

No. 746,085.

PATENTED DEC. 8, 1903.

H. G. M. HOWARD.

FOLDING CHAIR.

APPLICATION FILED FEB. 4, 1903.

NO MODEL.

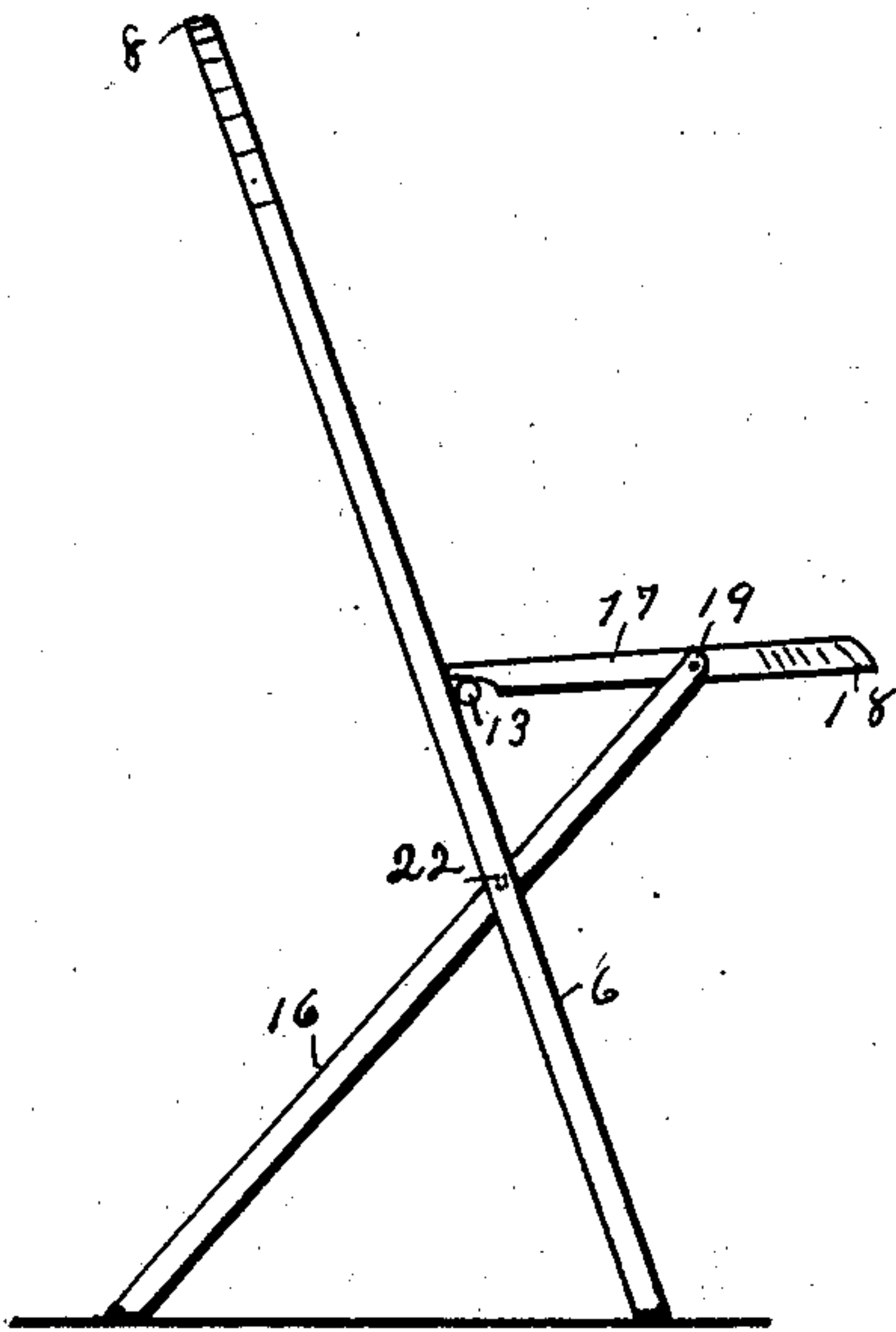


Fig. 1.

