

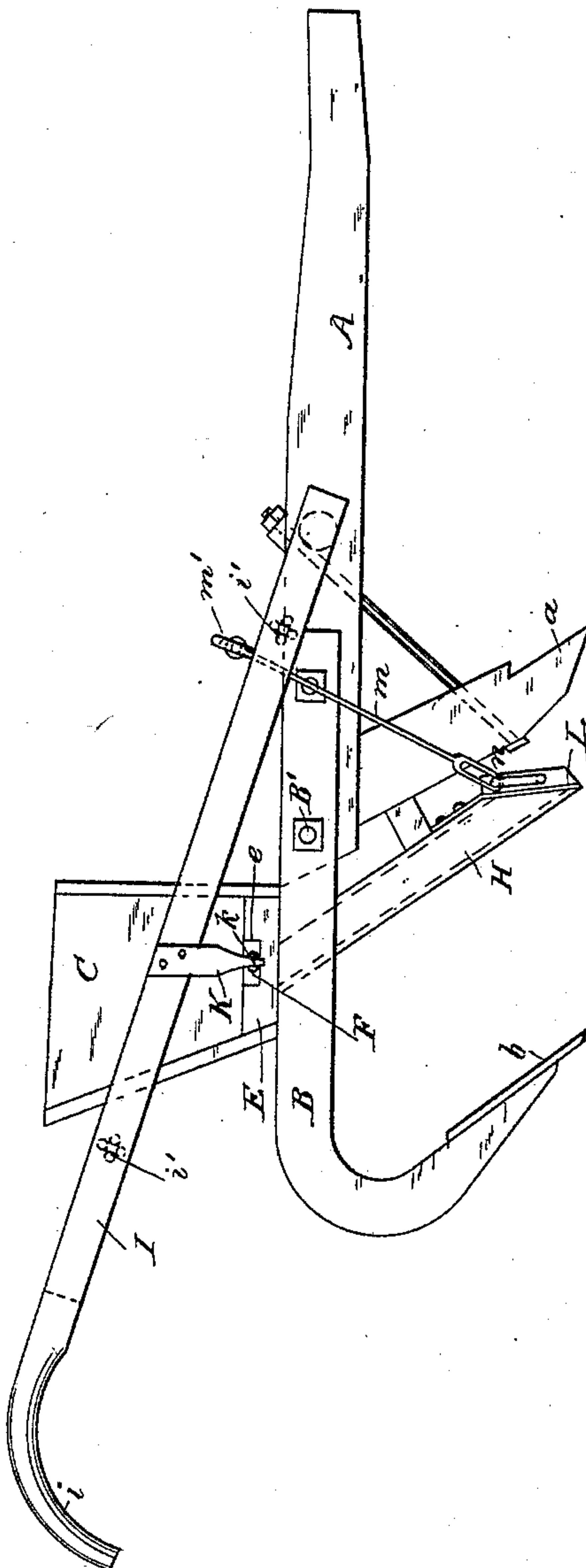
(No Model.)

2 Sheets—Sheet 1.

J. H. GARDNER.  
SEED PLANTER.

No. 436,871.

Patented Sept. 23, 1890.



*WITNESSES*

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# UNITED STATES PATENT OFFICE.

JOHN H. GARDNER, OF DALTON, GEORGIA.

## SEED-PLANTER.

SPECIFICATION forming part of Letters Patent No. 436,871, dated September 23, 1890.

Application filed January 29, 1890. Serial No. 338,485. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN H. GARDNER, a citizen of the United States, residing at Dalton, in the county of Whitfield and State of Georgia, have invented certain new and useful Improvements in Seed-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.

This invention relates to seed-planters; and it consists in the novel construction and combination of the parts hereinafter fully described and claimed.

In the drawings, Figure 1 is a side view of the seed-planter, and Fig. 2 is a plan view of the same from above. Fig. 3 is a detail longitudinal section through the seed-slide and the parts adjacent to it, and Fig. 4 is a cross-section through the same.

