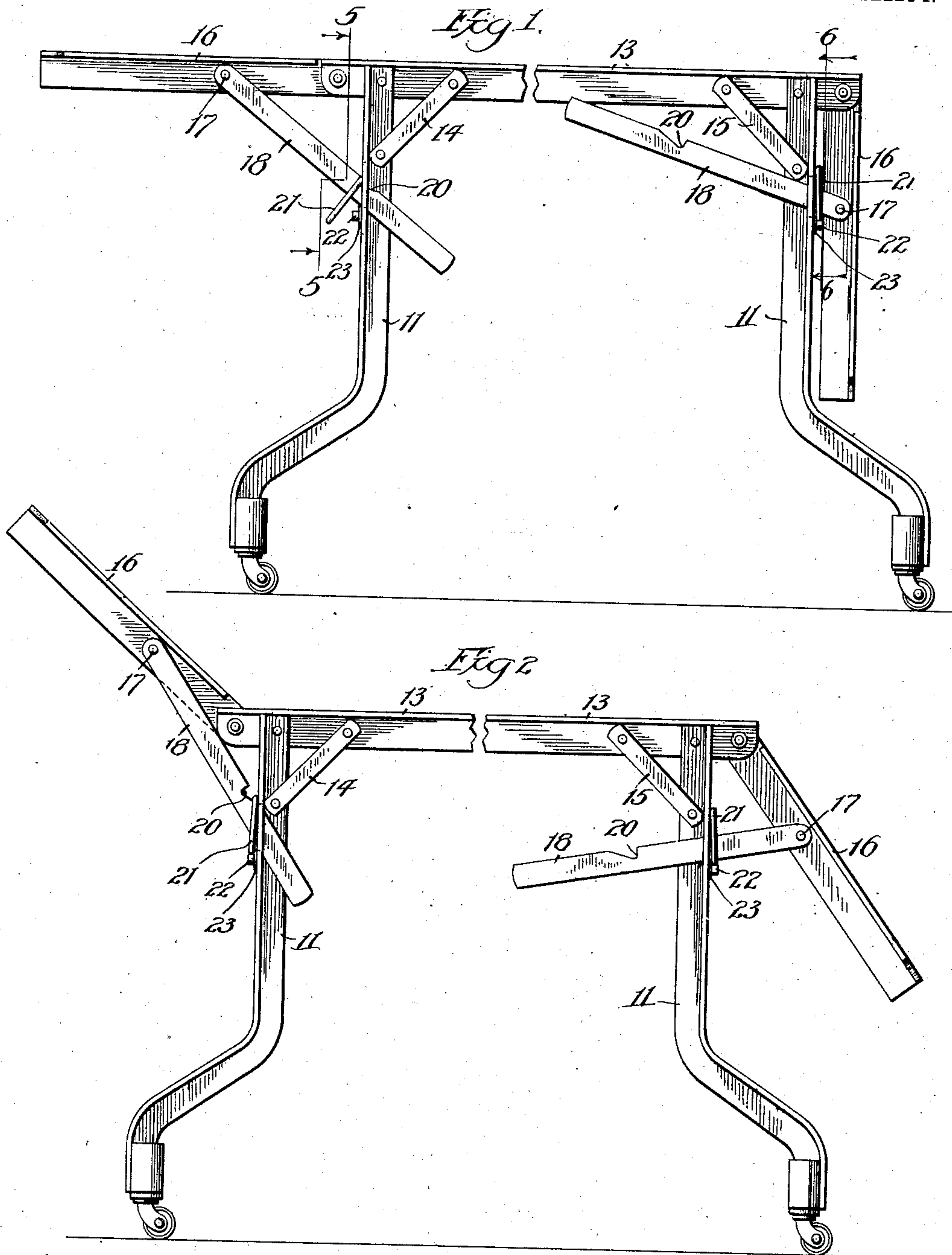


973,561.

G. G. POWERS.
FOLDING COUCH.
APPLICATION FILED FEB. 4, 1910.

Patented Oct. 25, 1910.

