

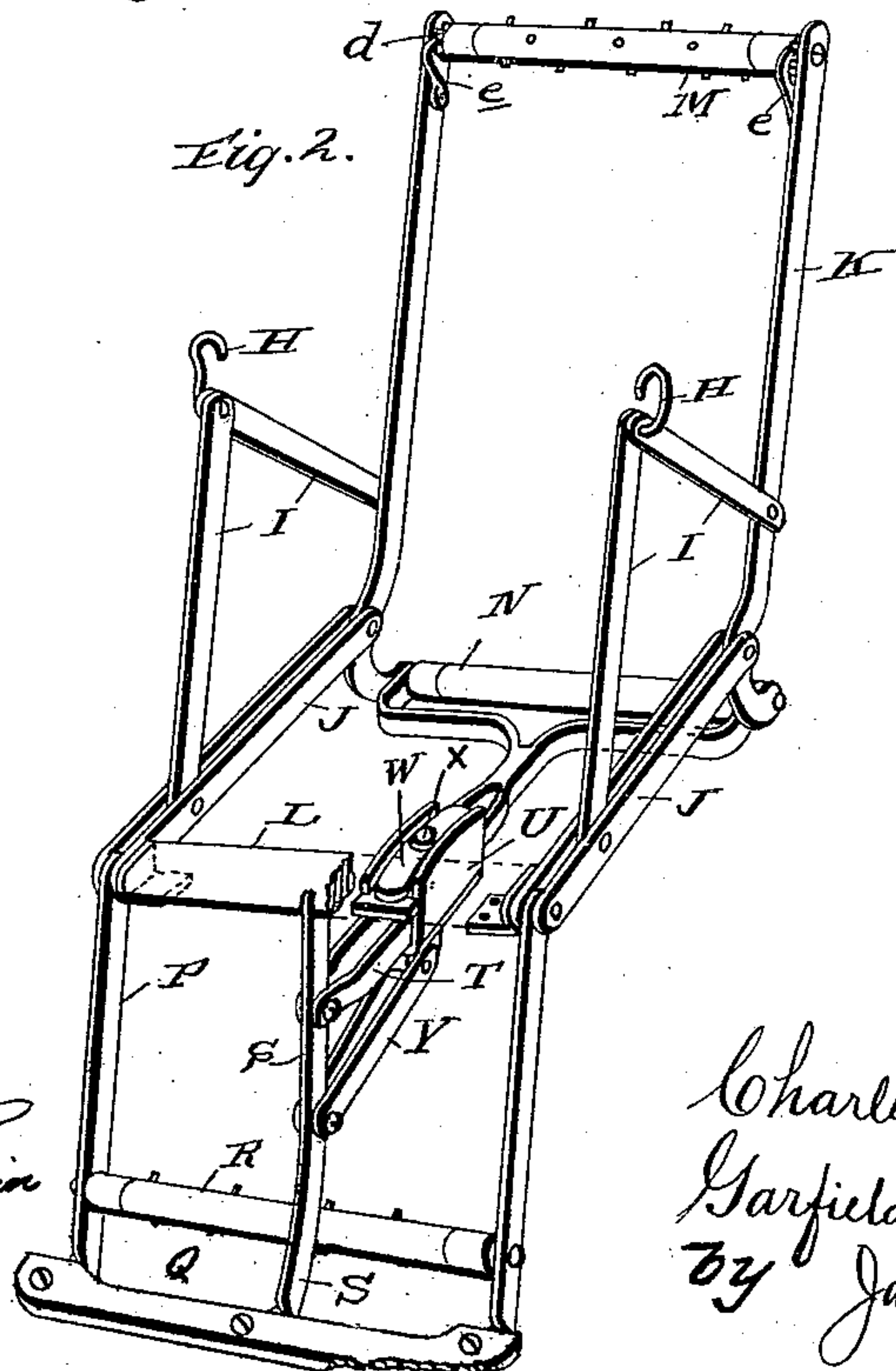
