

E. H. H. ASHTON.
FOLDING CHAIR.
APPLICATION FILED APR. 2, 1910.

993,634.

Patented May 30, 1911.

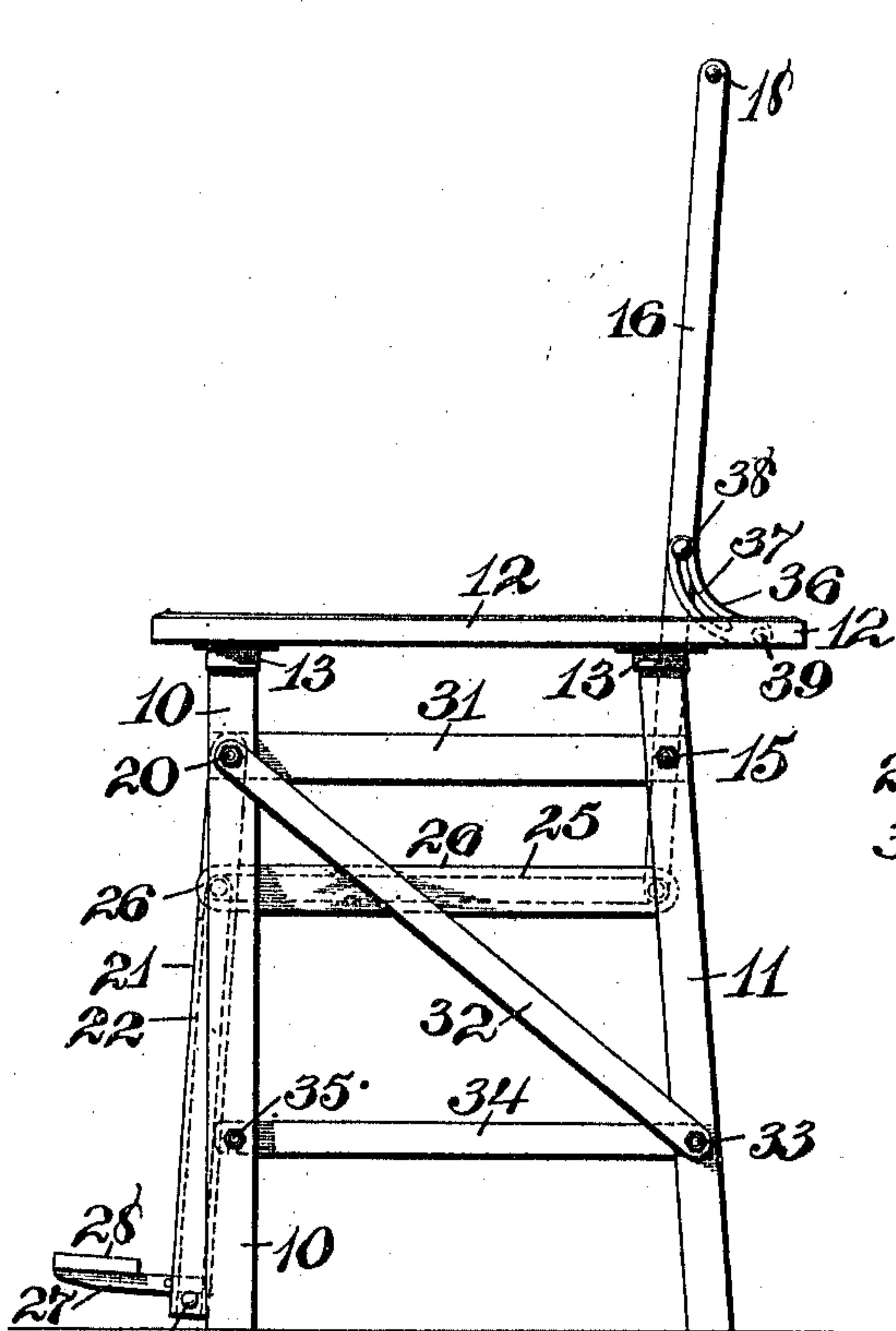


Fig. 1

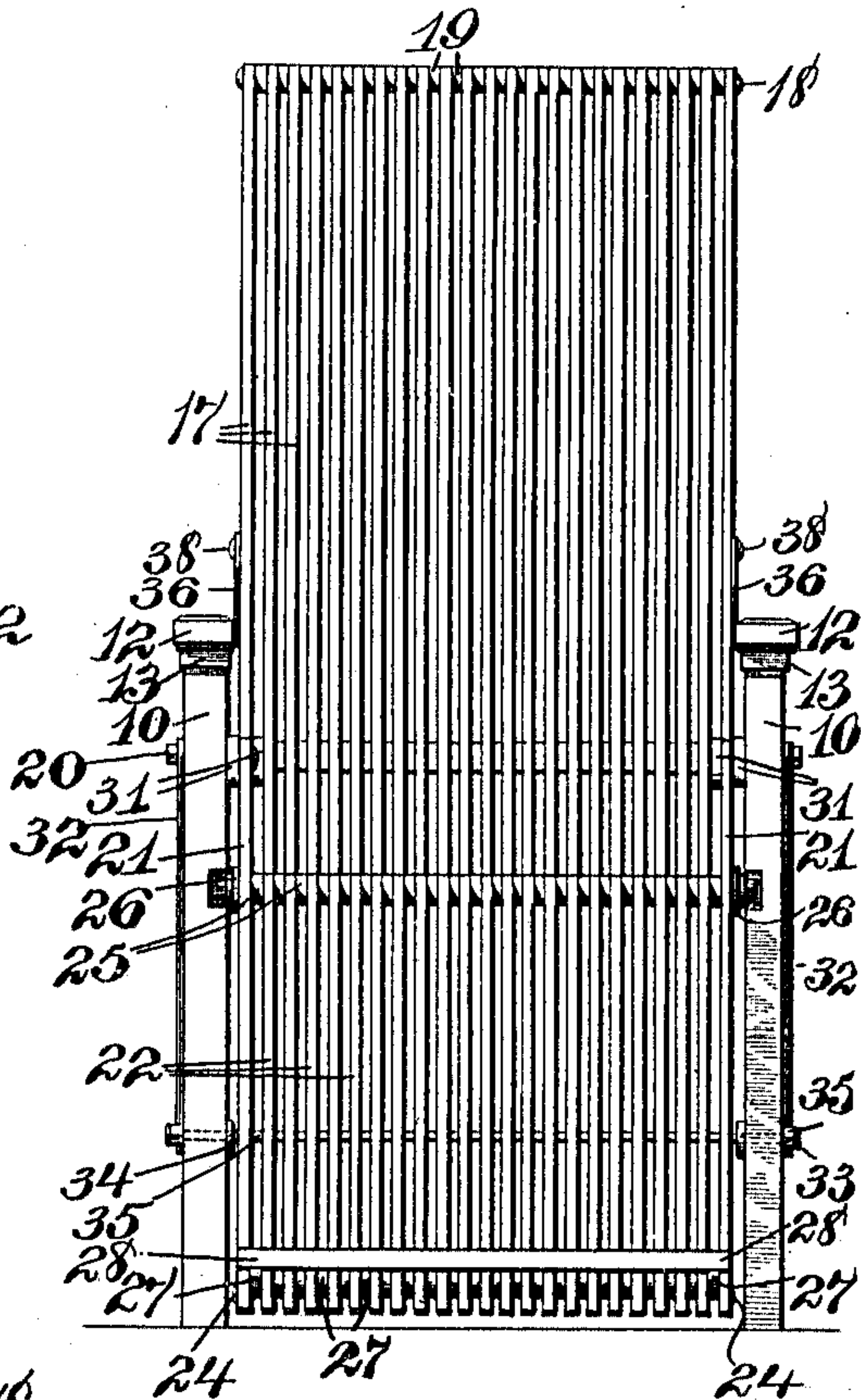


Fig. 2

