

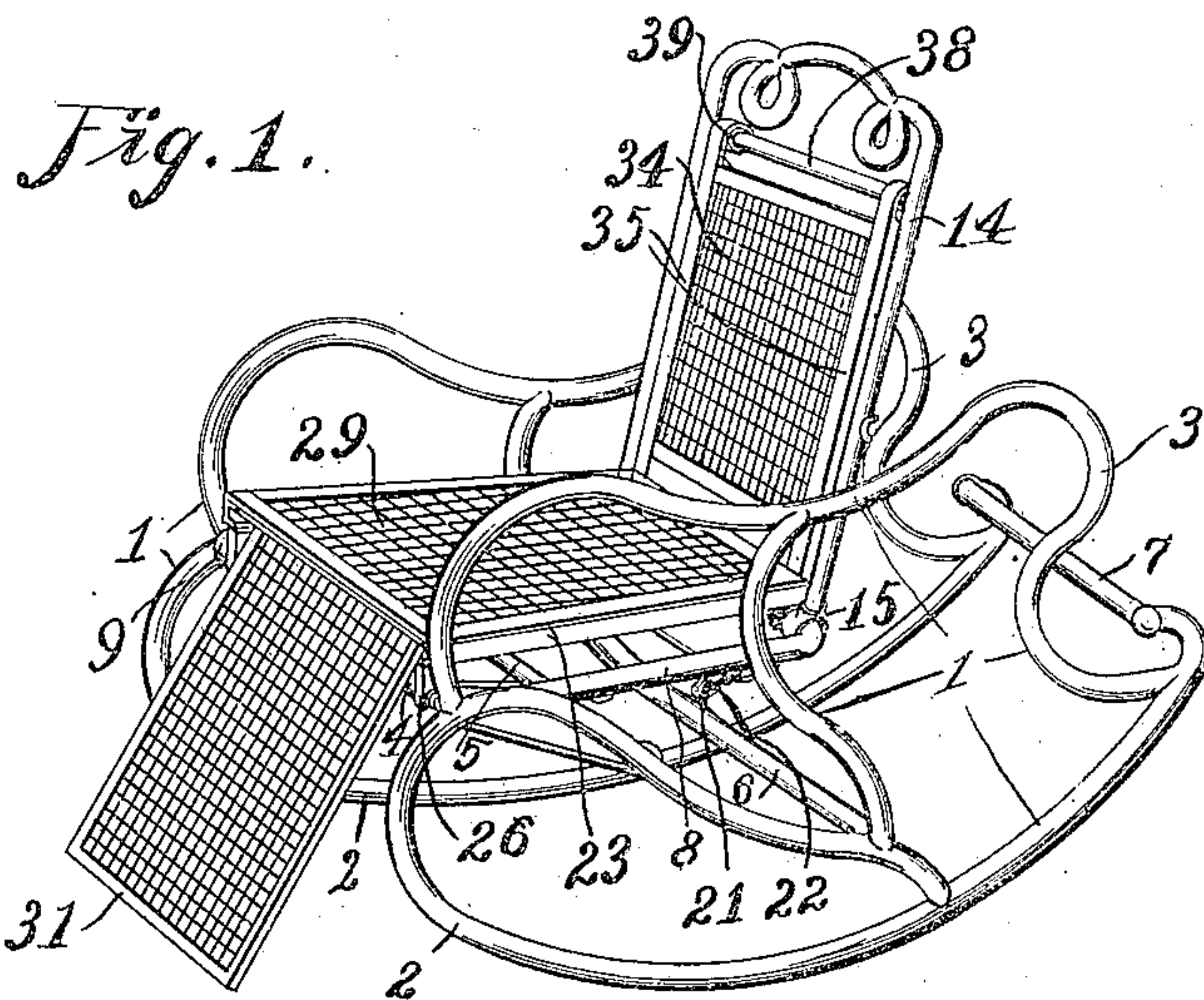
M. L. HURD.  
CHAIR.

APPLICATION FILED SEPT. 30, 1908.