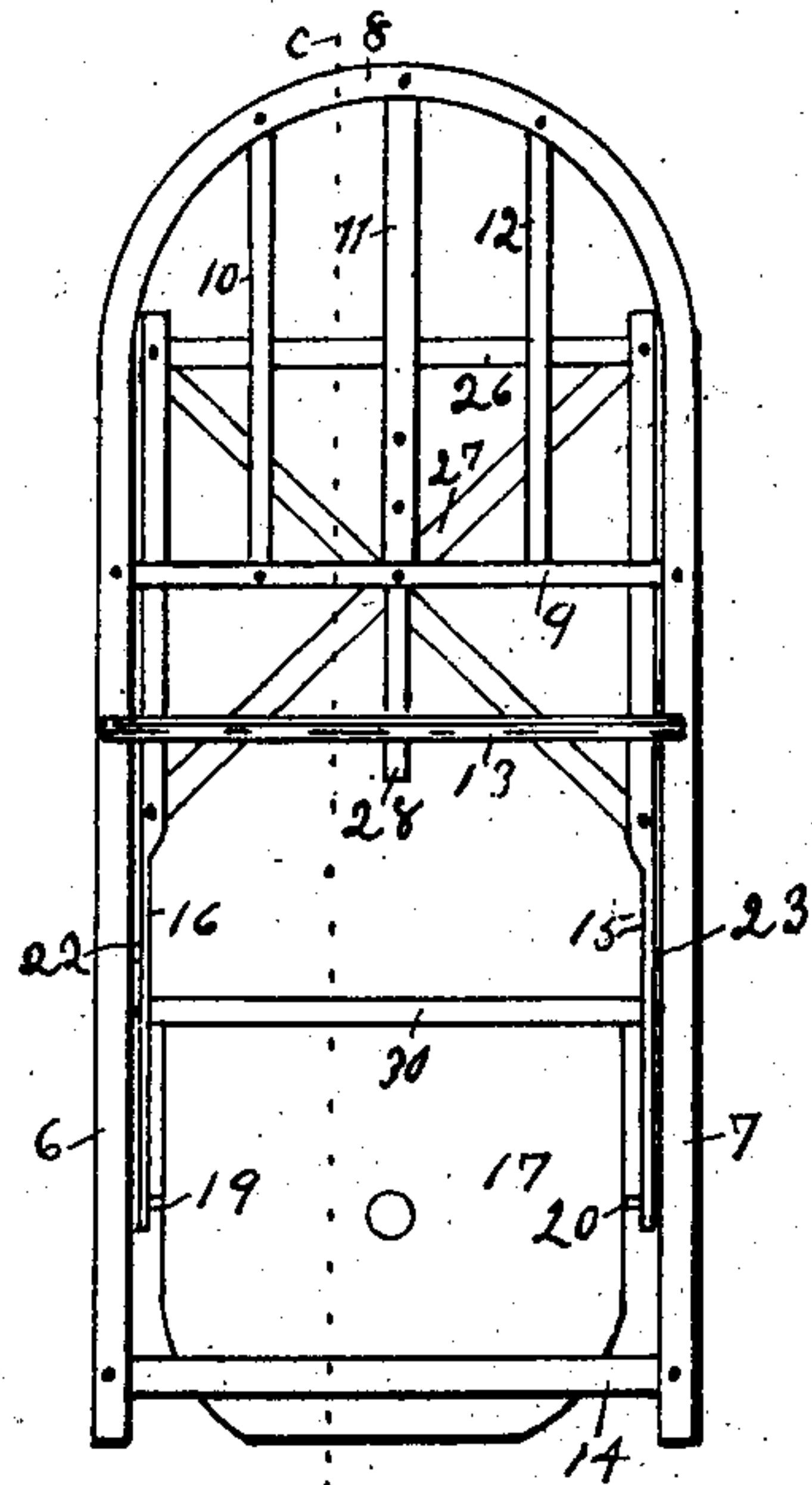


Fig. 2.

