

No. 661,319.

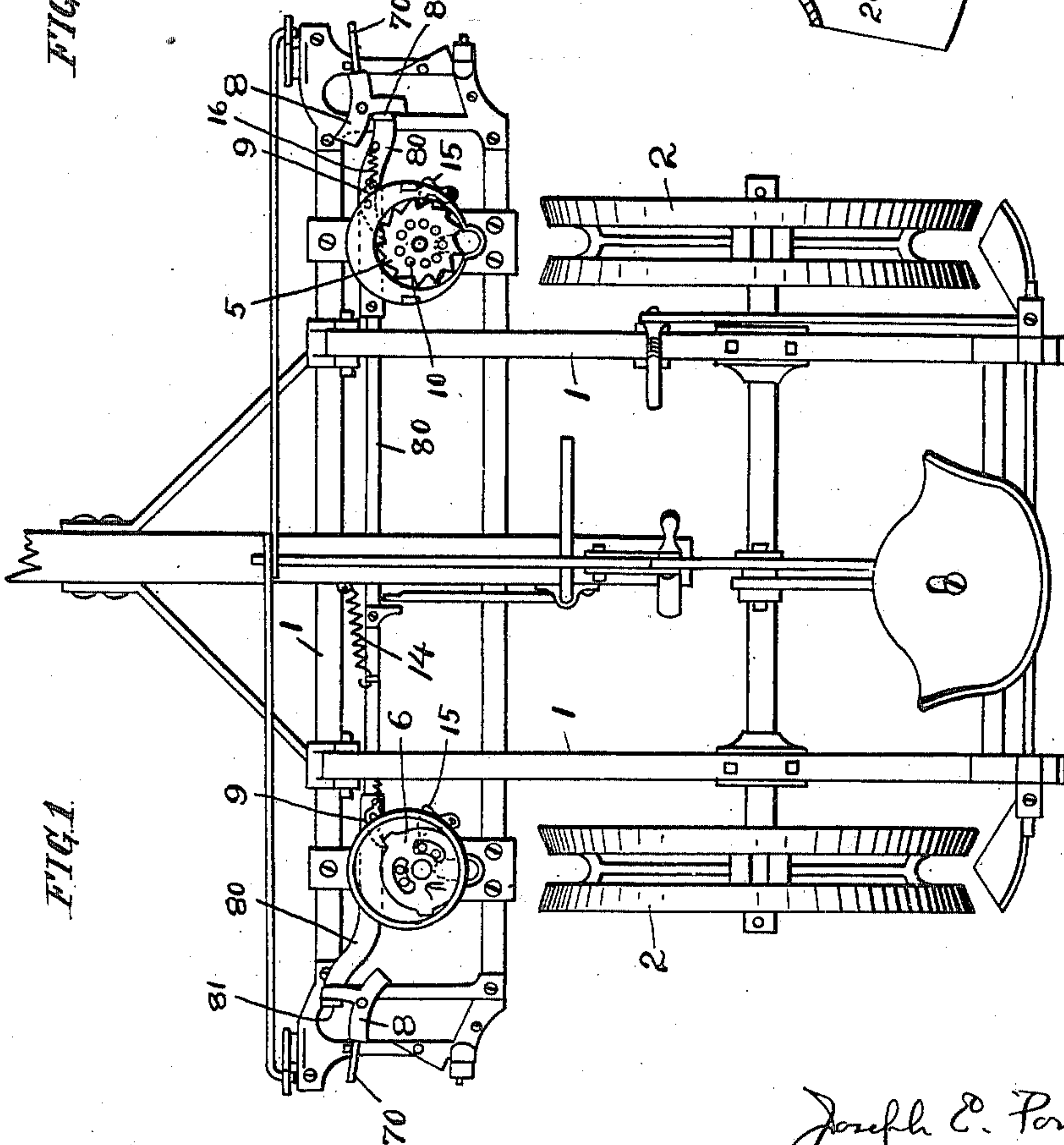