2 SHEETS—SHEET 1.



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Edw. J. Dwyer,
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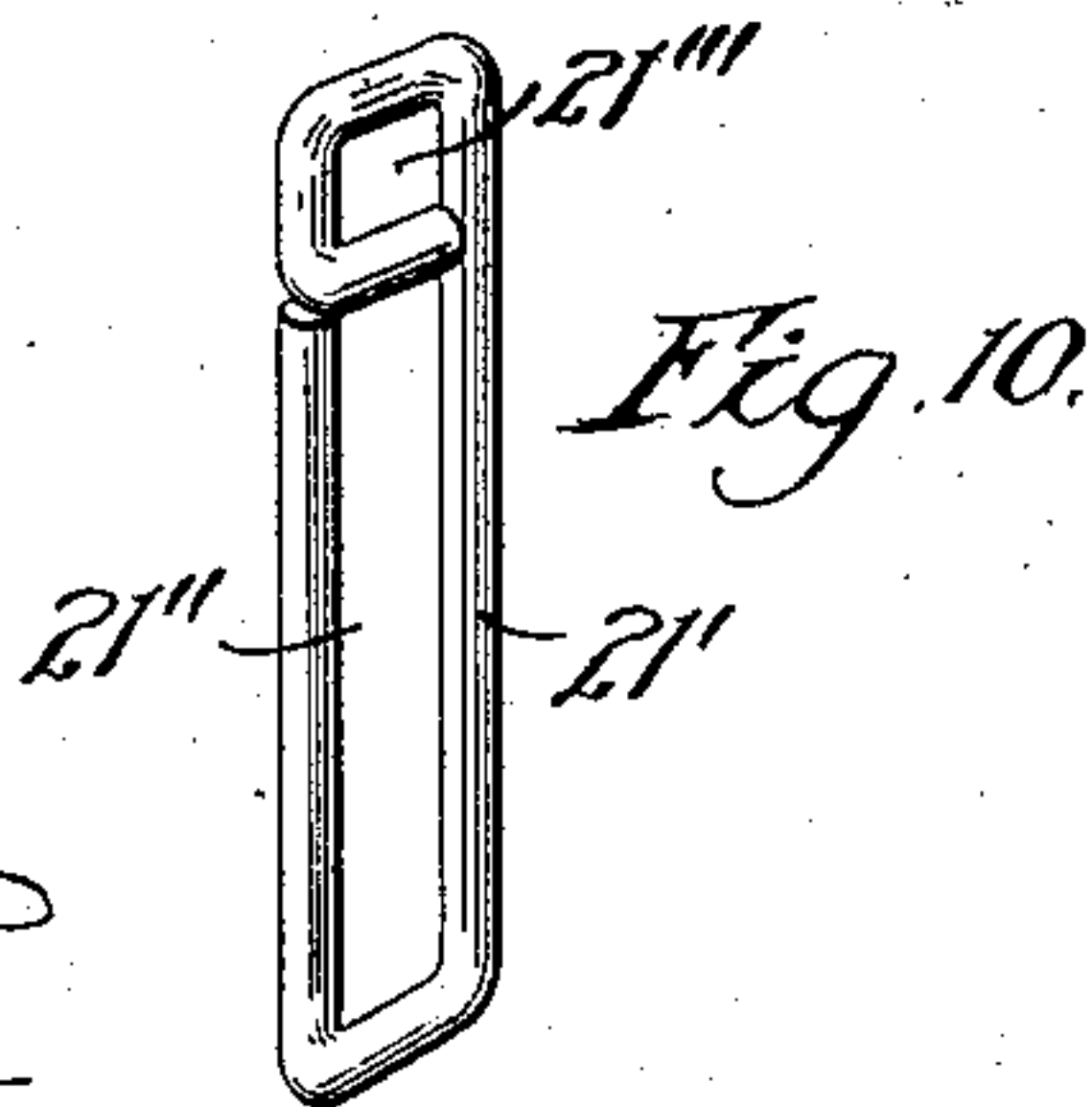
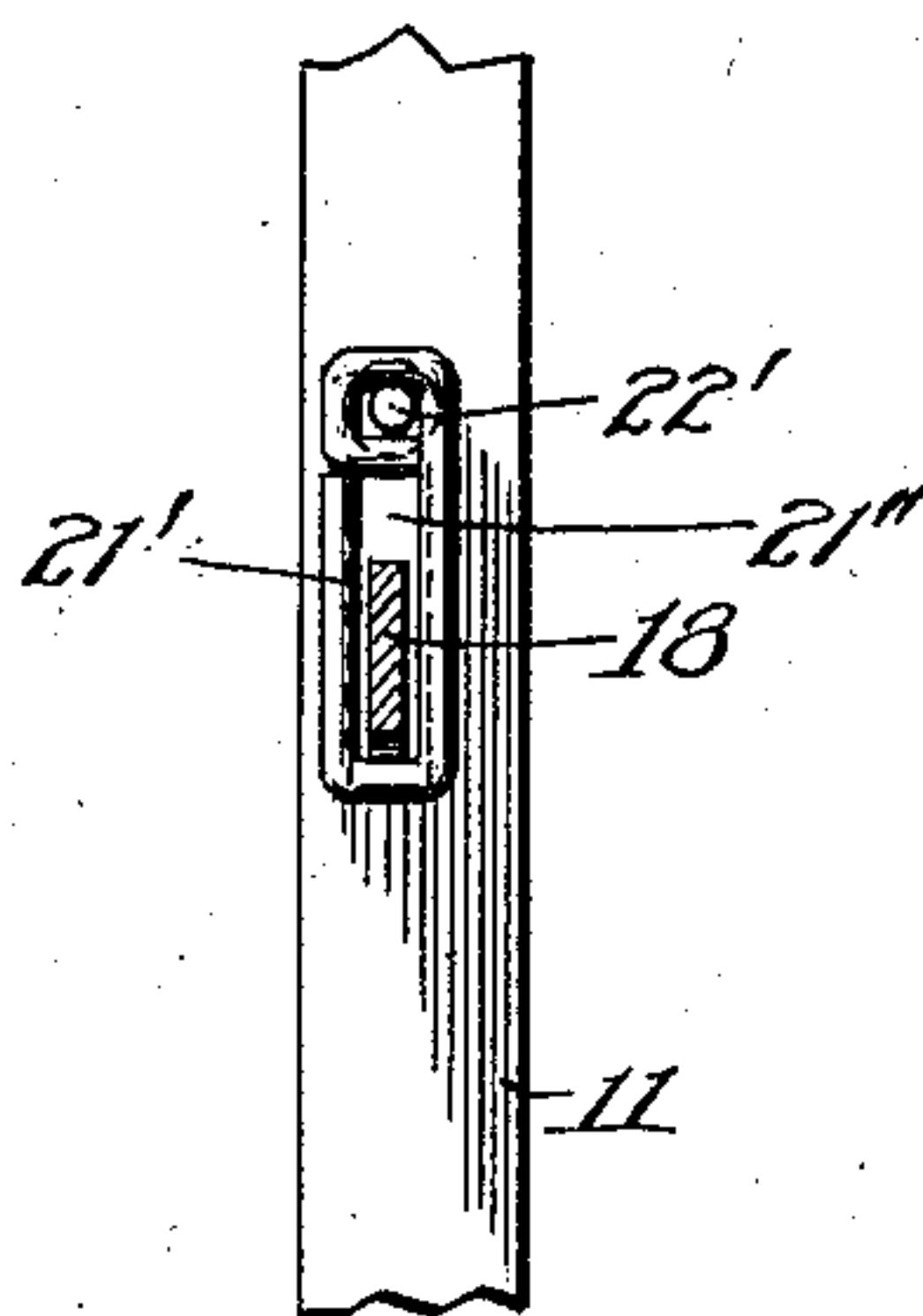
