

No. 635,635.

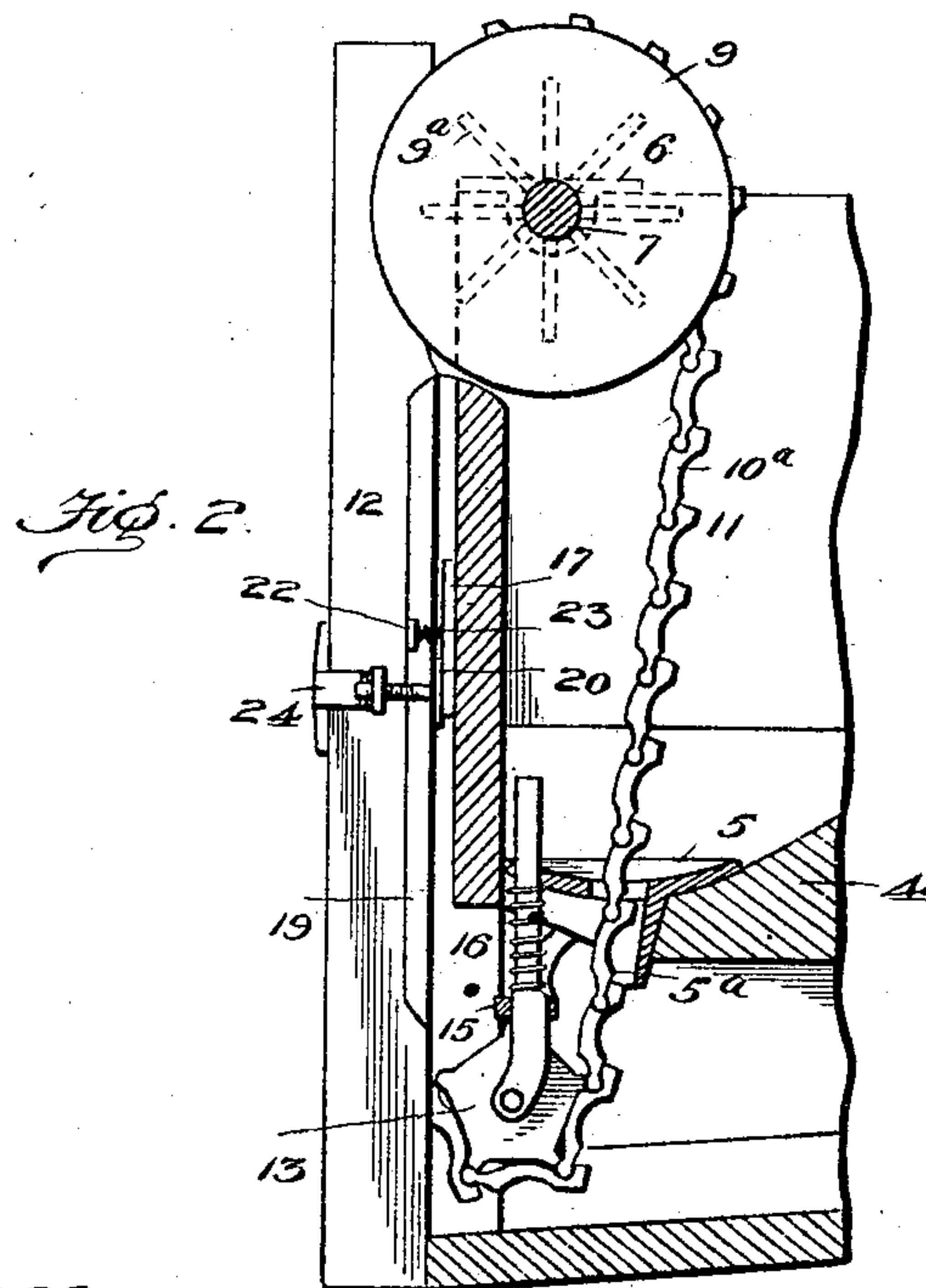
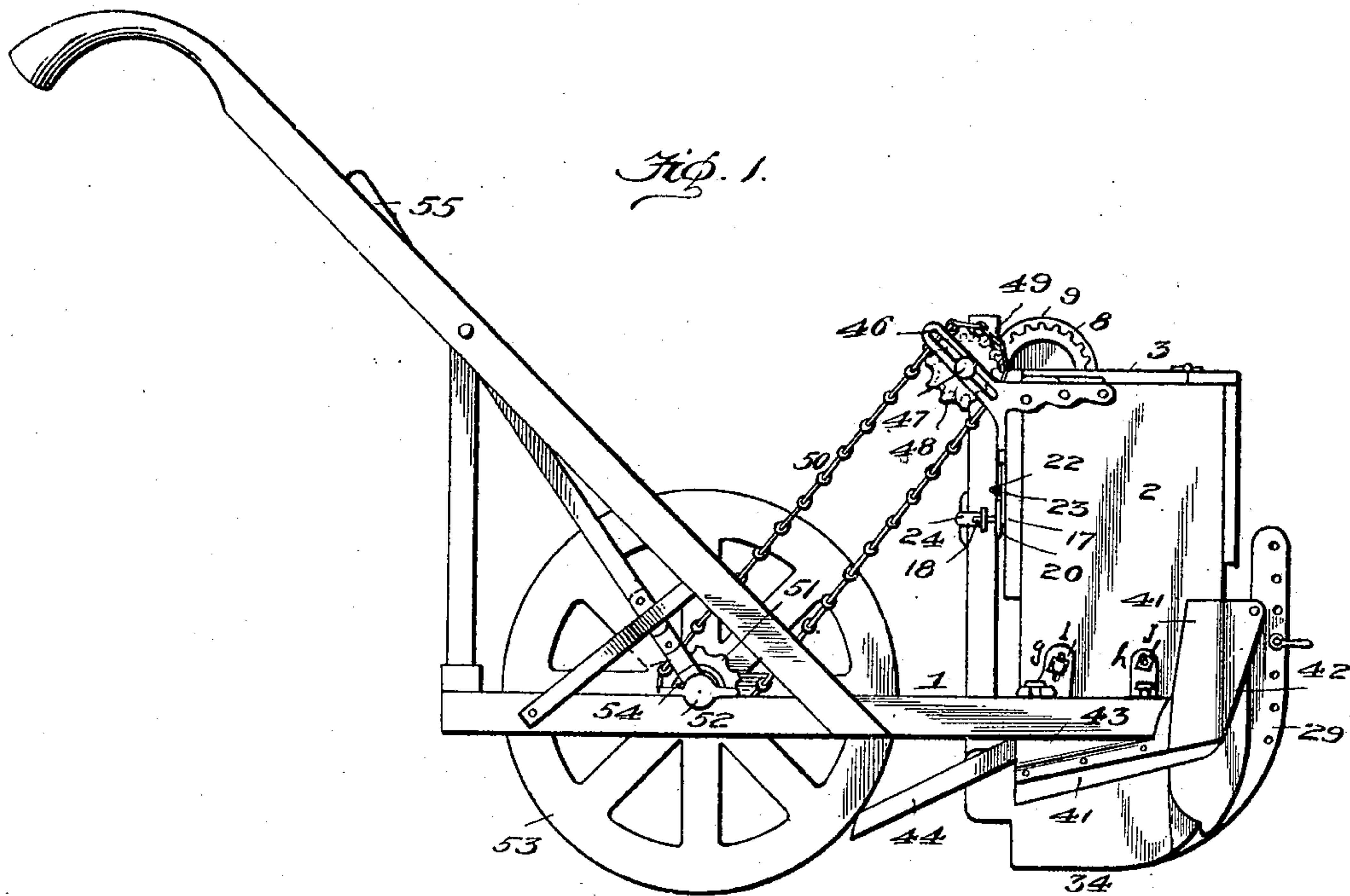
Patented Oct. 24, 1899.