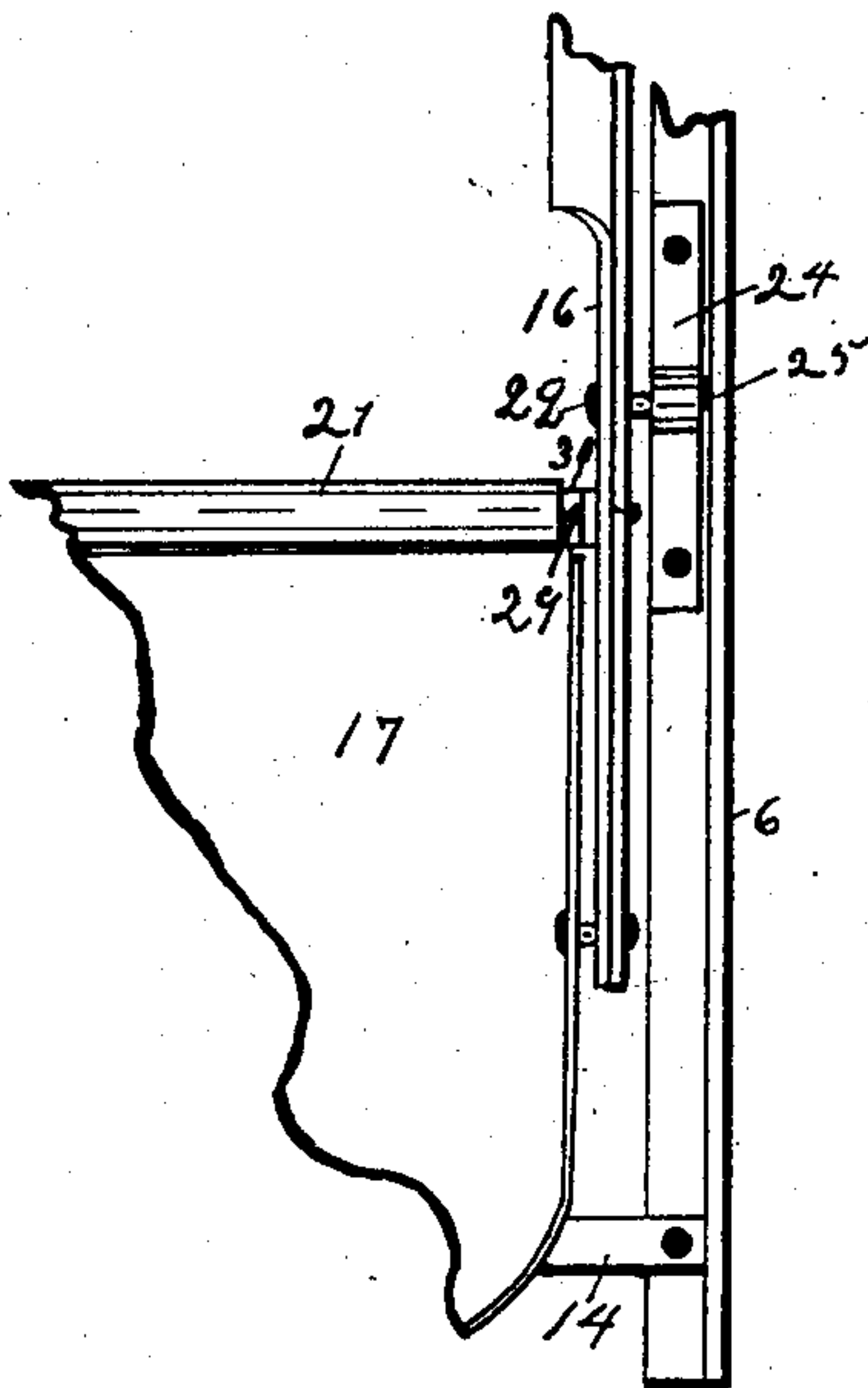


Fig. 3.

WITNESSES:

J. L. West

R. G. West

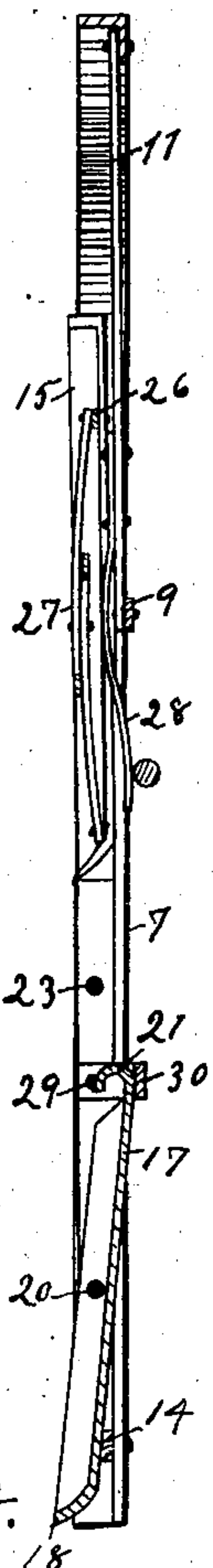


Fig. 4.

