

G. C. LOCKLIN.
FOLDING STRAP OR BRACE.
APPLICATION FILED MAR. 2, 1908.

938,674.

Patented Nov. 2, 1909.

2 SHEETS—SHEET 1.

Fig. 1.

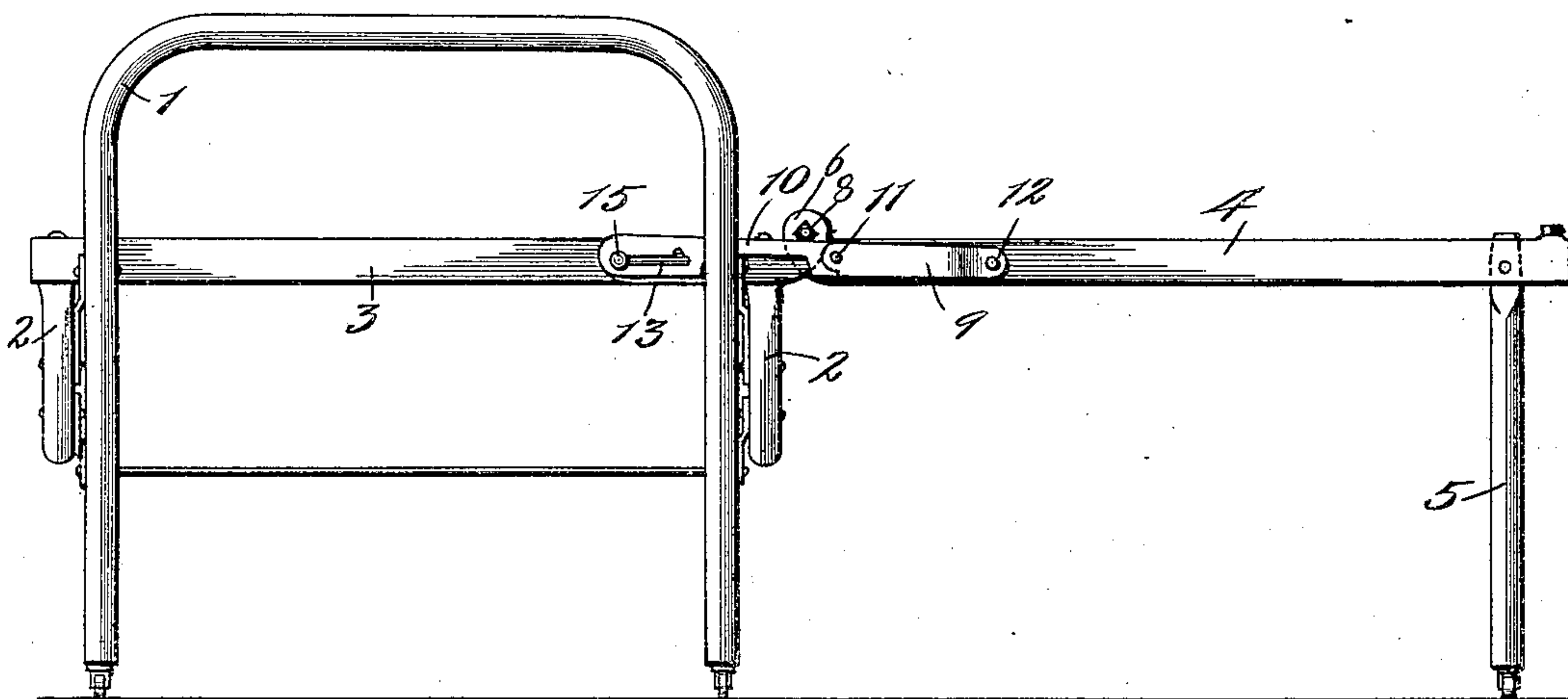


Fig. 7.