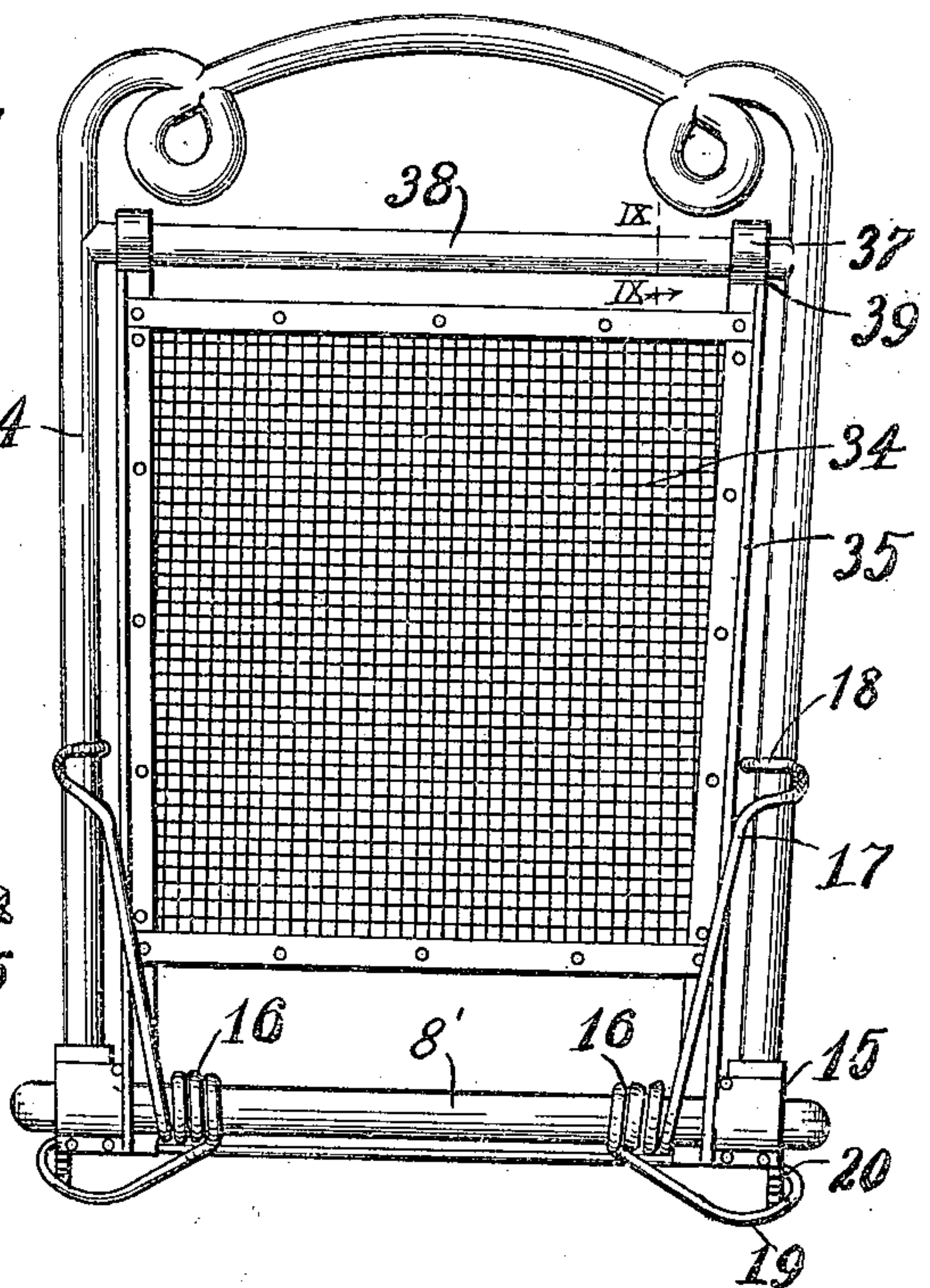
953,338.

Patented Mar. 29, 1910.