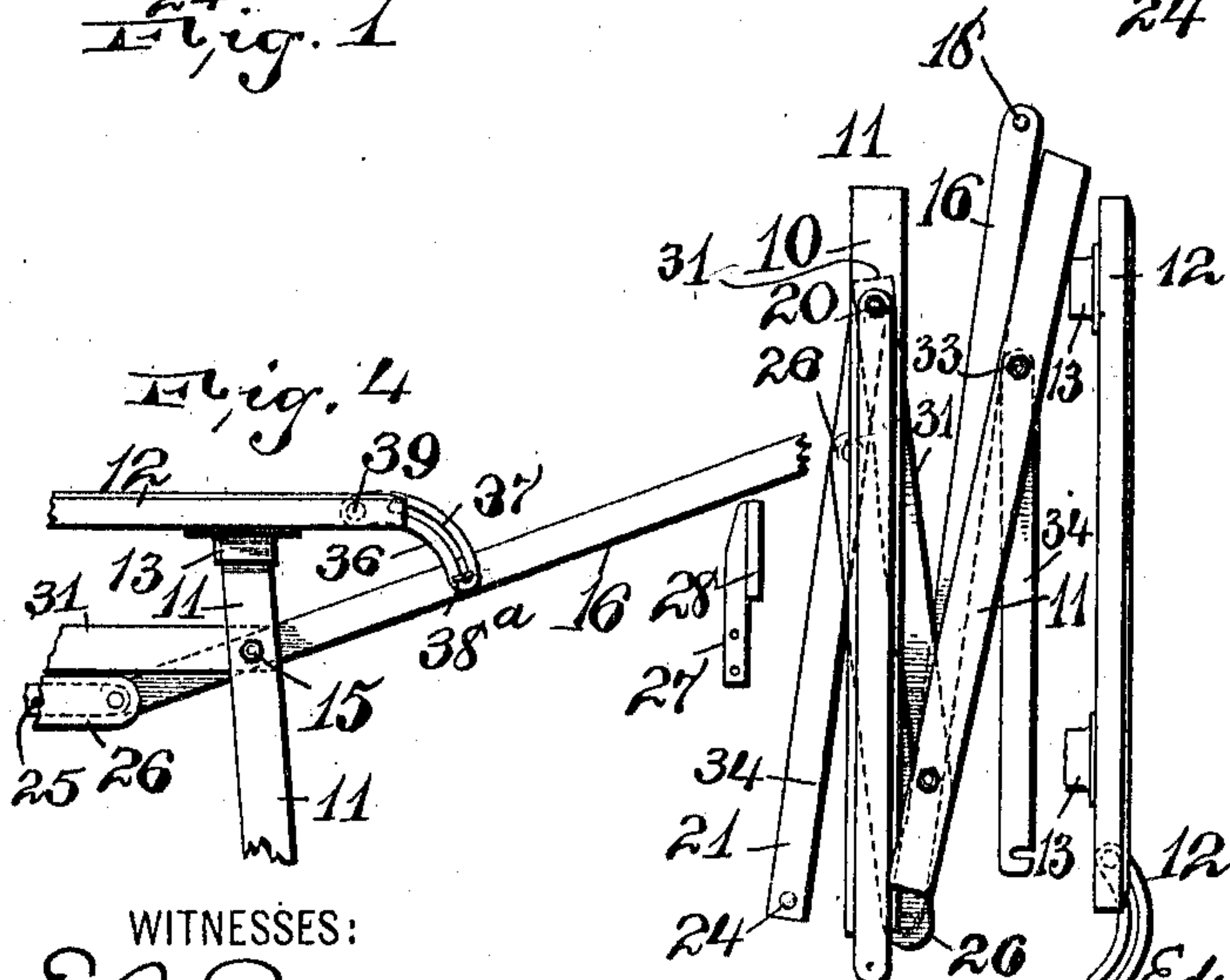


Fig. 3

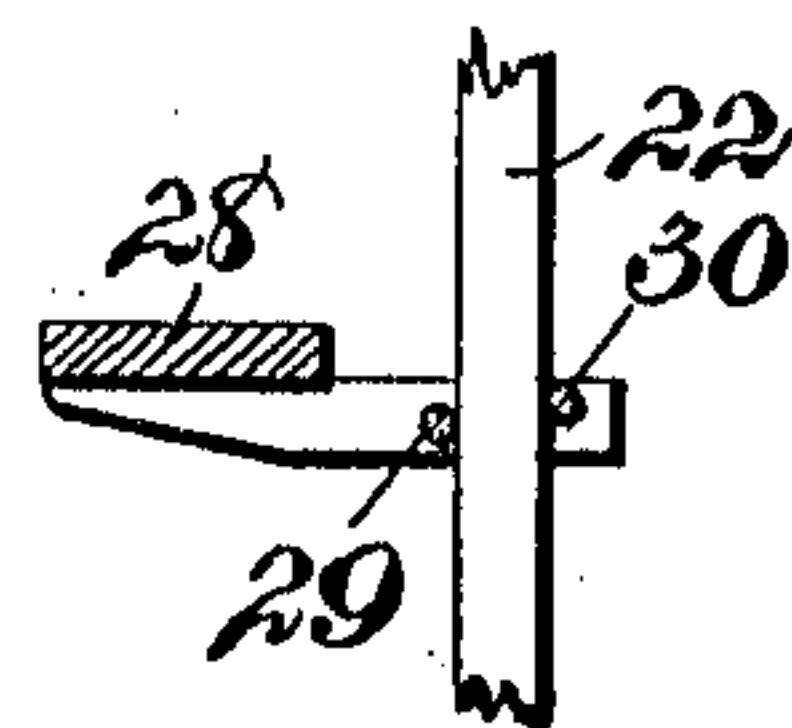


Fig. 4

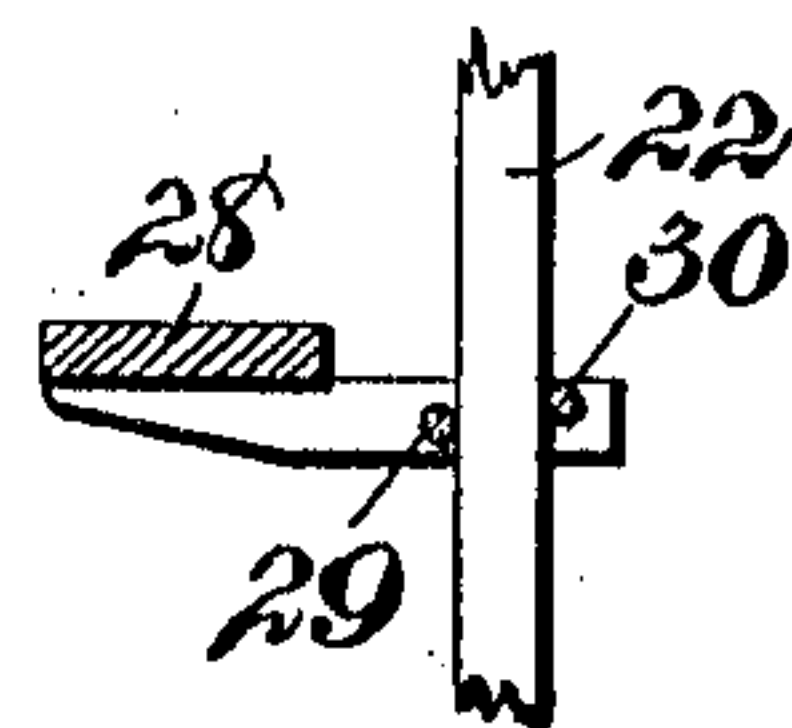


Fig. 5

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UNITED STATES PATENT OFFICE.

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FOLDING CHAIR.

993,634.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, EDWARD H. H. ASHTON, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Folding Chairs; and I do hereby 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, reference being had to the accompanying drawings, and to figures of reference marked thereon, which form a part of this specification.

