

No. 862,686..

PATENTED AUG. 6, 1907.

F. W. WALLACE.
SWING.

APPLICATION FILED DEC. 28, 1906.

4 SHEETS—SHEET 1.

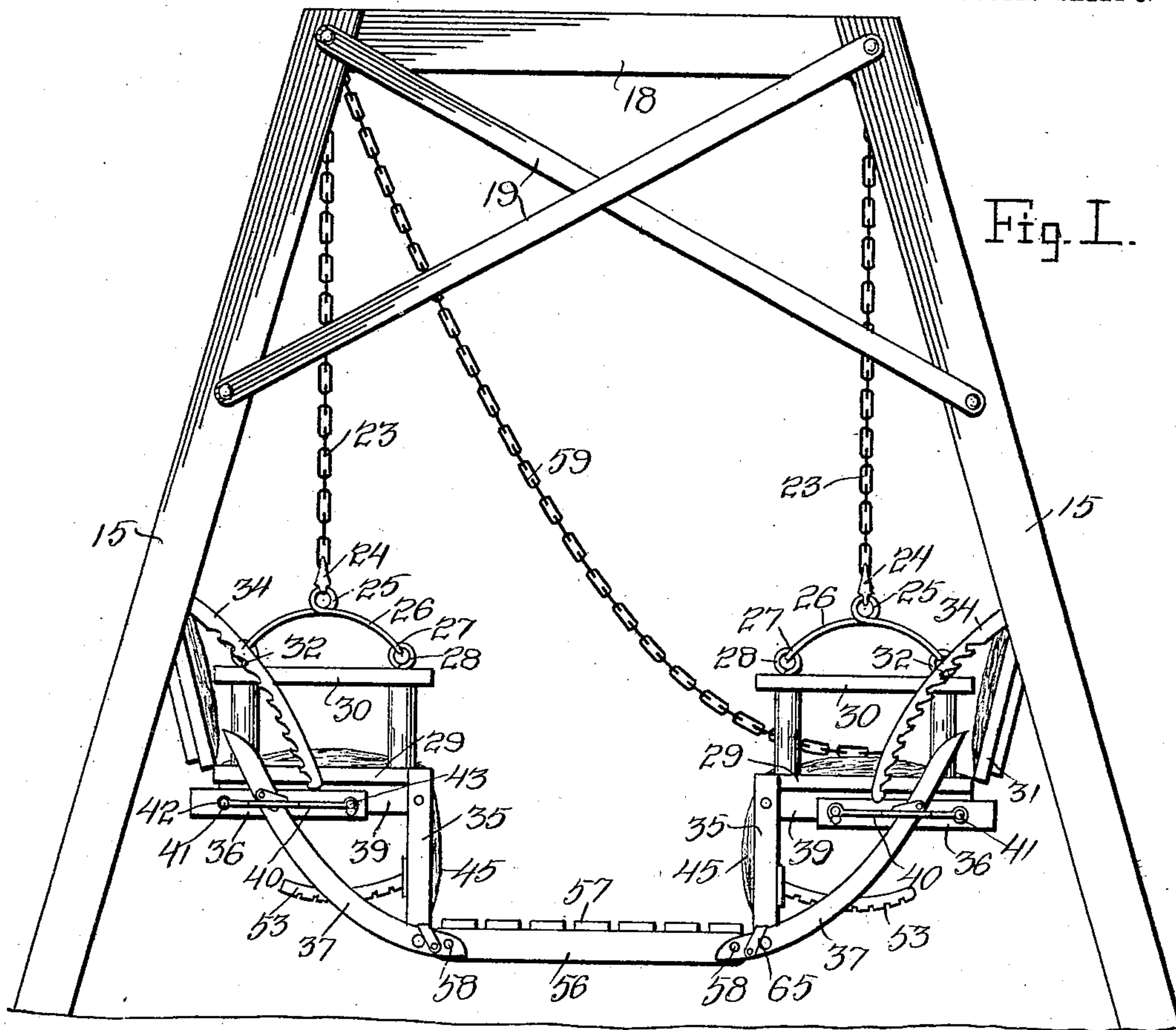


Fig. I.