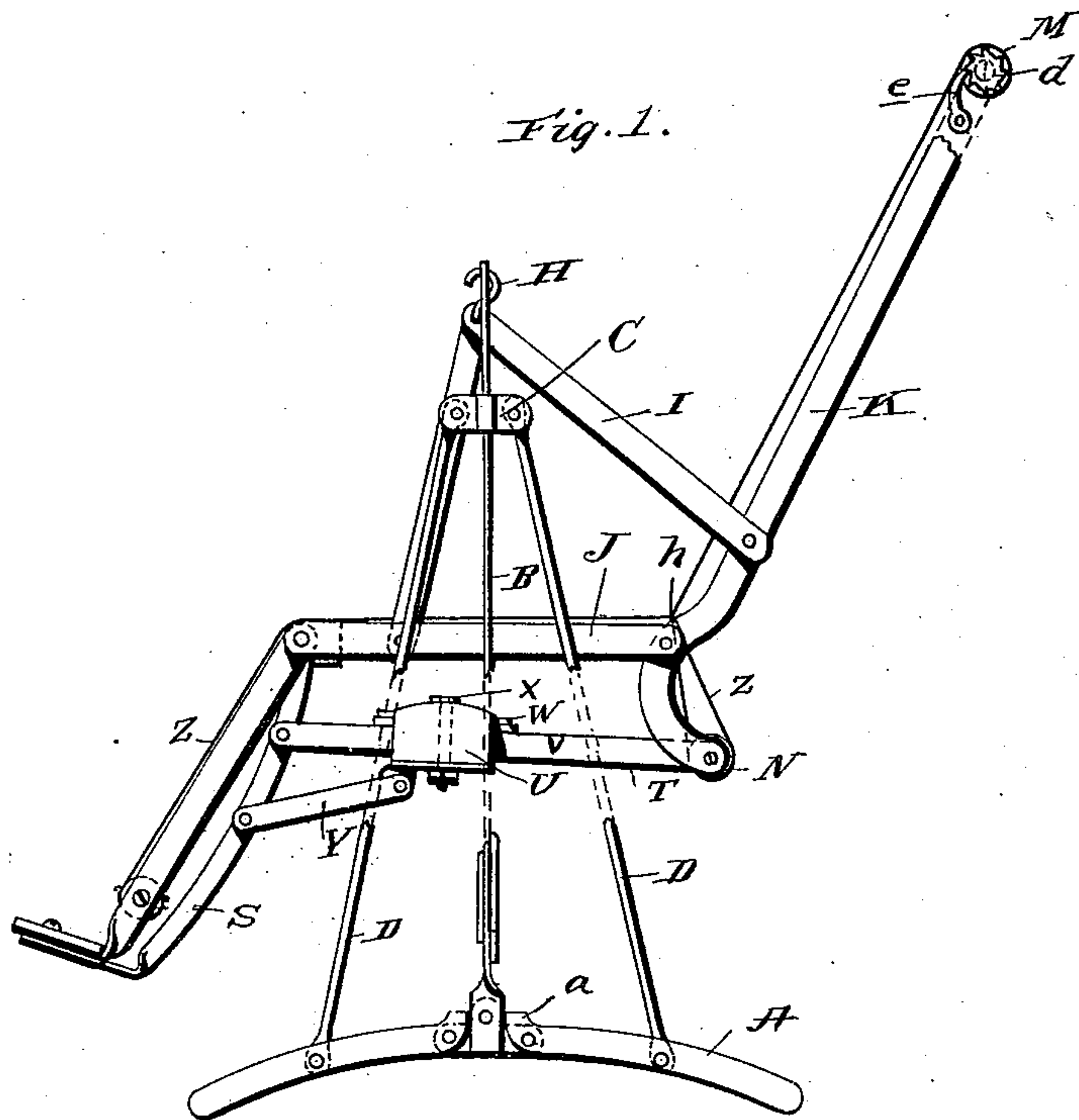
(No Model.)

