No. 791,796. PATENTED JUNE 6, 1905.

J. M. JONES.

CORN PLANTER.

APPLICATION FILED JAN. 28, 1905.

3 SHEETS—SHEET 1.

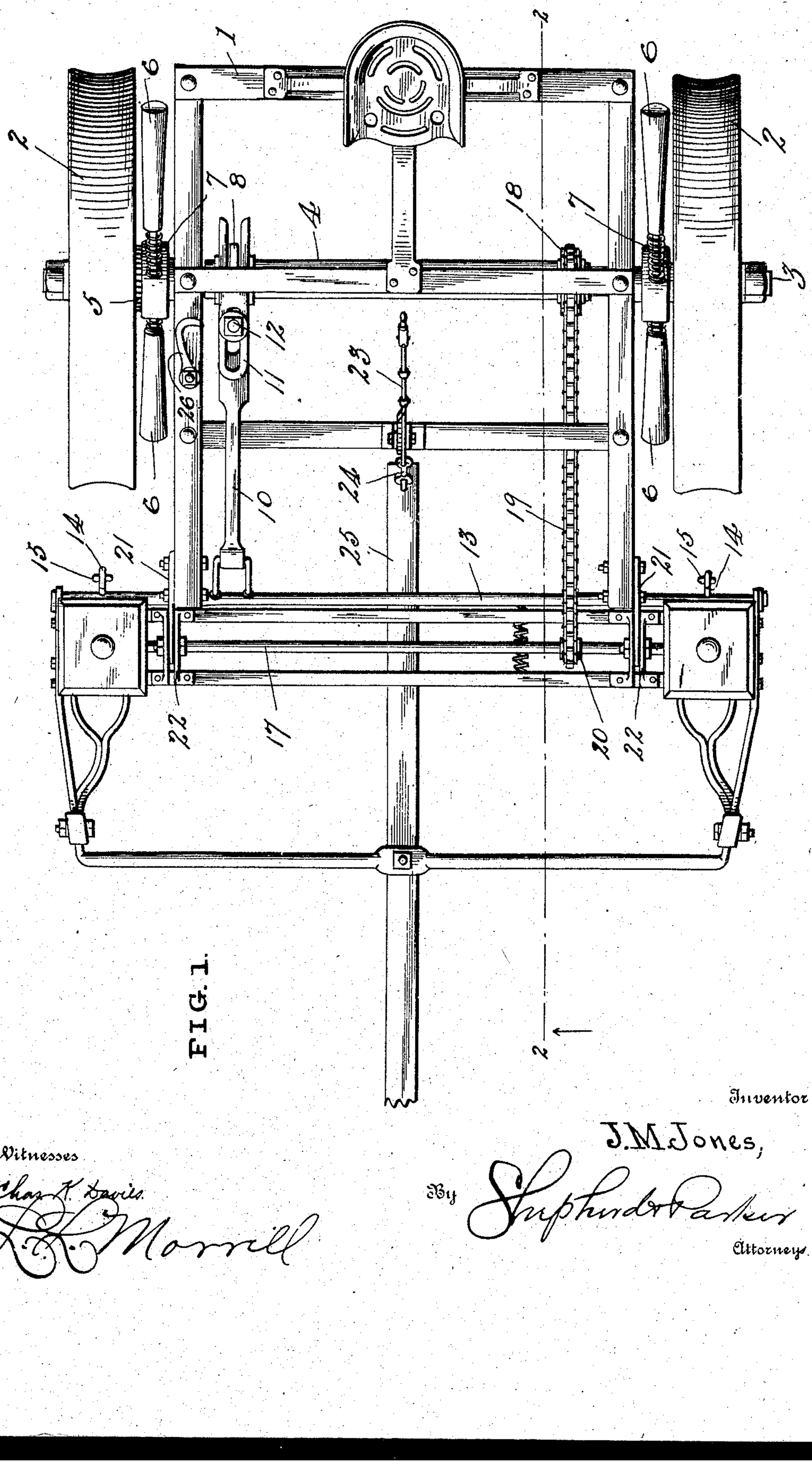

FIG. 1.