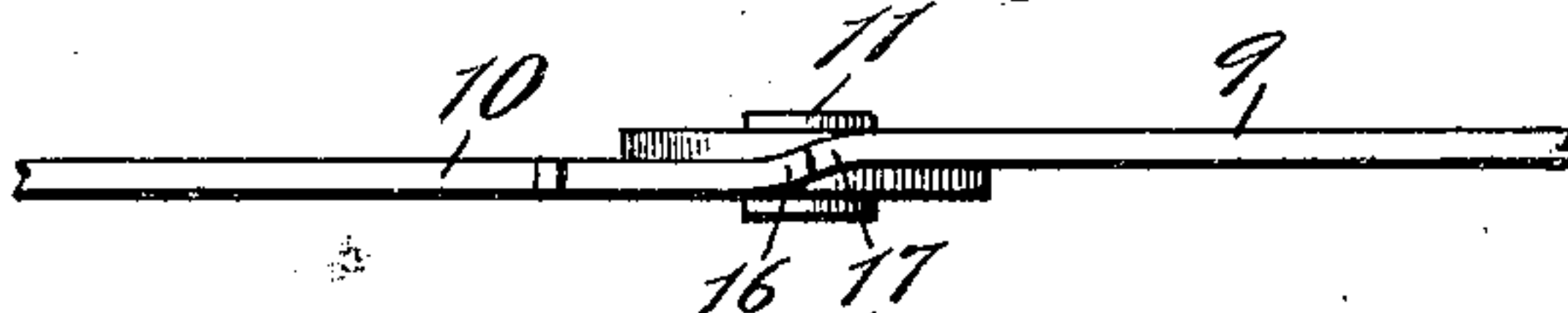
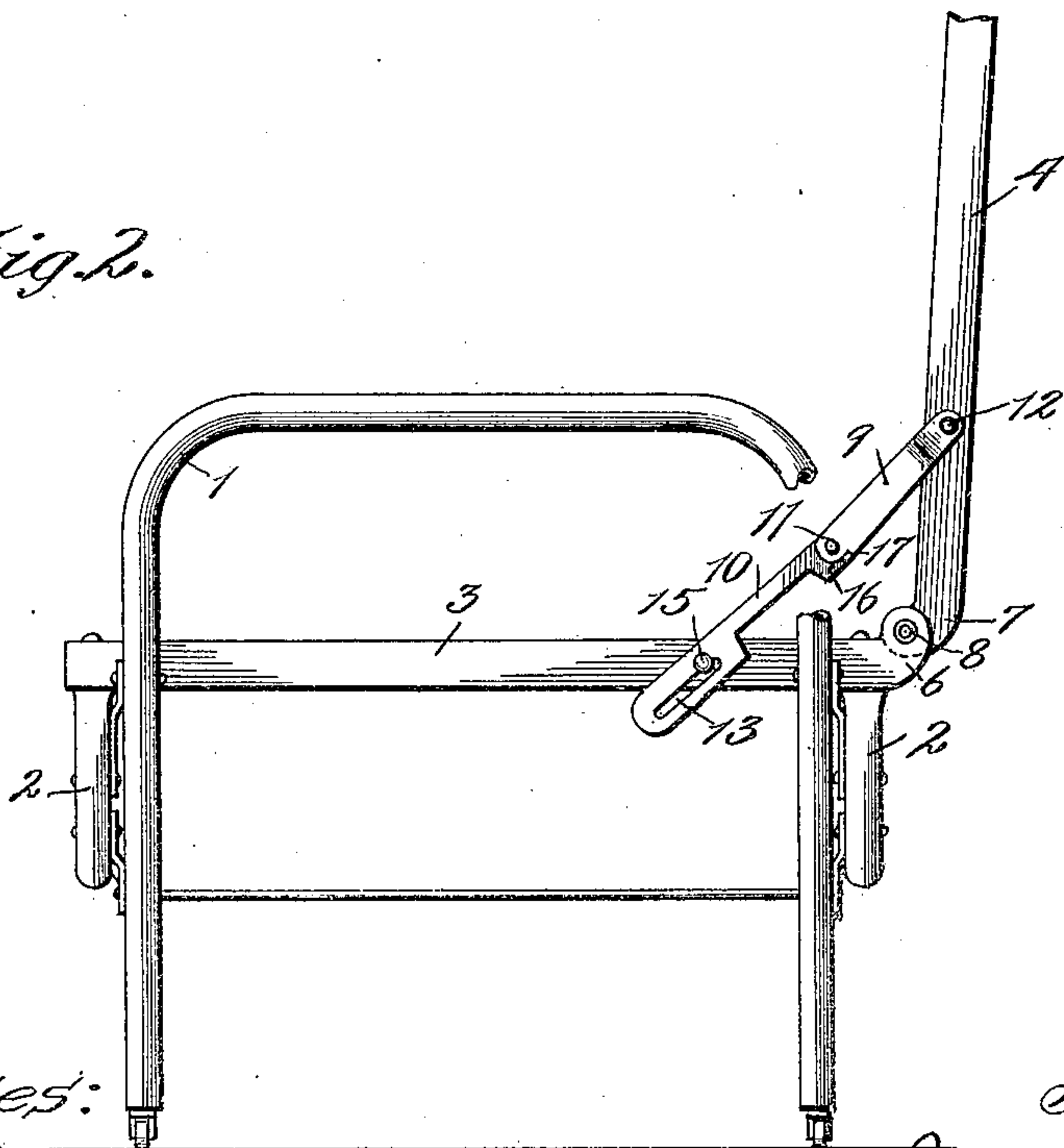


Fig. 2.