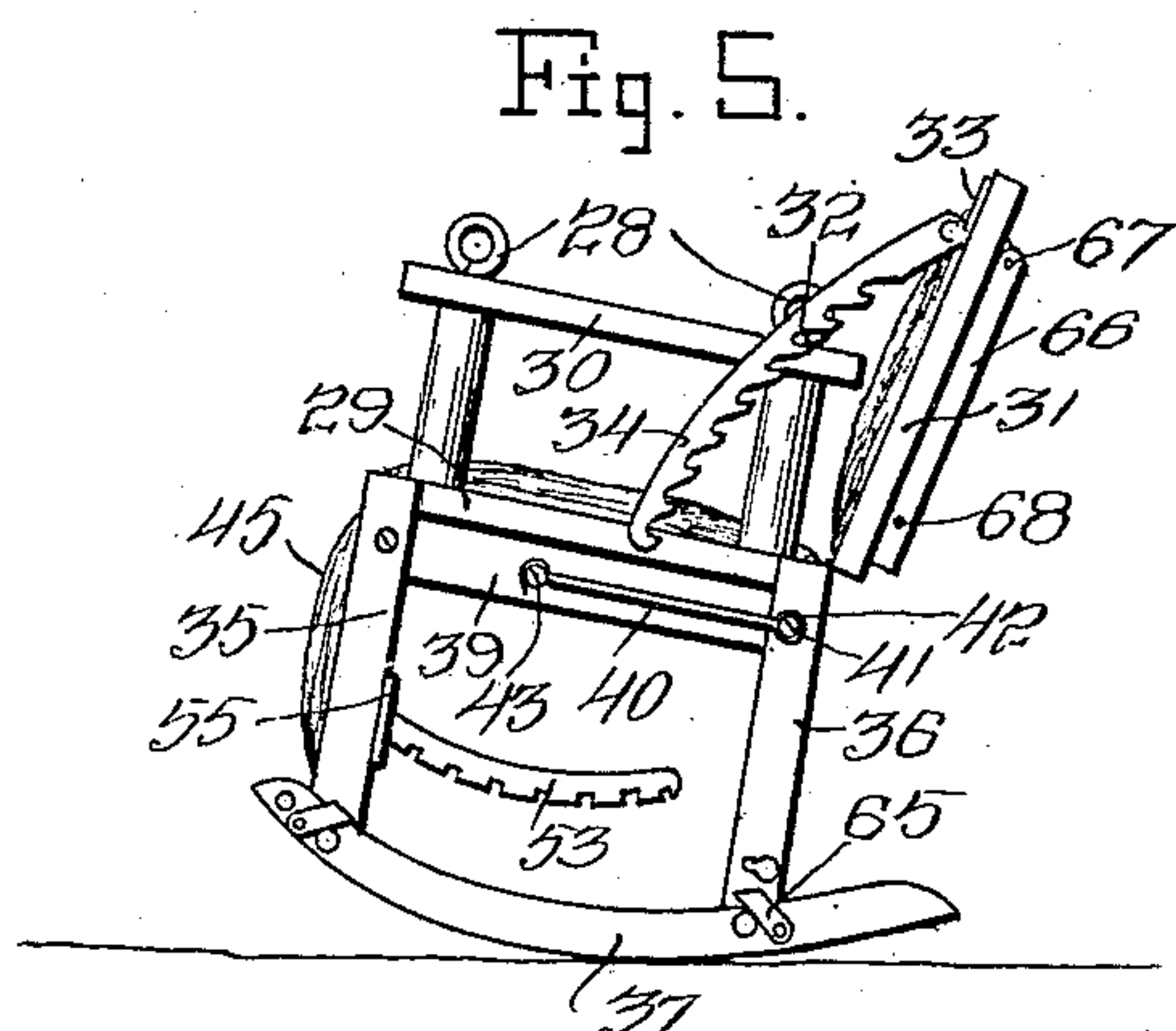


Fig. 5.

Witnesses

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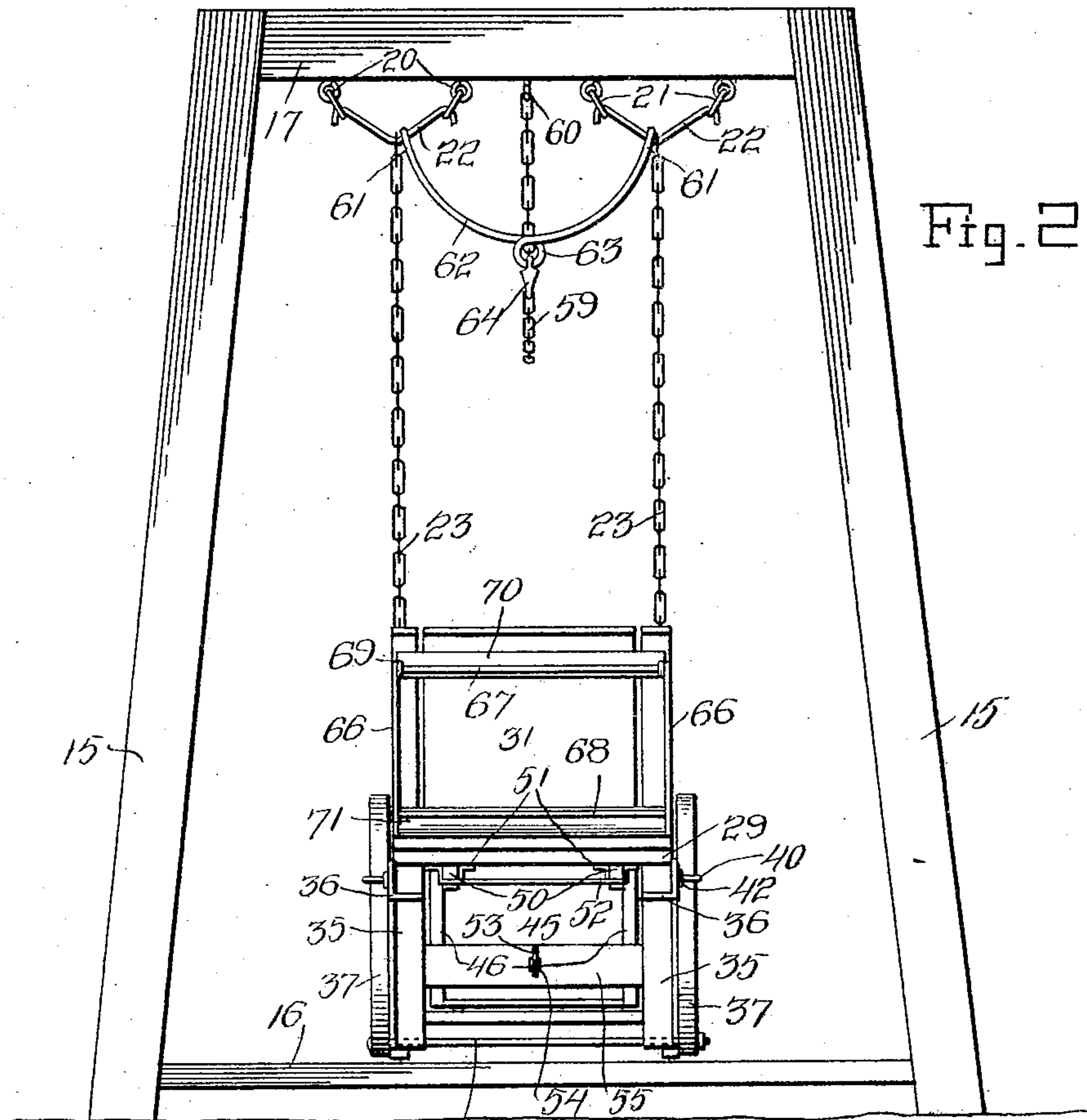