Witnesses

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3 SHEETS—SHEET 2.

FIG. 4.

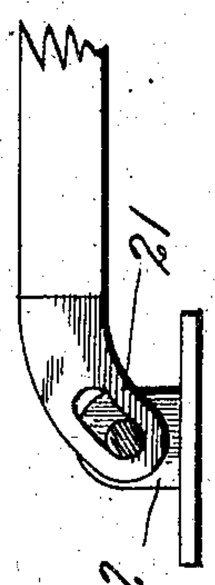


FIG. 2.

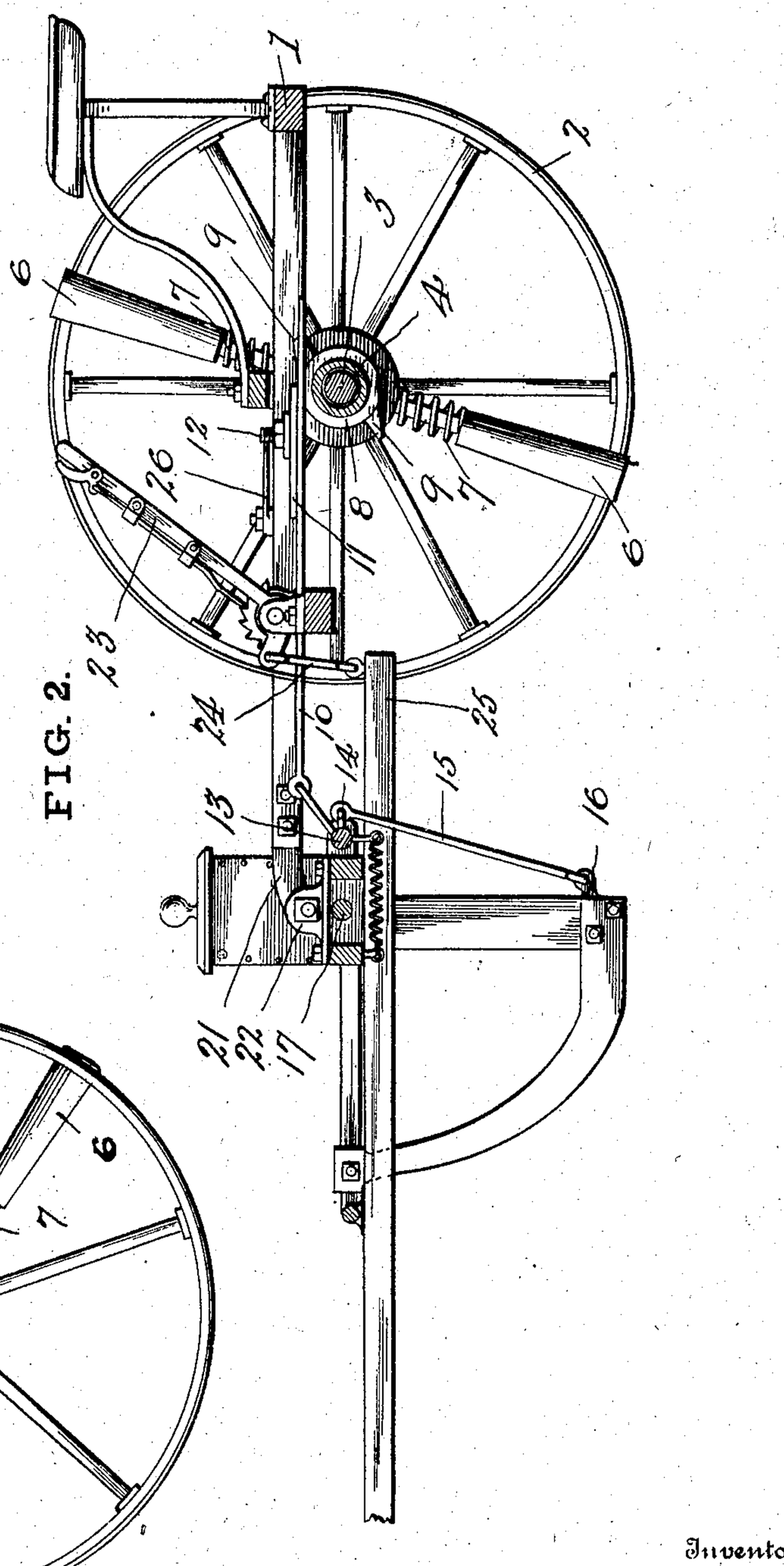
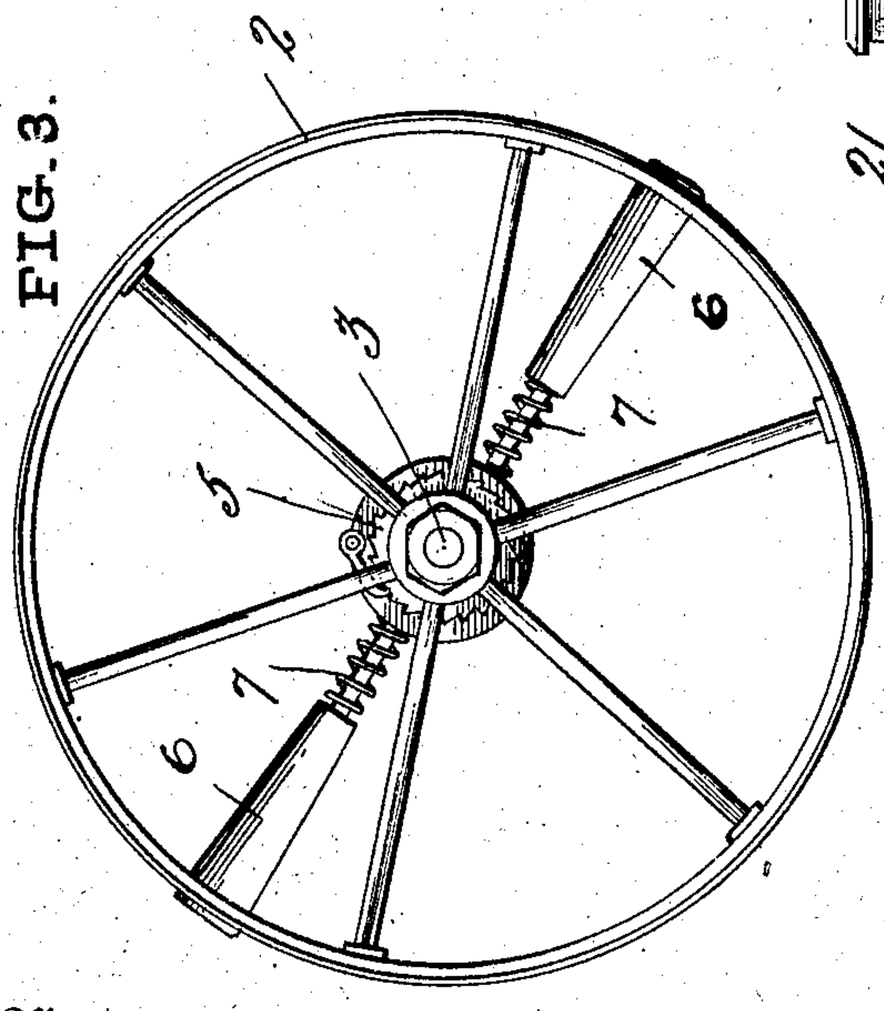


FIG. 3.



Witnesses

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3 SHEETS—SHEET 3.