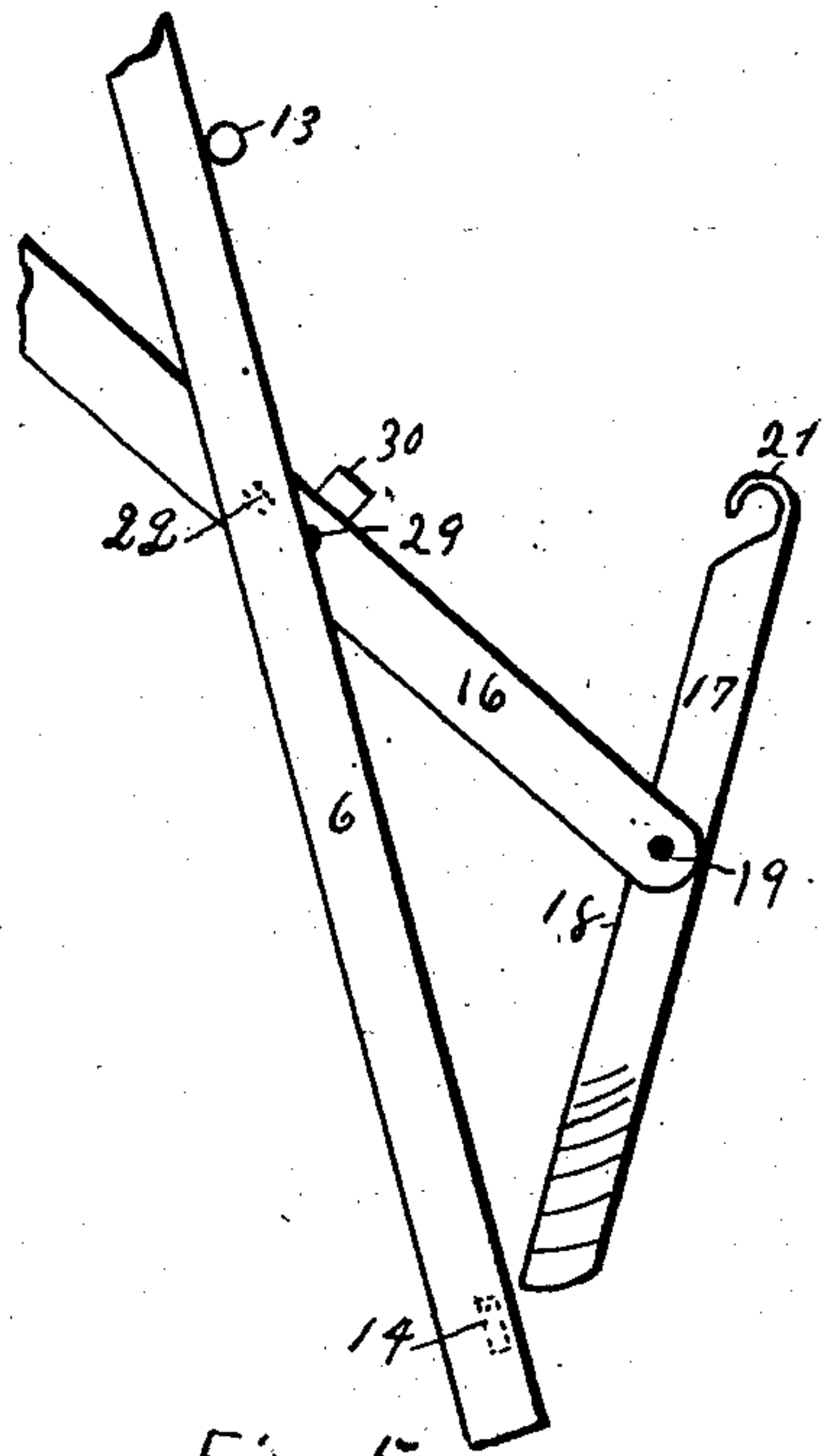


Fig. 5.

INVENTOR:

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# UNITED STATES PATENT OFFICE.

HENRY G. M. HOWARD, OF KALAMAZOO, MICHIGAN.

## FOLDING CHAIR.

SPECIFICATION forming part of Letters Patent No. 746,085, dated December 8, 1903.

Application filed February 4, 1903. Serial No. 141,792. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY G. M. HOWARD, a citizen of the United States, residing at Kalamazoo, in the county of Kalamazoo and State of Michigan, have invented a new and useful Angle-Steel Folding Chair, of which the following is a specification.

The object of this invention is to produce the below-described folding chair made from angle-steel, with a design of neat appearance, strength, and especially to occupy little space in its folded condition and to guard against accidental collapsing.