Fig. 2.

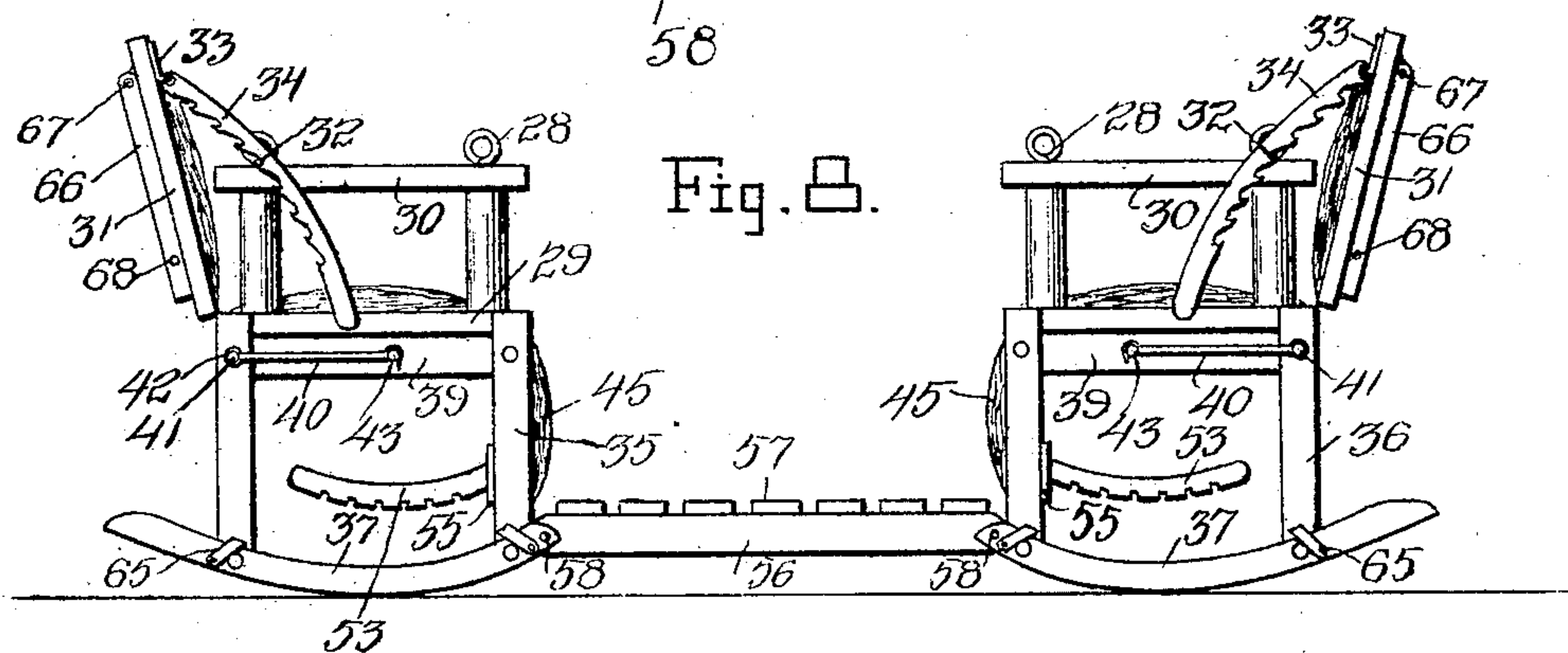


Fig. 3.