J. R. AYERS.  
PEANUT PLANTER.

(Application filed Aug. 15, 1899.)

(No Model.)

4 Sheets—Sheet 1.



Witnesses:  
J. R. Ayers Jr.  
Florence Ayers

Inventor:  
James R. Ayers

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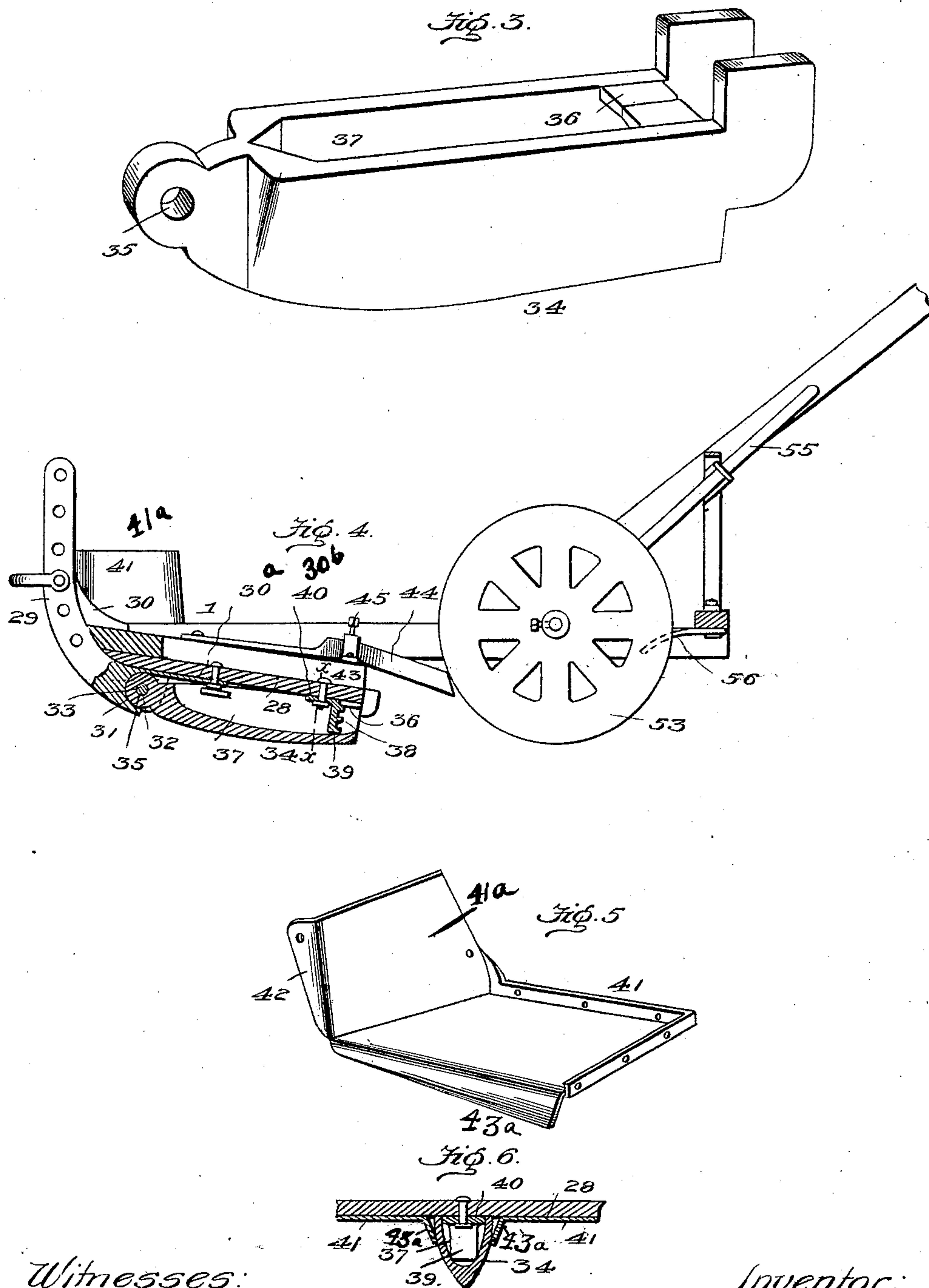
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