2 Sheets—Sheet 1.

C. E. KENNEDY & G. G. BENNETT.
CHAIR.

No. 465,275.

Patented Dec. 15, 1891.



Witnesses:
C. H. Raeder
Thomas E. Turpin

Inventors
Charles E. Kennedy &
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(No Model.)

2 Sheets—Sheet 2.

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Fig. 3.

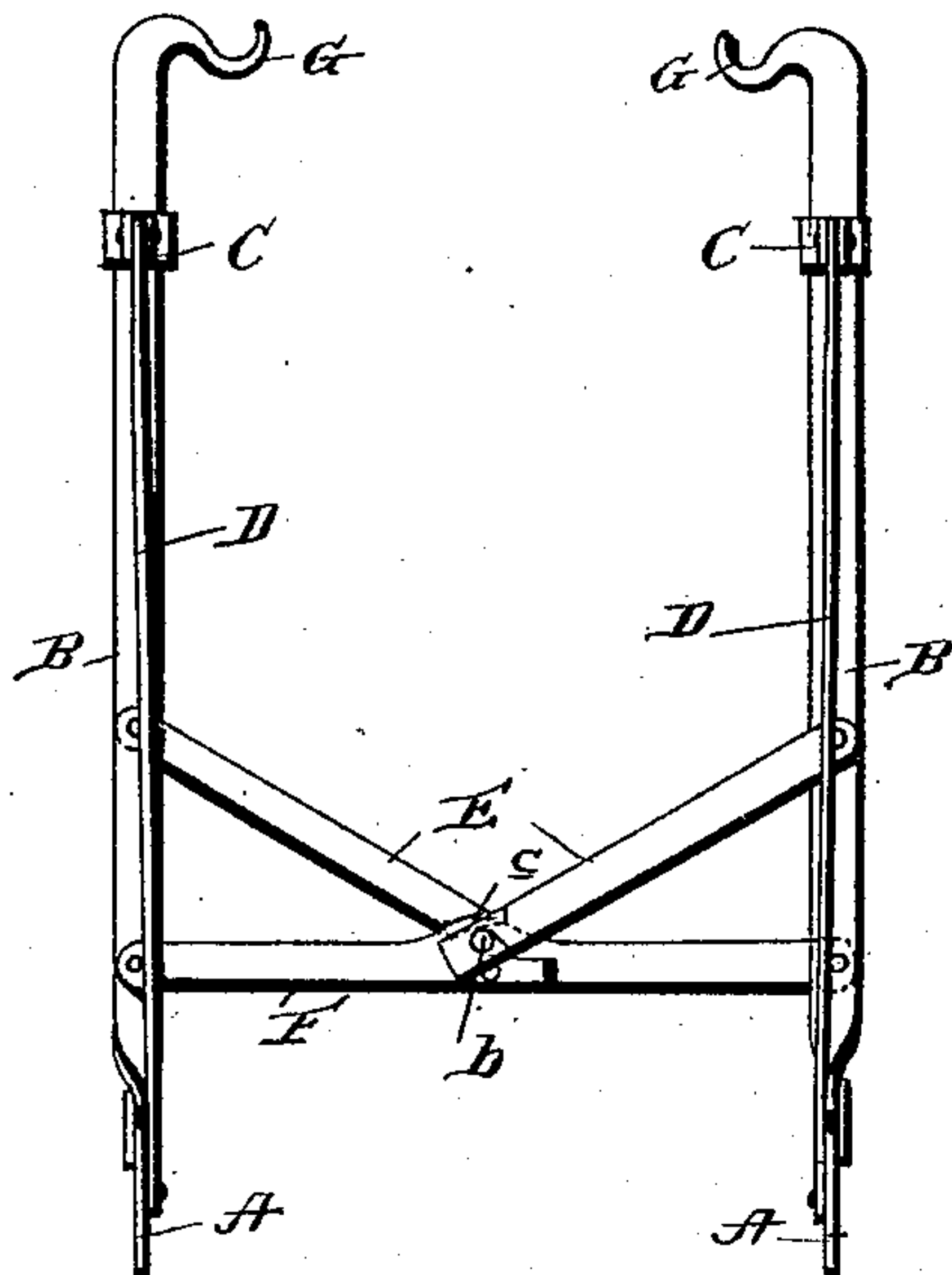


Fig. 6.