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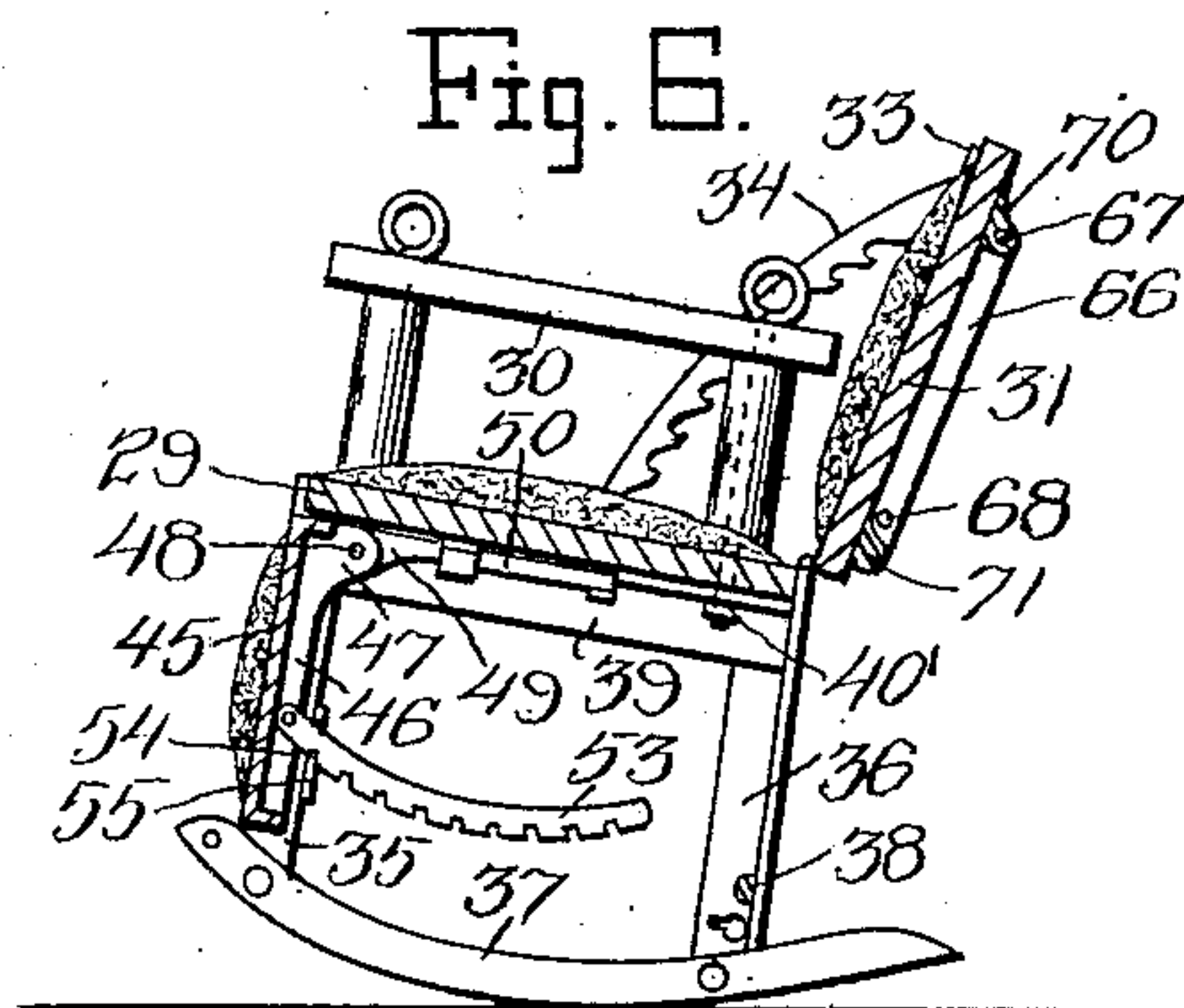
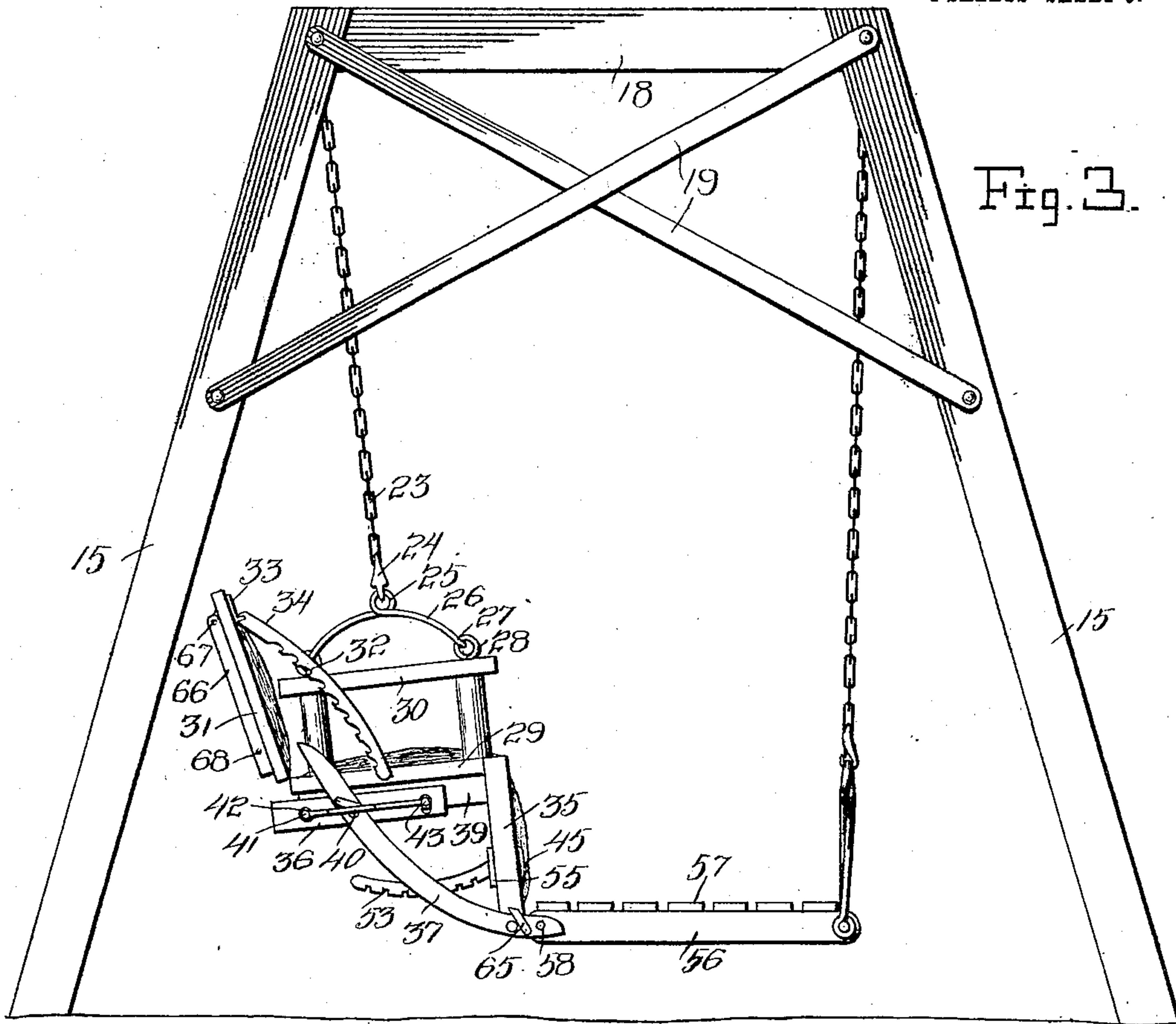