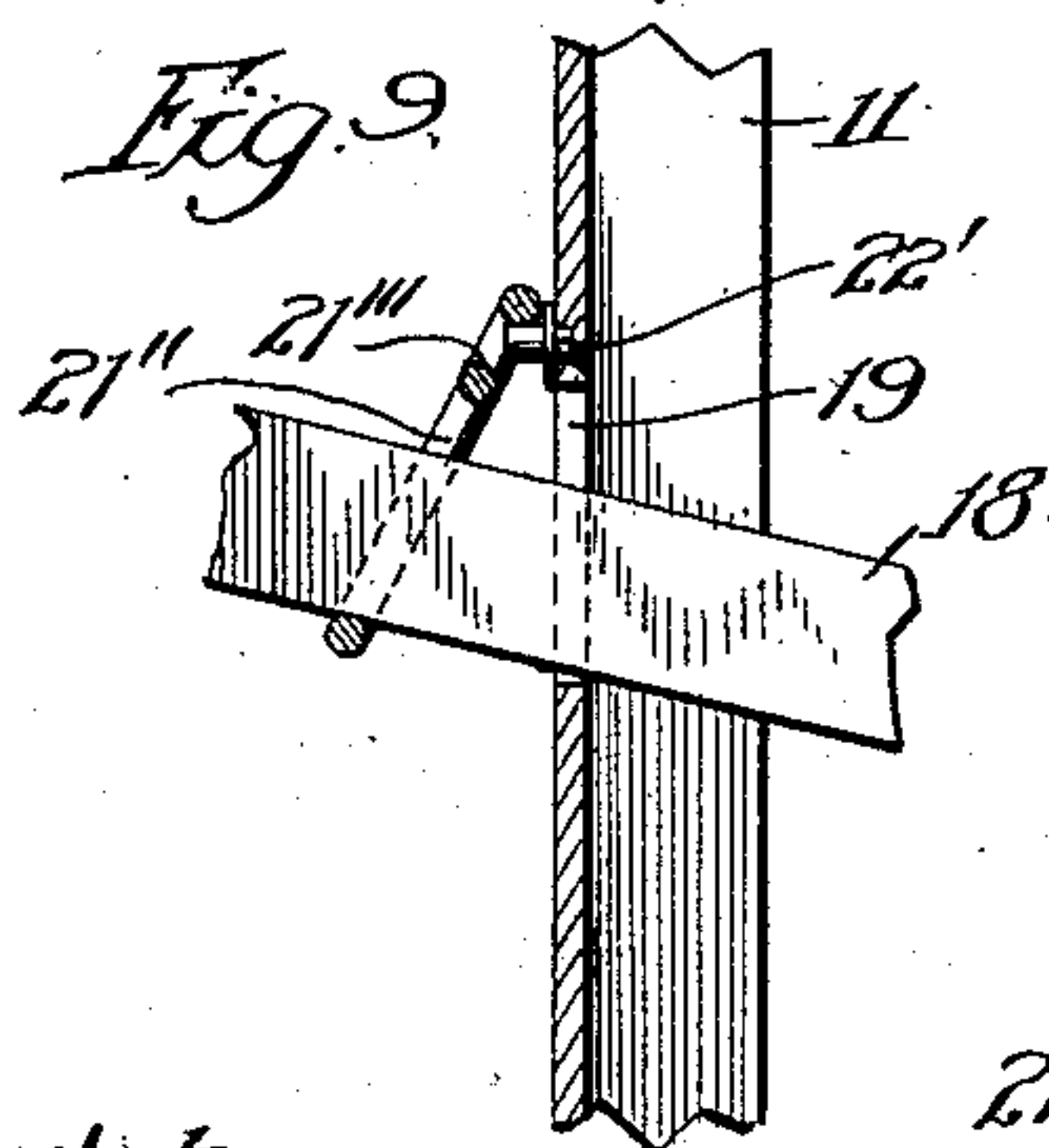
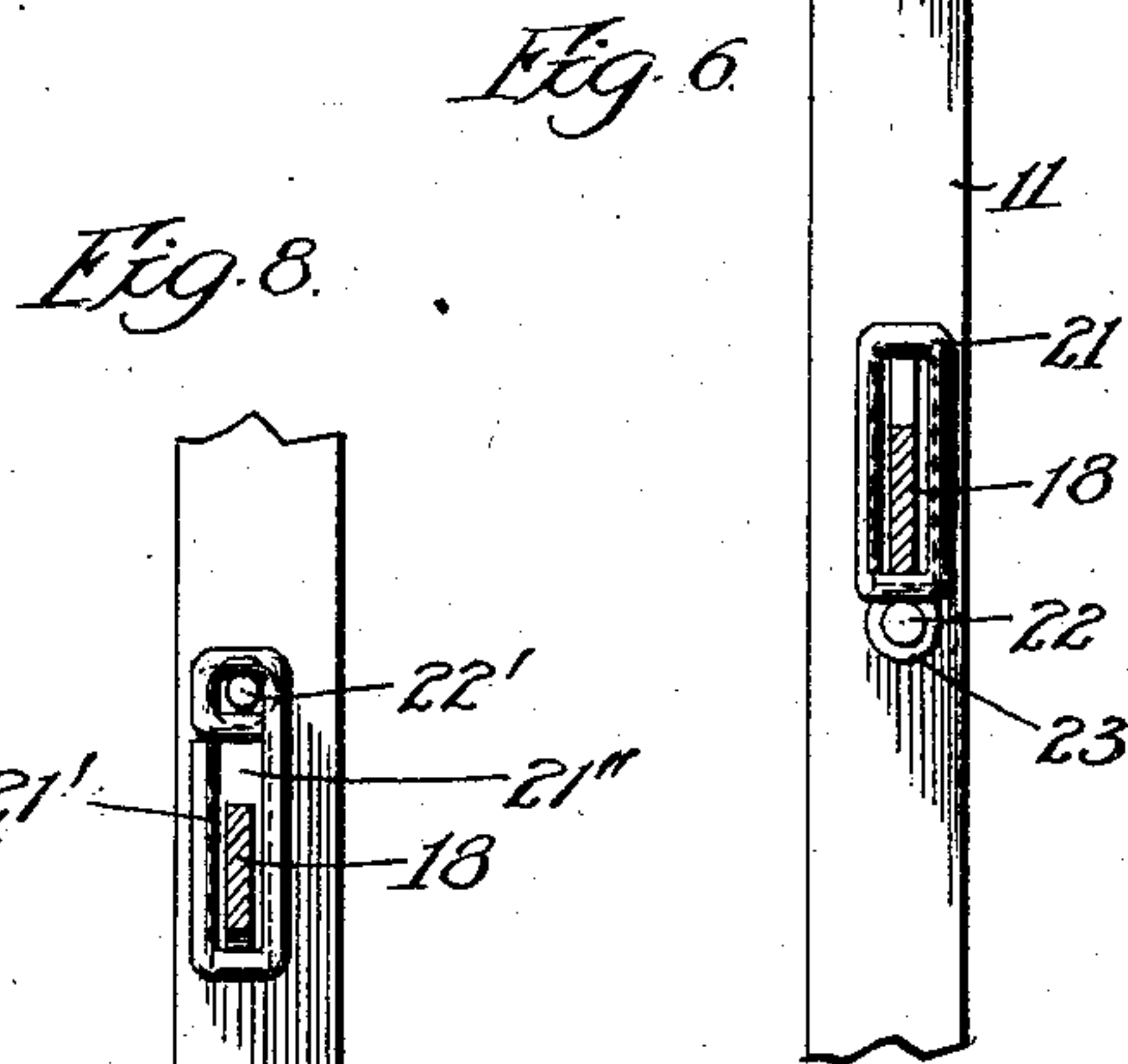
