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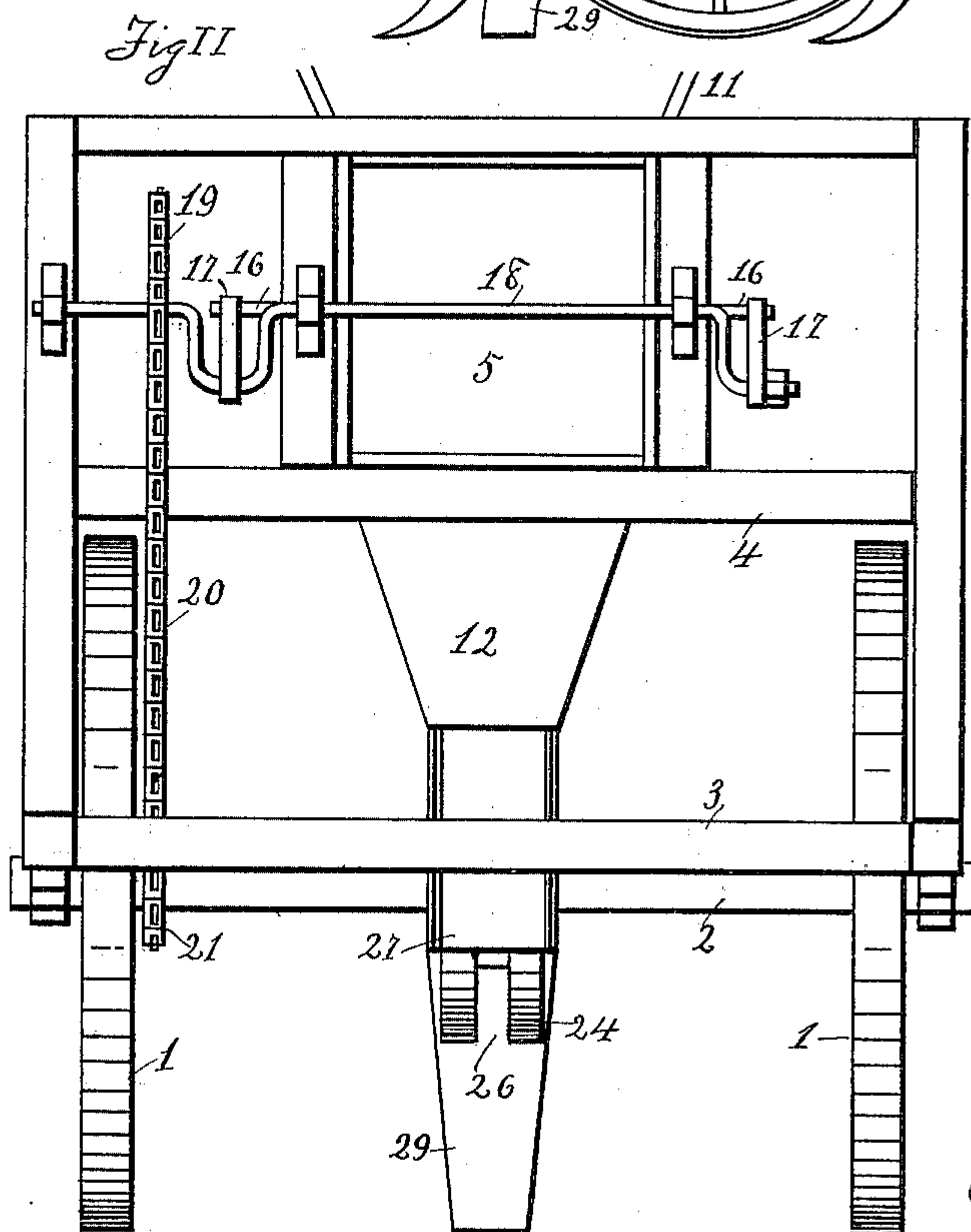