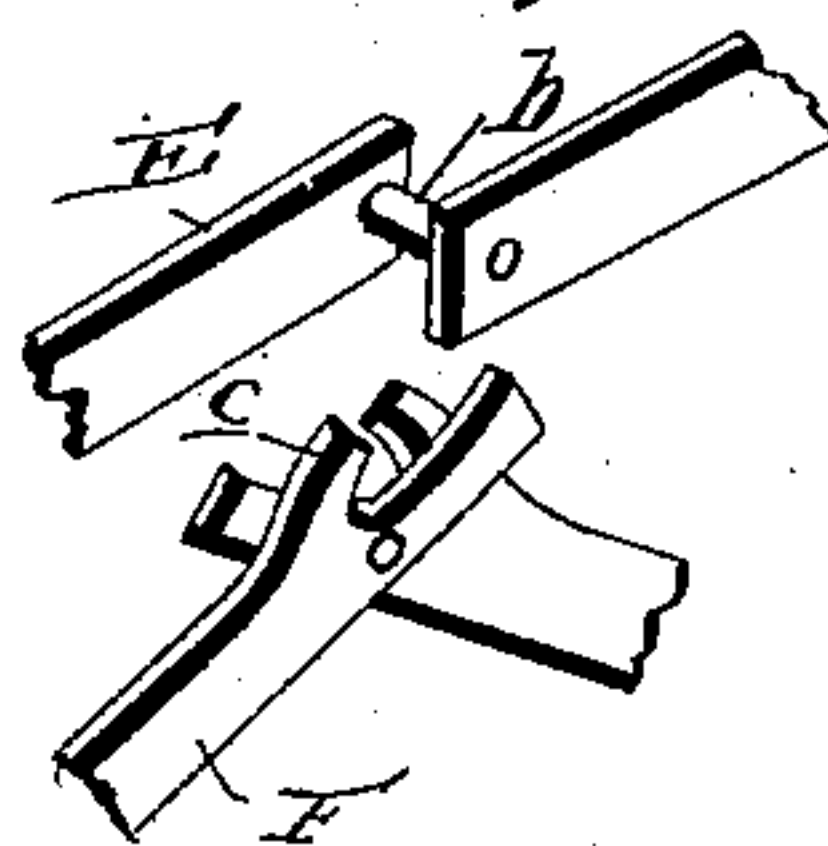


Fig. 7.

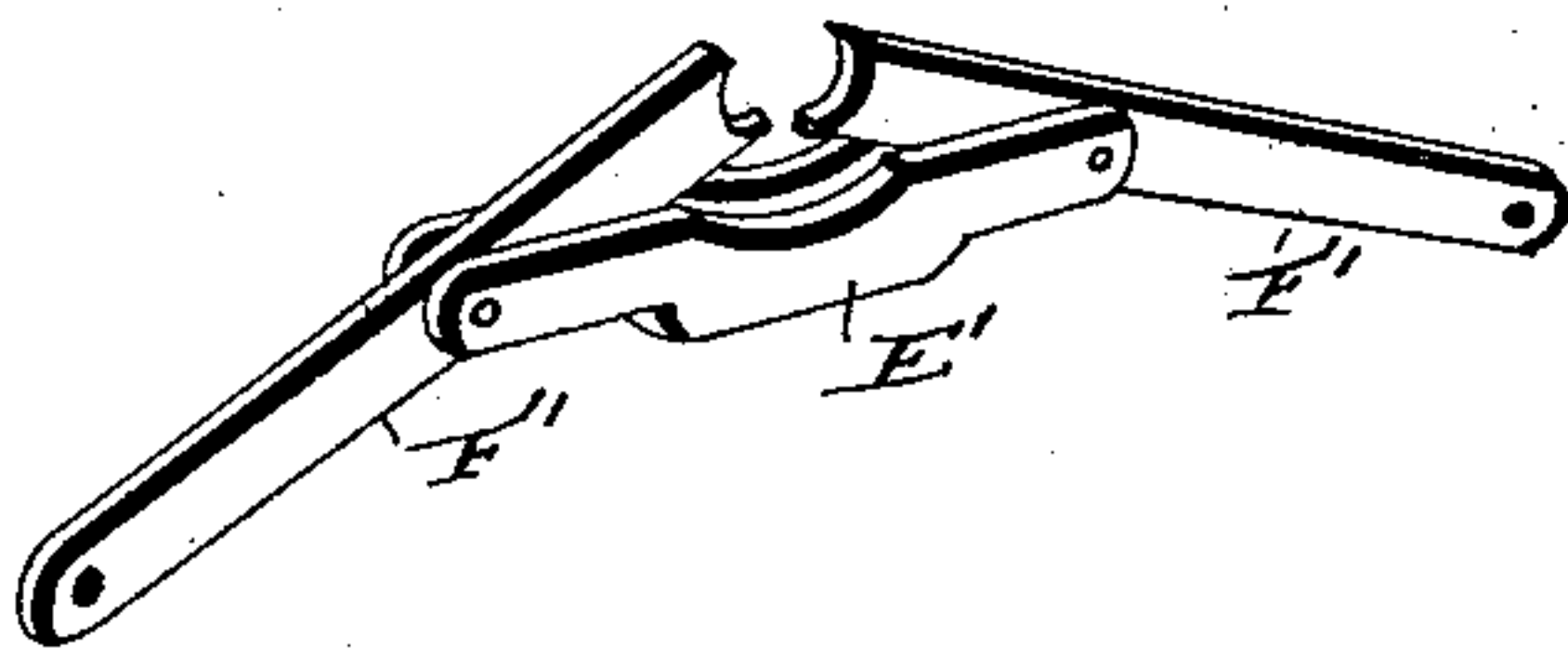


Fig. 4.

