

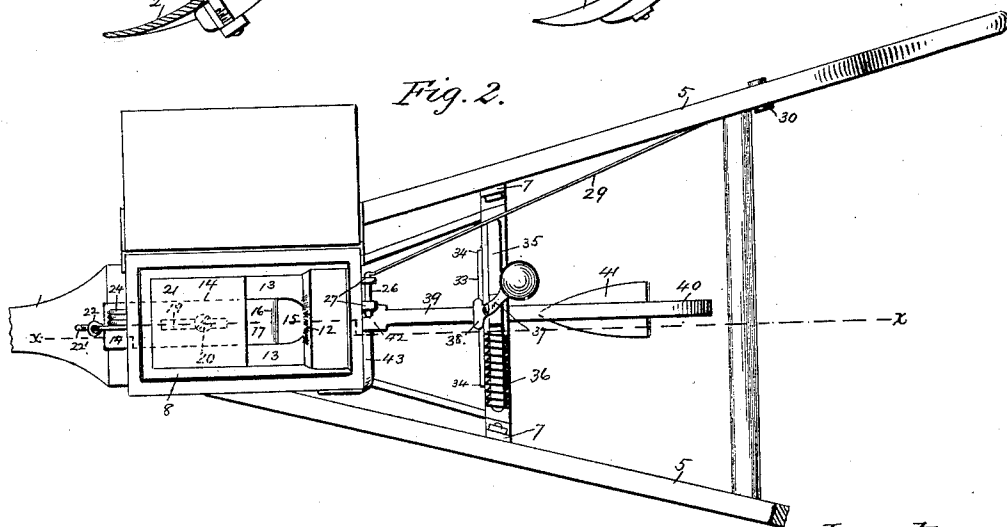
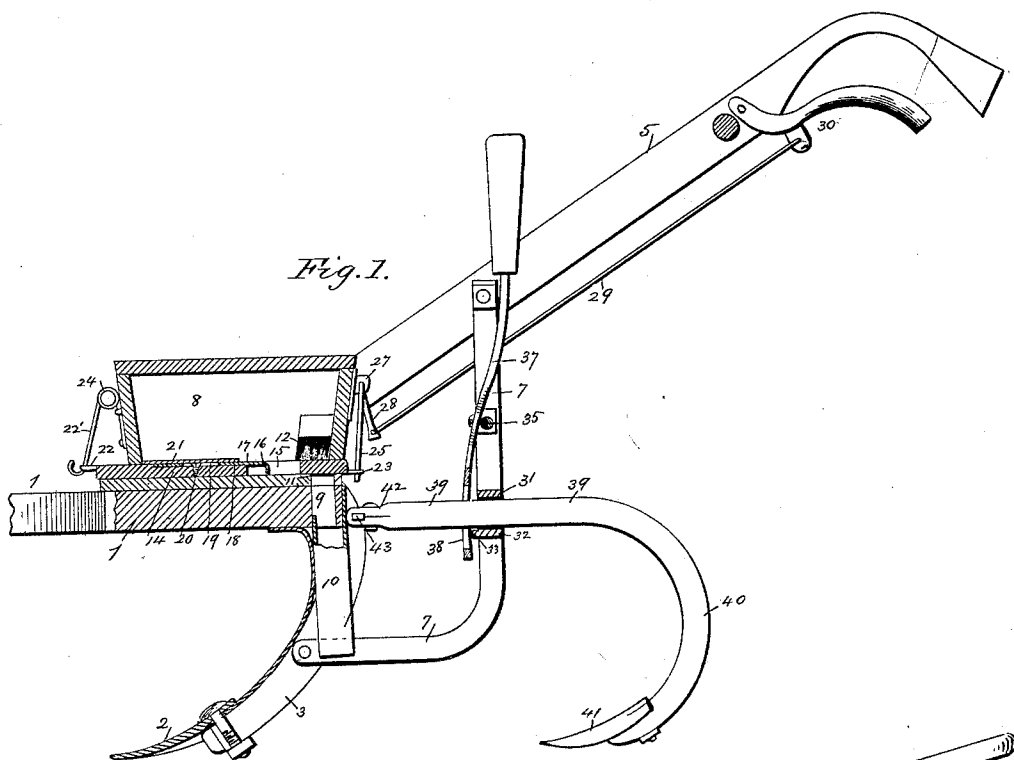
(No Model.)

2 Sheets—Sheet 1.

A. L. JOHNSON.  
PLANTER.

No. 462,712.

Patented Nov. 10, 1891.



Witnesses:  
J. R. Stuart.  
Barker & Sweet.