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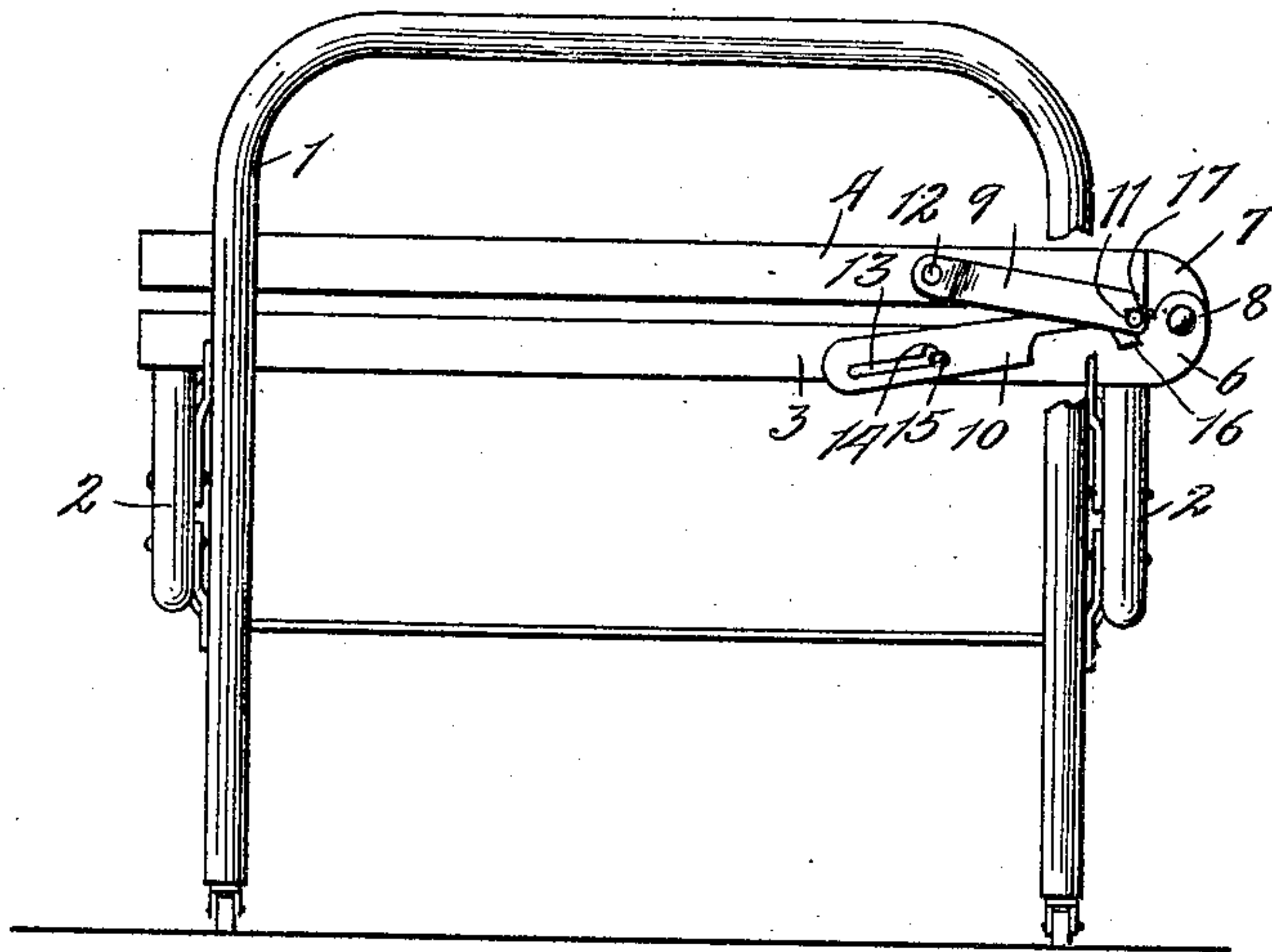


Fig. 3.

Fig. 4.