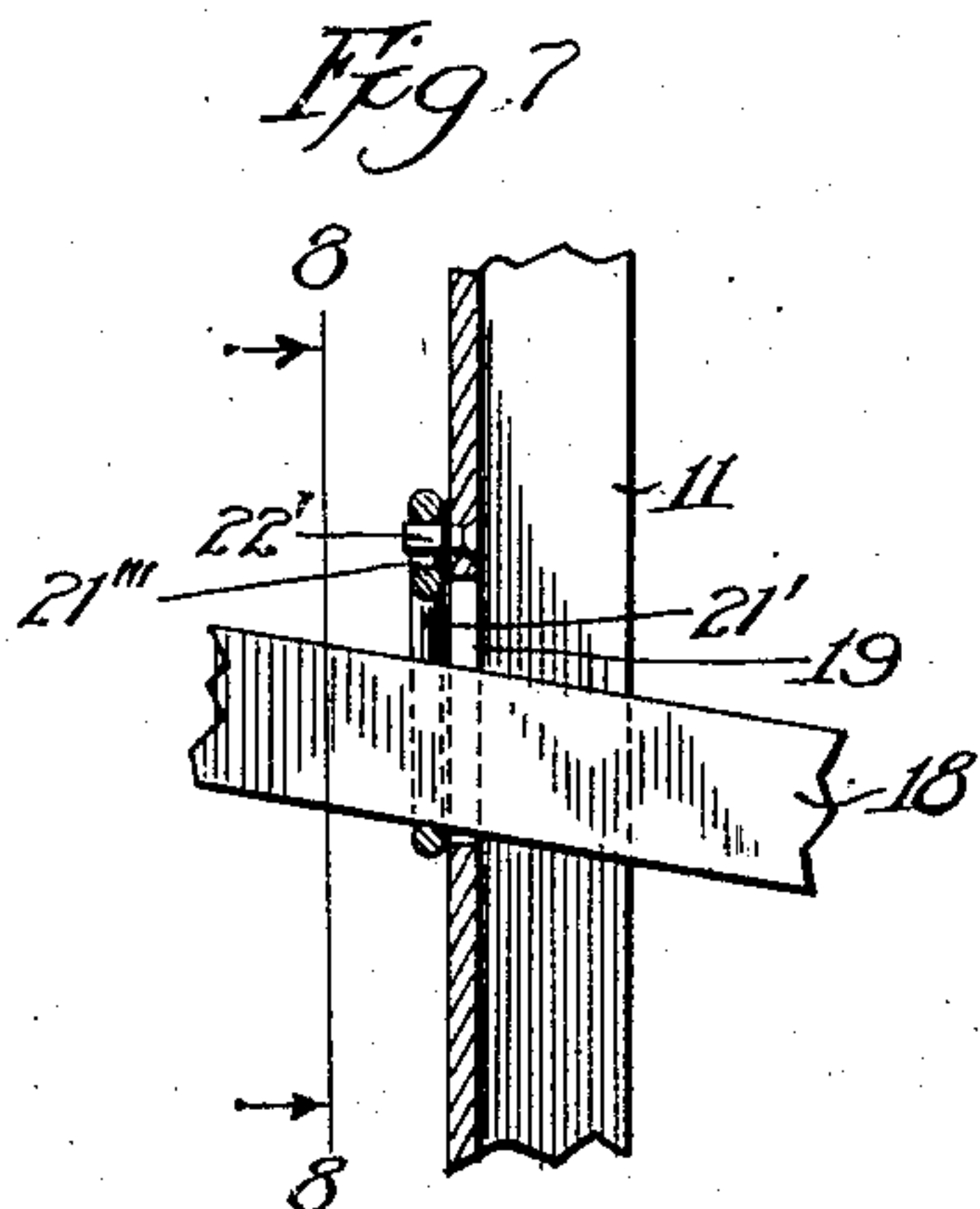
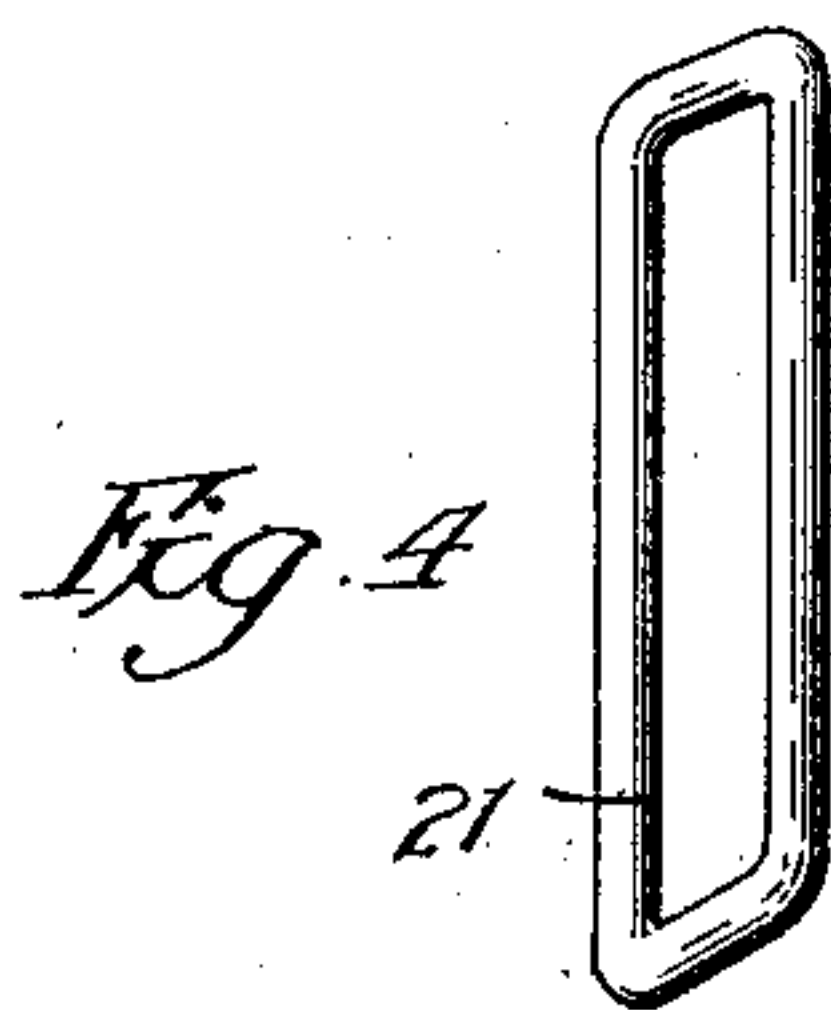
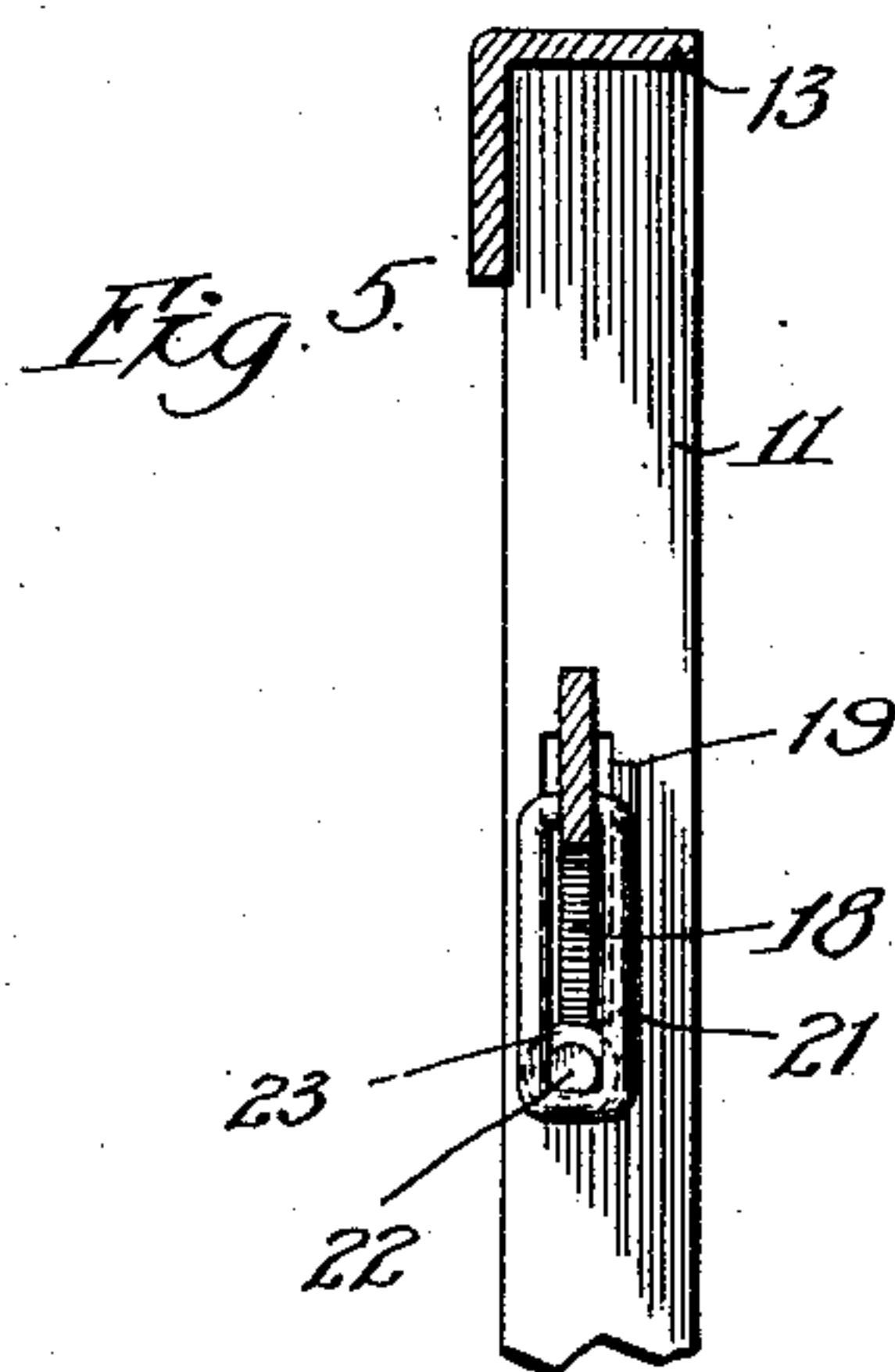