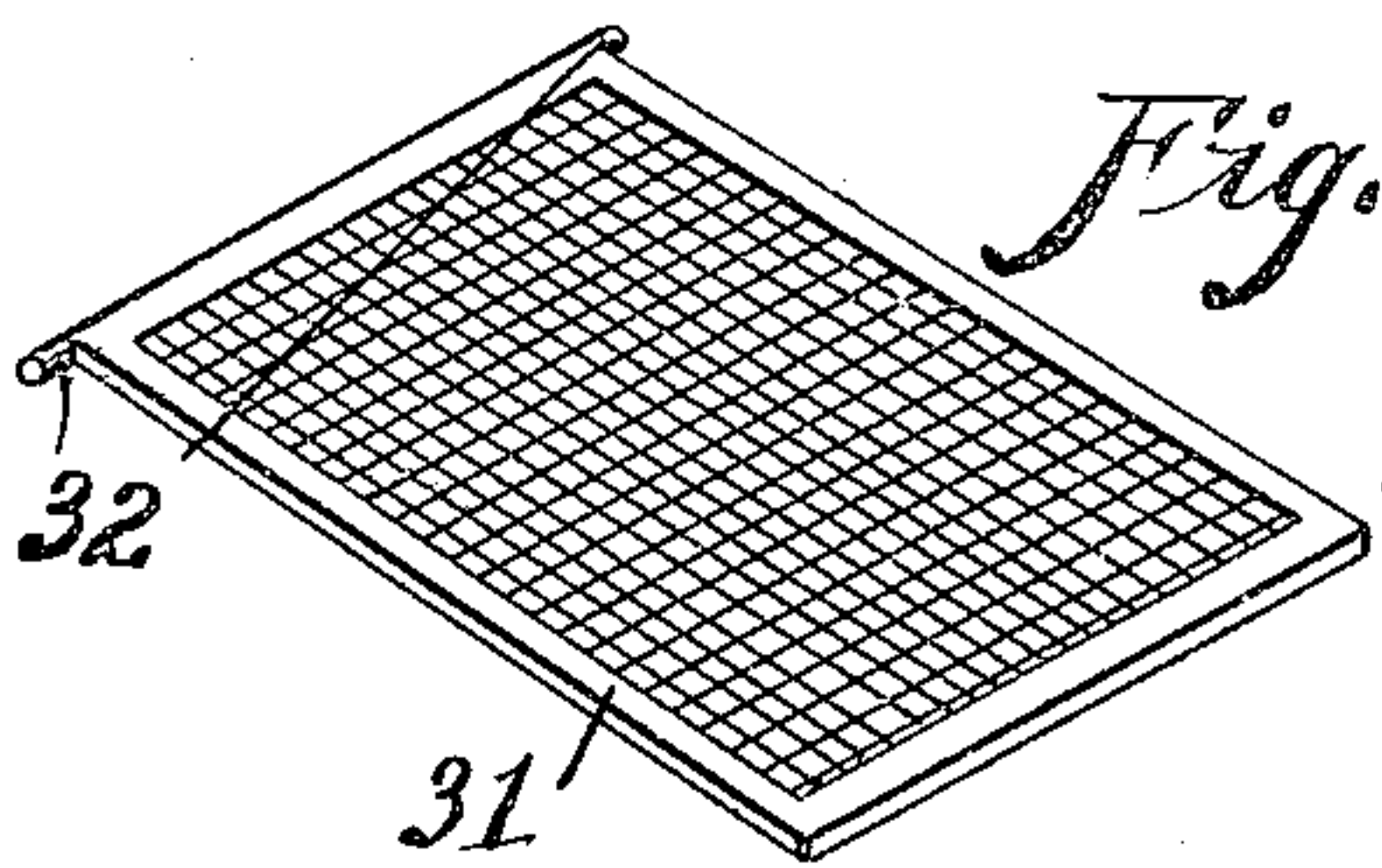
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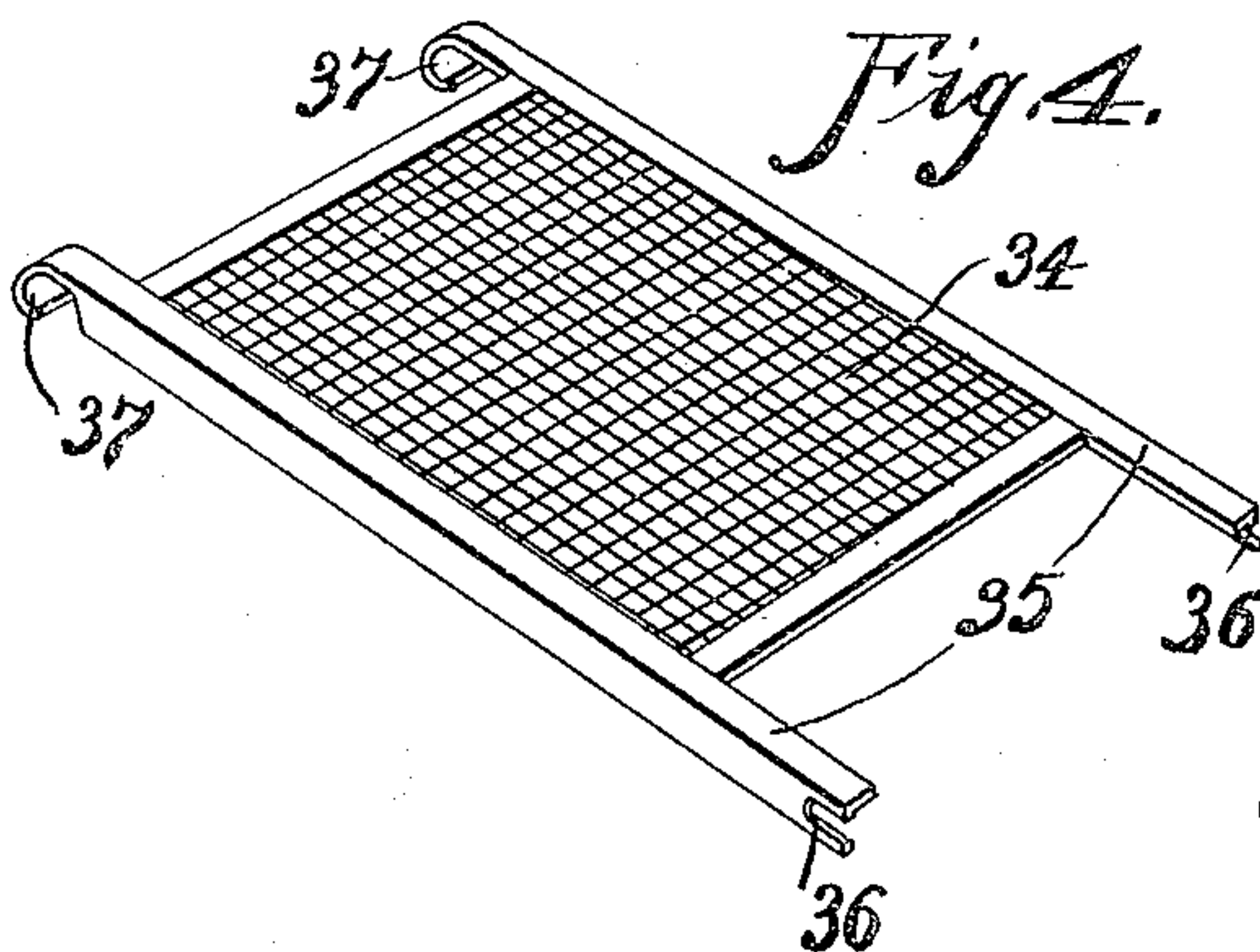
*Fig. 3.*



*Fig. 5.*



*Fig. 4.*



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2 SHEETS—SHEET 2.