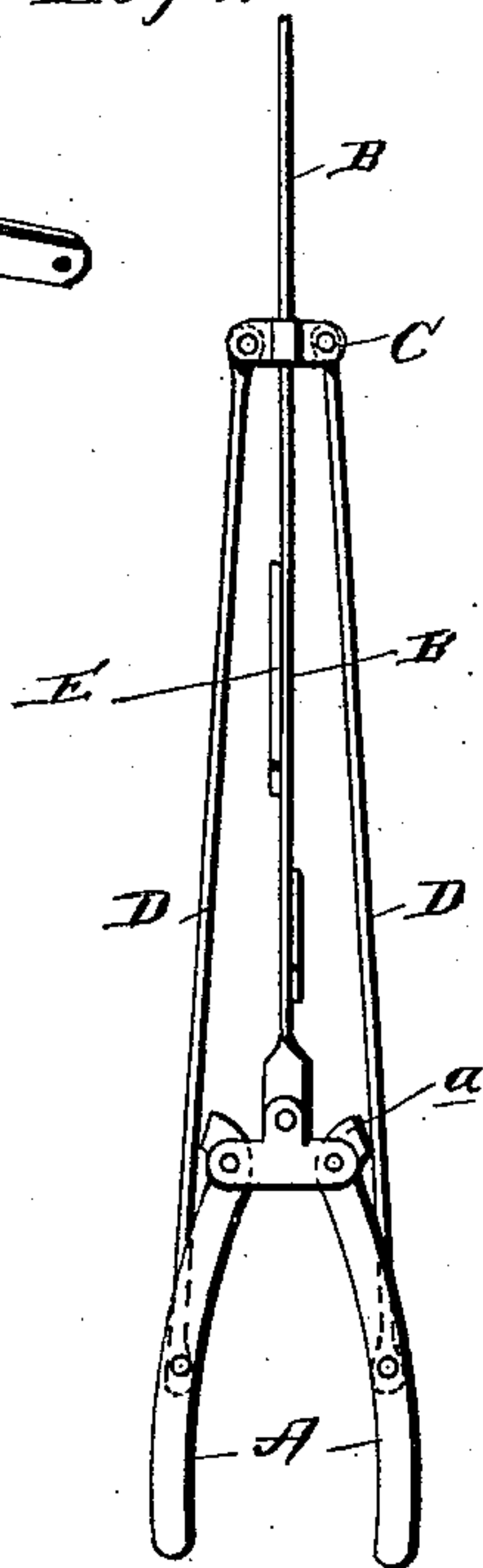
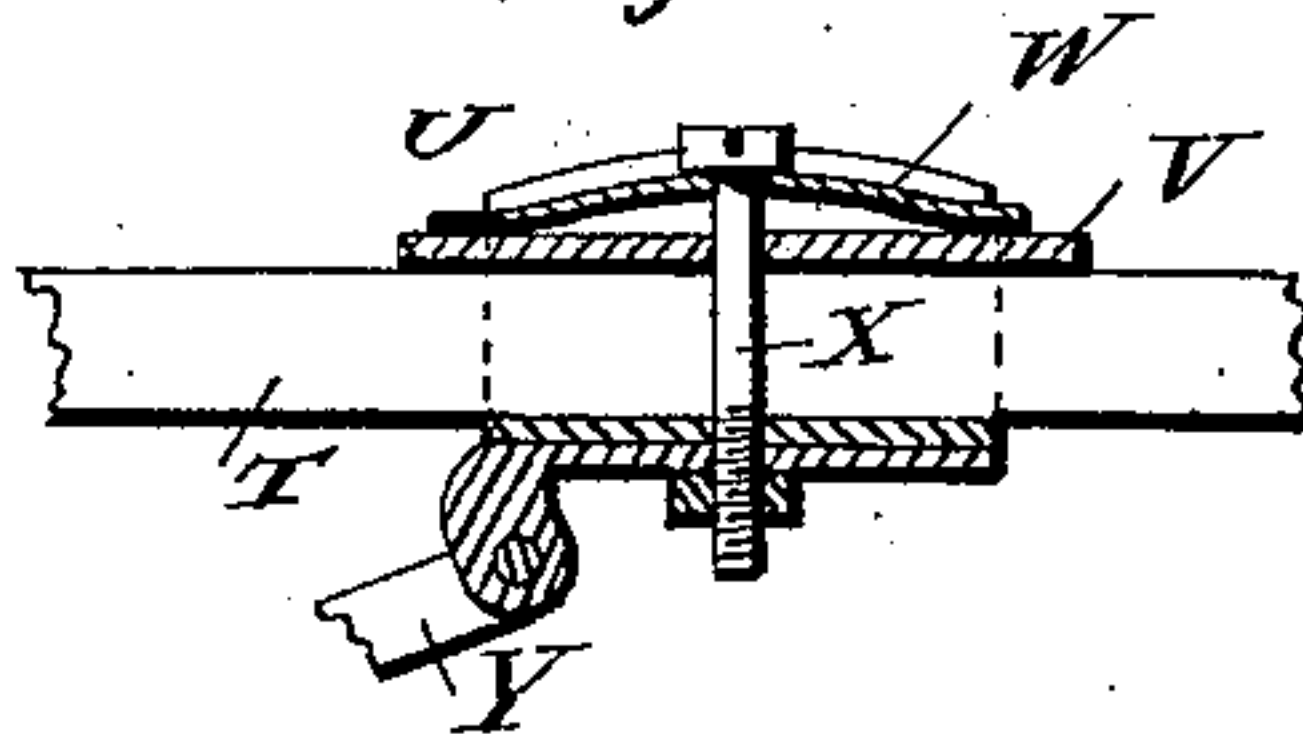