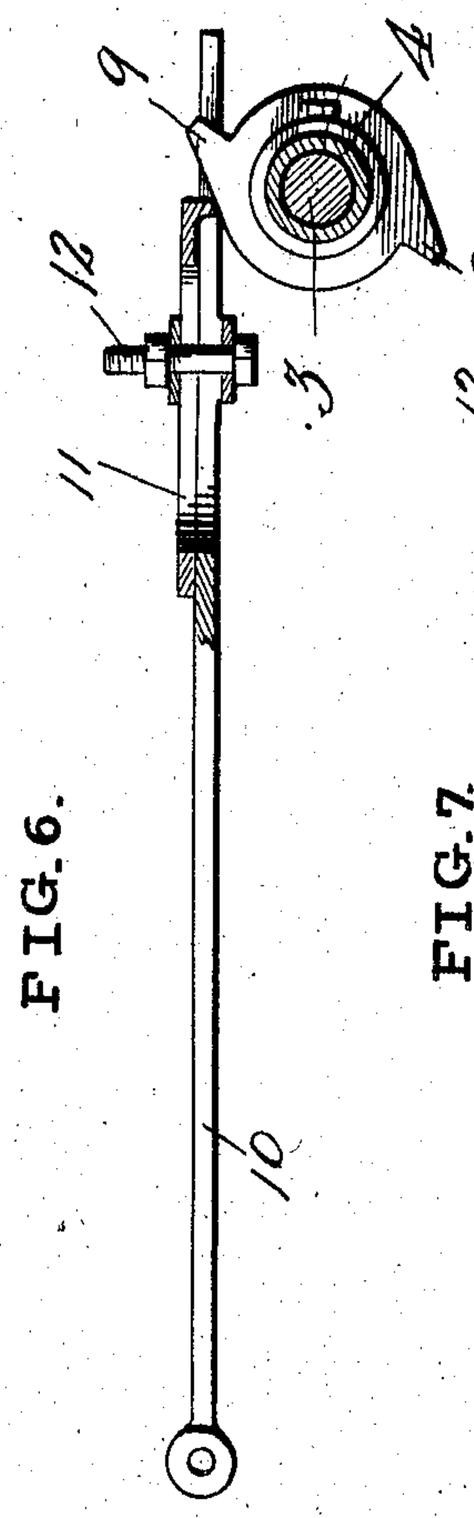

FIG. 6.