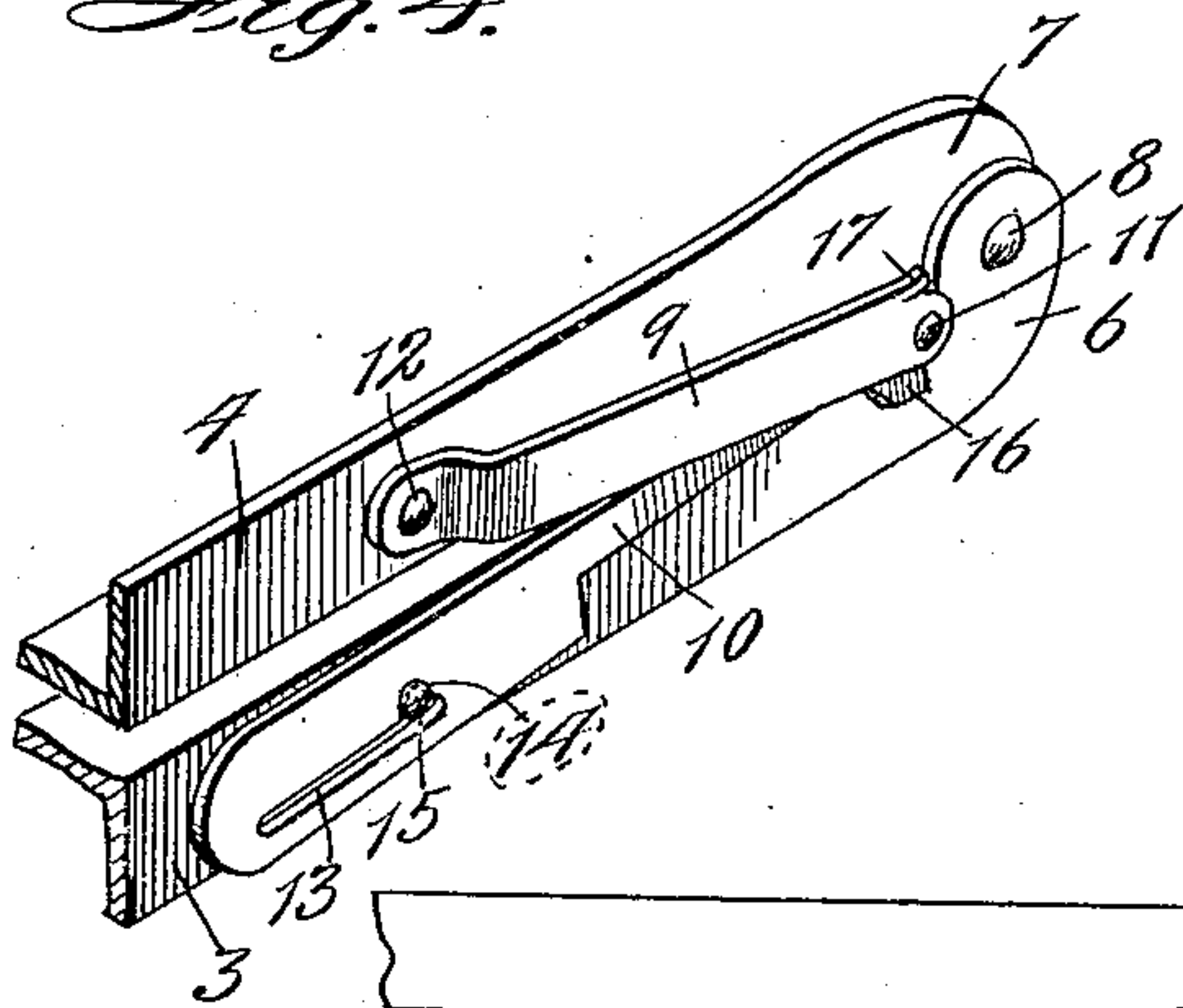


Fig. 5.