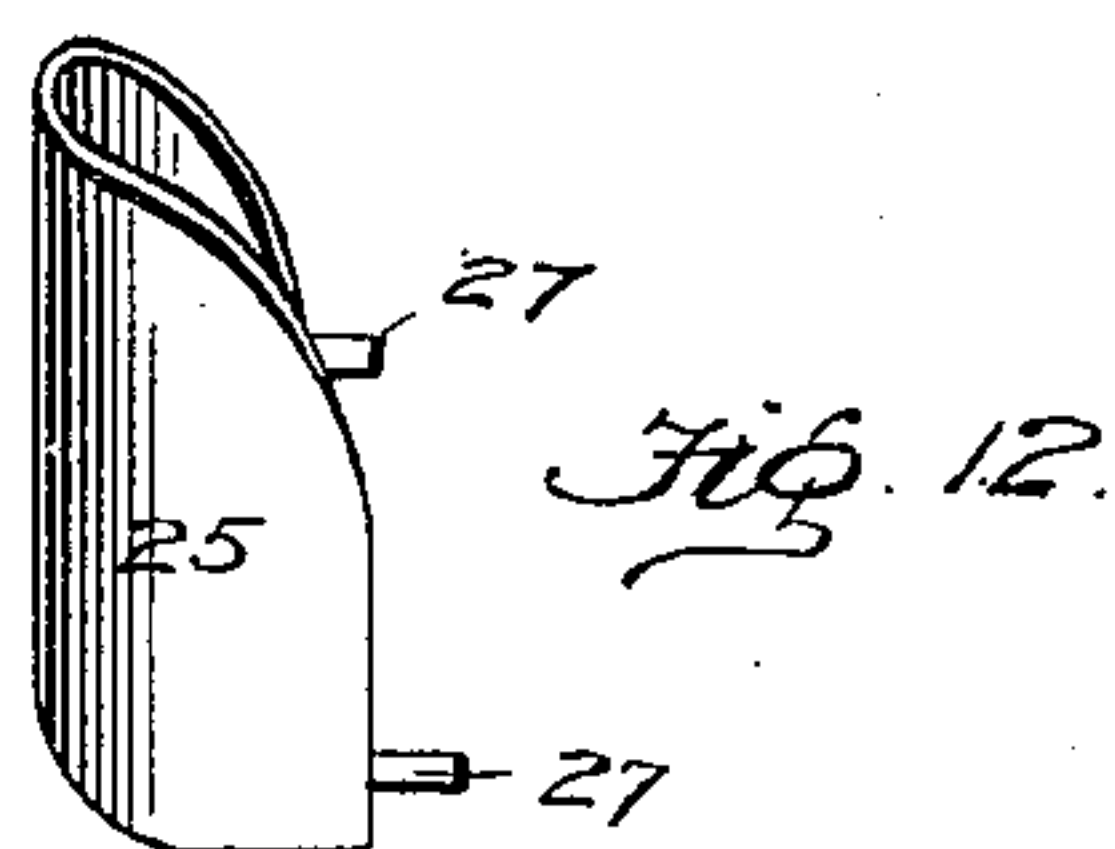
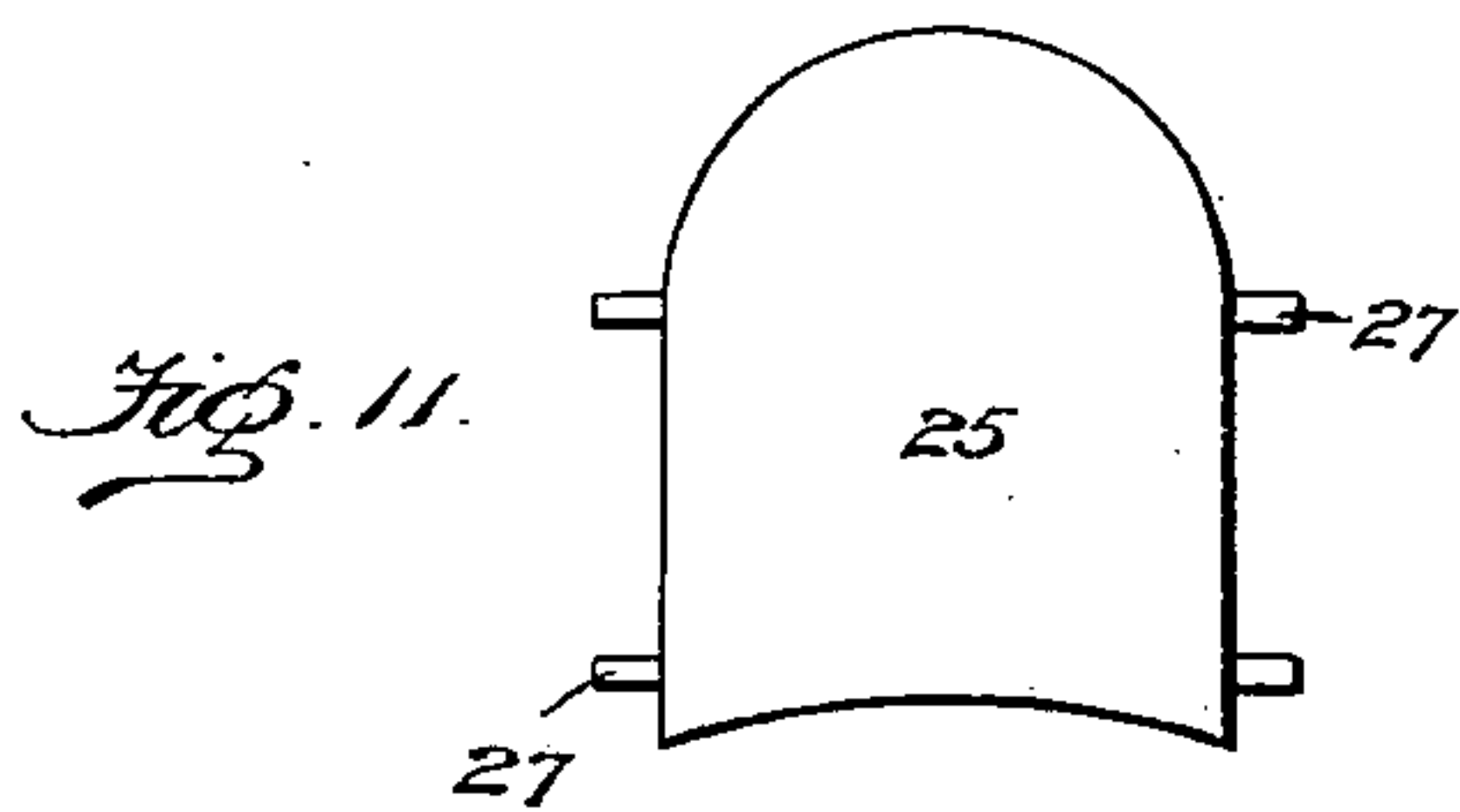
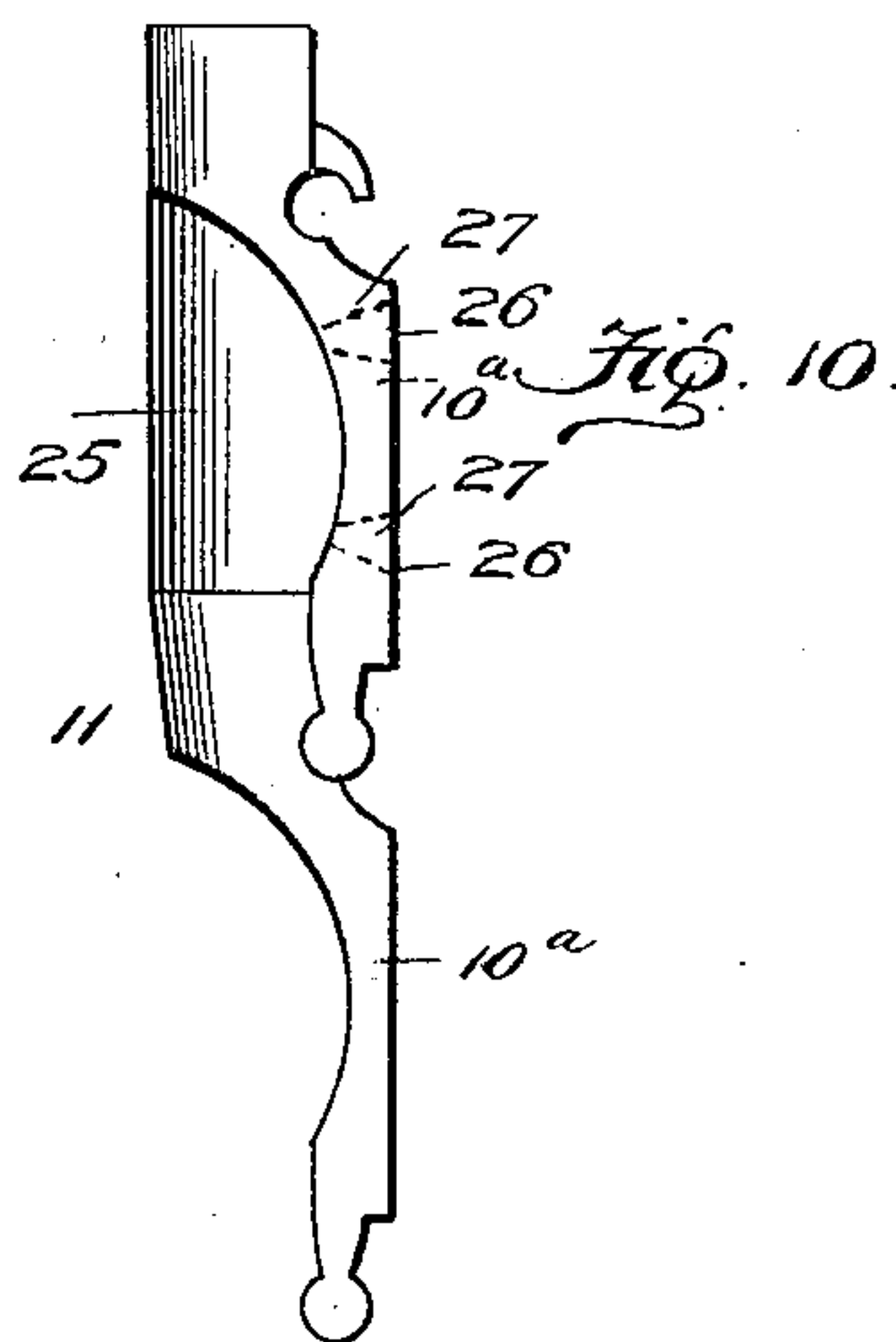
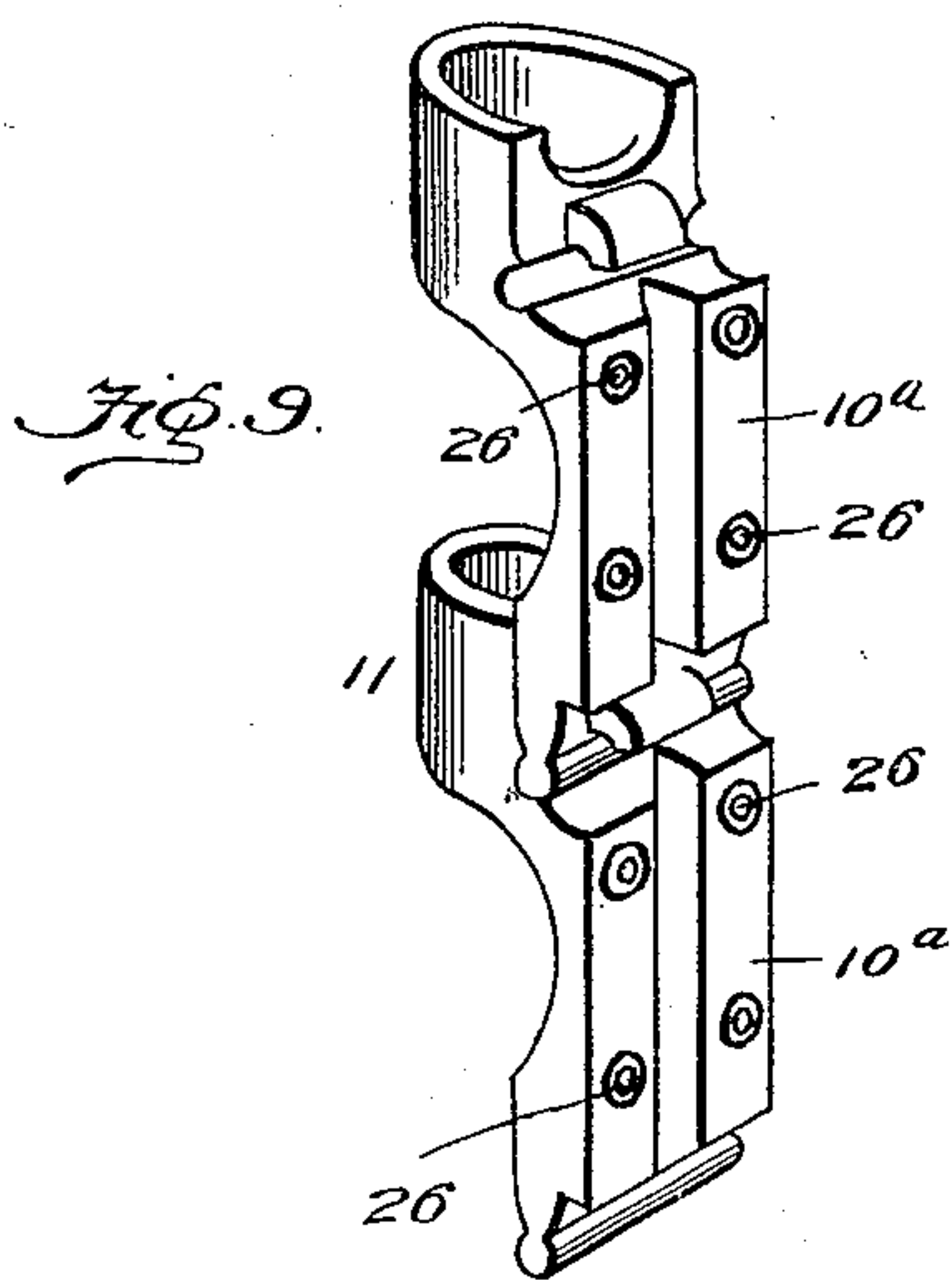