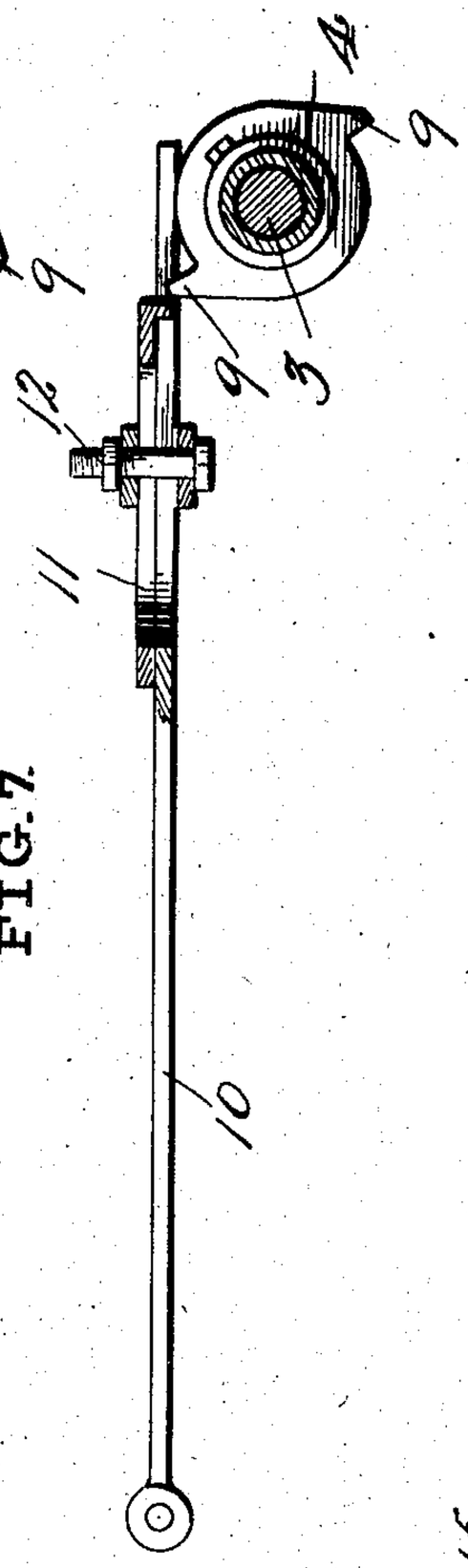

FIG. 7.

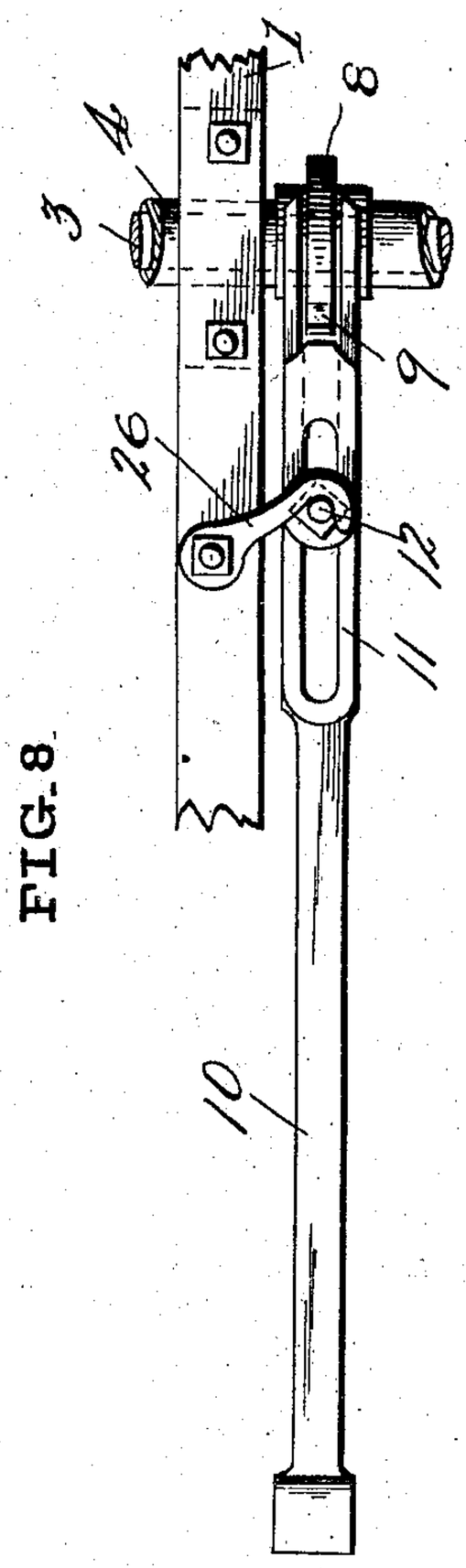

FIG. 8.

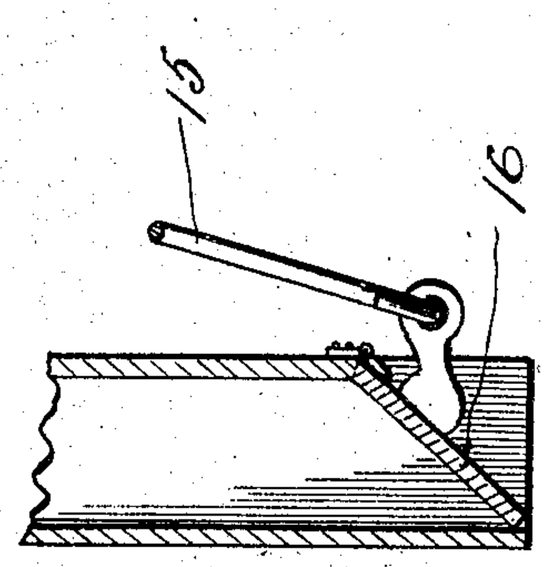

FIG. 5.