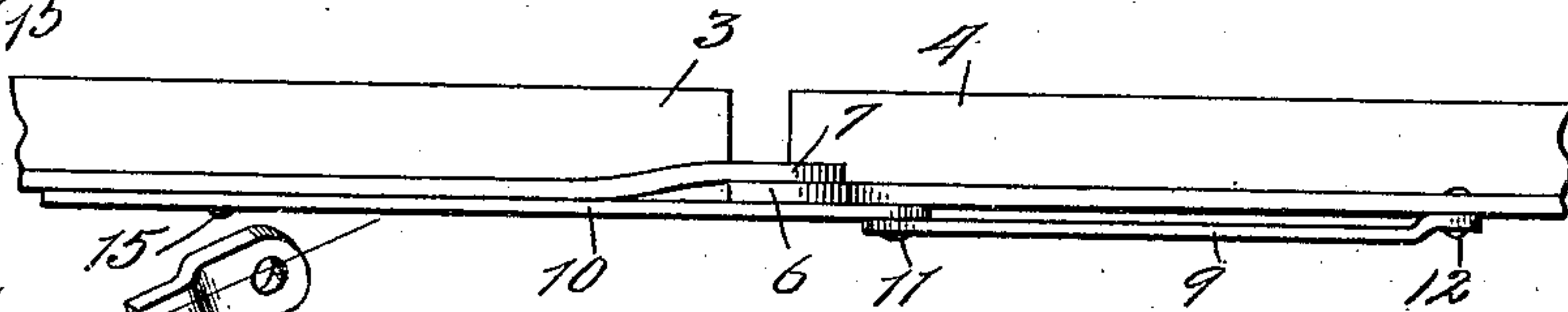


Fig. 8.