Inventor:  
Andrew L. Johnson.  
By Marble, Mason & Canfield,  
Attorneys:

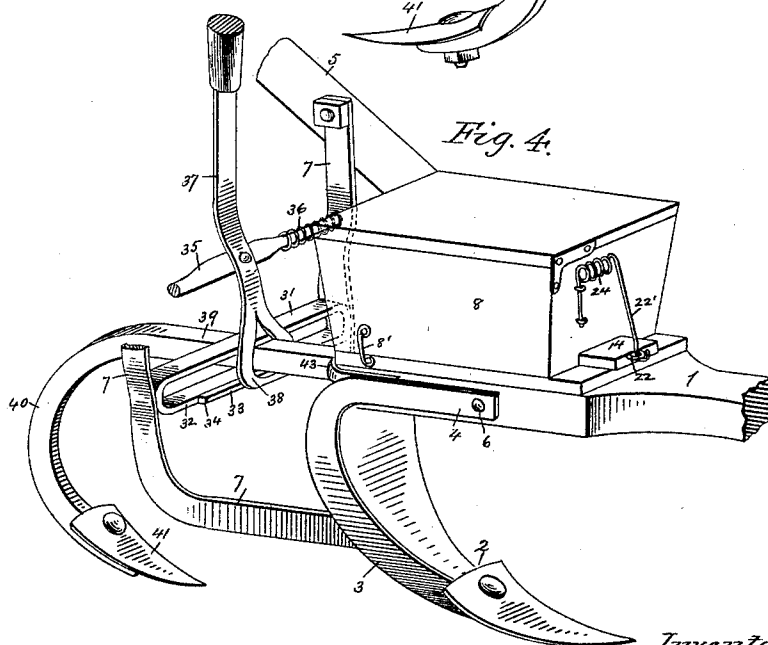
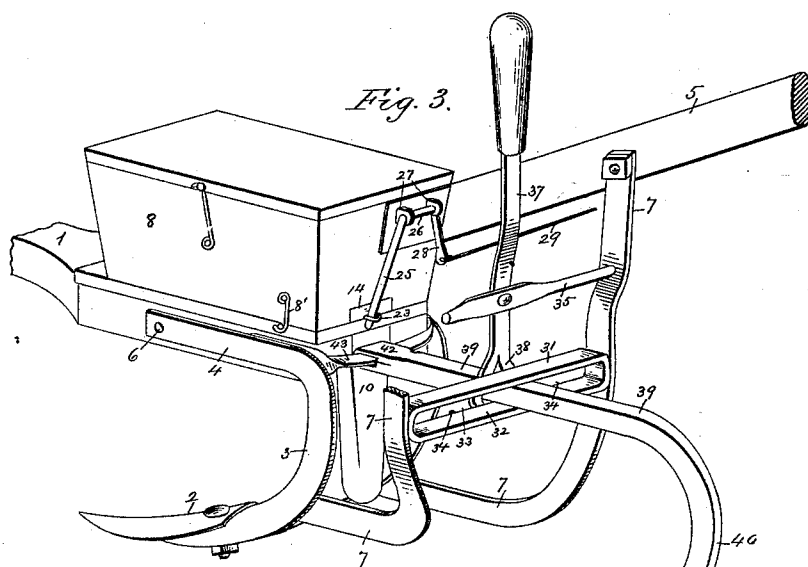
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Witnesses:  
T. R. Stuart,  
Darker & Sweet Jr.

Inventor:  
Andrew L. Johnson.  
By Marble, Mason & Confield,  
Attorneys.

# UNITED STATES PATENT OFFICE.

ANDREW L. JOHNSON, OF GREENEVILLE, TENNESSEE.

## PLANTER.

SPECIFICATION forming part of Letters Patent No. 462,712, dated November 10, 1891.

Application filed December 3, 1890. Serial No. 373,448. (No model.)

*To all whom it may concern:*

Be it known that I, ANDREW L. JOHNSON, a citizen of the United States, residing at Greenville, in the county of Greene and State of Tennessee, have invented certain new and useful Improvements in 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, generally, to seeders and planters, and particularly to improvements in that class thereof which is known as "walking-planters;" and it consists in the improved construction and arrangement or combination of parts hereinafter fully disclosed in the description, drawings, and claims.