Witnesses

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No. 791,796. Patented June 6, 1905.

UNITED STATES PATENT OFFICE.

JAMES M. JONES, OF HUMBOLDT, KANSAS.

CORN-PLANTER.

SPECIFICATION forming part of Letters Patent No. 791,796, dated June 6, 1905.

Application filed January 28, 1905. Serial No. 243,037.

To all whom it may concern:

Be it known that I, JAMES M. JONES, a citizen of the United States, residing at Humboldt, in the county of Allen and State of Kansas, have invented certain new and useful Improvements in Corn-Planters, of which the following is a specification.

My invention relates to seed-planters, and especially to that class of seed-planters known as "check-row" planters.

The object of my invention is to provide a planter which may be conveniently operated to plant seeds arranged along rows in two directions and without the use of the usual knotted-wire-operating means.

A further object of my invention is to provide a seed-planter wherein the seed-delivery may be held permanently open to plant the seeds in drills.

A further object of my invention is to provide a row-checking device which may be quickly and conveniently adjusted for the more perfect alinement of the rows.

A further object of my invention is to provide a checking and operating device which may be readily and conveniently attached to and used in conjunction with the seed-receptacles and delivery devices already in use.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is a top plan view of my improved seed-planter. Fig. 2 is a view of my improved seed-planter in vertical section, taken on line 2 2 of Fig. 1. Fig. 3 is a view in side elevation of the wheel, ratchet, and checking device. Fig. 4 is a detail view of the connection between the front runner and rear-wheel frame or seed-carrying device and the operating mechanism. Fig. 5 is a detail view of the lower end of the seed-delivery tube which does not form a part of my invention, but is shown here to illustrate the usual construction of such seed-deliveries and the manner in which they are operated by my invention. Fig. 6 is a view of the push-bar in section and its rearward extreme and the tappet mechanism. Fig. 7 is a view of the push-bar at its extreme forward throw, showing also the tappet and its position; and Fig. 8 is a top plan view of the push-bar and tappet, showing the device for engaging with the push-bar to hold the seed-delivery permanently open.

Like characters of reference designate corresponding parts throughout the several views.

In its preferred embodiment my improved seed-planter consists of a frame 1, mounted upon wheels 2, having the usual concaved tread and secured upon a solid axle 3. About the solid axle 3 is disposed a hollow axle 4 and free to rotate thereon. The hollow axle 4 is conveniently journaled in the frame 1 and receives motion from the wheels 2 through the medium of any approved pawl-and-ratchet construction, as shown at 5. (See Fig. 1.) Rigidly mounted upon each end of the hollow axle 4 and adjacent the wheels are the row-checkers 6, provided with the spring 7 to permit the passage over obstructions. Also rigidly secured to the hollow axle 4 is the cam-plate 8, provided with diametrically-disposed tappets 9. A push-bar 10 is conveniently mounted upon the framework 1 and capable of a reciprocating movement and disposed to receive intermittent impulses from the tappets 9. A longitudinally-movable plate 11 is mounted upon the push-bar 10 and secured at a desired adjustment by any approved clamping means, as the bolt and nut 12. At its forward end the push-bar 10 is adapted to be connected with the usual rock-bar 13, which, through the medium of the lever 14 and the link 15, operates the usual hinge seed-delivery 16. The usual rotary operating-shaft 17 will also be driven from the hollow axle 4, as by the sprocket 18, mounted thereon and rotating the said shaft through the medium of the chain 19 and the wheel-sprocket 20. The forward end of the frame is provided with members 21, adapted to be connected with the

usual ears 22, disposed upon the front or runner of the seed-delivery device of the ordinary planter, and for that purpose a lever 23 is also provided, which through the medium of the link 24, connected with the rear end of the usual tongue 25, operates to control the adjustment of the machine. Any approved means, as the pivoted hook 26, mounted upon the frame 1, may be used to engage the push-bar 10, as by hooking over the bolt 12, as shown in Fig. 8, to hold the push-bar 10 at the extreme of its forward movement and the seed-delivery 16 permanently open.