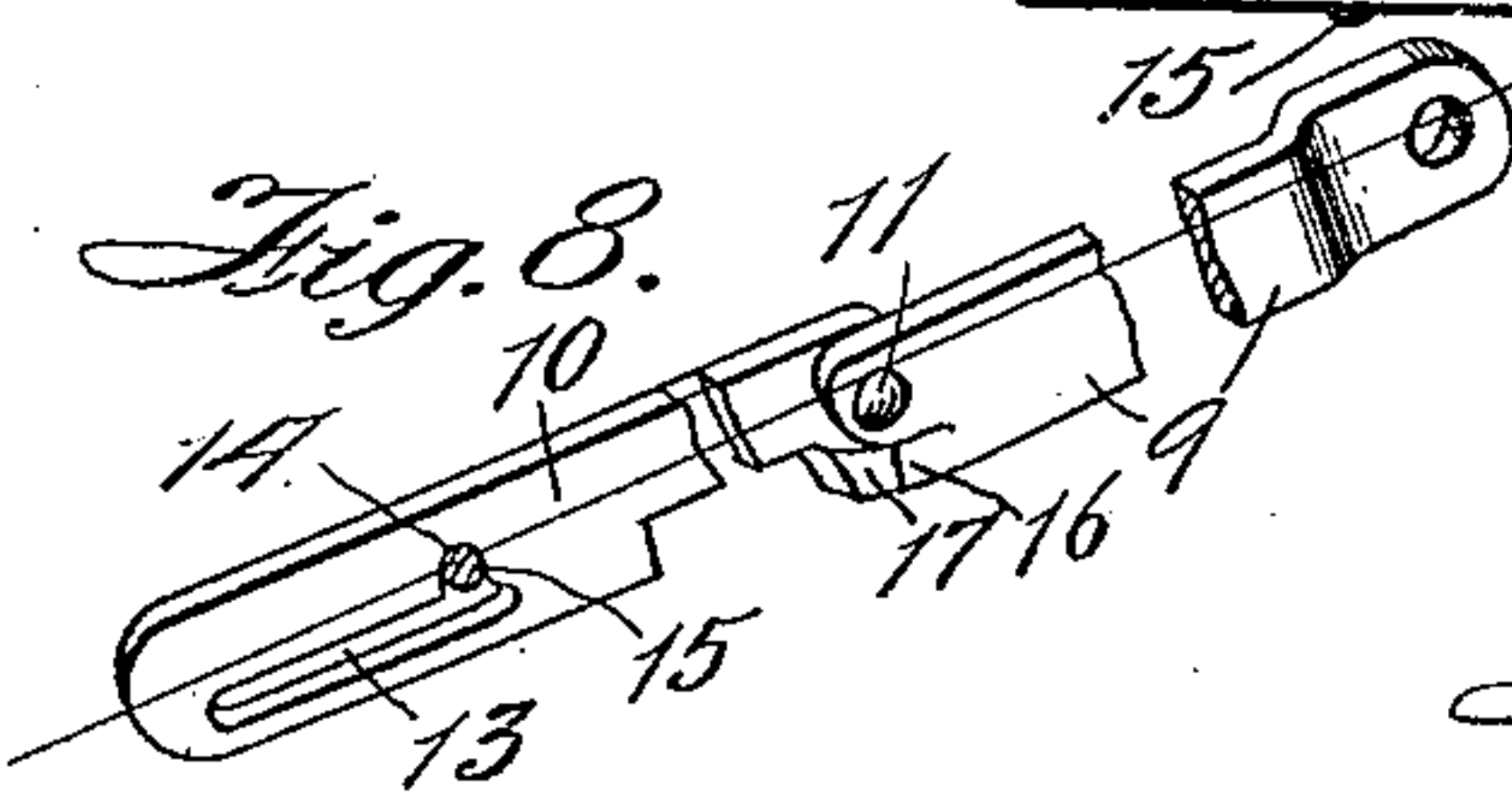
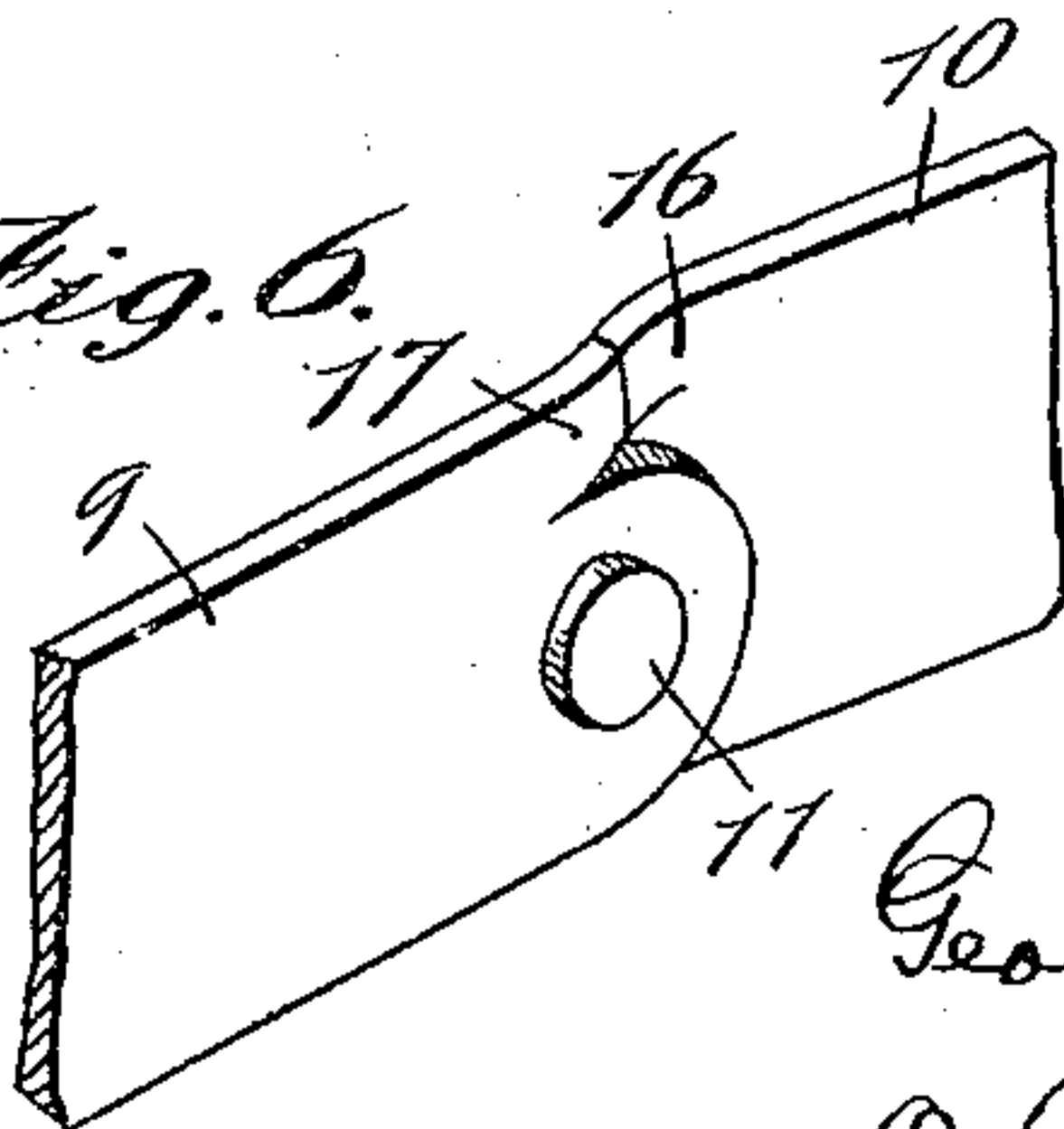


Fig. 6.



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UNITED STATES PATENT OFFICE.

GEORGE C. LOCKLIN, OF HAMMOND, INDIANA.

FOLDING STRAP OR BRACE.

938,674.

Specification of Letters Patent.

Patented Nov. 2, 1909.

Application filed March 2, 1908. Serial No. 418,886.