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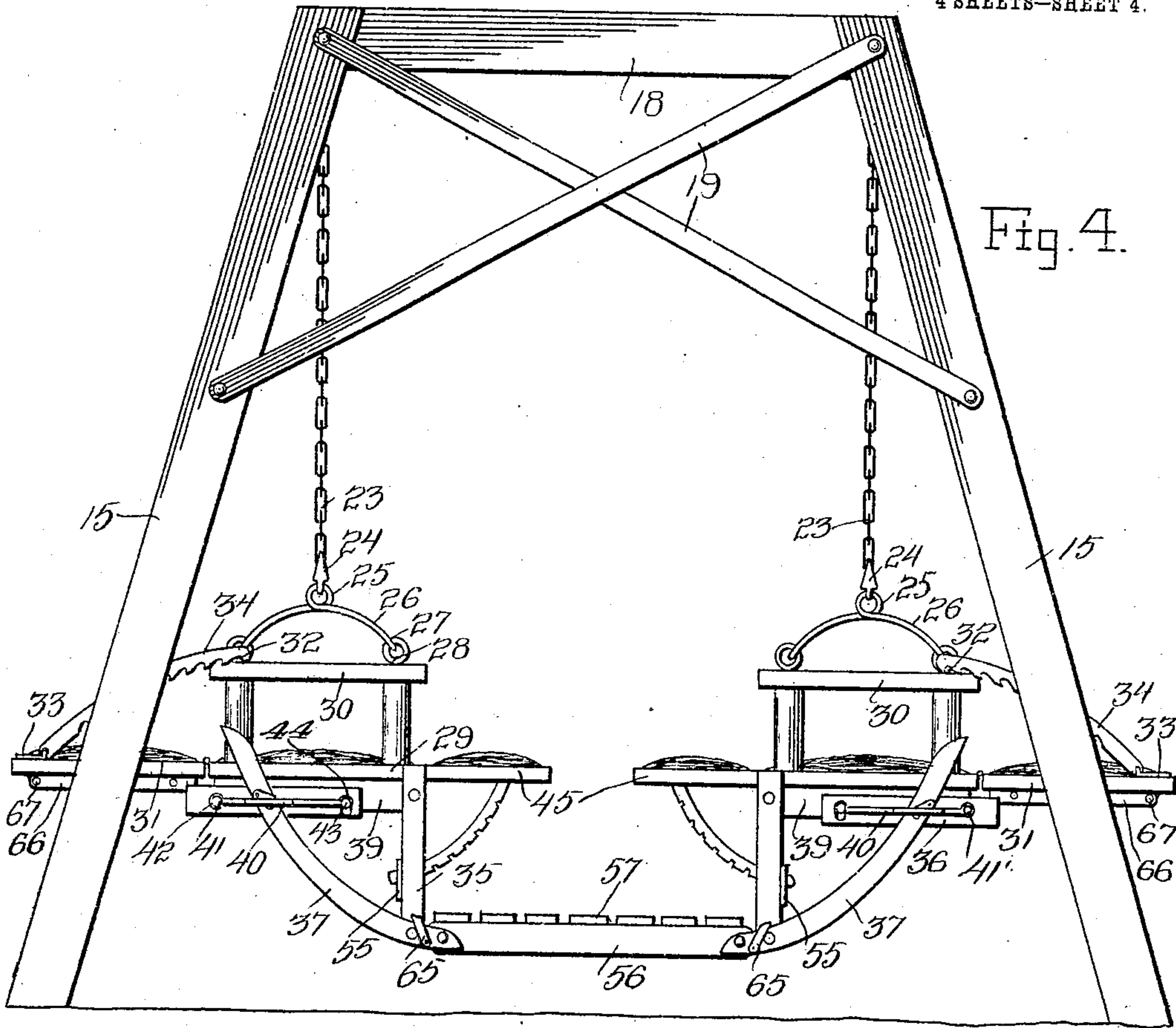