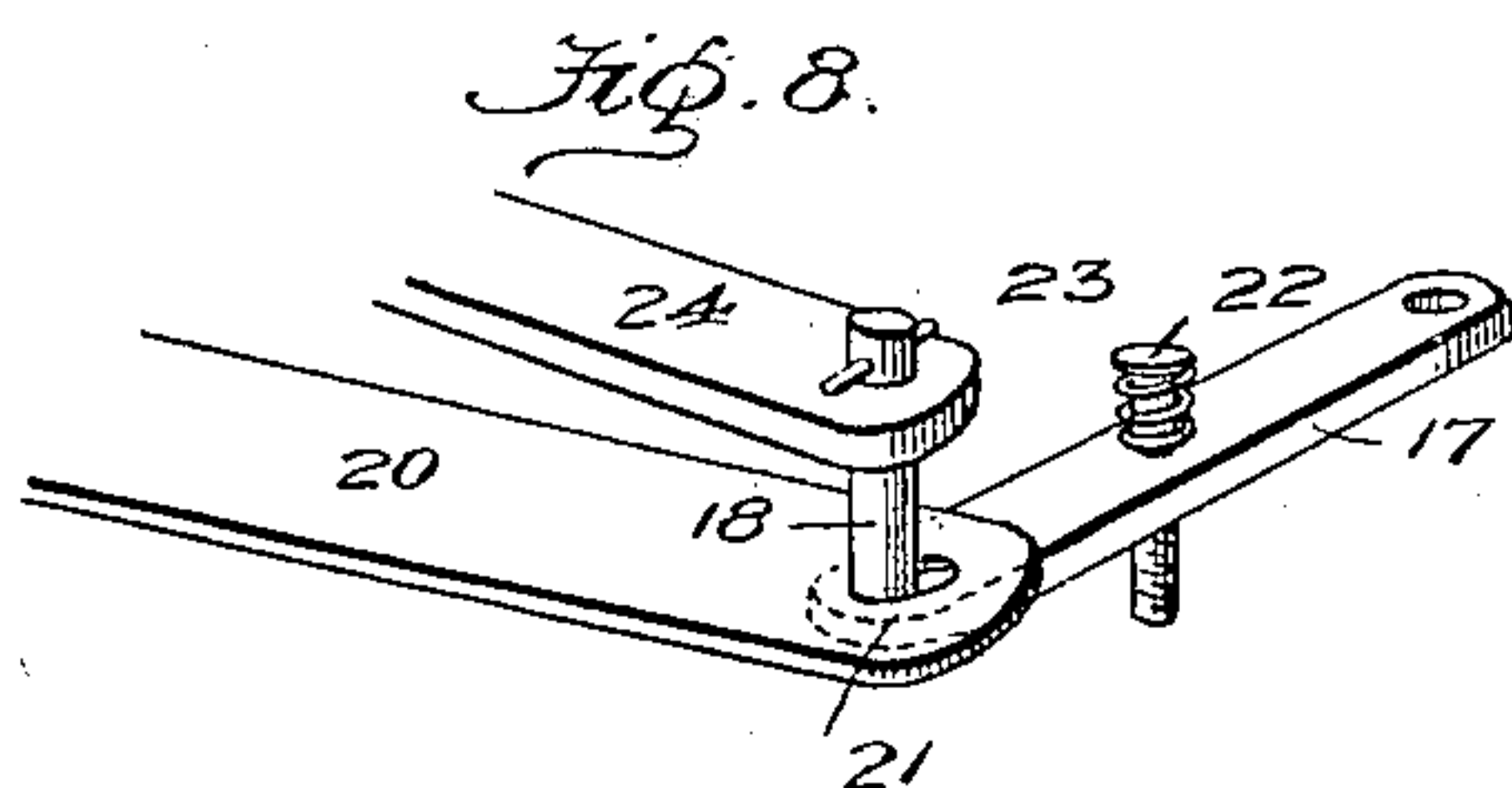
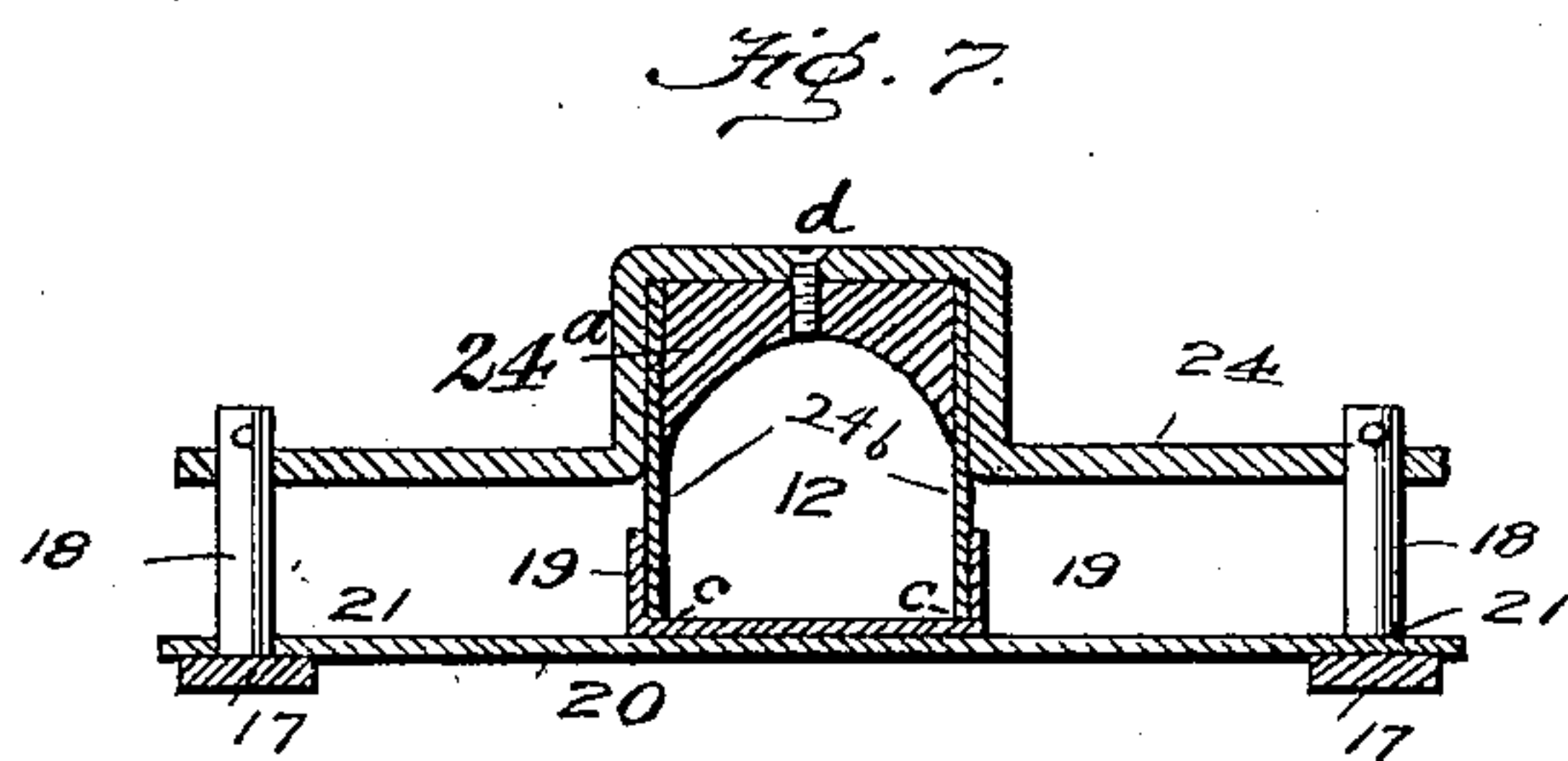
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4 Sheets—Sheet 3.