To all whom it may concern:

Be it known that I, GEORGE C. LOCKLIN, a citizen of the United States, residing at Hammond, in the county of Lake and State of Indiana, have invented certain new and useful Improvements in Folding Straps or Braces, of which the following is a specification.

My invention relates to folding straps or braces and to such devices in combination with the folding section of a folding bed, cot or couch, and has for its object to provide a folding strap or brace which shall be economical to manufacture, simple in its operation and which will effectively hold a folding or hinged member in upright or substantially upright position, while, at the same time, permitting the same to be folded either upon the device to which it is hinged or into substantial alinement therewith.

The invention is illustrated and will be described as used in connection with the folding bed, cot or couch described in application of George P. Daily Serial No. 418,835, the strap or brace having a particular utility in a bed, cot or couch such as is described in that application, in which the folding bottom section is to be held in substantially upright position to form a davenport, or may be folded over upon the fixed bed bottom to make a couch, or may be folded out in alinement with the latter when the article is to be used as a bed. The brace or strap of my invention may, however, be used on beds, couches, or cots other than the one described, or may be used in other connections where similar conditions prevail.

The invention has for further objects such other new and improved devices, arrangements and constructions as will be described in the following specification and set forth in the claims.

The invention is illustrated, in a preferred embodiment, in the accompanying drawings, wherein—

Figure 1 is an end view of a folding cot, couch or bed with the strap of my invention attached thereto and with the folding section of the bed extended. Fig. 2 is a similar view with the folding section in its substantially upright position. Fig. 3 is a similar view with the folding section folded over on the fixed section. Fig. 4 is a detail in perspective of one of the hinges by which the folding section is connected, showing the attachment of the folding brace. Fig. 5

is a plan view of the same parts in their extended position. Fig. 6 is a detail in perspective of the pivoted portion of the strap or brace inverted. Fig. 7 is an inverted plan view of these parts; and Fig. 8 is a side elevation of the folding strap or brace detached and extended.

Like characters of reference indicate like parts in the several figures of the drawings.

1 represents the supporting end piece of the bed in question, 2, 2 the side rails, 3 one of the end pieces of the fixed or stationary frame of the bed, 4 one of the end pieces of the folding frame, and 5 a supporting leg for the latter. The end pieces 3 and 4 may be constructed of angle iron, as shown in Fig. 4, in which case they may be provided with the lugs 6 and 7, respectively, pivoted together at 8.

Means must be provided by which the folding section may be held in its substantially upright position, shown in Fig. 2, which means, however, will permit the folding section to take the positions shown in Figs. 1 and 3. The strap or brace of my invention accomplishes this end. The strap consists of two links 9 and 10 pivoted together at 11, the link 9 being pivoted to the folding bottom section at 12, the link 10 having a longitudinal slot 13 and a transverse slot 14. Link 10 is connected to the stationary frame of the bed by a pin 15, which extends through the angular slot 13, 14. It will be seen that when pin 15 is in slot 14, the folding section will be held in a position tilted back slightly from the vertical. It will be locked effectively against displacement by backward pressure.

In order that the folding section may be folded down on the fixed bottom section by simply a forward pull, I prefer to construct my folded strap or brace so that the links will stand a trifle out of alinement, that is, so that the pivot 11 will never come into line with the pivot 2 and the pin 15. To accomplish this, I provide the links with abutments. This may be done by enlarging one or both of the corners 16 and 17 of links 9 and 10, respectively, and by bending them out of the planes of the links and toward each other, so that they will abut and prevent the links from standing at an angle of 180° to each other.

Suppose the parts to be in the position shown in Fig. 3, in order to make a davenport out of the article it is only necessary to

raise the folding section to the proper angle, the link 10 by its slot 14 engaging with pin 15 to hold the folding section in this position against any pressure backward. As the folding section is raised, the link 10 will fall into the locking position automatically. To fold the folding section back on the stationary frame, one grasps the top of the folding section and pulls it forward and down. This breaks the joint at 11. In order to open the bed out to the position of Fig. 1, a swing is given to the folding section, which brings the pin 15 into slot 13, instead of slot 14, as the brace unfolds. The brace or strap is thus effective to hold the folding section in its upright position and lock the same against the ordinary pressure which will be brought against it, while, at the same time, it permits the folding sections to be folded up or extended, all of this being accomplished automatically so far as the action of the brace or strap is concerned and by merely turning the folding section in the ordinary manner.

I wish it to be understood that I do not desire to limit myself to the particular devices, constructions and arrangements shown and described, as modifications may be devised which will be within the scope of my invention.