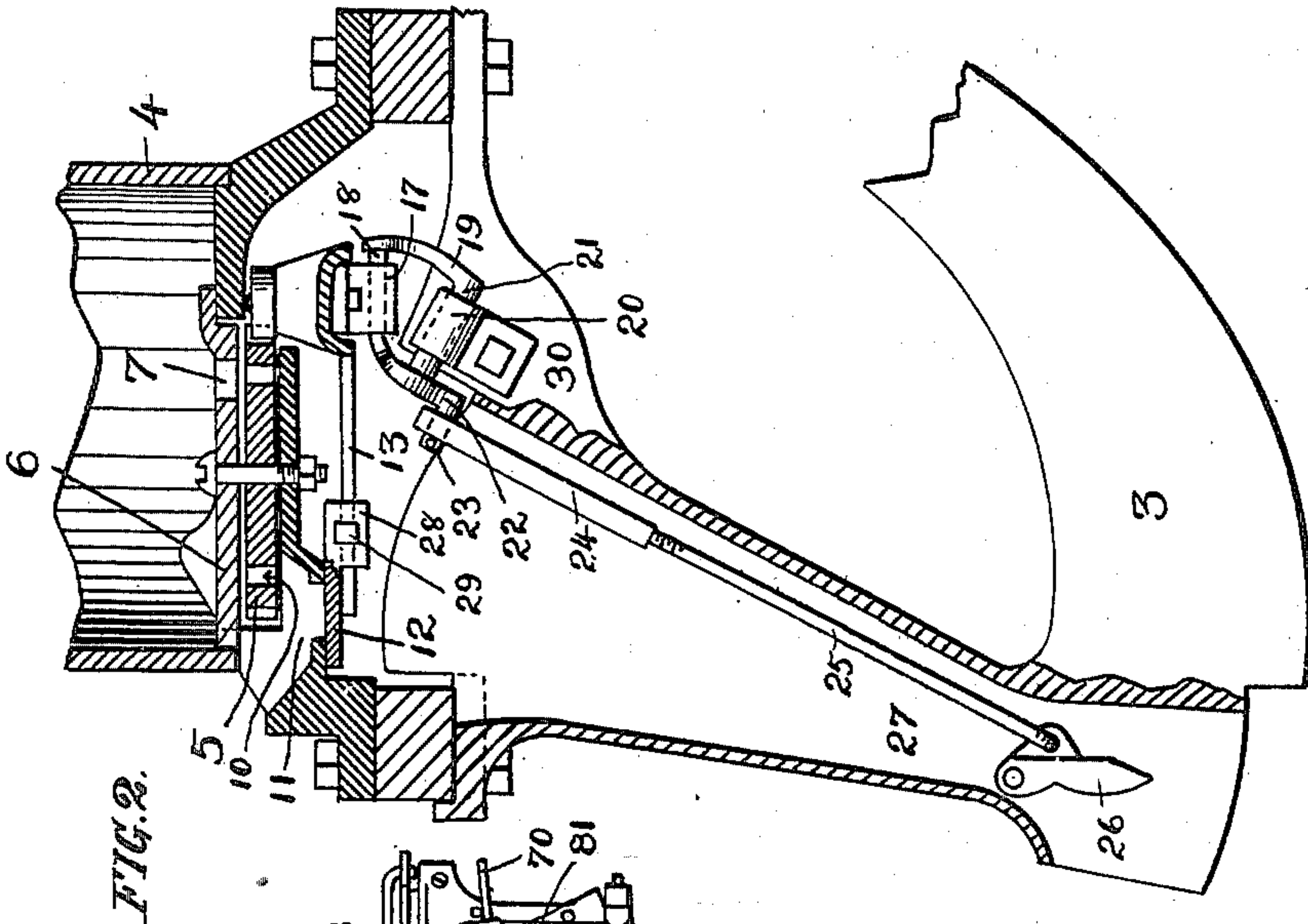
Patented Nov. 6, 1900.