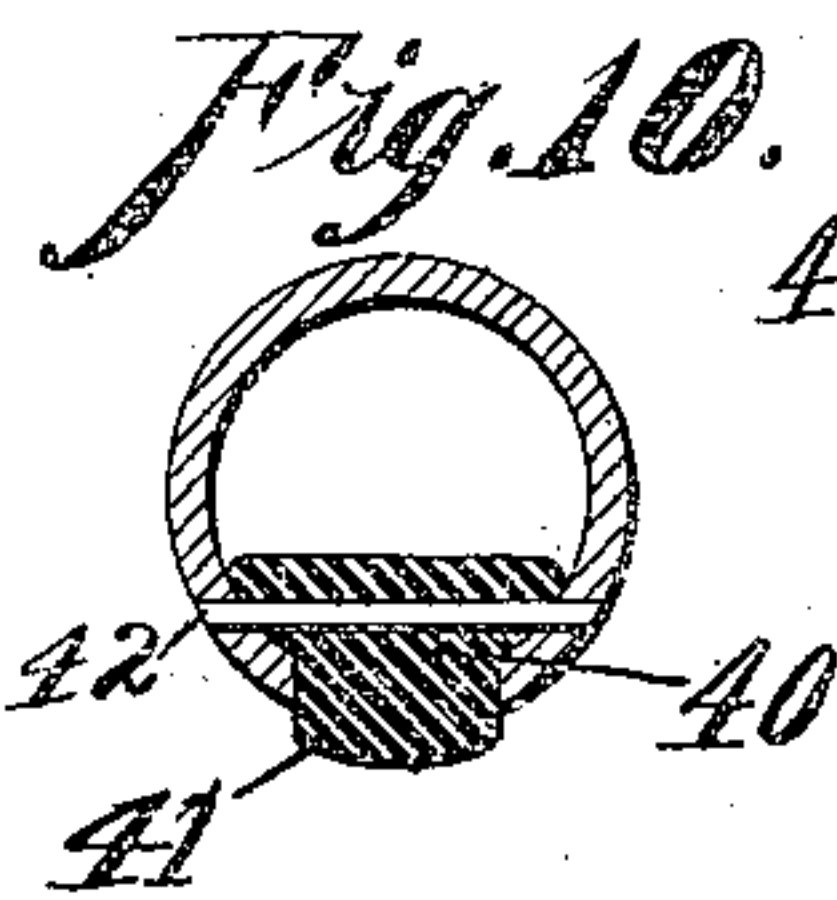
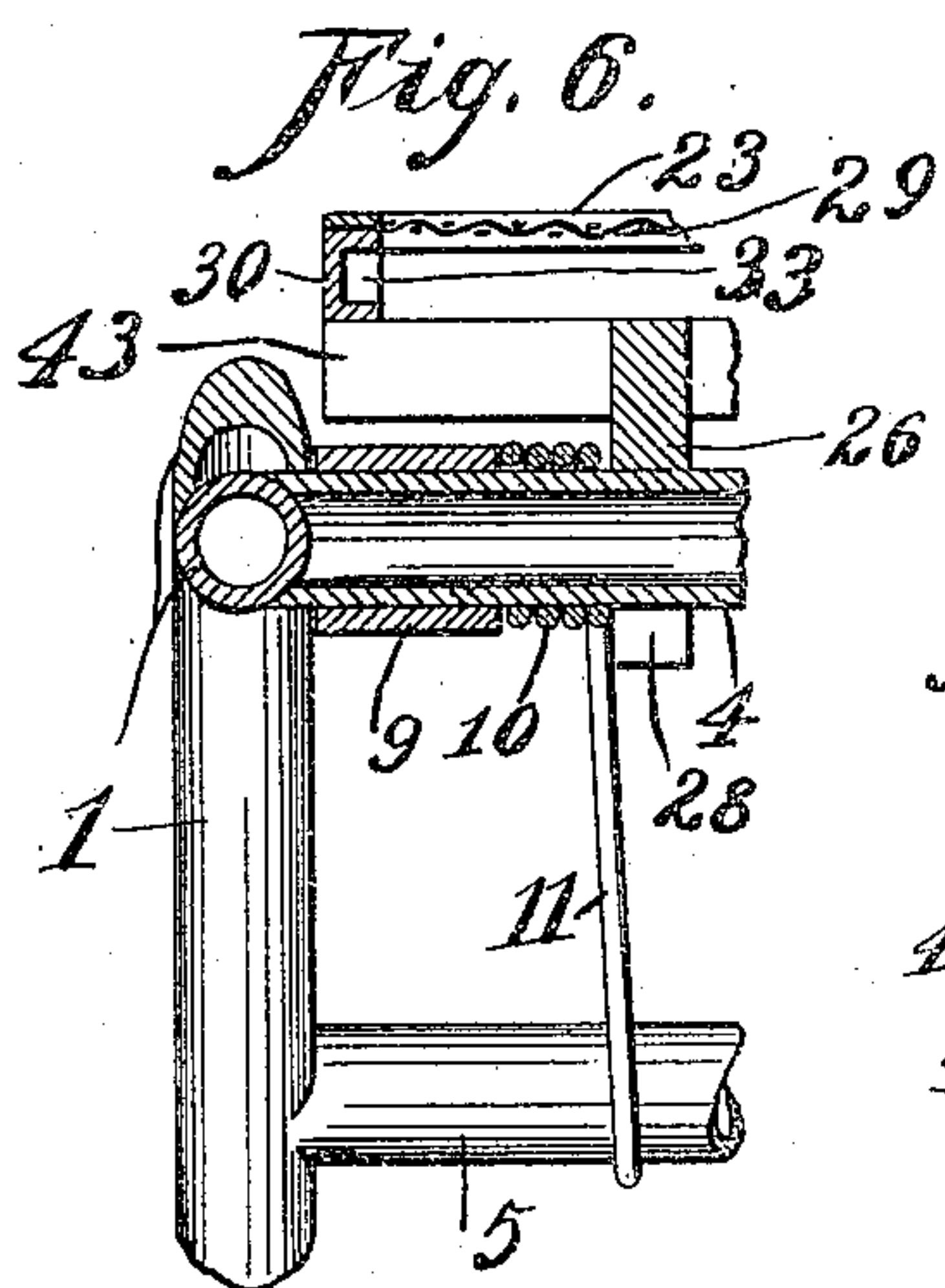