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Florence Ayers.

Inventor

James R. Ayers

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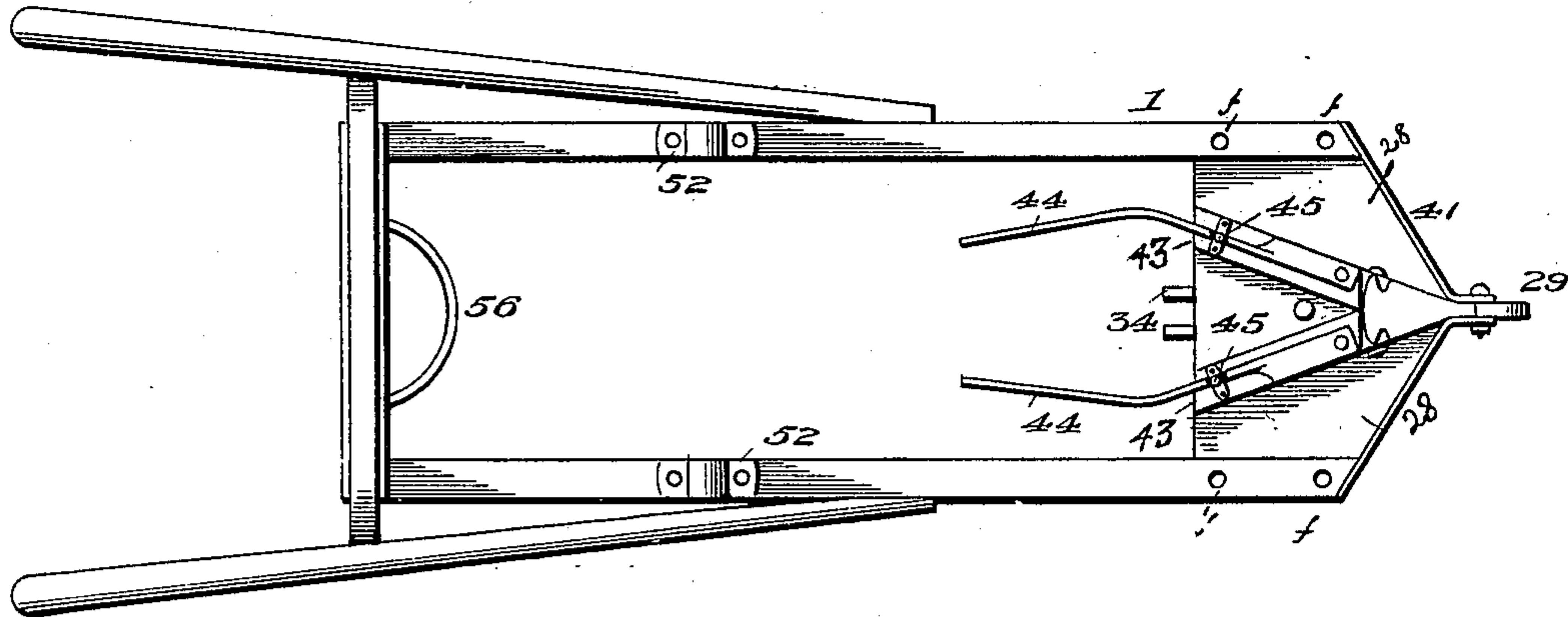
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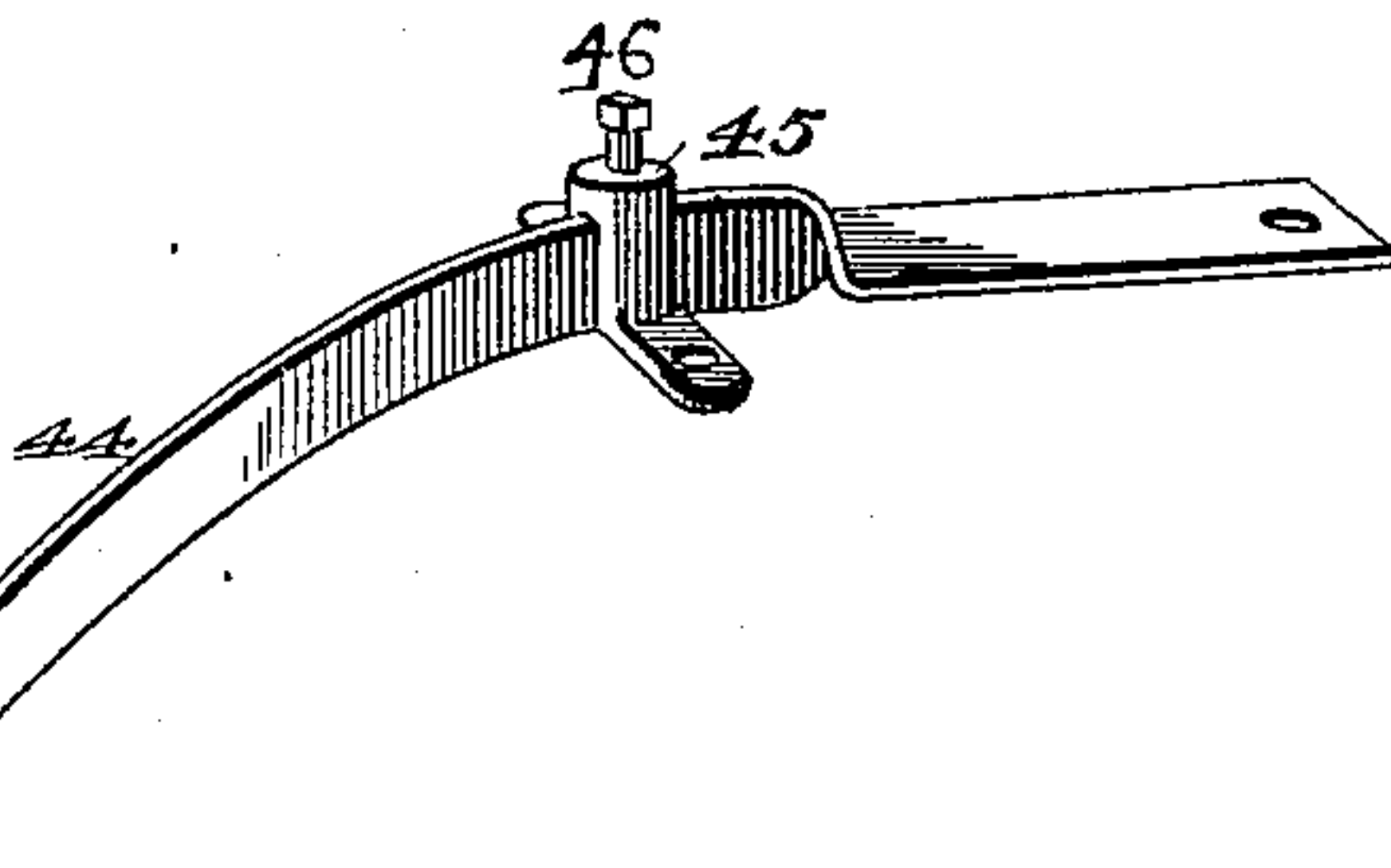
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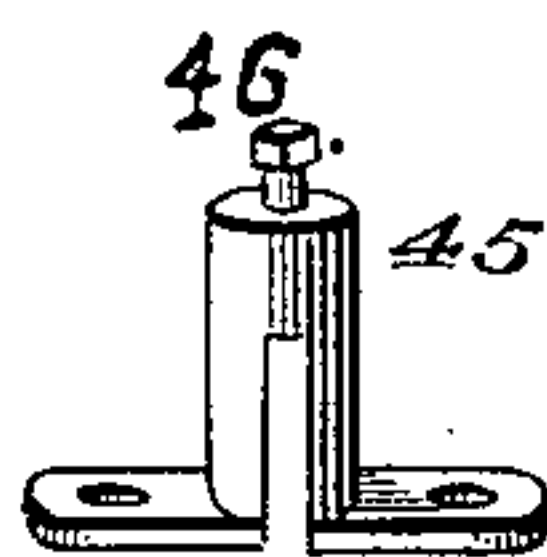
*Fig. 13.*



*Fig. 14.*



*Fig. 15.*



Witnesses:  
J. R. Ayers Jr.  
Florence Ayers.

Inventor.

James R. Ayers



# UNITED STATES PATENT OFFICE.

JAMES R. AYERS, OF PETERSBURG, VIRGINIA.

## PEANUT-PLANTER.

SPECIFICATION forming part of Letters Patent No. 635,635, dated October 24, 1899.

Application filed August 15, 1899. Serial No. 727,291. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES R. AYERS, a citizen of the United States, residing at Petersburg, in the county of Dinwiddie and State of Virginia, have invented certain new and useful Improvements in Peanut-Planters; 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.

My invention relates to improvements in peanut-planters, and especially that patented to me August 10, 1886, No. 346,976.

In the drawings, Figure 1 represents a side elevation of my improved planter. Fig. 2 is a section taken through a portion of the hopper to more clearly show the seed-dropping mechanism. Fig. 3 is a perspective view of my trench-cutting shoe. Fig. 4 is a horizontal sectional view of the machine with the hopper removed. Fig. 5 is a perspective view of one of the metal shields or plates for front of planter. Fig. 6 is a detail cross-section taken on line *x x*, Fig. 4. Fig. 