Fig. 5.



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UNITED STATES PATENT OFFICE.

CHARLES E. KENNEDY AND GARFIELD G. BENNETT, OF LA GRANGE, INDIANA.

CHAIR.

SPECIFICATION forming part of Letters Patent No. 465,275, dated December 15, 1891.

Application filed May 8, 1891. Serial No. 391,998. (No model.)

To all whom it may concern:

Be it known that we, CHARLES E. KENNEDY and GARFIELD G. BENNETT, citizens of the United States, residing at La Grange, in the county of La Grange and State of Indiana, have invented certain new and useful Improvements in Chairs; and we do 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.

Our invention has relation to improvements in swing-chairs; and it has for its general objects, first, to provide a vertically-extensible supporting-frame adapted to be compactly folded when not in use and embodying devices whereby it may be securely locked in its operative position, and, secondly, to provide a swinging chair frame adapted to be adjustably fixed in various positions, and embodying mechanism whereby the cloth back and seat may be tightened and relaxed to accord with the adjustment of the chair.

Other objects and advantages, together with the construction and arrangement of our improved swing-chair and supporting-frame, will be fully understood from the following description and claims, when taken in conjunction with the accompanying drawings, in which—

Figure 1 is a side elevation of the chair in position upon the supporting-frame, the latter being partly broken away to better illustrate the construction for adjustably fixing the chair-frame. Fig. 2 is a perspective view of the chair removed. Fig. 3 is a front elevation of the supporting-frame. Fig. 4 is a side elevation of the same. Fig. 5 is a detail section of a portion of the mechanism for effecting the adjustment of the chair-frame. Fig. 6 is an enlarged detail view of a portion of the levers connecting the standards of the supporting-frame, and Fig. 7 is a perspective view of a modification.

In the said drawings similar letters designate corresponding parts throughout the several views, referring to which—

A indicate the feet of the standards B of the supporting-frame, which feet A are pivotally connected to a T branch at the lower

end of said standards and are provided at their inner ends with short curvilinear branches *a*, which abut against the edges of the standards and serve to limit the spreading of the feet, as better illustrated in Fig. 1 of the drawings.

Loosely mounted upon the respective standards B is a sleeve C, which is provided with short lateral branches to which are pivotally connected the upper ends of bracing-levers D, which are pivotally connected at their lower ends to the feet A at an intermediate point in the length thereof, whereby it will be seen that without in any manner interfering with the adjustment of the feet A the levers B serve to brace the same together with the standards.