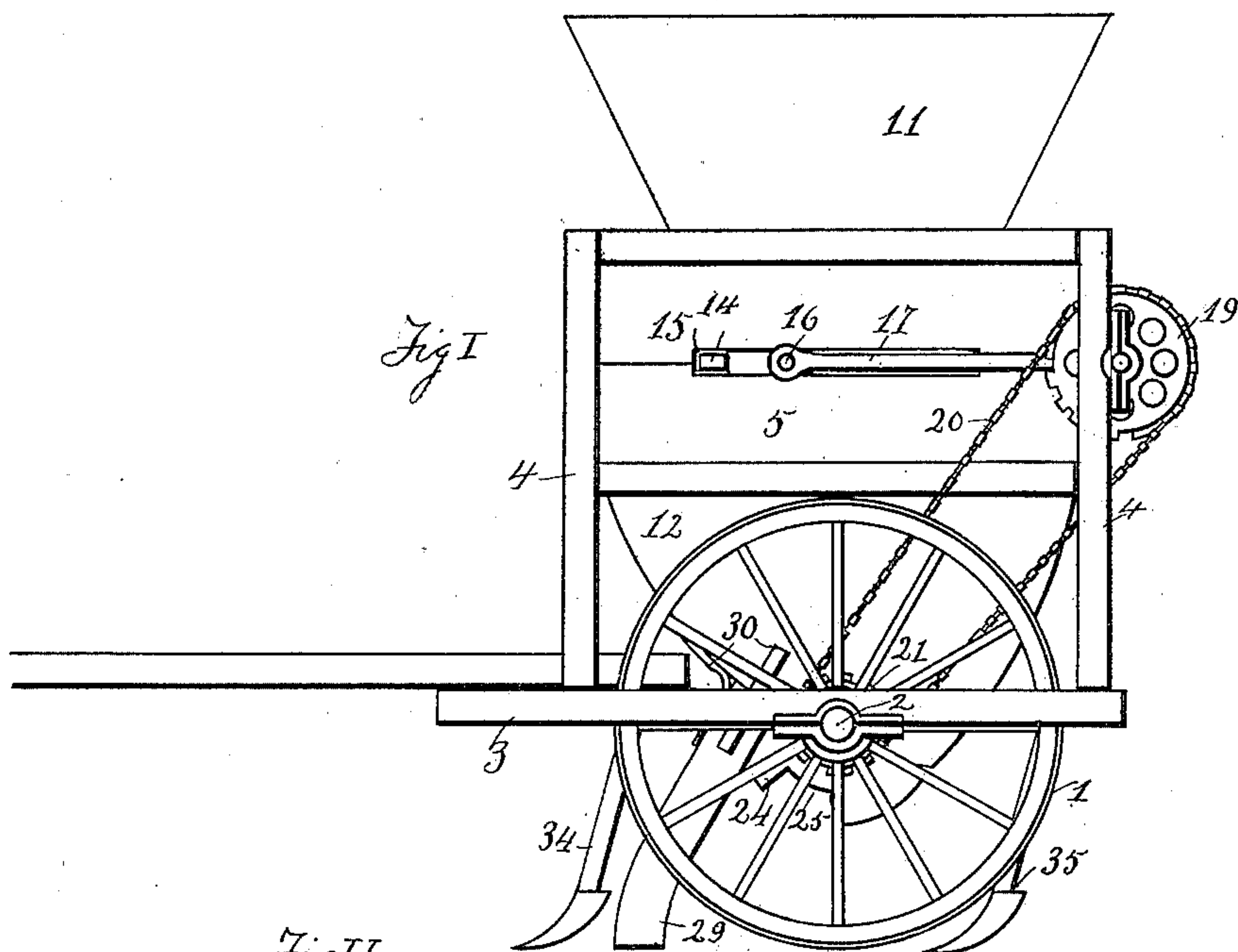
Patented June 26, 1900.