This invention relates to a chair that is of the reclining type having a back portion and a foot-rest that are both hinged between the legs of the chair and on which is suspended a seat portion so that any movement from the perpendicular, by the back or the foot-rest, will cause a corresponding swinging of the other parts so that the device can be made to adapt a person in a reclining or nearly horizontal position, the whole movement being actuated by the pressure of the back and the feet, on the back of the chair and the foot-rest respectively.

The invention is further designed to provide a chair of this type which is adapted to be collapsed, and which, when collapsed, occupies a small space so that it is adapted for easy transportation and storage, and is particularly adapted to be used as a porch chair or a reclining chair, being made of parallel strips or slats in the back, the seat, the foot-rest and the brackets thereof.

The invention also provides a stop between the frame of the chair and the back, which stop limits the forward movement of the back, and consequently of the other parts that are movable, and swings with the back, forming a guard to prevent the entrance of parts of the body between the back and the frame of the chair so that when the reclining position is disturbed and the back comes up there is no chance of catching the body or clothing of the wearer between the arm and back. This stop also limits the backward movement of the reclining portion so that there is no danger of the tilting movement going too far.

The invention is illustrated in the accompanying drawing, in which—

Figure 1 is a side view of the improved chair. Fig. 2 is a front view thereof. Fig. 3 is a view of the chair folded. Fig. 4 is a side view of a part of the chair showing the stop piece limiting the downward movement of the back, and Fig. 5 is a section through the foot-rest showing the foot-piece with relation to the foot-rest.

The chair consists of a pair of front legs 10 and a pair of rear legs 11, these legs being connected by the arms 12, one on each side, each arm having a pair of sockets 13 into which the legs 10 and 11 are adapted to tightly fit to hold them together, but by means of which they are detachable. If desired, suitable attaching means, as screws, can be used to fasten the sockets 13 and the legs together. Pivotally arranged at 15 is the back 16, which back is pivoted near its bottom edge so as to swing between the rear legs of the chair, and is formed of parallel slats 17 which are connected at their top edges by a suitable rod or bar 18 and spaced by the blocks 19. The foot-rest is suspended pivotally on rods 20 secured in the front legs 10; the foot-rest being suspended by the side strips 21 which extend down the required distance and have arranged between them the parallel slats 22 which are spaced apart by the brackets 27, the side strips and the slats being held together by a suitable rod 24. The bottom edge of the back and the top edge of the foot-rest, that is, the bottom of the slats 17 and the top of the slats 22, are spaced apart by the slats 25 which form the seat portion and are thus supported by the foot-rest and the back, and are in pivotal relation with both the foot-rest and the back and at the same distance from the pivots 15 and 20 so that when the back or the foot-rest is swung, the seat is swung forward but always maintains its parallel relation with the floor. The side strips 26 of the seat are made wider than the slats 25 to provide stiffness at the sides. The rod 24 acts as a stop to limit the downward movement of the brackets 27, which brackets extend out from between the slats 22 and are joined by and serve to support a strip 28 which forms a

foot-piece on which the feet are adapted to rest. As shown in Fig. 5 the brackets are connected with rods 29 and 30, one of which is higher than the other, which permit the brackets being slid on the slats to regulate the position of the foot-piece to adapt the foot-piece for different heights when the foot-rest is tilted, these rods 29 and 30, also acting to bind the foot-piece, when pressure is exerted on it, so that it is held in place when supporting the feet.

The pivotal rods 15 and the bolts 20 are connected on each side by a brace 31 which can swing on these pivots, these braces being preferably arranged in pairs on each side as shown in Fig. 2, and the diagonal brace 32 is connected, on each side on the outside of the legs, at one end to the pivotal bolt 20 and at the other end to the rod 33, the brace 32 being detachable from the rod 33. On the inner side of the legs, and on each side of the chair, is arranged a brace 34, each brace having its end slotted so that it can swing from a rod 35 to more securely brace the legs of the chair. The slotted ends of the braces 34 permit the braces to be lifted up from the rod 35 so that the braces can be disengaged when the chair is collapsed. When the chair is tilted backward as shown in Fig. 4 the strain on the frame and also on the seat becomes greater, and the strips 26 engage the braces 31 and the structure is thus stiffened and made more solid, this being brought about by the engagement of these parts. To stiffen the back and to prevent sagging thereof, and to also provide for better lateral strength, I prefer to run the rod 15 through the slats forming the back and through the rear legs, and also through blocks that are placed between the slats 17 to properly space them.