E indicates transversely-disposed levers, which are pivotally connected at their outer ends to the standards B at about the elevation illustrated; but, as illustrated in Fig. 3, one of the levers is connected to the forward side of its respective standard, while the other lever is connected to the rear side of its standard, whereby it will be seen that the levers occupy parallel vertical planes, and they are connected at their inner end by a transverse lug *b*, for a purpose presently described.

Pivotally connected at their ends to opposite sides of the standards below the levers E are levers F, which are pivotally connected adjacent their ends, and are provided on their upper edge with upwardly and inwardly curved hooks *c*, as better illustrated in Fig. 6, whereby it will be seen that when the levers E are depressed the lug *b* will be engaged and locked by the hooks *c* of the levers F, whereby it will be seen that the supporting-frame may be locked in an operative position and a casual collapse thereof obviated.

When it is desired to fold the frame for transportation or storage, it is simply necessary to draw the lower ends of the standards together, when the connecting-lug of the levers E will be released from the hooks of the levers F, when both sets of levers will collapse upwardly and the standards may be folded together, and the feet A also folded toward each other.

The standards B of the supporting-frame are provided at their upper ends with inwardly-directed hangers or hooks G, which are engaged by hooks H, which pivotally connect the upper ends of the hanger-levers I of the swing-chair frame, the forward ends of which levers I are pivotally connected at their lower ends between two parallel bars J of the seat-section, adjacent the forward ends thereof, while the rear levers I are pivotally connected at their ends to the side bars K of the back-section, which bars K are pivotally connected between the rear ends of the parallel bars J, and are provided at and below their pivotal connection with a forward and rearwardly curved portion, for a purpose presently pointed out. The respective inside bars of the parallel seat-bars J are rigidly connected at their forward ends by a transverse bar L, over which takes the cloth or canvas covering, presently to be described.

Journalled between the upper ends of the back bars K is a roller M, which is provided with ratchet-teeth *d* adjacent its ends, designed to be engaged by pawls *e*, pivotally connected to the inside of the bars K, adjacent the said roller M, which is provided at intervals in its length with radial sharpened studs designed to engage and fasten one end of the cloth covering to the roller. Journalled between the lower rearwardly-curved ends of the bars K is another roller N, over which the cloth covering is looped, as better illustrated in Fig. 1 of the drawings.

Pivotally connected at one end between the parallel side seat-bars J are depending levers P, which form the leg or foot section and are provided at their lower or outer ends with forwardly-extending branches, to which are attached the ends of a foot-board Q, and journalled between the depending levers or bars P, above the foot-board, is a roller R, which is provided at intervals in its length with radial sharpened studs, which serve to fix one end of the cloth Z to the said roller R, which cloth is of a width in accordance with the width of the chair-frame and takes up over the leg or foot section and the seat-section, and is looped around the roller N and sewed at *h*, whence it is carried up and attached to the roller M, by which it is tightened and relaxed in accordance with the adjustment of the chair-frame.

Pivotally connected at its upper end to the cross-bar L of the seat-frame, at about the middle of said frame, is a depending lever S, which is slightly curved, as illustrated, and is provided at its lower end with a forwardly-extending branch, which is rigidly connected to the under side of the foot-board Q. Pivotally connected to opposite sides of the lever S, adjacent the upper ends thereof, are two rearwardly-extending parallel bars T, which are curved slightly outward, whereby a space is left between them, but are connected together adjacent the rear of the seat-frame, where they take laterally in opposite

directions and are pivotally connected at their ends to the shaft of the roller N, between said roller and the bars K.

U indicates a friction-sleeve comprising a bottom and two vertical sides, which sleeve is adapted to span the parallel bars T. Seated between the vertical sides of the sleeve U is a pressure-plate V, which is headed at its ends to prevent casual displacement or longitudinal play of the parts of the sleeve. Mounted upon the pressure-plate V is a slightly-bowed spring-plate W, and taking through the plates V and W, between the bars T, and through the bottom of the sleeve, is a bolt X, which is threaded at its lower end and is provided with a nut, as shown, whereby it serves to regulate the pressure or friction of the plates V and W. Pivotally connected to a lug depending from the bottom of the sleeve T are two parallel levers Y, which are connected at their forward ends to the lever S, before described. By reason of the peculiar construction described it will be seen that the chair-frame may be adjusted to form a straight-back chair or a reclining or lounge chair of various degrees of inclination, and that when adjusted in any position the frame is locked and is prevented from casual self-adjustment.