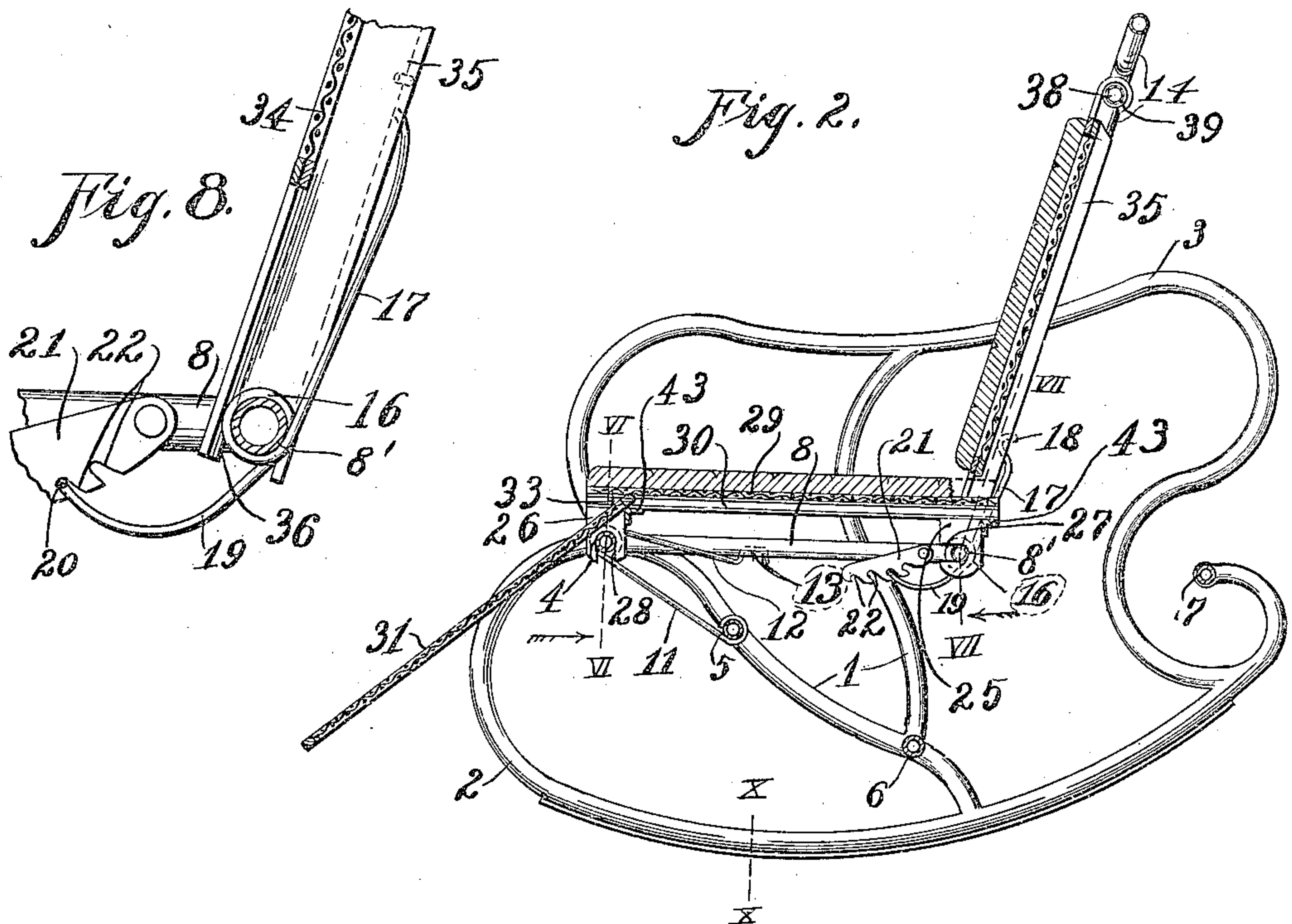