Fig. 4.

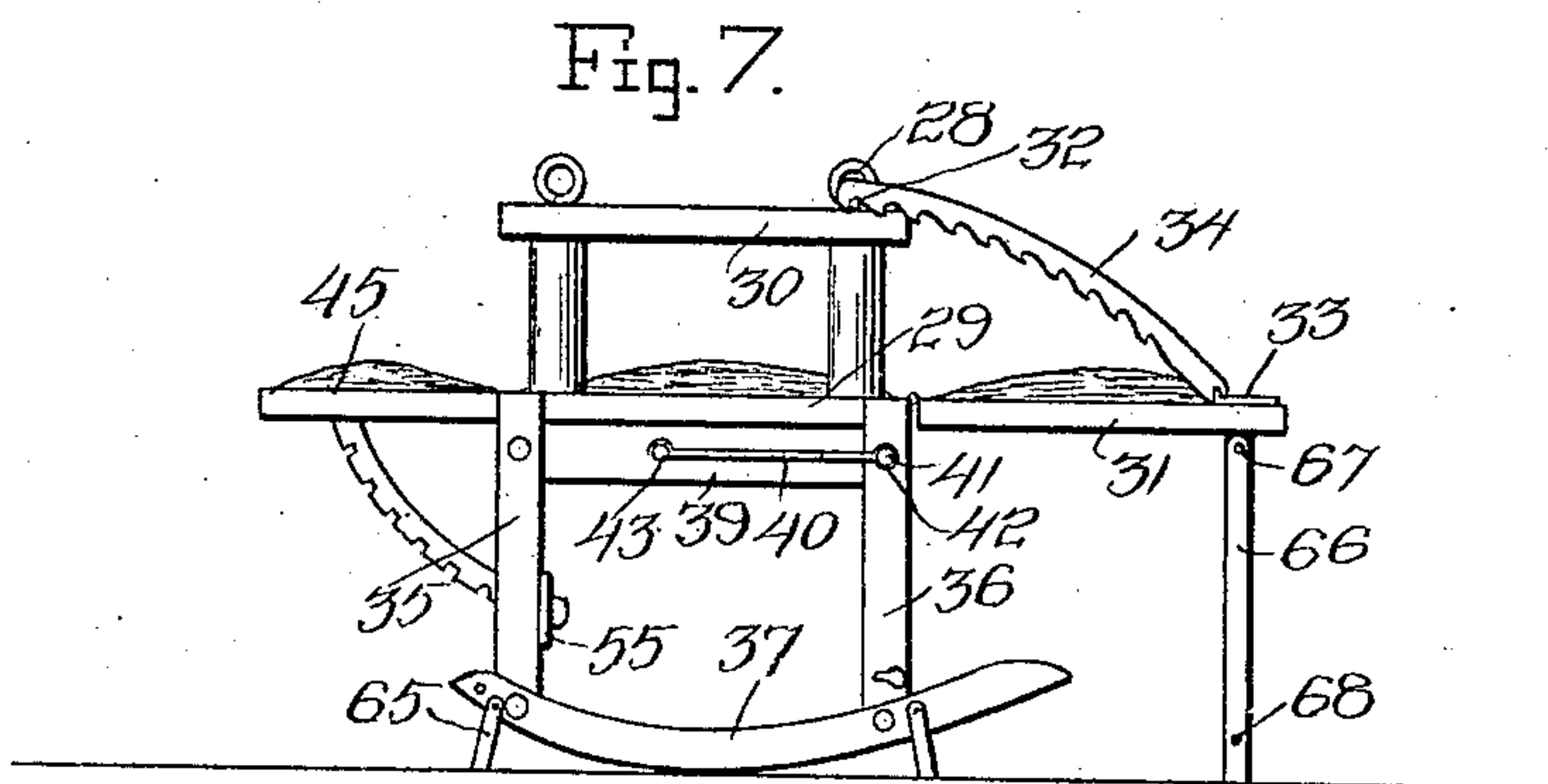


Fig. 7.

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UNITED STATES PATENT OFFICE.

FREDRICK W. WALLACE, OF BIRMINGHAM, ALABAMA.

SWING.

No. 862,686.

Specification of Letters Patent.

Patented Aug. 6, 1907.

Application filed December 28, 1906. Serial No. 349,915.

To all whom it may concern:

Be it known that I, FREDRICK W. WALLACE, a citizen of the United States, residing at Birmingham, in the county of Jefferson, State of Alabama, have invented certain new and useful Improvements in Swings; 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.