I claim:

1. The combination with folding members, of a strap to connect the same, comprising links pivoted together and to said members, such strap being provided with engaging means whereby one of said folding members may be held at an angle to the other of less than 180° , one of said links having a sliding connection with the member to which it is attached by means of which the folding members may be extended to an angle greater than the angle first mentioned.

2. The combination with folding members, of a strap to connect the same, comprising links pivoted together and to said members, such strap being provided with engaging means whereby one of said folding members may be held at an angle to the other of less than 180° , one of said links having a sliding connection with the member to which it is attached by means of which the folding members may be extended to an angle greater than the angle specified, the pivot of said links being out of line of the points of engagement of the links with said folding members when the latter stand at the angle first mentioned.

3. The combination with folding members, of a strap to connect the same, comprising links pivoted together and to said members, such strap being provided with engaging means whereby one of said folding members may be held at an angle to the other of less than 180° , one of said links having a sliding connection with the member to which it is attached by means of which the folding

members may be extended to an angle greater than the angle first mentioned, the ends of the links which are pivoted together being provided with abutments which come together when the folding members are folded to their first-mentioned position and prevent the pivot point of said members from coming into line with the points of attachment of such links with the folding members.

4. The combination with folding members, of a strap connecting the same, comprising a pair of links pivoted together, one of said links pivoted to one of the folding members, a pin on the other folding member, and an angular slot in the other link into which said pin extends.

5. The combination with folding members, of a strap connecting the same, comprising a pair of links pivoted together, one of said links pivoted to one of the folding members, a pin on the other folding member, and an angular slot in the other link into which said pin extends, and abutments on said links which come together and prevent said links from alining with each other.

6. The combination with folding members, of a strap connecting the same, comprising a pair of links pivoted together, one of said links pivoted to one of the folding members, a pin on the other folding member, and an angular slot in the other link into which said pin extends, the opposed corners of the ends of said links which are pivoted together being bent out of the plane of the links and toward each other, so as to prevent the links from coming into alinement with each other.

7. The combination with the stationary and folding frames of a bed or couch, of a strap connecting the same, comprising two links pivoted together and connected to the frames so as to hold the same at an angle to each other of less than 180° and locked in this position against pressure backward, said links adapted to fold together by a forward movement of the folding frame, one of said links connected with one of the frames by a movable connection permitting the folding frame to be folded out to an angle greater than the angle first mentioned.

8. The combination with the stationary and folding frames of a bed or couch, of a strap connecting the same, comprising a link pivoted to the folding frame, a second link pivoted to the first mentioned link and provided with an angular slot, and a pin on the stationary frame which extends into the slot in said second-mentioned link.

9. The combination with the stationary and folding frames of a cot or bed, of means for connecting the same together so as to hold the folding frame in upright position against pressure backward, said means consisting of rigid parts collapsible from said position by forward pressure on said folding frame and extensibly connected with one of

the frames, so that the parts have relative movement with respect to each other without detachment, whereby said folding frame may be folded out horizontally.

10. The combination with a pair of folding members, of a folding strap to permit said members to be either folded over one on the other, or in extended position or to hold said members in an intermediate position, said strap comprising a pair of links pivoted together, one of said links being attached to one folding member and the other of said links slidably connected with the other folding member, and said links having abutments whereby the pivot between the links is out of line with the points of attachment of the links with the folding members when the latter are in the intermediate position.

11. The combination with folding members, of a strap connecting the same comprising a pair of links pivoted together, one of said links attached to one of the folding members, a pin on the other folding member, a longitudinal slot in the other link into which said pin extends, a transverse slot at the end of said longitudinal slot nearer the pivot between the links and abutments on said links which come together and prevent said links from alining with each other.

12. The combination with a stationary and a folding frame, of a strap connecting the same comprising a link attached to the folding frame, a second link pivoted to the first-mentioned link and provided with a longitudinal slot, a transverse slot at the end of the longitudinal slot nearer the pivot between the links and a pin on the stationary frame which extends into the slot in said second-mentioned link.

13. The combination with folding members of a strap connecting the same comprising a link pivoted to one of said members, a second link pivoted to the first link, abutments on said links arranged to prevent said links from being brought in line with each other, said second link being provided with a longitudinal slot and a transverse slot at the inner end of the longitudinal slot, and a pin on the other folding member extending into said longitudinal slot and arranged to engage the outer end of said longitudinal slot when the parts are in one position and to engage said transverse slot when the parts are in the other position.

GEORGE C. LOCKLIN.

Witnesses:

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