J. E. PORTER.  
CORN PLANTER.

(Application filed July 18, 1900.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES:  
F. B. Townsend  
A. W. Munday.

Joseph E. Porter  
INVENTOR.

BY Munday, Everts & Adcock  
his ATTORNEYS,

No. 661,319.

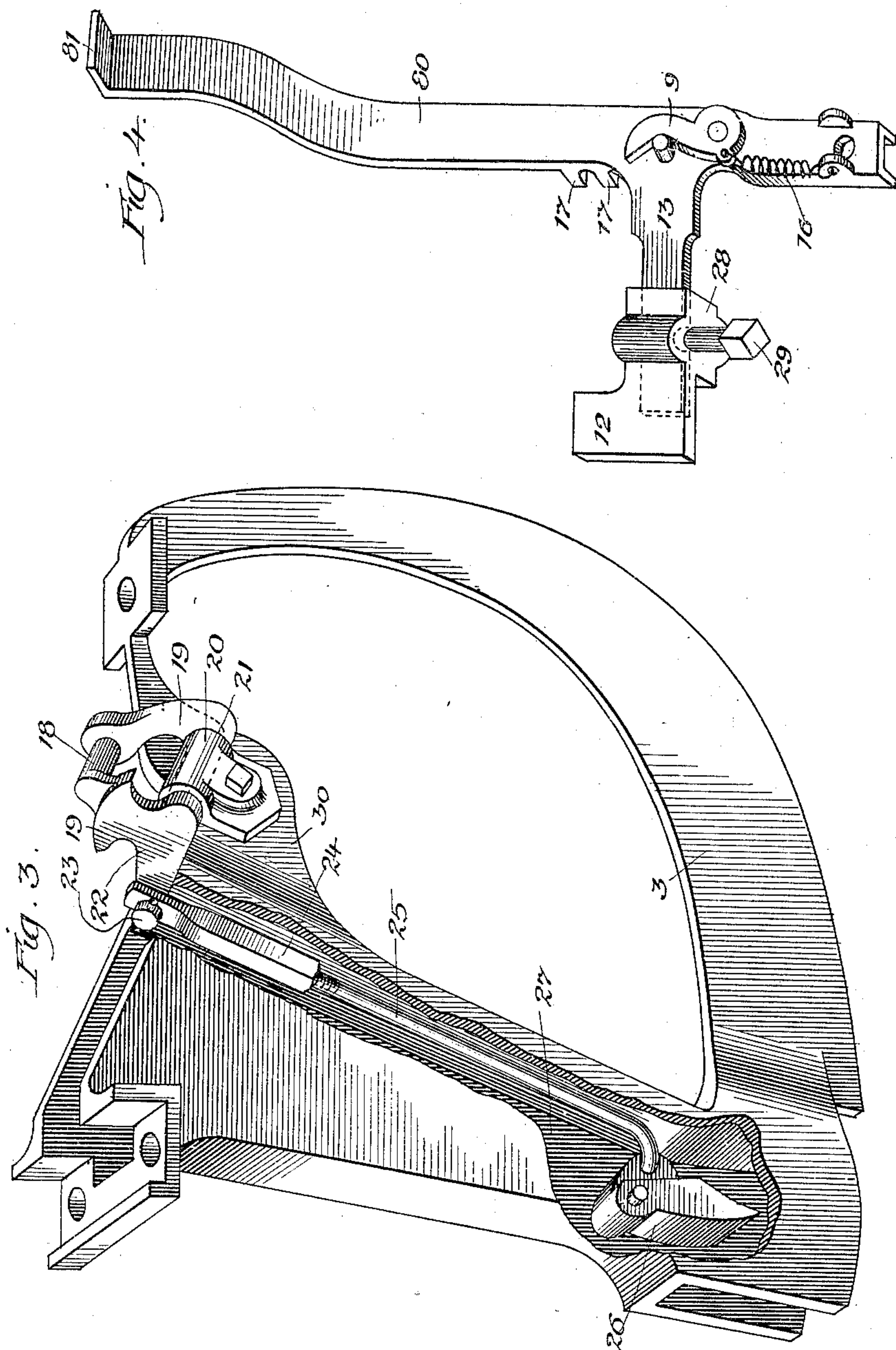
Patented Nov. 6, 1900.

J. E. PORTER.  
CORN PLANTER.

(Application filed July 16, 1900.)

(No Model.)

2 Sheets—Sheet 2.



Witnesses:  
Frank Blanchard  
H. W. Munday.

Inventor:  
Joseph E. Porter  
By Munday, East & Adams.  
Attorneys.



# UNITED STATES PATENT OFFICE.

JOSEPH E. PORTER, OF OTTAWA, ILLINOIS.

## CORN-PLANTER.

SPECIFICATION forming part of Letters Patent No. 661,319, dated November 6, 1900.

Application filed July 16, 1900. Serial No. 23,769. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH E. PORTER, a citizen of the United States, residing in Ottawa, in the county of La Salle and State of Illinois, have invented a new and useful Improvement in Corn-Planters, of which the following is a specification.

This invention relates to certain improvements in the corn-dropping mechanism of corn-planters designed to render the planters more efficient, cheaper in construction, and more convenient in use than prior constructions.

It consists in the novel devices and in the novel combinations of parts and devices herein set forth, and illustrated in the accompanying drawings, in which—

Figure 1 is a plan of a corn-planter containing my present improvements, the seedboxes and also one of the valve-covering plates being omitted. Fig. 2 is an enlarged vertical section of the part of the machine to which my invention relates. Fig. 3 is a perspective of one of the runners, partly broken away. Fig. 4 is a detail perspective of the cut-off valve and its support.

In said drawings, 1 represents the frame; 2, the supporting and covering wheels; 3 3, the runners or furrow-openers; 4, the seedboxes, and 5 the intermittently-rotating ratchet-disk or feed-valves below the boxes. Each of the latter is covered by a plate 6, having openings 7, through which the corn falls on the valve.