R. E. JOSEPH.
POTATO PLANTER.

(Application filed Jan. 14, 1898.)

(No Model.)

3 Sheets—Sheet 1.



Witnesses:
A. B. Jacobus
John M. Parry

Inventor:
R. E. Joseph,
by J. S. Brown
Attorney.

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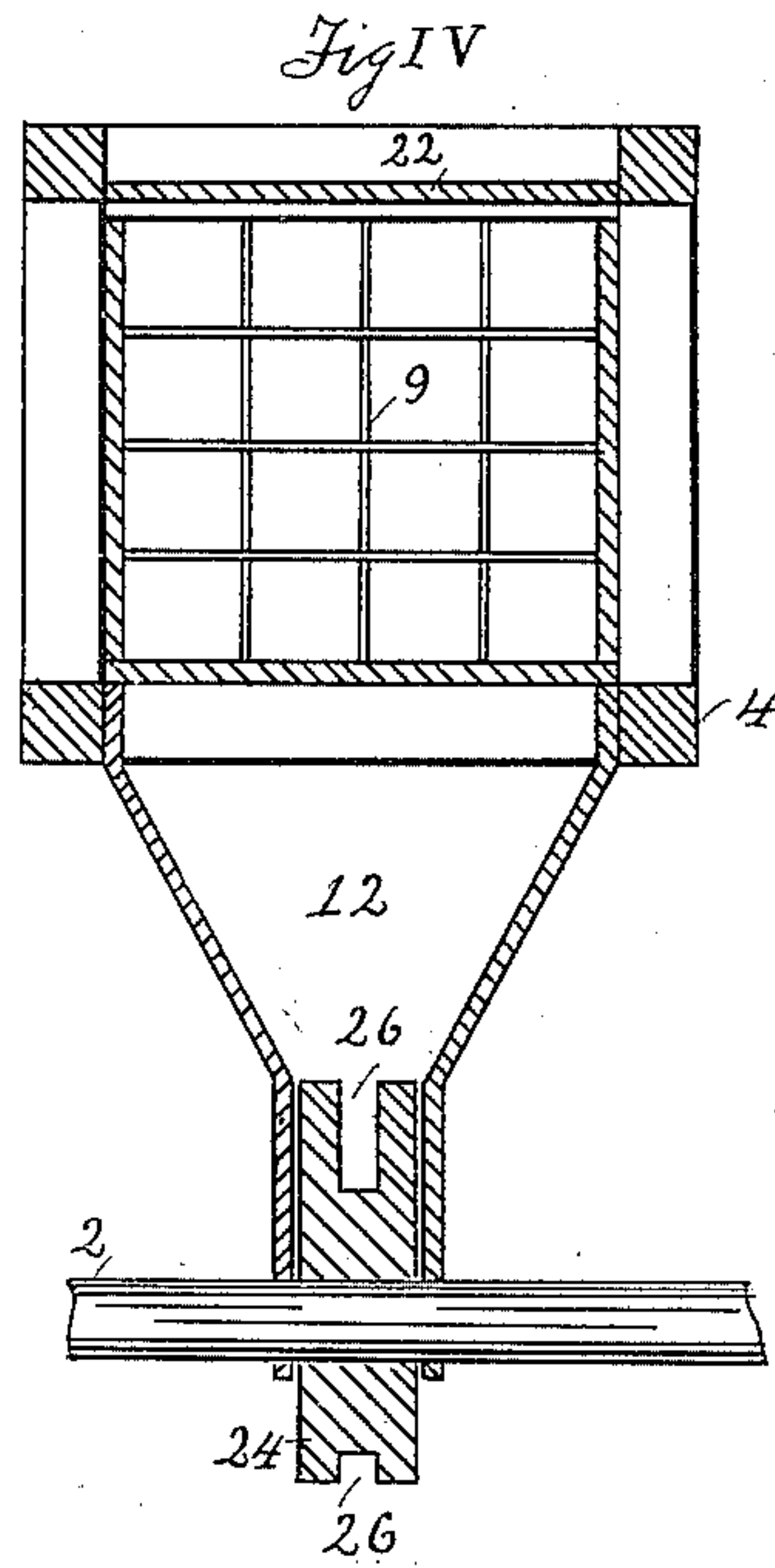
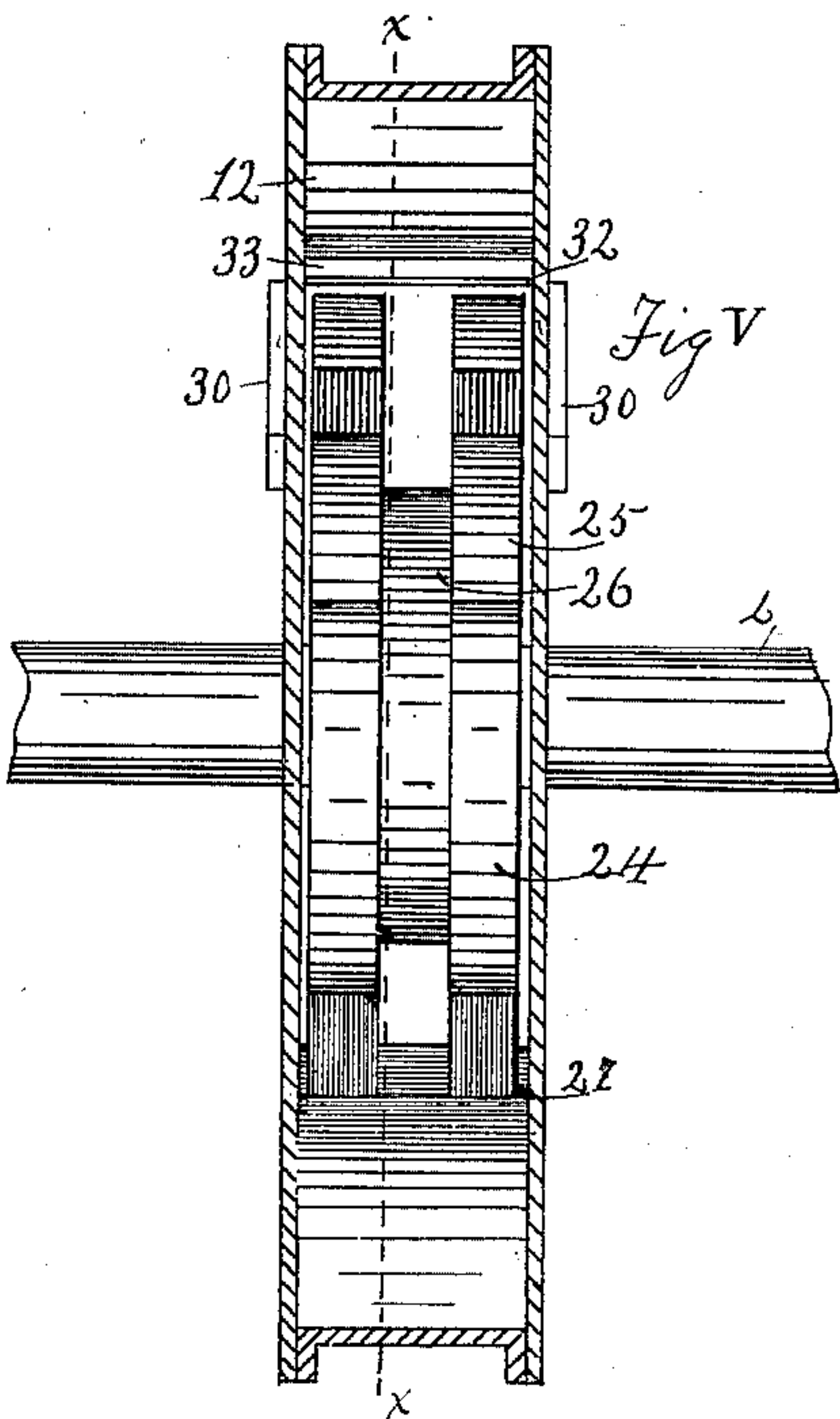
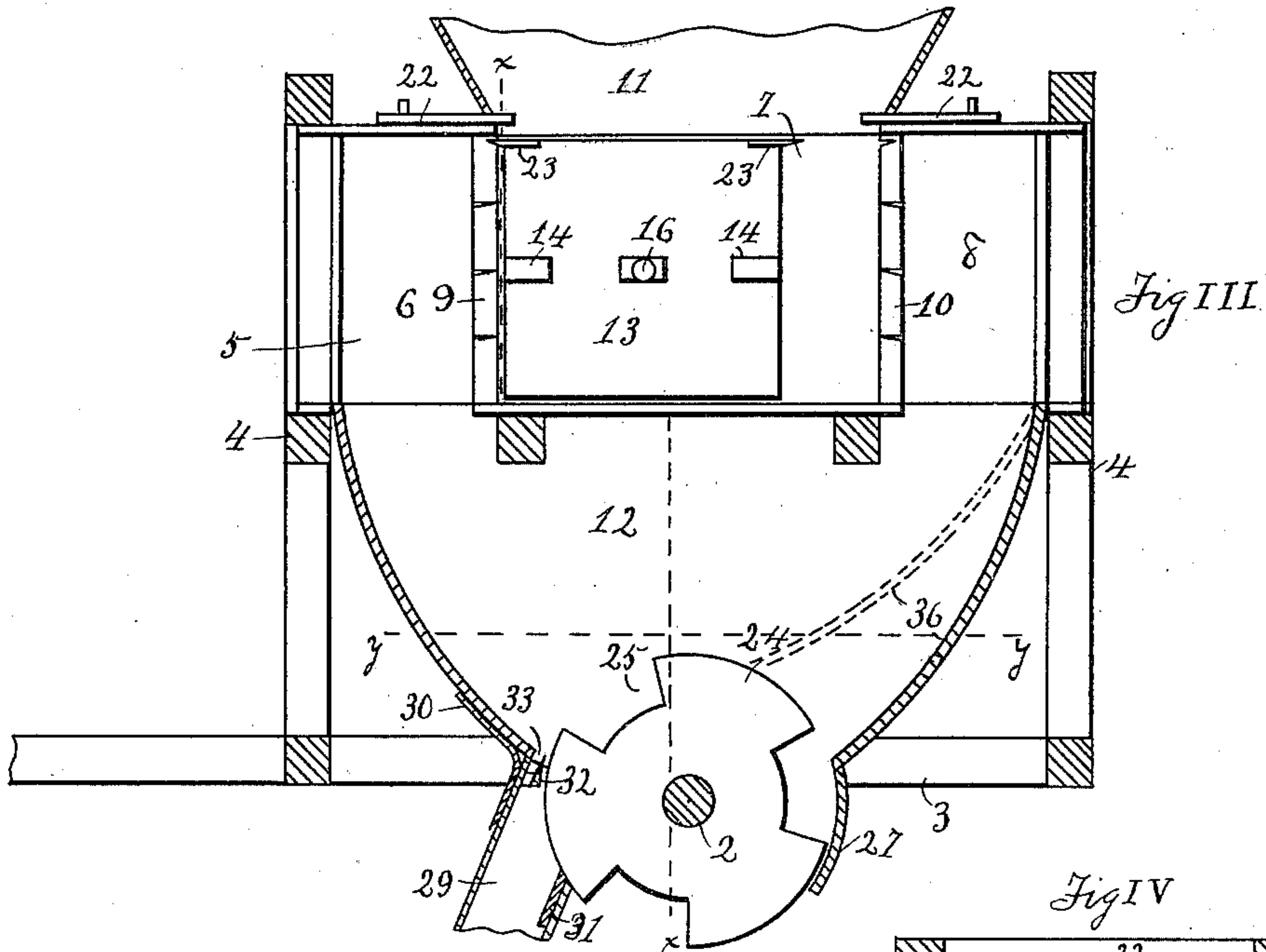
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A.B. Jacobus
John W. Parry