The objects of my invention are to provide the planter with an improved adjustable furrow-closer and improved mechanism, whereby said furrow-closer may be readily shifted from side to side of a furrow. These objects I accomplish by the improved mechanisms illustrated in the accompanying drawings, forming part of this specification, in which the same reference-numerals indicate the same parts, and in which—

Figure 1 represents a vertical longitudinal section of a planter embodying my improvements, the section being taken on the irregular line *xx* on Fig. 2; Fig. 2, a top plan view of the same, the cover of the hopper being open and the slot and set-screw in the adjustable gage-plate shown in dotted lines; Fig. 3, a perspective rear view of the planter, looking thereat from its left side and with the left handle omitted; and Fig. 4, a perspective front view of the same, looking thereat from its right side and with the right handle omitted.

Referring to the drawings, the numeral 1 indicates the tongue or beam of the planter, to the front end of which the draft-power is applied, and to the rear end thereof is secured the furrow-opening 2, which may be, generally, of any of the ordinary or suitable constructions, but which is provided along its sides with the curved and rearwardly-projecting flanges 3 and also with the forwardly-extending arms 4 at its upper end, which are secured to the sides of the wide rear end of said tongue or beam. The handles 5 are also secured to

the sides of said beam by the nutted bolt 6, which also passes through the front ends of said arms 4; also, the handles are supported and braced by the upper ends of the standards 7, which are forwardly curved along their lower ends and secured to the side flanges 3 of the furrow-opener. The feed box or hopper 8 is mounted upon the wide rear end of the beam and removably secured thereto by the hooks and staples 8' or similar devices; also, in the recess 9 in the rear end of said beam is secured the discharge tube or spout 10, which registers at its upper end with the exit-opening 11 in the rear end of the bottom of said hopper and extends downwardly between the rearwardly-projecting flanges 3 of the furrow-opener 2, so as to avoid injury from roots, stones, and the like. In the rear end of the hopper above said exit-opening is secured the cut-off brush 12, which is arranged and adapted to retard or prevent the passage into said discharge-spout of a greater amount of grain than is necessary or desired; also, upon the bottom of the hopper, inside thereof, are secured the ribs or guides 13, between which the feed-slide 14 is reciprocated, which is formed near its rear end with the measuring-opening 15, into the front end of which extends the downturned lip 16 of the sliding or adjustable gage-plate 17, which is seated in the longitudinal depression 18, formed in the upper surface of said slide, is formed with the slot 19, through which is passed the set-screw 20 for holding it in the positions to which it may be adjusted, and is employed for regulating the quantity of grain discharged through the exit-opening 11 in accordance with the position of its downturned lip within the opening 15. Inside of the hopper the plate or cover 21 extends over the front portion of the feed-slide 14 for relieving the same from the weight of the grain, and thus securing its easy operation, and also for avoiding contact of the grain with the slotted portion of said gage-plate. The feed-slide is made somewhat longer than the hopper, so that its ends will project through slots in the end walls thereof, and it is provided at its ends with the front and rear eyes 22 and 23. The eye 22 is engaged by the arm 22' of the two-armed helical spring 24, which is se-

cured to the front end of the hopper and serves to draw said feed-slide forwardly, so that the opening 15 near the rear end thereof will be normally out of alignment with the exit-opening 11 in the rear end of the bottom of said hopper, while the eye 23 is engaged by the long arm 25 of crank-shaft 26, which is journaled in the bearings 27, secured to the rear end of said hopper. When it is desired to remove said feed-slide from the hopper for the adjustment of the gage-plate 17 or other purpose, it is only necessary to release the arm 22' of the spring 24 from the eye 22, push said slide forwardly, and disengage the eye 23 from the long arm 25 of said crank-shaft. This crank-shaft is also provided with the short arm 28, which is connected by the rod 29 to the bell-crank hand-lever 30, which is pivoted to the handle on the right side of the planter and adapted to be operated by the fingers for intermittently moving said feed-slide rearwardly and discharging the grain.

On a line with the rear end of the beam and between the standards 7 is firmly secured the rectangular yoke or guide 31, the lower portion or bar 32 thereof being formed on its front edge with the flange or rib 33, the ends thereof terminating a short distance inward from the ends of said lower bar and forming the notches 34. Above this yoke or guide 31 and between said standards 7 is journaled the rock-shaft 35, around a portion of which is wrapped the spiral spring 36, which has its ends secured, respectively, to the adjacent standard and said rock-shaft and operates with a tendency to turn the latter forwardly, so that the hand-lever 37, which is pivoted to the center of said shaft, will have its lower end normally pressed against the flange or rib 33 on the front side of the lower bar 32 of said yoke or guide. This hand-lever 37 projects upwardly between the handles to such a height as to be within convenient reach of the operator and has its lower end formed with the opening or loop 38, which encircles the beam 39, which passes through the guide 31, is partly supported thereby, and has its rear portion curved downwardly and forwardly for forming the standard 40, to the lower end of which the furrow-closer 41 is attached. The front end of this beam is provided with the clevis 42, which is loosely fitted upon the supporting-bar 43, secured to the rear end of the main beam 1. This supporting-bar is slightly curved downwardly, so that when the beam 39 of said furrow-closer is moved laterally by the hand-lever 37 the ends of said bar will slightly raise said furrow-closer and permit the same to be moved to the upper sides of furrows formed on the sides of hills.