The operation of my improved seed-planter is as follows: The forward movement of the machine will cause the wheels 2 to rotate and through the medium of the pawl and ratchet 5 impart a rotary motion to the hollow axle 4. The cam having the rotation of the hollow axle 4 will cause the tappets 9 to intermittently engage the push-bar 10 and impart a reciprocating motion thereto to open the seed-delivery, and as the tappets 9 are arranged at diametrically opposite points it is evident that seed will be delivered twice at each revolution of the wheel and axle 4. The row-checkers 6 being also arranged diametrical one to the other will obviously produce two checks for each revolution of the wheel. The checkers and tappets are so arranged upon the axle 4 that the checker 6 will produce a check or mark adjacent to the point at which seed is delivered, so that each hill of seed deposited is indicated by a check on the surface of the ground. When beginning a row, it is obviously necessary to adjust the delivery of seed in such manner that each delivery will be opposite and in row with deliveries made in formally-planted rows. To accomplish the adjustment, the row-checkers 6 are rotated by the operator until they engage the earth at a point exactly opposite a row already planted, and the seed-delivery is so arranged relative to the row-checkers that the seed is deposited at the exact point transversely later to be checked by the row-checker.

While I have described my invention as adapted for connection and operation with a seed-delivery device of the usual construction now commonly in use, it is obvious that I may construct my invention and place it upon the market in connection with the said seed-delivery as a complete machine, and I do not limit myself to the construction or use of the operating mechanism described as separate from the seed-delivery mechanism.

While I have shown the preferred embodiment and form of my invention, it is obvious that numerous changes may be made in the construction and minor detail without departing from the spirit of my invention or the scope of the claims.

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

1. In a seed-planter, a solid axle, a hollow axle disposed upon and free to rotate about the solid axle, means for rotating the hollow axle independently of the solid axle, seed-delivery devices, means actuated by the rotation of the hollow axle to produce a reciprocating movement of a push-bar to open and means to close the seed-delivery intermittently and means for preventing the reciprocating movement of the push-bar to hold the seed-delivery in an open position.

2. In a seed-planter, a solid axle, a hollow axle disposed upon and free to rotate about the solid axle, a push-bar mounted to reciprocate and connected with and adapted to open and close the seed-delivery, a tappet rigidly secured to the hollow axle and disposed to engage and produce an intermittent movement of the push-bar, markers secured to and carried by the hollow axle and disposed to produce a mark adjacent each hill of seed, means permitting the rotation of the hollow axle and the rotary adjustment of the markers independently of the solid axle and means whereby a rotation of the wheels produces a rotary movement of the hollow axle.

3. In a seed-planter, a solid axle, a hollow axle disposed upon and free to rotate about the solid axle, a push-bar mounted to reciprocate and connected with and adapted to open and close the seed-delivery, a tappet rigidly secured to the hollow axle and disposed to engage and produce an intermittent movement of the push-bar, means for engaging the push-bar to hold the seed-delivery in an open position, markers secured to and carried by the hollow axle and disposed to produce a mark adjacent each hill of seed, and pawl-and-ratchet connection between the hollow axle and the driving-wheels whereby a rotation of the wheels produces a rotary movement of the hollow axle and permits a rotation of the hollow axle and markers independently of the wheel.

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

JAMES M. JONES.

Witnesses:
WILLIAM E. MYER,
JAMES G. HICKS.