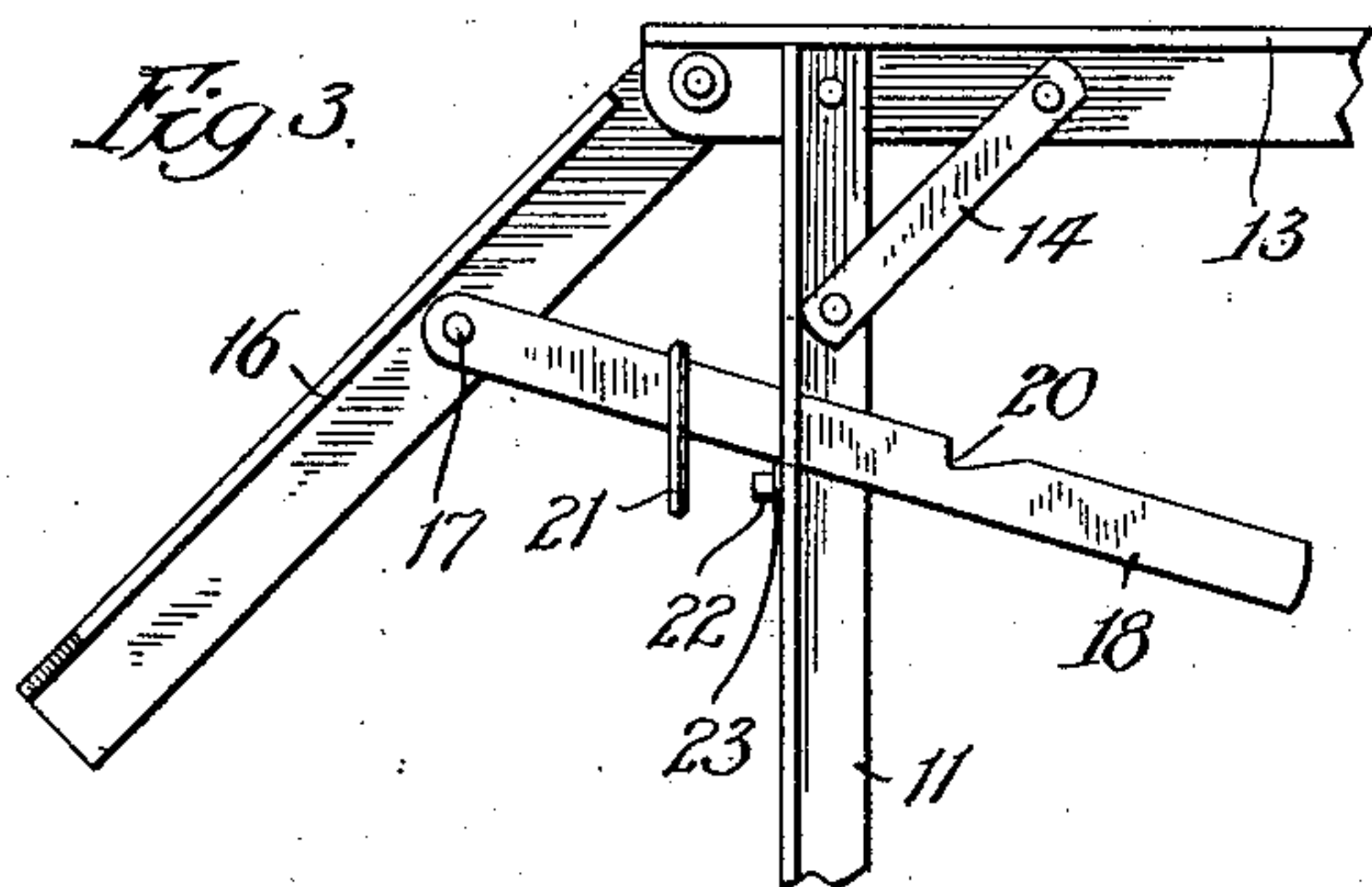
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2 SHEETS—SHEET 2.