In the drawings forming a part of this specification, Figure 1 is a side elevation of the chair as when in condition for use; Fig. 2, a front elevation of the chair as when folded looking from a point at the right of Fig. 1; Fig. 3, an enlarged view broken from the left of Fig. 1 and reversed; Fig. 4, an enlarged vertical section on line *c c* in Fig. 2 looking from a point at left hand, and Fig. 5 represents enlarged broken details below described.

Referring to the parts of the drawings pointed out by numerals, 6 7 are the front legs, continuous from one to the other at 8 at the upper end, and thus forming the back portion against which the back of the occupant rests. This back is filled in with one cross-strip 9 and three upright strips 10 11 12. These strips 9, 10, 11, and 12 are sufficiently elastic to yield slightly under the pressure of the back of the occupant and impart an easy position. Attached about central to the legs 6 7, between the upper and lower end, is a cross-rod 13, and near the lower end, is attached a cross-strip 14, said rod and strip serving to hold and stiffen the legs, but are intended for the purpose below pointed out as well. These strips mentioned are attached to the back side of the front flange of the angle-steel, thus leaving the front and side surface of the back and legs comparatively smooth.

About half the length of the angle-steel rear legs 15 16 have the two flanges pressed together, as shown clearly in Fig. 3, to give room and freedom of movement of the seat 17. This seat is pressed out of a sheet of metal, dishing so that the edges at sides and front flange down at 18. The seat 17 is hinged or pivotally attached to the ends of the rear legs at 19 20. The rear edge is turned over down-

wardly, as at 21, Figs. 4 and 5, hooked in cross-section, and this hooks over the rod 13 when the chair is in its used position, as in Fig. 1.

The rear legs are pivotally attached to the front legs at 22 23, where they cross each other, Fig. 3. The front legs are provided with bearing-blocks 24, attached to the outer flanges, by which means the double part of the rear legs and the bearing-blocks receive the pivot 25, as in Fig. 3.

That portion of the rear legs 15 and 16 which is down when the chair is in use is held together by a cross-strip 26 and an X-strip 27, as in Figs. 2 and 4, riveted or otherwise attached to them.

To prevent the chair from accidentally collapsing when in its used position, I attach a spring-bar 28 to the strip 11, allowing said spring-bar to extend below the rod 13. When the seat 17 is in its used position, its turned-over edge 21 comes between the spring-bar 28 and the rod 13.

A lock-bar having each end turned at an angle and pivoted to the rear legs at 29 is shown at 30.

When folding the chair, the turned-over edge 21 is disengaged from the rod 13, the lower end of the rear legs and the upper end of the back brought toward each other, and the lower edge of the seat allowed to pass back of the strip 14 and swung within the front legs, and the lock-bar 30 is swung over the rear edge of the seat, as in Fig. 4, thus binding it there and holding it firm. Fig. 4 shows the position of parts when the chair is folded, occupying but little more space than the width of the side flange of the front legs and back. Thus held closely and compactly and firmly the chairs can be stored in small space and quite roughly handled with no danger of collapsing or breaking.

In Fig. 5 the front edge of the seat may be considered as just passing back of the strip 14, or, on the other hand, it is just passing from behind said strip, and the seat will be swung up and hooked over the rod 13 in its used position.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent of the United States of America, is—

1. The front legs having the central cross-



rod and lower cross-strip attached thereto, the rear legs having the lock-bar with angle ends hinged to the legs and adapted to hold the chair-seat in its folded position, said front  
5 and rear legs crossing each other and pivoted together where they cross, combined with the chair-seat hinged to the upper forward ends of the rear legs and provided with the turned-over end adapted to detachably catch over  
10 the cross-rod of the front legs when the chair is in its used position, substantially as set forth.

2. The front legs and chair-back of continuous angle-steel having the central cross-rod and lower cross-strip attached to the legs,  
15 the elastic strips attached to the chair-back and having the elastic bar with end extended below the cross-rod, the angle-steel rear legs having the lock-bar with angle ends hinged

to said legs and adapted to hold the chair- 20  
seat in its folded position, said front and rear legs crossing each other and pivoted together where they cross, combined with the chair-seat hinged to the upper forward ends of the rear legs and provided with the turned- 25  
over end adapted to pass between the extended end of the elastic bar and the cross-rod when detachably caught over said cross-rod, whereby the chair is prevented from accidental collapsing when in its used position, 30  
substantially as set forth.

In testimony of the foregoing I have herewith subscribed my name in the presence of two witnesses.

HENRY G. M. HOWARD.

Witnesses:

MAMIE E. KEEF,

JOHN W. JOHNSTON.