Although we have specifically described the construction and relative arrangement of the supporting-frame and the swing-chair mounted thereon, yet it is obvious that we do not confine ourselves to such exact construction, as such modifications may be made as fairly fall within the scope of our invention.

In Fig. 7 of the drawings we have disclosed a modified construction of the lower levers connecting the standards of the supporting-frame, which lower levers are designed to engage and lock the upper levers. In the said figure F' indicates the levers, which have their inner ends recessed in a curvilinear manner, whereby they are adapted to engage and lock the connecting-lug *b* of the levers E. E indicates parallel levers which are pivotally connected to the levers F', and serve to connect the inner ends of said levers.

Having described our invention, what we claim, and desire to secure by Letters Patent, is—

1. A folding frame for swinging chairs, comprising two standards, levers pivotally connecting said standards and disposed transversely of the frame, the said levers having hooks or lugs at or near their pivoted inner ends, and two levers also pivoted at their outer ends to said standards and adapted to engage the hooks or lugs of the first-named levers at their inner pivotal point, whereby all of said levers may lock together and brace the standards, substantially as specified.

2. In a supporting-frame for swinging chairs, the combination, with two upright standards, of two levers pivoted together at one end and pivoted to the standards at their opposite ends, and two levers of greater length than the le-

vers before mentioned pivotally connected at their inner ends and pivotally secured at their outer ends to said standards, said latter levers being adapted to engage the former levers at their inner pivotal connection so as to lock said pivotal point, substantially as specified.

3. In a supporting-frame for swing-chairs, the combination, with two upright standards provided at their lower ends with T branches, the feet pivotally connected to said T branches and having curvilinear inner ends, an adjustable sleeve mounted on the respective standards, and levers pivotally connected at their upper end to the adjustable sleeve and at their lower end to the feet, of two levers pivotally connected together at their inner ends and pivotally connected at their opposite ends to the respective standards, and two other levers also pivotally connected together at their inner ends and pivotally connected at their opposite ends to the respective standards and adapted to engage the first-named levers and lock the same, substantially as specified.

4. In a swing-chair, the combination, with a seat-section, a back-section pivotally connected to the rear side of said seat-section and extending above and below the same, and a foot and leg section pivotally connected to the forward side of the seat-section, of a bar pivotally connected to the leg-section and the depending portion of the back-section, a friction-sleeve mounted on said bar, and a bar connecting said sleeve with the leg or foot section, substantially as specified.

5. In a swing-chair, the combination, with a seat-section, a back-section pivotally connected thereto and extending above and below the same, a leg or foot section pivotally connected to said seat-section, and a bar pivotally connected to the leg-section and the back-section, of a sleeve mounted on said bar and comprising the bottom and side walls, the pressure-plate, the spring-plate and the bolt passing through said plates and the bottom

of the sleeve, and a bar pivotally connected to the sleeve and to the leg-section, substantially as specified.

6. In a swing-chair, the combination, with a seat-section, a back-section pivotally connected to the rear side of said seat-section and extending above and below the same, a leg or foot section pivotally connected to the forward side of said seat-section, and suitable devices adapted to adjustably fix the back and leg sections with respect to the seat-section, of a roller journaled in the upper end of the back-section, a roller journaled in the lower end of said back-section, a roller journaled adjacent the lower end of the leg or foot section, and a cloth or canvas suitably connected to the upper roller of the back-section and looped around the lower roller thereof and suitably connected to the roller of the leg-section, substantially as specified.

7. The combination, with the supporting-frame comprising the standards having inwardly-directed hangers at their upper ends, the levers pivotally connected together at their inner ends and pivotally connected at their opposite ends to the respective standards, and two other levers also pivotally connected together at their inner ends and pivotally connected at their opposite ends to the respective standards and adapted to engage the first-named levers and lock the same, of the chair-frame comprising the seat-section, the back-section, and the leg or foot section, connected as described, and the hangers connected at their upper ends and carrying hooks adapted to engage the hangers of the supporting-frame, substantially as specified.

In testimony whereof we affix our signatures in presence of two witnesses.

CHAS. E. KENNEDY.
GARFIELD G. BENNETT.

Witnesses:

FRANK J. DURLETT,
C. B. MATHER.