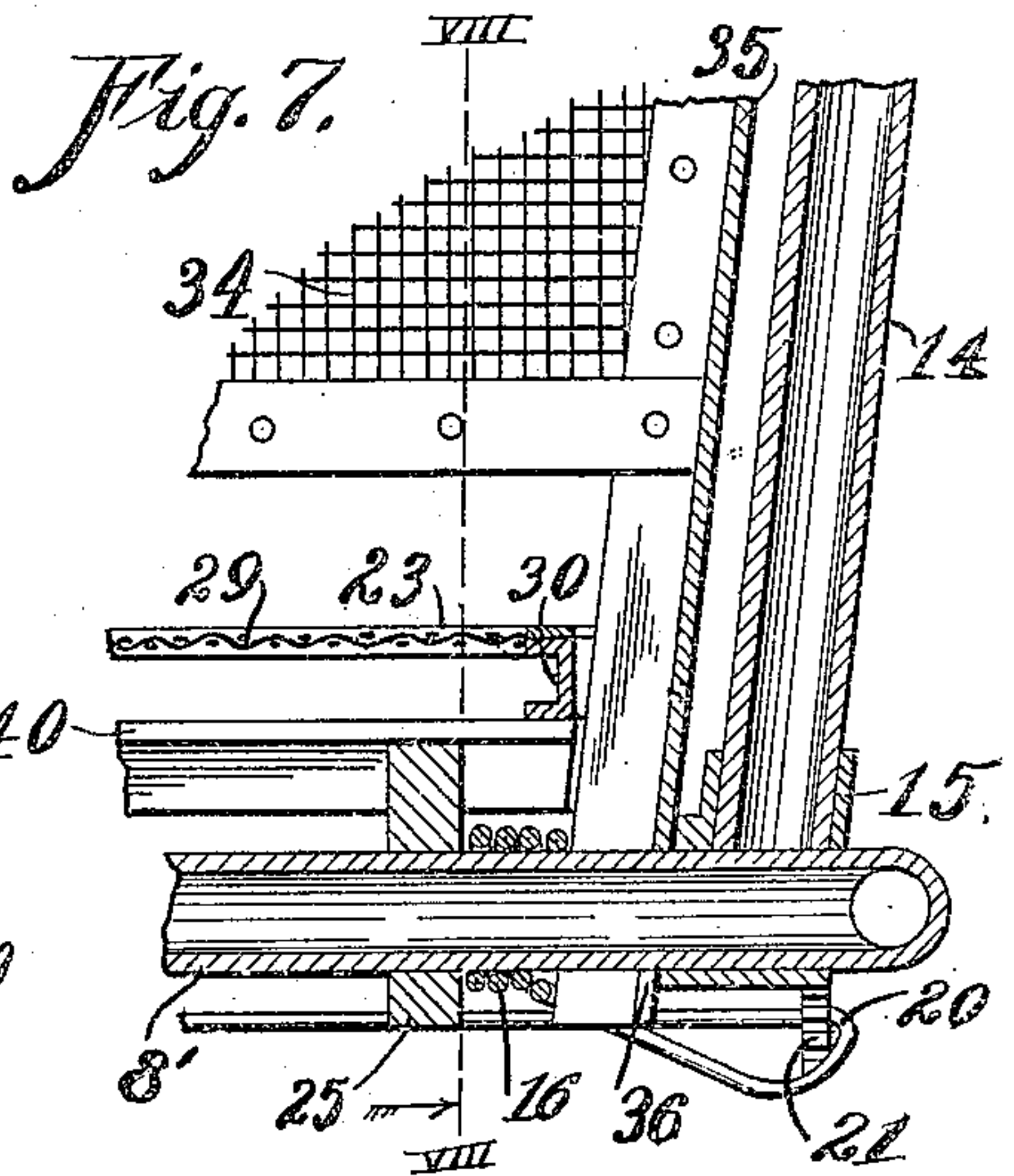
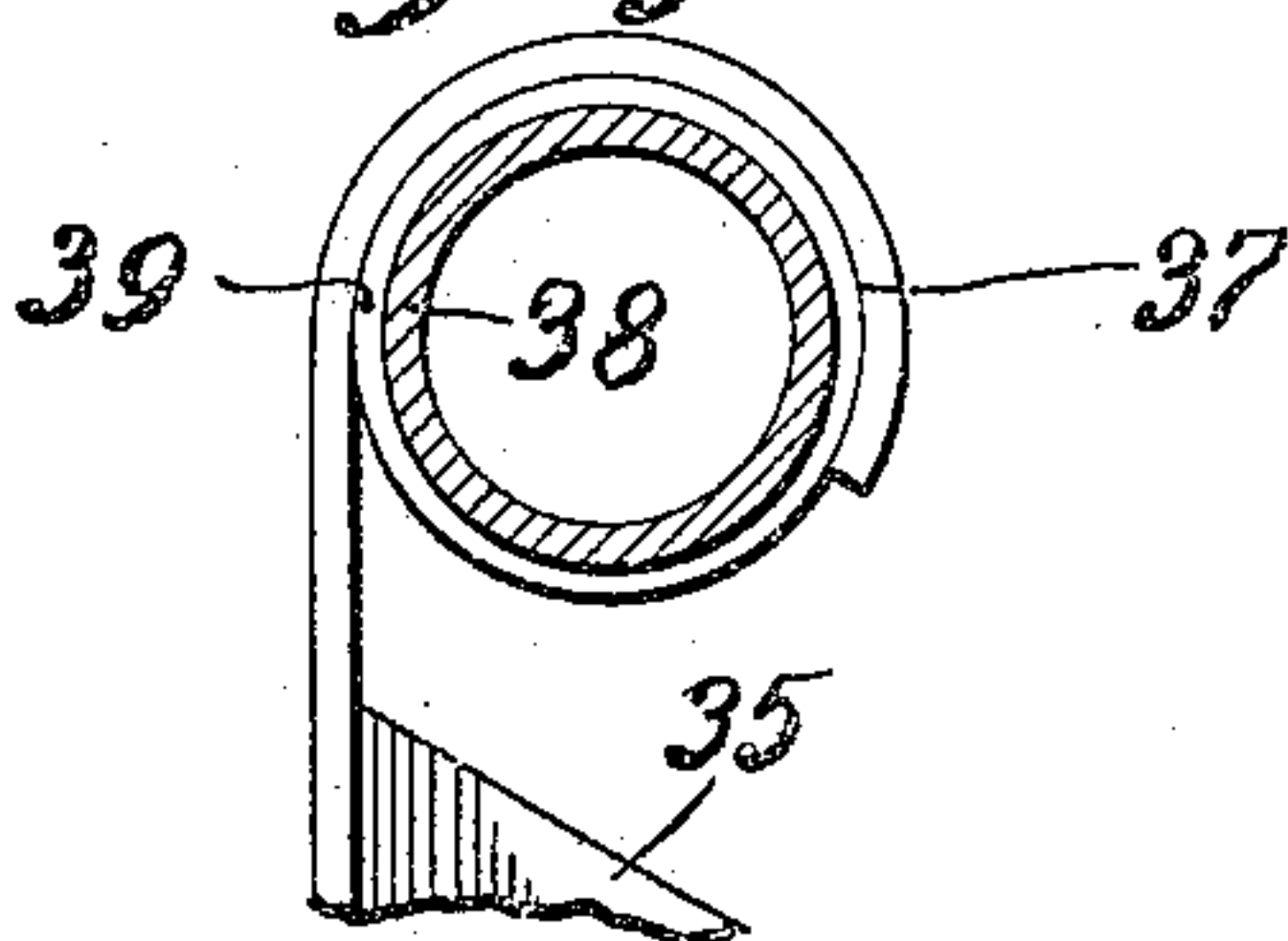