The operation and manner of using my improved planter are readily comprehensible from the foregoing, but further explanation thereof may be made as follows: After the hopper has been supplied with grain and the planter is being drawn forwardly, the oper-

ator presses the long arm of the bell-crank lever 30 against the handle at intervals for effecting the intermittent delivery of a proper quantity of grain from the hopper through the discharge tube or spout 10 and into the furrow marked out by the furrow-opener 2, where it is covered by the furrow-closer 41. When this bell-crank lever is operated, it will pull upon the rod 29, turn the crank-shaft 26, and move the feed-slide 14 rearwardly, so as to deliver the grain contained in its opening 15 through the exit-opening 11 in the bottom of the hopper and said discharge-spout 10. After the grain has been thus dropped and pressure has been removed from said bell-crank lever, the feed-slide will be drawn forwardly by the helical spring 24 on the front end of the hopper and placed in position for making another delivery of grain. When the planter is in operation, the furrow-closer 41 is held in fixed position by the loop 38 on the lower end of the hand-lever 37, catching and pressing against either end of the flange or rib 33 on the yoke or guide 31. If it be desired to move said furrow-closer to the opposite side of the planter, as when planting on the sides of hills, the upper end of said hand-lever is first drawn rearwardly, so as to move its lower end forwardly and release its loop from the notch 34 at the end of said rib. It is then moved laterally upon its pivot on the rock-shaft 35, so as to shift said furrow-closer to the desired position and hold it there by the engagement of said loop with the notch at the other end of said rib, which is effected by the tendency of the spiral spring 36, which surrounds a portion of said rock-shaft, to force the lower end of said lever and its loop rearwardly. By unfastening the hooks and staples 8', detaching the connecting-rod 29 and the bell-crank hand-lever 30, and removing the hopper, my improved planter can be successfully used as a plow.

Having thus fully described the construction and arrangement of the parts and features of my invention, the manner in which it is operated, and its advantages, what I claim as new is—

1. In a planter, the combination, with the handles, the beam, the furrow-opener secured to the rear end of the latter, and the standards secured to said handles and furrow-opener, of a yoke or guide secured between said standards and a laterally-adjustable furrow-closer and beam, the latter passing through and being partly supported by said guide, and means for adjusting said furrow-closer and its beam and for holding them in place, substantially as described.

2. In a planter, the combination, with the handles, the beam, the furrow-opener secured to the rear end of the latter, and the standards secured to said handles and furrow-opener, of a yoke or guide secured between said standards, a supporting-bar secured to the rear end of said beam, a laterally-adjustable furrow-closer and beam, the latter pass-

ing through said guide and being provided with a clevis at its front end, which is loosely connected to said supporting-bar, and means for adjusting said furrow-closer and its beam and for holding them in place, substantially as described.

3. In a planter, the combination, with a suitable supporting-frame provided with a yoke or guide and supporting-bar, of a furrow-closer having the front end of its beam loosely connected to said bar, a hand-lever for adjusting said furrow-closer and its beam laterally, and means for holding them in the positions to which they may be adjusted, substantially as described.

4. In a planter, the combination, with a suitable supporting-frame provided with a yoke or guide and supporting-bar, of a furrow-closer having the front end of its beam loosely connected to said bar, a hand-lever provided with an opening or loop at its lower end for adjusting said furrow-closer and its beam lat-

erally, and means for holding them in the positions to which they may be adjusted, substantially as described.

5. In a planter, the combination, with a suitable supporting-frame provided with a yoke or guide and supporting-bar, said guide being provided with a flange or rib having notches at its ends, of a furrow-closer having the front end of its beam loosely connected to said bar, a hand-lever provided with a loop at its lower end, which is adapted for engagement with and disengagement from said notches and for adjusting said furrow-closer and its beam laterally, and the spring-controlled rock-shaft to which said hand-lever is pivoted, substantially as described.

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

ANDREW L. JOHNSON.

Witnesses:

J. F. BAXTER,  
J. C. PARK.