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UNITED STATES PATENT OFFICE.

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FOLDING COUCH.

973,561.

Specification of Letters Patent.

Patented Oct. 25, 1910.

Application filed February 4, 1910. Serial No. 542,020.

To all whom it may concern:

Be it known that I, GEORGE G. POWERS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Folding Couches, of which the following is a specification.

My invention relates in general to folding couches having ordinarily one or more leaves or brackets which are normally suspended from the edge or edges of the body portion of the couch, and which may be raised into substantial alinement with the top of the couch for the purpose of increasing the width thereof.

More specifically my invention contemplates means, which, when the leaf is raised into horizontal position, will lock and retain it in that position, and which will be automatically released to permit the leaf to be lowered, by simply elevating the outer edge of the leaf above its horizontal operative position.

It is an object of my invention to provide locking means for the leaf of a couch of this character, which shall be strong and durable and certain in its operation, so that when the leaf is raised to its operative horizontal position, it may be immediately and securely locked against downward movement, and by employing my construction which has strength and durability, the dangers resulting from accidental dropping of the leaf, are obviated.

It is a further object of my invention to provide a lock of this character, which will automatically release when the leaf is elevated above its normal operative position, thereby permitting the leaf to be lowered slowly without the necessity of manually manipulating a lock to release the leaf.

A further object is the provision of a structure of this kind which shall be simple in construction, easy to assemble, cheap to manufacture, and which will not be easily broken or rendered useless by wear.

Additional aims, purposes and advantages of my invention, will become apparent as it is better understood, by reference to the following description when taken in connection with the accompanying drawings illustrating preferred embodiments thereof, while its scope will be more particularly set forth by the appended claims.

Referring to the drawings Figure 1 is an

elevation of a couch showing one of the leaves in raised and the other in lowered position. Fig. 2 is a similar view showing one of the leaves raised above its normal operative position, preparatory to being lowered, and the other leaf as partially lowered. Fig. 3 is a similar view showing one of the leaves partially raised. Fig. 4 is a perspective of the link shown in Figs. 1 to 3, inclusive. Fig. 5 is a section on the line 5—5 of Fig. 1. Fig. 6 is a section on the line 6—6 of Fig. 1. Fig. 7 is a section of a post showing a modified form of link. Fig. 8 is a section on the line 8—8 of Fig. 7. Fig. 9 is a view similar to Fig. 7, but showing the brace and link in the position which they assume when the leaf is partially raised, and, Fig. 10 is a perspective of the modified form of link illustrated in Figs. 7 to 9, inclusive.

Referring to the drawings, 11 indicates the couch posts which are of ordinary construction, and preferably supplied with casters at their lower ends. To the upper ends of the posts is riveted or bolted the end piece 13 of the couch frame, and the joints are preferably strengthened by the braces 14 and 15, while the ends of the frame piece 13 project outwardly beyond the posts for the pivotal attachment thereto, of the leaves 16. The brace 18 is pivotally secured at 17 to the leaf 16 midway the end, and is adapted to slide in and be supported by a longitudinal slot or opening 19 in the post 11. The brace 18 is provided with a notch 20, one side of which is substantially perpendicular to the edge of the brace, and the other is inclined, as shown in Fig. 3. A link 21 preferably constructed of heavy wire, is made rectangular or oblong in shape, and is adapted to slide easily upon the brace 18, and is considerably longer than the brace is deep, so that it is capable of longitudinal movement thereof, for a purpose hereinafter set forth. This link is positioned on the brace between the post 11 and the leaf 16, when the structure is assembled, and will slide freely longitudinally of the brace as the inclination of the brace is changed when the leaf is raised. The post is provided with a pin or stud 22 immediately below the slot 19, and the stud has a shoulder or washer 23 which lies close against the face of the post, and retains the lower end of the link 21 when it is resting upon the stud a short distance

from the side of the post, so that it will assume an inclined position, as shown in Fig. 2, which will prevent it from tipping off from the stud under the influence of gravity.

5 Assuming that the parts are assembled with the link upon the brace, as above described, if it is desired to raise the leaf, the outer end thereof is elevated, and as the
10 outer end of the brace moves therewith from horizontal to an inclined position, the link slides down along the brace until it drops into the notch 20, whereupon the leaf may be released and will be locked in the desired
15 horizontal position by engagement of the link between the vertical shoulder of the notch 20 and the outer face of the post 11, as illustrated by the left hand leaf in Fig. 1. When it is desired to lower the leaf, the
20 outer end thereof is elevated to the position shown on the left in Fig. 2. The link will be raised by the inclined edge of the slot 20 and will slide toward the post until its lower end rests upon the stud 22, and its upper end lies against the outer face of the
25 post. The shoulder or collar 23, as has been previously mentioned, maintains the lower end of the link a sufficient distance from the post, so that the link will lean against the post and will remain in that position of its
30 own accord. The leaf may now be lowered, the upper end of the link being maintained above the path of the shoulder of the notch, and the brace sliding through the link, as shown at the right in Fig. 2, until the leaf
35 is in its lowered position, illustrated at the right in Fig. 1.

When the link is positioned upon the stud 22, its lower inner edge projects slightly above the bottom of the slot 19, as shown in
40 Fig. 6, and the lower edge of the brace 18 rests thereon. When the leaf is again raised, the frictional engagement between the lower edge of the brace and the lower end of the link, will withdraw the link from
45 the stud, and it will drop and be suspended upon the brace, as shown in Fig. 3. As the leaf is raised to normal elevated position, the link again slides along the brace until it assumes its locking position in the notch 20.