10 This invention relates to swings, and more particularly to convertible swings, and the primary object of the invention is to provide a swing of such construction that it may be converted from a double swing into a single swing, a double ground swing or rocking swing, 15 a double hammock swing, a rocking chair, a reclining chair, and a cot. The construction of the swing, however, is such that all of the parts utilized in making these various changes are to a greater or less degree dependent upon one another for the proper operation of the swing when in its original form. In other words, 20 the elements which combine to produce a rocking chair or a reclining chair when the swing is not in use, may be used in their own and other specific manners. For example, I have so constructed my swing that the foot rest which is usually used to operate the swing, is 25 connected with the rockers for the swing chairs and for this reason the swing may be converted from a suspended swing into a ground or rocking swing. As another example of the interdependence of the various elements of my swing regardless as to the conditions under which they are used, the reclining mechanism for the 30 chairs is usable when the construction is employed as a suspended swing.

35 While to the best of my knowledge the general arrangement of parts disclosed by me and their usage, is new, I have constructed each part in whatever manner it has been found best adapted for use in its particular connection.

40 In the accompanying drawings, Figure 1 is a side elevation of a swing constructed in accordance with my invention and showing the general arrangement of parts when the swing is used as a suspended swing, Fig. 2 is an end elevation thereof, Fig. 3 is a view similar to Fig. 1 showing the structure when in the form of 45 a single suspended swing, Fig. 4 is a view similar to Fig. 1 showing the construction of the swing when utilized as a double hammock swing, Fig. 5 is a side elevation of one of the swing chairs showing the same removed and in use as a rocking chair, Fig. 6 is a detail vertical 50 longitudinal sectional view through the rocking chair, Fig. 7 is an elevation showing one of the swing chairs in use as a cot. Fig. 8 is a view in side elevation of the swing chairs when utilized as a ground swing.

Referring more specifically to the drawings, the frame from which my swing chairs are suspended is 55 shown as comprising pairs of upwardly converging uprights 15, the uprights of each pair being connected at their lower ends by means of cross braces 16 and at their upper ends by means of cross braces 17 and the corresponding uprights of the pairs are connected at their 60 upper ends by means of connecting braces 18.

In order to give the frame a firmer support, the uprights and their braces 18 are preferably formed of angle iron construction and cross braces 19 further 65 serve to brace the frame and are connected at their upper ends to the corresponding uprights of the pairs and at their lower ends to the opposite uprights of the pairs intermediate their ends. The braces 17 are in the form of wooden beams and it is from these braces 70 that the swing chairs comprising the swing are supported. Into the under sides of these beams 17 are screwed pairs of screw eyes 20 and engaged rings 21, the screw eyes being positioned transversely of the frame and the rings longitudinally thereof as will be 75 readily understood.

Removably engaged with the rings are the hooked ends of V-shaped wire hangers 22, there being two of these hangers for supporting each swing chair, as will be presently understood. Connected with the apex of each V-shaped hanger is one end of a chain 23 and 80 at its opposite end each of these chains is engaged by a snap hook 24 which is permanently connected with an eye 25 formed at the middle of a bowed wire swing-chair hanger 26 which has its ends hooked as at 27 for detachable engagement with screw eyes 28 carried by 85 the arms of the swing chairs. The snap hooks 24 are adapted for interchangeable engagement with the links of the chains which support the swing-chairs and hence these chairs may be hung at various elevations to suit the user. As shown in the drawings, each of these 90 chairs comprises a seat 29, upon which is supported the arms 30 which carry the screw eyes 28, and to the rear edge of the seat is hinged a back 31. Formed upon the screw eyes which are located adjacent the back 31 are laterally projecting lugs 32 and pivotally connected to 95 bracket arms 33 which are secured one to each side of the back of each swing-chair, is a segmental rack bar 34 the teeth of which are designed for interchangeable engagement with the laterally projecting lug 32 upon 100 the screw eyes 28, it being understood that this engagement permits adjustment of the back at various angles with respect to the seat. Each of the swing-chairs also includes a pair of front legs 35 and a pair of rear legs 36, the legs of each pair being preferably formed of angle iron bars and being connected, at each side of the 105 chair, by means of rockers 37. The legs of each chair

designated as the rear legs are further connected by means of braces 38 and directly beneath the seat of each chair and at each side thereof are located angle iron bars 39 which connect the legs 35 and 36 at each side of the chair, these bars 39 being held in place by means of nuts 40' which are engaged upon the threaded shanks of the screw eyes 28, it being understood that these shanks are engaged not only through the arms of the chair but also through the arm supports, the seat, and one wing of the corresponding angle iron bar. The legs 35 and 36 of each chair, as stated, are preferably of angle iron construction and receive at their upper ends corresponding corners of the chair.

The rockers 37 are bolted to the outer wings of the angle iron legs 35 and 36 and when the chairs are suspended for use as a swing, the rear ends of the rockers are disconnected from the rear legs 36 and are engaged with their rocker retaining member 40 which is secured at one of its ends to the brace 39 by means of a bolt 41 which is engaged through an eye 42 formed at this end of the member and through the upper end of the leg 36 and the rear end of the brace 39. A bolt 43 is engaged through an eye member 44 formed at the opposite end of the rocker retainer and through the lower end of the leg and through the brace 39 adjacent its forward end. The bolts 41 serve as pivot-bolts for the corresponding rear legs 36 and when the rockers are engaged with their retaining members these legs are folded up upon the braces 39 and bolted thereto by means of the bolts 43 as clearly shown in Fig. 1 of the drawings. The construction above described obviates the likelihood of the rockers engaging the ground or the cross piece 16 and interrupting the movement of the swing.