Inventor
R.E. Joseph
by
J.S. Brown
Attorney

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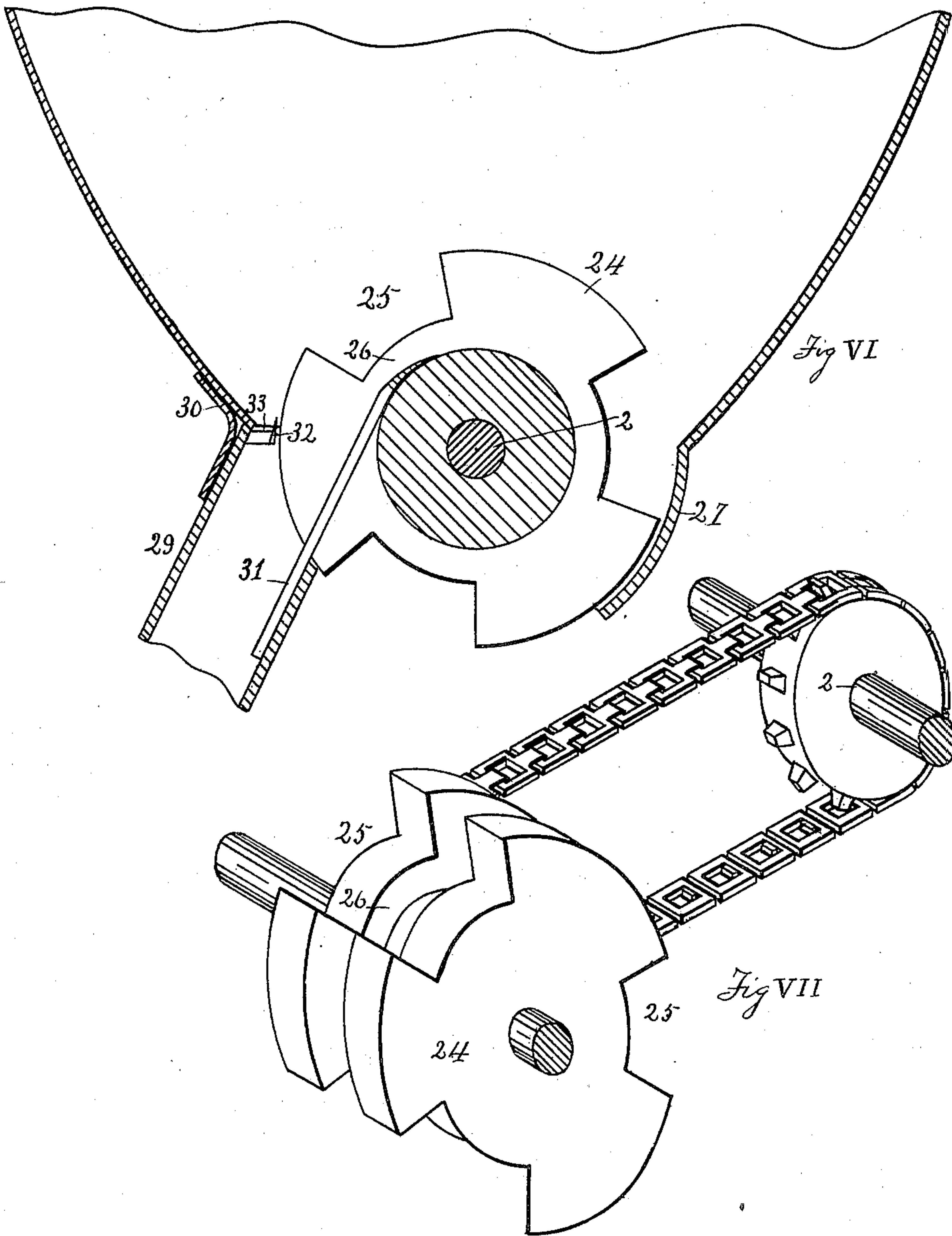
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3 Sheets—Sheet 3.