Fig. 9



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# UNITED STATES PATENT OFFICE.

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## CHAIR.

953,338.

Specification of Letters Patent. Patented Mar. 29, 1910.

Application filed September 30, 1908. Serial No. 455,509.

*To all whom it may concern:*

Be it known that I, MYRON L. HURD, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Chairs; and I do 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 the numerals of reference marked thereon, which form a part of this specification.

My invention relates to chairs and has for its object to provide a device of that class wherein the supporting frame may be constructed of metal tubing and assembled in a unit separate from the chair seat and back.

A further object of my invention is to provide means for pivotally mounting a chair seat on the supporting frame and so connecting these parts that the seat will yield against the tension of a spring member, according to the weight and position of the occupant of the chair, and also to provide a back portion which may be axially mounted on the chair seat and provided with spring members that will permit its operation in relation to the seat, as previously described with reference to the seat and supporting frame.

A further object of my invention is to provide other improved details of structure such as the spring frames for the chair seat, foot rest etc., which will presently be fully described and pointed out in the claim, reference being had to the accompanying drawings in which,

Figure 1 is a perspective view of a chair constructed according to my invention. Fig. 2 is a longitudinal vertical section of same. Fig. 3 is an enlarged rear view of the chair back, illustrating the application of my improved spring frame and springs. Fig. 4 is a perspective view of the spring back frame. Fig. 5 is a similar view of the foot rest. Fig. 6 is an enlarged sectional view on the line VI—VI, Fig. 2. Fig. 7 is a similar

view on the line VII—VII, Fig. 2. Fig. 8 is a similar view on the line VIII—VIII, Fig. 7. Fig. 9 is a cross sectional view on the line IX—IX, Fig. 3. Fig. 10 is a cross sectional view on the line X—X, Fig. 2, showing the rubber cushion for the chair rocker.

Referring more in detail to the parts:—1 designates the supporting frame of the chair which, in the present instance, comprises the lower rocker members 2 and the upper arm members 3, both members being preferably composed of metallic tubing and welded or otherwise rigidly connected, to form the integral supporting frame.

4, 5, 6, and 7 designate cross members which are adapted for rigidly connecting the opposite supporting frames 1 and are located in the positions illustrated in the drawing in order to provide the greatest stability for the chair structure and for convenience in mounting the seat and foot rest portions and tension springs.

8 designates the seat frame, which is axially mounted at its forward end on the cross member 4 and extends rearwardly therefrom, over the cross member 5, a sufficient distance to accommodate a chair seat of desired dimensions, the frame 8 being preferably of metallic tubing and provided at its forward end with the bearing members 9 by which it is axially mounted, as described.