The arms 12 extend beyond the rear legs 11 and have, pivotally secured to their inner sides, a pair of stops 36, each stop being slotted as at 37, the slot being adapted to permit the stop to slide on the pin 38, one pin being arranged on the outside of each side of the back, the stop itself being pivoted at 39. The stop 36 swings on a shorter radius than the chair back, and the back of the chair is limited in its forward movement, as shown in Fig. 1, by the end of the slot engaging the pin 38. When the chair is swung back to its limit of movement as shown in Fig. 4 the end of the slot again engages the pin 38 and prevents any further tilting of the back, and at the same time the stop forms a guard or shield to prevent any part of the body or clothing of the occupant of the chair being caught and squeezed between the end of the arm 12 and the back 16 of the chair when the chair is swung forward. This guarding or shielding feature is particularly illustrated in Fig. 4. If de-

sired the stop or shield can have its slot work on a bolt 38^a, shown in Fig. 4, which has a T-shaped head, which head is normally at right angles to the slot, but which can be turned parallel with the slot to permit the shield to be removed from the head without removing the head from the back of the chair.

When the chair is to be collapsed for transportation or storage the arms 12 are lifted off so that the sockets disengage the legs, the arms being shown detached in Fig. 3. The brace 32 is detached from the pivot 33 by unscrewing the nut and then replacing the nut, and the brace then hangs down as shown in Fig. 3. The ends of the braces 34 are lifted out of engagement with the rod 35. The rear legs are then turned on the pivotal rod 15 so that they are reversed with their bottom ends upward, and the braces 31 are then swung on the pivotal pins 20 so that the rear legs 11, in their reversed position, lie nearly parallel with the front legs 10. The seat and the back portion also fold together when the legs are brought together, and the foot-piece can also be detached by withdrawing either one of the rods 29 or 30, and the chair is then in the shape shown in Fig. 3 and the parts can all be bound together by a suitable strap or other similar means, and thus a compact bundle is provided, at the same time being adapted, when extended, to make a large and comfortable chair, and one which is particularly adapted for porch or summer uses.

Having thus described my invention, what I claim is:—

1. A chair comprising a pair of front legs, a pair of rear legs, an arm for each front and rear leg, means for detachably securing the arms to the legs, a back pivoted near the bottom thereof to the rear legs, a foot-rest pivoted at its top to the front legs, a seat pivoted at its front end to the foot-rest and at its rear end to the bottom of the back, a brace arranged on each side of the chair and in swinging relation to the pivot of the foot-rest and the front leg and the back and the rear leg, and a brace on each side pivotally connected to one of the legs and having means for detachably securing it to the other leg.

2. A chair comprising a pair of legs on each side, a back pivoted near its bottom between the rear legs, a foot-rest pivoted at its top between the front legs, a seat pivoted to the bottom of the back and to the upper portion of the foot-rest, a brace on each side, each brace engaging the pivot of the back and the pivot of the foot-rest, a diagonal brace on each side, each diagonal brace being in pivotal engagement on one end with the pivot of the foot-rest and being detachably secured at its other end to the lower portion

of the rear leg, and a pair of braces, each
brace being pivoted to the pivotal connection
between the diagonal brace and the rear leg,
each of the last mentioned braces having a
5 slot in its free end, and a rod connecting the
front legs and adapted to enter the slots in
the braces.

In testimony, that I claim the foregoing,
I have hereunto set my hand this 31st day of
March 1910.

EDWARD H. H. ASHTON.

Witnesses:

WM. H. CAMFIELD,
E. A. PELL.