Witnesses
A. B. Jacobs
John M. Parry

Inventor
R. E. Joseph
by
J. S. Brown
Attorney

UNITED STATES PATENT OFFICE.

RUFUS E. JOSEPH, OF POTWIN, KANSAS.

POTATO-PLANTER.

SPECIFICATION forming part of Letters Patent No. 652,433, dated June 26, 1900.

Application filed January 14, 1898. Serial No. 666,601. (No model.)

To all whom it may concern:

Be it known that I, RUFUS E. JOSEPH, a citizen of the United States, residing at Potwin, in the county of Butler, in the State of Kansas, have invented certain new and useful Improvements in Potato-Planters, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to improvements in potato-planters; and my invention consists in certain features of novelty hereinafter described, and pointed out in the claims.

Figure I represents a side elevation of a potato-planter embodying my improvements. Fig. II represents an end elevation of the same, the plows shown in Fig. I being omitted. Fig. III represents a side elevation of the same, part of the frame and casing being removed and partly in cross-section, showing the internal construction and arrangement. Fig. IV represents a cross-section on the line $x x$ of Fig. III. Fig. V represents a cross-section on the line $y y$ of Fig. III. Fig. VI represents a cross-section on the line $x x$ of Fig. V. Fig. VII represents a detail perspective view of the dropper-wheel and its adjacent parts.

Similar numerals refer to similar parts throughout the several views.

1 represents the bearing-wheels, 2 the axle, and 3 the frame of a truck upon which the machine is mounted. Upon the truck-frame 3 is mounted the frame 4, in which is provided the cutter-box 5. This cutter-box is divided into three compartments 6, 7, and 8, the end compartments being separated from the middle compartment by a series of horizontal and transverse knives 9 and 10. Said middle compartment is open at the top, and communicating with it is the hopper 11, mounted upon the frame. Said end compartments are open at the bottom and communicate by said open bottoms with the dropper-chamber 12, supported upon the frame beneath the cutting-box. Within the middle chamber 7 of the cutting-box is provided the plunger 13, arranged to operate therein. Upon the sides of the plunger are the ears 14, arranged to operate in the slots 15 in the sides of the box to

steady the movement of the plunger. The plunger is also provided with the studs 16, to which are connected the connecting-rods 17, connecting with the crank-shaft 18, journaled upon the frame. Upon said shaft is mounted the sprocket-wheel 19, driven by the sprocket-chain 20 from the sprocket-wheel 21, mounted on the axle 2. As the plunger reciprocates it presses the potatoes against the knives 9 and 10, cutting the potatoes into pieces of suitable size for planting. As the plunger approaches one end of its stroke the potatoes from the hopper fall between the plunger and the knives at the other end ready for the return stroke of the plunger. Slides 22 are provided under the hopper to regulate the quantity of potatoes delivered to the cutter, and knives 23 are provided along the upper advance edge of the plunger to cut the potatoes that may be caught partly within the cutting-box and prevent mashing them.