7 is a sectional view of the seed-chute and means of connecting it to the hopper. Fig. 8 is a detail perspective view of a portion of the chute-fastening. Fig. 9 is a detail perspective view of two of the links of the feeding-chain. Fig. 10 is a side elevation of two of the links with my cup-closing shield attached. Figs. 11 and 12 are detail views of the shield. Fig. 13 is a top view of the frame with the hopper removed, showing the arrangement of the braces 43 and the coverers 44. Fig. 14 is a perspective view of the coverer 44 and cuff 45 in position. Fig. 15 is a view of the slotted cuff 45 and set-screw 46.

The frame of my improved planter will be understood by reference to Figs. 1 and 13, the numeral 1 designating the side pieces of the frame, 28 the bottom or bed-piece, and 43 the wedge-shaped piece between the bottom and side pieces to give the bottom the proper slant upon the ground, all being held firmly by the bolts *f f f f*, which also hold the brackets *g* and *h* on the top of the side pieces, which brackets in turn hold in place the hopper 2, by means of bolts *i* and *j*. This hopper is provided with the inclined bottom 4, having the nozzle 5, through which traverses the cup-

chain 10<sup>a</sup> in its upward movement. The seed is raised by the cups 11 and discharged from the cups as they open downward on their rotation around the flange-pulley 9, but is retained on the rear of the cup in advance by the chute 12 until it arrives near the ground, where it is discharged accurately and at regular intervals as the cups leave the chute as they rotate about the lower pulley 13.

