the bottom of the said side pieces, the forward ends of the connecting-rods 17 being pivotally attached to the side bars 18 of the foot-rest C. The side bars of the foot-rest are pivoted by means of straps 19 on the upper rung 14, connecting the uprights 10 of the sides of the stationary frame A, as is particularly shown in Fig. 8. Rungs 20 connect the side pieces 18 of the foot-rest at the bottom or outer end, and at or near the center of the side pieces of the foot-rest a removable rod 20^a is detachably passed through the said side pieces, being held in position by set-screws 20^b or their equivalents.

At the upper end of one side bar 15 of the back of the chair an aperture 21 is made, and in the top of the opposing side bar of the back a slot 22 is vertically produced. A drum or a roller 23 is adapted to turn between the upper portions of the side pieces of the back of the chair. This drum or roller, which is shown particularly in Figs. 6 and 7, is provided with trunnions 24, one of which enters the aperture 21, above referred to, and the other the slot 22, and in one face of the roller

a dovetail groove 25 is produced, as best shown in Fig. 7. At one end of the roller a disk 26 is secured or formed, the said disk being provided with a series of peripheral recesses 27, any one of which may be made to receive a pin 28, projected from the inner face of the adjacent side bar 15 of the back of the chair, as shown in both Figs. 6 and 7.

The seat of the chair, the covering for the back, and the covering for the foot-rest are preferably made from a single piece of fabric 29, the said fabric being provided with a hem 31 at its upper end and a hem 32 at its lower end, the upper end of the combined seat and back covering of the chair being attached to the roller 23 and the lower end to the removable rod 20^a, and the said strip of fabric 29 is capable of being turned end for end, if desired, and can be readily removed from the adjustable frame of the chair to be washed or replaced. The strip of fabric 29 is applied to the movable frame of the chair by passing a rod 30 through the upper hem and carrying said rod through the wider portion of the dovetail groove 25. The removable rod 20^a in the foot-rest is then carried through the lower hem and placed in position in the foot-piece, being secured by means of the set-screws 20^b.

Whenever it is desirable to place the yielding seat and back of the chair under tension, the roller 23 is lifted out from its seat in the back and turned, winding the fabric 29 thereon, as shown in Fig. 7, until sufficient fabric has been taken up, whereupon the roller is again replaced in the back of the adjustable frame, the most convenient recess 27 being made to receive the pin 28, holding the roller stationary.

The improved chair may be used as an ordinary chair, occupying the position shown in Fig. 1, or the parts of the chair may be placed in such position that a person may comfortably recline thereon, as shown in Fig. 4, the foot-rest at that time having a slight downward and forward inclination, while the back section of the chair will have an upward and rearward inclination.

When the chair is to be used as a couch or as a stretcher, the parts are placed in the position shown in Fig. 5, the back being carried downward as far as possible, forcing the connecting-bars 17 to their extreme forward position and against the rung below that to which the foot-rest is pivoted. The foot-rest will then occupy an upwardly-inclined position, and it is evident that under such a disposition of parts the greater the weight sustained by the fabric 29 extending from the back to the foot-rest the greater will be the tendency to hold the chair in the position desired, and if the chair be lifted by persons grasping the forward end of the foot-rest and the rear end of the back a person lying on the fabric 29 may be carried safely and comfortably to any desired point.

When the parts of the chair are in the position shown in Fig. 5, they will form a comfortable couch, and when the chair is to be adjusted to other positions it is simply necessary to press the forward end of the foot-rest downward so as to disturb the locking position of the connecting-bars 17, and by forcing the rear ends of the said connecting-bars rearward adjust the back to an upright position or a position at the desired angle to the rear of the stationary frame A of the chair.

In Fig. 3 I have illustrated the application of a board to the chair, forming a table D, the said board or table resting upon the top parts of the stationary frame A. Such a table may be conveniently used by an invalid occupying the chair, or as a sewing or cutting table or a reading table or desk. The chair is held in an adjusted position, especially in the position for ordinary use, by a leaf-spring 33, attached to the fixed or stationary frame and engaging with one of the connecting-bars 17. (See Fig. 8.)