24 represents the dropping-wheel, which is formed with the pockets 25 of sufficient size to receive the pieces of potato it is desired to drop in each hill and is provided with the groove 26, extending below the bottom of the pocket. The dropper-chamber is arranged to form a hopper over the said wheel, the sides thereof being extended along the sides of the wheel to retain the potatoes in said pockets. A wing 27 is provided to prevent the escape of the potatoes from the opening incident to the passage of the pocket to that part of the chamber. The wheel 24 is shown as mounted on the axle and arranged to turn therewith; but it may be of course mounted upon its own shaft, as shown in Fig. VII, and driven by sprocket-chain or other means from the axle.

29 represents the spout for carrying the potatoes when dropped from the wheel to the furrow. Said spout is secured to the casing of the dropper-chamber by the straps 30 and is provided with the tongue 31, arranged to operate in the groove 26 in the dropping-wheel to clear the potatoes from the pockets as the wheel revolves. Said spout is also provided with a knife 32, extending across the path of the pockets to cut off any portion of the pieces of potato protruding beyond the pockets, and thus prevent mashing of the pieces against the casing, the small pieces cut off falling

through the open space 33 between the knife and the front edge of the spout and casing into the spout.

In Fig. I the machine is shown provided with the plows 34 and 35 to form the furrow and to cover the potatoes; but these may be omitted and the machine connected on behind a lister or other plow in the furrow of which the potatoes will be dropped and the potatoes then covered in any usual or desired manner.

It is apparent that one of the slides 22 may be extended so that the potatoes will be fed from the hopper at but one end of the plunger. It is also manifest that the rear casing 36 of the dropper-chamber may be carried more nearly to the top of the dropper-wheel, as shown in dotted lines in Fig. III, and the wing 27 omitted.

I am aware that potato-planters are not new and that a combined potato cutter and planter is not new, and therefore do not claim the same broadly.

What I do claim as my invention, and desire to secure by Letters Patent, is—

1. In a potato-planter, the combination with the wheels, the axle, the truck-frame, and a frame mounted on said truck-frame, of a cutting-box mounted on said frame, having an opening in the top to receive the potatoes and openings in the bottom for the discharge of the cut potatoes, a series of knives arranged in said box contiguous to said discharge-openings, a reciprocating plunger operating under said top opening, knives arranged on the upper advance edge of said plunger, slides arranged to partially close said top opening, a hopper arranged to deliver the potatoes into said opening, and means for operating said plunger; substantially as set forth.

2. In a potato-planter, the combination with the wheels, the axle, the truck-frame, and a frame mounted on said truck-frame, of a cutting-box mounted on said frame having a central opening in its top to receive the potatoes, and openings in its bottom at the ends thereof for the discharge of the cut potatoes, a hopper arranged to deliver the potatoes into said top opening, slides arranged to control the delivery from the hopper, oppositely-disposed series of knives in said box contiguous to said bottom openings, and a reciprocating plunger arranged to operate between said oppositely-disposed series of knives substantially as set forth.

3. In a potato-planter the combination of a cutting-box having an opening in its top to receive the potatoes and openings in its bottom at the ends thereof for the discharge of the cut potatoes, oppositely-disposed series of knives extending across said box contiguous to said bottom openings, and a reciprocating plunger arranged to operate between said oppositely-disposed series of knives, substantially as and for the purpose set forth.

4. In a potato-planter the combination with a casing forming a dropping-chamber, and a dropping-wheel provided with seed-pockets

arranged below and partly within said chamber, of a spout connected with said casing, and a knife arranged across the throat of said spout in close proximity to the periphery of said dropping-wheel whereby the portion of the seed which projects from said pockets is cut off and dropped into the spout; substantially as set forth.

5. In a potato-planter the combination with a casing forming a dropping-chamber, and a dropping-wheel provided with seed-pockets and having a groove below said pockets arranged below and partly within said chamber, of a spout connected with said casing, a tongue connected with said spout arranged to operate in said groove in said wheel, and a knife secured across the throat of said spout in close proximity to the periphery of said dropping-wheel whereby the portion of the seed which projects from said pockets is cut off and dropped into the spout; substantially as set forth.