The seat frame 8 is supported in substantially a horizontal position by a tension spring that is carried on the supporting frame, such spring preferably comprising a coil 10 that surrounds and is carried by the cross member 4 and has an arm 11 extending to and anchored on the cross member 5, the opposite arm 12 of the tension spring being extended backwardly beneath the seat frame and provided with a loop 13 within which the side member on the seat frame may have sliding support, to allow for a limited travel of the seat frame therein, when the chair is in use.

The tension springs are preferably arranged at each end of the cross member 4



so as to engage the respective side pieces of the seat frame, as illustrated, in order that the seat may be evenly balanced.

14 designates the back frame of the chair, which is also preferably constructed of metal tubing and provided at its lower end with bearing members 15 by which it is axially mounted on the rear cross bar 8' of the seat 8. Frame 14 is held in a slightly inclined position by means of tension springs which are preferably constructed and arranged as follows:—16 designates spring coils, one of which is arranged near each end of the rear seat bar 8' and has an upwardly directed arm 17 that is provided with a loop 18 within which the side bar of the chair back frame is adapted to fit, the fit of the loop and bar being such that the latter may travel in the former, when the chair is in use, without becoming dislodged. The opposite end of coil 16 is extended forwardly beneath the chair seat and provided with a loop member 19 having an inturned end 20 that is adapted to fit within a keeper on the seat, such keeper preferably comprising a plate 21 that is pivoted to the seat and provided with a number of notches 22 into which the end 20 may be set, for the purpose of varying the normal position of the chair back.

23 designates a spring frame, having the depending cross pieces 25 and 26 at its respective ends, the rear pieces 25 having the forwardly opening slots 27 that are adapted to receive the rear cross bar 8' of the seat frame, and the front pieces 26 having the downwardly directed slots 28 that are adapted to receive the supporting frame cross bar 4, so that the spring seat frame may be securely anchored in position on the main seat frame, although easily removed therefrom.

29 designates the spring portion of frame 23 which may be of any desired construction, such as woven wire or the like.

30 designates inwardly directed channel irons which are supported on the slot pieces 25 and 26, and in turn support the spring member 23.

31 designates a foot rest which is of such width that it may easily slide on the angle iron 43 beneath the chair seat, and is provided with the lugs 32 which are adapted to hold against the keepers 33 at the forward ends of the channel irons, when the foot rest is extended, the foot rest being of such width that it will fall between the front end of the channel irons when extended and rest against the front cross bar 4 of the supporting frame, without permitting the escape of the lugs 32.

34 designates the spring frame for the chair back, which comprises the side mem-

bers 35, having the lower longitudinal slots 36 that are adapted to fit over the rear seat bar 8', and having the upper loops 37 that are adapted for adjustment on a cross bar 38 that forms part of and extends between the side pieces of the main back frame 14.

39 designates collars that are adapted to slide on the bar 38 and fit within the loops 37 of the back spring frame to prevent the escape of such frame, when the parts are assembled.

In manufacturing chairs, according to my present invention, the spring frame members may be upholstered in any suitable manner, but in order that the structure may be clearly illustrated, I have not shown the upholstery applied to these parts in all of the views.

In assembling the chair, the parts are united in the manner, and preferably in the order of their description in this specification, the frame braces and cross pieces being preferably arranged as described, although it is readily apparent that slight variations may be made without effecting the utility of the chair.

In order to cushion the chair rockers, I prefer to split each of the rockers, longitudinally, and insert a rubber cushion 40, having a projecting lip 41 upon which the chair may be supported, the cushion being anchored to the metal rocker at various points by means of the pins 42.

When in use, the weight of the occupant is supported by the seat spring 11, the arms of which are respectively connected with the seat frame and the cross bar of the supporting frame, so that the seat may yield readily upon a slight movement of the occupant.

By axially mounting the chair back on the seat frame and providing the tension springs 16, the back portion may yield both with and independently of the chair seat, so that the chair, as a whole, will automatically adapt itself to the position of the occupant.

By providing the adjustable keepers 21, for the back tension springs, the chair back may be lowered to a reclining position or to any position desired, so that by the extension of the foot rest the chair may, if desired, answer the purpose of a couch.

It is readily apparent that while the chair body is axially mounted on the supporting frames, that a rocking movement may be transmitted from one part to the other, so that the arm portions of the supporting frames will move with the chair body substantially the same as with rocking chairs of the ordinary structure.

Having thus described my invention, what I claim as new therein and desire to secure by Letters Patent is:—

A chair, comprising a supporting frame having cross pieces connecting the side mem-

bers thereof, a seat frame revolubly mount-  
ed, at its forward end, on one of said cross  
pieces, and provided with a cross bar at the  
rear, a spring frame having depending bear-  
5 ing pieces at the front and back, one set pro-  
vided with perpendicular and the other with  
longitudinal slots adapted for respective en-  
gagement with the supporting and seat  
frame cross pieces, and a spring member

adapted for yielding engagement with both 10  
the supporting and seat frames, for the pur-  
pose set forth.

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

MYRON L. HURD.

Witnesses:

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A. C. BROWN.