By reference to Figs. 1, 2, 7, and 8 it will be seen that I construct the chute and attach it to the hopper in a novel manner. The outer part of the chute is composed of three pieces—the grooved wooden piece 24<sup>a</sup> (shown in Fig. 7) and the two metal pieces 24<sup>b</sup>, same figure, attached to same. These two pieces project slightly beyond the inner surface of the cup-chain as it traverses the chute and are contacted by the inner cushion 19 at the points *c c*. This cushion-plate 19 may be considered a part of the chute and is held in actual contact with the side pieces 24<sup>b</sup> by the action of the spring-plate 20, riveted crosswise to the cushion-plate about midway of its length. This spring-plate 20 fits loosely over the projections 18 of the hanger-plates 17, the same projections, by means of pins at their outer extremities, also holding the bracket 24, which is secured to the wood piece 24<sup>a</sup> about midway its length by the screw *d*.

The hangers 17 are loosely fastened to the back of the hopper by screws through holes at their upper ends, and the grooved wooden piece 24<sup>a</sup> is gently pressed against the cup-chain by the small spiral spring 23, held in place by the screw 22, which is screwed into the back of the hopper through holes through the hanger-plates 17, as shown in Fig. 8. Thus it will be seen that the grooved wooden piece 24<sup>a</sup> being held lightly against the cups retains the seed in its proper place on the rear of the cups as they descend, and the cushion-plate 19 prevents the chain from vibrating away from the grooved wooden piece to any appreciable extent, as it otherwise might do from the jarring of the machine or stiffness of links, and the pressure of the cushion-plate is upon the metal side pieces and not upon the chain, except as the chain may vibrate against it.

Upon the upper side of the base-piece 28 are secured the slotted braces 43, which converge to and are securely held together in



front by a horizontal bolt traversing same and an intervening projection or bearing of the hitch-iron 29. The rear ends of the braces are secured to the bed-piece by bolts, which  
 5 also serve to hold the slotted cuffs 45, having the set-screws 46, which control the position of the covering-knives 44, the slot in the cuffs and the corresponding ones in the braces forming secure side bearings for the coverers.  
 10 These converging braces, besides affording suitable bearings for the covering-knives, prevent the bed-piece 28 from splitting and securely brace the whole frame, as well as the hitch-iron, to which their front ends are bolted.  
 15 Upon the front of the frame is the draft or hitch iron 29, which has the short projection 30 on top of the base or bed piece 28 intervening between the braces 43, and also having on the bottom of the bed-piece the longer  
 20 projection 30<sup>a</sup>, fastened to the bed-piece by the bolt 30<sup>b</sup>. The hitch-iron under the bed-piece has the hollow or recess 31, and in this recess is pivoted the front end of the shoe or trench opener 34 by a pin 33 traversing  
 25 the holes 32 on each side of the recess and the hole 35 in the front end of the shoe. To more securely hold the shoe in place and make the same adjustable as to depth, the top of the shoe is provided at or near its rear  
 30 end with the lug or shelf 36, traversing the open interior of the shoe and is adapted to engage with the teeth 38 on the angled casting 39, adjustably bolted to the bottom of the bed-piece through its slotted arm 40.  
 35 To protect and strengthen the machine, I employ the two metal shields 41, the front ends of which, 41<sup>a</sup>, form slanting fenders for the machine, and being bolted to the hitch-iron the two fenders and the hitch-iron serve  
 40 to brace each other. The bottoms of these shields fit closely the bed-piece 28 and receive the principal wear, while the lower edges of the flanges 43<sup>a</sup> fit closely the sides of the shoe 34, preferably on a bevel to correspond to the  
 45 bevel on the lower part of the sides of the shoe, so that these flanges serve in combination with the shoe to form the trench, they shaping the upper part of the trench and the shoe 41 the lower part at the same time that  
 50 they prevent any opening being exposed above the shoe when that is lowered to deepen the trench or to compensate for wear. The distance of dropping is regulated within certain limits by different-sized pinions connect-  
 55 ing the upper sprocket-pinion with a pinion on flange-pulley shaft; but when the distance is to be greatly increased, as in changing from planting peanuts to planting corn at

long distances, I prevent every second cup from filling or all, except every third, as pre- 60  
 ferred. To do this, I close, as desired, the spaces intervening between the cups with the curved metal shields 25, having the slanting  
 65 lugs or projections 27 entering the beveled openings 26 in the body of the cup-links and held there by the spring of the shield itself.

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

1. A planter having an endless seed-con- 70  
 veying cup-chain combined with a chute to insure regularity of dropping, the chute vibrating with the chain, and held in actual contact with the cups by spring action, a  
 75 spring-actuated cushion-plate pressing upon the inner edges of the chute to prevent the chain from vibrating away from the chute and mounted upon and vibrating with the  
 same hangers as suspend the chute.

2. In a planter provided with an endless 80  
 seed-conveying cup-chain, the detachable shields adapted to close the spaces between the cups, to prevent the cups from filling.

3. A planter having the bottoms of the side pieces of the frame connected in front by 85  
 a transverse bed-piece having intervening wedges between the same and the side pieces to give the bed-piece the proper slant upon the ground, converging slotted braces se-  
 90 cured upon the upper side of said bed-piece and bolted in front to the hitch-iron, spring-tensioned covering-knives mounted upon said braces and fitting in slots in same with means  
 for adjusting their cutting depth substantially as described. 95

4. A planter consisting of a frame having a shoe secured to the bottom thereof, metal shields bolted to the hitch-iron and forming  
 100 slanting fenders for the front of the planter, and covering the bottom of the bed-piece, and provided with flanges which combine with the shoe to form the trench.

5. A planter having a hitch-iron secured to the front of the frame and provided with  
 105 a recess in which is pivoted the front end of the shoe or opener having at its rear end a shelf or lug which engages at different heights with a ratchet-casting bolted to the under  
 side of the bed of the frame.

In testimony whereof I affix my signature 110  
 in presence of two witnesses.

JAMES R. AYERS.

Witnesses:

T. D. B. DUNLOP,  
 THOS. G. WALTER.