The valves 5 are intended to be operated by the check-row wire. I have not thought it necessary to illustrate the wire; but it will be understood that its buttons or enlargements cause the operation of the valves by engaging the projections 70, which are supported on elbow-levers 8, and that said levers operate the shaker-bar 80 by pressing against the turned-up end 81 of the latter. The bar carries pawls 9, engaging the teeth on the periphery of the valves. Each actuation of the valves brings one of their feed-openings 10 into position over the passages 11, in which are located the usual cut-off valves 12, also operated by the shaker-bar, being carried by arms 13, projecting laterally from the bar. The bar is returned to its starting position

after each actuation by the spring 14, and the valves 5 are prevented from backward rotation by spring-pressed pawls 15. The pawls 9 are provided with springs 16, tending to keep them in their acting positions, but allowing them to yield and ride over the ratchet-teeth as they are carried back by the shaker-bar. The shaker-bar also carries at each end two downwardly-projecting ears 17 17, which set down over the part 18 of a rocking device 19 and which may be appropriately termed a "rocker," as it has a rocking motion and is pivotally secured to the side of the casting 30, to which the runner is attached by a keeper 20, bent so as to embrace and form a bearing for the pivotal member 21 of the rocker, said keeper being bolted to the side of the casting 30. The rocker carries an arm 22, on which is a wrist-pin 23, entering an eye in the upper end of an extensible rod 24 25, connecting said wrist-pin to the usual flipper or flint valve 26 at or near the bottom of the dropping-passage 27 in the casting 30. By this construction the shaker-bar is enabled to operate not only the ratchet and cut-off valves but also the flipper in their proper relations, the cut-off valve being always in position to arrest the corn as it falls through the ratchet-valve and the flipper always closing when the cut-off valve opens. The normal position of the flipper is the open position, as shown. A tight closing of the flipper-valve is very essential, as otherwise the corn may escape irregularly instead of regularly and at the proper distances apart. To insure the tight closing, the connection between the rocker-arm and the valve is made adjustable in length by making it in two parts, one part 24 being bored out at one end and threaded interiorly and the other part 25 being threaded exteriorly and entering the part 24.

Check-row corn-planters are sometimes changed from hill-planters to drill-planters by taking off the cut-off valves, which when wholly removed are liable to become lost or mislaid. This I obviate by making the valve separate from its supporting-arm and providing it with a frame 28, surrounding the arm, and a set-screw 29, which permit the valve to be moved back along the arm sufficiently to carry it out of its acting position,



and the set-screw enables it to be secured in either the acting or non-acting position in a moment's time.

It will be understood that the construction  
5 described is duplicated at both sides of the machine.

I claim—

1. In a corn-planter, a cut-off valve in combination with its actuating shaker-bar, the  
10 latter having a lateral arm 13 on which the valve is adjustably mounted, substantially as specified.

2. In a corn-planter, a cut-off valve in combination with its actuating shaker-bar, the  
15 latter having a lateral arm 13 on which the valve is adjustably mounted, and the valve having a frame surrounding the arm and a set-screw for securing it thereon, substantially as specified.

20 3. The corn-planter having its cut-off valve 12 made adjustable so that it can be moved away from its acting position without detaching it from the shaker-bar, substantially as specified.

25 4. The combination in a corn-planter, of a flipper-valve, a rocker for actuating the same, and an adjustable connection between the valve and the rocker made in two parts one of which is threaded in the other, substan-  
30 tially as specified.

5. In a corn-planter, the combination with

the casting 30 and flipper-valve, of a rocker actuating said valve and receiving motion from the shaker-bar, and a keeper bolted to the casting and bent so as to form a bearing  
35 for the pivot of the rocker, substantially as specified.

6. In a corn-planter, the combination with the runner-casting 30 and flipper-valve, of a rocker 19 actuating the valve and receiving  
40 motion from the shaker-bar, a keeper bolted to the casting and bent so as to form a bearing for the pivot of the rocker, and an extensible connection between the rocker and said valve, substantially as specified. 45

7. The combination with the flipper-valve, the runner-casting and the shaker-bar, of a rocker for actuating said valve, of which rocker one member engages the shaker-bar and another member serves as a pivot, an  
50 arm on said rocker connected to said valve, and a keeper embracing said pivot and bolted to the casting, substantially as specified.

8. The combination with the flipper-valve and its actuating device, of a connection be-  
55 tween the two consisting of male and female parts threaded together, substantially as specified.

JOSEPH E. PORTER.

Witnesses:

L. E. CURTIS,

H. M. MUNDAY.