50 In the modification disclosed in Figs. 7 to 10, inclusive, a modified form of link 21', is employed, which comprises an elongated loop 21'' adapted to slide upon the brace 18, and a smaller loop or eye 21''', adapted
55 to be engaged upon the stud 22', which projects outwardly from the couch post above the slot 19, instead of below as in the previous modification. The operation of this modification is similar to that already de-
60 scribed. The link 21' normally rests upon the brace 18 and as the leaf is raised it slides down along the brace until it drops into the notch 20, whereupon the leaf is locked in its operative position by the engagement
65 of the transverse portion of the link 21' be-

tween the shoulder of the notch 20 and the outer face of the post. When the leaf is initially elevated preparatory to being lowered, the link slides along the inclined portion of the notch 20 and is raised until the loop 70 or eye 21''' is engaged upon the stud 22', whereby the link is supported in elevated position so that the brace may slide there-
75 through to permit the leaf to assume its lowered position, as shown in Fig. 7. The link in this modification is of such a length that the inner lower surface of the elongated slot 21'', when the link is supported by the stud 22', is slightly above the lower end of the
80 slot 19, so that the lower edge of the brace 18 rests thereon. When the leaf is again raised the frictional engagement between the lower edge of the brace 18 and the lower end of the link will serve to withdraw the
85 link from its stud 22', as shown in Fig. 9, so that it will drop and again be supported by and slide upon the brace to be engaged in the slot 20 and lock the leaf in horizontal position.

While I have shown and described the em- 90 bodiments of my invention which appear at this time to be preferable, I do not wish to be restricted to the modifications shown, as my invention is generic in nature and is ca-
95 pable of various changes in structure and minor mechanical details, without departing from the spirit of the invention or sacrificing any of the material advantages thereof.

What I claim is: 100

1. In a folding couch, the combination of a couch post, a leaf, and a brace having a link loosely mounted thereon and adapted to be engaged between said brace and post to hold the leaf in raised position, substantially 105 as described.

2. In a folding couch, in combination, a couch post, a leaf, a brace, and means slidably mounted on the brace and adapted to be engaged between said brace and post for 110 holding the leaf in raised position, substantially as described.

3. In a folding couch, the combination of a couch post, a leaf, a notched brace, and means slidably mounted on the brace and 115 adapted to be engaged in the notch in the brace, for holding the leaf in raised position, substantially as described.

4. In a folding couch, the combination of a couch post, a leaf, a brace, a link slidable 120 on the brace and adapted, when in operative position, to maintain the leaf in raised position, and means for holding said link in inoperative position, substantially as de-
125 scribed.

5. In a folding couch, the combination of a couch post, a leaf, a notched brace con- 130 nected to the leaf and extending through an opening in the post, a link slidable on the brace and adapted to be engaged between

the shoulder of the notch and the side of the post to maintain the leaf in raised position, and means on the post for retaining the link in inoperative position on permit the leaf to be lowered, substantially as described.

6. In a folding couch, in combination, a couch post, a leaf, a notched brace, and a link, all constructed and arranged so that when the leaf is raised to substantially horizontal position, it will be maintained in such position by the link, and when it is raised above its normal horizontal position, the link will be moved into inoperative position to permit the leaf to be lowered, substantially as described.

7. In a folding couch, the combination of a post, a hinged leaf, a brace attached to said leaf, and means carried by the brace, capable of movement longitudinally and transversely of said brace and adapted to be interposed between said brace and post to maintain the brace in leaf-supporting position, substantially as described.

8. In a folding couch, the combination of a post, a hinged leaf, a notched brace attached to said leaf, and means mounted on said brace and adapted to be interposed between the shoulder of the notch in said brace and the post to maintain the brace in leaf-supporting position, substantially as described.

9. In a folding couch, the combination of a post, a hinged leaf, a brace attached to said leaf, means adapted to be interposed between said brace and post to act as an abutment for the former, whereby to maintain the brace in normal leaf-supporting position, and means to cause the automatic shifting of said abutment means to inoperative position when the leaf is raised above normal position, substantially as described.

10. In a folding couch, the combination of a post, a hinged leaf, a brace attached to said leaf, means adapted to be interposed between said brace and post to act as an abutment for the former, whereby to maintain the brace in normal leaf-supporting position, means to hold said abutment means in inoperative position, and means to cause the automatic shifting of said abutment means into coöperative relation with said holding means when the leaf is raised above normal position, whereby the leaf may be lowered without interference by said abutment means, substantially as described.

11. In a folding couch, the combination of a post, a hinged leaf, a brace attached to said leaf, means adapted to be interposed between said brace and post to act as an abutment for the former, whereby to maintain the brace in normal locking supporting position, means to hold said abutment means in inoperative position, means to cause the automatic shifting of said abutment means into coöperative relation with said holding means when the leaf is raised above normal position, whereby the leaf may be lowered without interference by said abutment means, and means to render said abutment means operative upon a subsequent raising of the leaf, substantially as described.

12. In a folding couch, the combination of a post, a hinged leaf, a brace attached to said leaf, means adapted to be interposed between said brace and post to act as an abutment for the former, whereby to maintain the brace in normal-leaf supporting position, means to maintain said abutment means in inoperative position, means to cause the automatic shifting of said abutment means into inoperative position when the leaf is raised above normal position, whereby the leaf may be slowly lowered without interference by said abutment means, and means to withdraw by frictional engagement the abutment means from its inoperative position, whereby said abutment means will again assume its operative position to maintain the brace in leaf-supporting position when it is again raised, substantially as described.

GEORGE G. POWERS.

Witnesses:

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I. J. WILSON.