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

1. In an adjustable chair, the combination, with a stationary frame and an adjustable frame, the adjustable frame comprising a back portion pivoted at the rear of the stationary frame, a foot-rest pivoted at the front portion of the stationary frame, and a link connection between the lower end of the back portion of the adjustable frame and the foot-rest, of a roller journaled at the upper end of the back portion of the adjustable frame, the said roller being provided with a dovetail slot and a recessed disk, a projection from the back portion of the adjustable frame, arranged to enter a recess in the disk of the roller, and a flexible strip constituting the direct support for the body of the person occupying the chair, and means, substantially as described, for attaching the said strip to the roller and to the foot-rest, for the purpose described.

2. In an adjustable chair, the combination, with a stationary frame and an adjustable frame, the adjustable frame comprising a back portion pivoted at the rear of the stationary frame, a foot-rest pivoted at the front portion of the stationary frame, and a link connection between the lower end of the back portion of the adjustable frame and the foot-rest, of a roller journaled at the upper end of the back portion of the adjustable frame, the said roller being provided with a dovetail slot and a recessed disk, a projection from the back portion of the adjustable frame, arranged to enter a recess in the disk of the roller, a flexible strip constituting the direct support for the body of the person occupying the chair, the said strip being provided with a hem at each end; a rod arranged to be passed through one hem and adapted to enter the said dovetail slot of the roller, a second rod adapted to enter the hem at the other end of the said

strip and to be removably placed in the foot-rest, and means for locking the said rod in the foot-rest, for the purpose set forth.

3. In an adjustable chair, the combination, 5
with a stationary frame having its upper portion formed to receive a table, and an adjustable frame, the said adjustable frame consisting of a back portion pivoted to the rear portion of the stationary frame, a foot-rest 10
provided with straps pivotally receiving a forward portion of the stationary frame, connecting-bars pivotally attached to the lower part of the back portion of the adjustable frame and to the foot-rest at a point near its 15
center, the back portion of the adjustable frame being provided at its upper end with a slot in one side and an aperture in the opposite side, and a projection below said aperture, of a tension device consisting of a roller 20
the trunnions whereof are adapted to enter the slot and the recess in the back portion of the adjustable frame, the roller being provided with a longitudinal slot contracted at its outer longitudinal portion, a disk secured 25
to the said roller, having apertures adapted to receive a projection from the back portion of the adjustable frame, a rod removably attached to the said foot-rest, a second rod capable of entering the enlarged portion of the 30
longitudinal slot of the tension-roller, and a strip of a flexible material constituting a direct support for the person occupying the chair and a covering for a portion of the said foot-rest, the said strip of flexible material 35
being removably attached to the rods in the

tension-roller and in the foot-rest, for the purpose specified.

4. In an adjustable chair, the combination with a frame, of a strip of flexible material constituting a support for a person occupying the chair, a roller mounted on the said frame and having a longitudinal slot contracted toward the surface thereof and in which is adapted to be received an end of said strip, and a disk secured to said roller and 45
having apertures adapted to receive a projection from the said frame, whereby the roller is held in adjusted position, as and for the purpose described.

5. In an adjustable chair, the combination 50
with the pivoted frame having its upper end formed with a slot and a recess; of a roller whose trunnions are adapted to be received in said slot and recess, the said roller being provided with a longitudinal slot, a strip of 55
flexible material detachably secured at one end to said frame and having its other end wound around said roller and inserted in said slot, means for holding the said latter end in said slot, and a disk secured to said roller and 60
provided with apertures, the frame being provided with a projection arranged to be inserted in one of said apertures to hold said roller from turning, as and for the purpose described.

DAN E. CARTER.

Witnesses:

JOHN A. WOOD,

SAMUEL M. BROWN.