In order that the feet of the occupant may be supported, I have provided a suitable foot rest which is indicated by the numeral 45 and is provided upon its rear face with cleats 46 which are enlarged at their upper ends as at 47 and connecting the enlarged upper ends of the cleats by having its ends secured therein is a rod 48 and this rod passes loosely through the enlarged end 49 of cleats 50 which are arranged for sliding movement upon the under side of the seat of the chair by means of brackets 51; the cleats are also connected at their rear ends by means of a cross brace 52.

From the above described construction it will be observed that when the foot rest is at the inward limit of its movement it cannot be swung upwardly and forwardly by reason of the fact that its upper edge will engage the under face of the seat and hence the said foot rest will not flap about when the swing is in use but it will also be observed that when the foot rest has been partially withdrawn, it may be readily swung upwardly and forwardly and in order to support it at various points in its swinging movement to suit the convenience of the occupant of the chair, a rack bar 53 is pivoted to the foot rest adjacent its lower edge and is passed through a suitable sized slot 54 formed in a bracket 55 which is connected at its end to the front legs 35 of the chair and rearwardly of the same. It will be observed that this rack bar will act automatically when the foot rest is swung and that it may be readily disengaged to drop the foot rest and it will also be observed that as shown in the drawings, the foot rest and the back for each chair may be adjusted to any desired position.

I have provided a suitable foot rest which connects the chairs for the swing and this foot rest comprises side members 56 of angle iron construction which are connected by a flooring 57 and the side members 56 are connected at their ends to the rockers for the chairs by means of a bolt 58 which is engaged through the forward ends of the rockers and the corresponding ends of the side members and it will be readily understood that by pressing upon the foot rest while in the swing, the swing-chairs will be swung backwardly and forwardly. Should it not be desired to do this, however, I have provided a chain 59 which is adapted for the interchangeable engagement of its links with a hook 60 carried by one of the beams 17, it being understood that this chain may be pulled upon to successfully operate the swing. When it is desired, however, to use the swing with only one chair, the other chair is detached and the hooked ends 61 of a bowed hanger 62 are engaged with the ends of one of the bolts 58 and this hanger is provided at its middle with an eye 63 for the engagement therewith of a snap-hook 64 carried by the chain 59. When so detached the chair is used either as a rocking chair or a reclining chair and in order to adapt it better for use as a reclining chair pointed fingers 65 are pivoted to each of the rockers adjacent the front and rear ends thereof and are of such length that when they touch the floor or ground, the lowest portion of the under edge of each rocker will also touch the floor or ground.

It is also contemplated in my invention that the chairs may be used as cots, the foot and back rests being, of course, swung so that they will be level with the seat and in order to firmly support the back I have provided a back-supporting frame which comprises side members 66 and rods 67 and 68 which connect the side members at their ends. The rod 67 is pivotally engaged through eye members 69 carried by a cleat 70 which is supported upon the back of the chair and, as illustrated in the drawings, the frame thus formed is adapted to stand vertically upon the floor or ground and to aid the segmental rack 34 in supporting the back in a horizontal position. A grooved cleat 71 is also secured upon the rear face of the back and adjacent the lower edge thereof and is adapted for the reception, in its groove, of the rod 68 as clearly shown in Fig. 6.

It is also possible to use the chairs and foot rest of my swing in connection with each other but separately from the suspension means as clearly shown in Fig. 8.

What is claimed is:—

1. A swing of the class described comprising a frame, suspension rings loosely supported from the top of the frame, V-shaped wire hangers having hooked ends engaged with the rings, convertible chairs including each a seat, a back, and arm rests, eye members secured to the arm rests, chains connected with the hangers, hangers carried by the chains at their lower ends and having hooked ends engaged with the eye members, a laterally extending finger formed upon one of the eye members upon each arm rest, rack bars connected with the back of each chair and adjustably engaged with the fingers whereby the back may be held in different planes with respect to the seat, and a foot rest loosely connecting the chairs.

2. A swing of the class described comprising a frame, suspension rings loosely supported from the top of the frame, V-shaped wire hangers having hooked ends engaged with the rings, convertible chairs comprising each a seat, a back hinged to the rear edge of the seat, a foot rest mounted at the front edge of the seat, arm rests, eye members

5 secured to the arm rests, a chain secured to the V-shaped hangers and depending therefrom, a hanger carried by each of the chains at its lower end, said hanger having hooked ends for engagement with the eye members upon the corresponding arm rest, a finger projecting laterally from one eye member upon each arm rest, rack bars pivoted to the back of each chair, said rack bars being adjustably connected with the fingers, a cross bar arranged at the front of the chair, a rack bar pivoted to the foot rest and

extending rearwardly therefrom and beneath the chair 10 and adjustably engaged with the cross bar, and a foot rest loosely connecting the chairs.

In testimony whereof, I affix my signature, in presence of two witnesses.

FREDRICK W. WALLACE.

Witnesses:

J. M. CROCKETT,

CHAS. K. DICKEY.