6. In a potato-planter, the combination with a truck-frame and wheels, a frame mounted on said truck-frame, a cutting-box arranged in said frame having suitable openings in the top and bottom thereof, a hopper arranged to deliver the potatoes into said top opening, a series of knives arranged contiguous to said openings in the bottom of said box, a reciprocating plunger operating in said box, and means for operating said plunger, of a casing forming a dropper-chamber under said box and communicating therewith, a dropping-wheel provided with peripheral pockets and having a groove below the line of said pockets, arranged to operate in said chamber, a spout connected to said casing arranged to receive the potatoes from said pocket, and a tongue connected with said spout arranged to operate in said groove in said wheel; substantially as set forth.

7. In a potato-planter the combination with the wheels and axle and a frame mounted on the axle, of a cutting-box arranged in said frame having suitable openings to receive and discharge the potatoes, a hopper arranged to deliver the potatoes into said box, slides to regulate the delivery from the hopper, a series of knives arranged contiguous to said delivery-openings, a reciprocating plunger operating in said box, lugs on the sides of said plunger arranged to operate in slots in the sides of said box, studs on said plunger extending beyond the sides of said box, a crank-shaft journaled on the frame, connecting-rods arranged between said crank-shaft and said studs on the plunger, a sprocket-wheel on said crank-shaft, a sprocket-wheel on the axle, and a sprocket-chain passing around said sprocket-wheels; substantially as set forth.

8. In a potato-planter the combination with a casing forming a dropping-chamber, and a dropping-wheel provided with seed-pockets arranged to operate below and partly within said chamber, of a spout connected with said

casing and arranged to receive the seed from said pockets, and a knife arranged across the throat of said spout whereby the portion of seed which projects from said pockets is cut off and dropped into the spout; substantially as set forth.

9. In a potato-planter the combination with a truck-frame and wheels, a frame mounted on said truck-frame, a cutting-box mounted on said frame having a feed-opening in its top and discharge-openings in its bottom, a series of knives arranged in said box contiguous to said discharge-openings, and a reciprocating plunger arranged to operate between said series of knives, of a casing forming a dropping-chamber communicating with said discharge-openings, and a dropping-wheel provided with seed-pockets arranged to operate in said dropping-chamber; substantially as set forth.

10. In a potato-planter, the combination with a truck-frame and wheels, a frame mounted on said truck-frame, a cutting-box mounted on said frame having a feed-opening in its top and discharge-openings in its bottom, a series of knives arranged in said box contiguous to said discharge-openings, and a reciprocating plunger arranged to operate between said series of knives, of a casing forming a dropping-chamber communicating with said discharge-openings, a dropping-wheel provided with seed-pockets arranged to operate in said dropping-chamber, a spout connected with said casing, and a knife arranged across the throat of said spout in close proximity to the periphery of said dropping-wheel; substantially as set forth.

11. In a potato-planter having a suitable truck-frame and wheels, the combination with

a cutting-box mounted on said truck-frame having a feed-opening in its top and discharge-openings in its bottom, a series of knives arranged in said box contiguous to said discharge-openings, and a reciprocating plunger arranged to operate in said box, of a casing forming a dropping-chamber communicating with said discharge-openings, a dropping-wheel provided with seed-pockets and having a circumferential groove below said pockets arranged to operate in said dropping-chamber, a spout connected with said casing, a tongue connected with said spout arranged to operate in said groove in said dropping-wheel, and a knife arranged across the throat of said spout in close proximity to the periphery of said dropping-wheel; substantially as set forth.

12. In a potato-planter having a suitable truck-frame and wheels, the combination with a cutting-box mounted on said truck-frame, having a feed-opening in its top and discharge-openings in the opposite ends of its bottom, oppositely-arranged series of knives extending across said box contiguous to said discharge-openings, and a reciprocating plunger arranged to operate between said oppositely-arranged series of knives, of a casing forming a dropping-chamber communicating with said discharge-openings, a dropping-wheel arranged to operate in said dropping-chamber, and a spout connected with said casing arranged to receive the potatoes from said dropping-wheel; substantially as set forth.

RUFUS E. JOSEPH.

Witnesses:

S. E. COBB,

E. A. MORGAN.