A is the beam, and *a* is the furrow-opener secured underneath the beam.

B are diverging bent arms, secured to the rear of the beam by bolts B', and *b* are blades secured to the lower ends of said arms for covering the seed with earth after it has been deposited in the furrow formed by the furrow-opener.

C is the hopper for the seed, supported on the arms B and divided into two compartments by the partition *c* and bridge D at the bottom.

E is the bottom plate, provided with a transverse groove *e*, and F is the seed-slide, which works back and forth in said groove under the bridge D. The bridge D is provided with the chamber D' over the slide, and *d* are wipers of flexible material—such as india-rubber, leather, or bristles—which are secured to the bridge at their top edges to as to cover the entrances to chamber D' and bear against the slide F. The slide F is provided with two holes *f*, separated by a solid portion *f'*, which is of about the same width as the bridge. The ends of the slide are channel-shaped in cross-section, and are provided with sliding bars *g*. These bars are provided with slots *g'* and with screws G for securing them in position in the channels of the slide after they have been slid therein to adjust the size of the seed-pockets *h* under the holes *f*.

H is the seed-spout, secured to the hopper-

bottom under the chamber in the bridge and inclined forwardly and downwardly so as to deposit the seed close behind the furrow-opener and well in front of the covering-blades. The seed-slide is reciprocated in its groove by means of the auxiliary handle-bar I, which is provided with a handle *i*.

J and J' are the ordinary handle-bars secured to the beam A. One of these bars J is provided with a handle *j*, corresponding to the handle *i*; but the other J', which comes next to the handle-bar I, has no handle. The handle-bar I is hinged to the handle-bar J' by the double staples *i'*, which permit it to have a rocking motion, but prevent it from moving longitudinally.

K is an arm secured to handle-bar I, and *k* is a link which connects the lower end of the said arm with one end of the seed-slide, which is reciprocated by a turn of the wrist, so that a portion of the seed in the hopper is passed through the chamber in the bridge and allowed to fall down the spout.

Both sides of the hopper may be filled with corn or other seed, and rows may be planted by moving the slide rapidly and continuously. The corn may be deposited in hills by moving the slide at intervals, or corn and peas may be planted alternately by filling one side of the hopper with corn and the other with peas.

L is a valve pivoted to the bottom of the spout, and *m* is a rod which connects the valve with the arm *m'*, which projects from the handle-bar I. In ordinary planting this valve may be dispensed with; but it will be found of service in checking the rows. This valve is opened by moving the handle in one direction, and is closed by its own weight when the handle is moved in the reverse direction, the eye *n*, which connects the valve to the rod *m*, being made long enough and secured to the side of the valve so that the eye at the end of the rod *m* may slide upon it. One side of the hopper is filled with corn, a portion of which is discharged into the spout each time the seed-pocket in the slide is slid over the top of the spout. This corn is retained in the spout by the valve until the lower end of the spout comes exactly over the place where the corn should be deposited. The handle is then moved to open the valve, and as the corn



has but a short distance to fall it is deposited on the exact spot desired. The other side of the hopper may be filled with peas or other seed when the valve is used, and the peas  
 5 may be planted close to the corn, as they will leave the hopper through their slide-pocket just after the valve has opened to discharge the corn, and the peas will pass through the valve when the planter has moved forward a  
 10 short distance and before the valve has had time to close.

What I claim is—

1. The combination, with a seed-planter provided with handle-bars and a reciprocating  
 15 seed-slide, of an axially-movable auxiliary handle-bar provided with a handle for guiding the planter and hinged to one of the aforesaid handle-bars, and intermediate mechanism operatively connecting the seed-slide with the  
 20 auxiliary handle-bar, whereby the seed-slide may be worked by turning the said guiding-handle.

2. The combination, with a seed-planter provided with handle-bars and a reciprocating  
 25 seed-slide, of an axially-movable auxiliary handle-bar provided with a handle for guiding the planter, the double staples hinging the auxiliary handle-bar to one of the aforesaid handle-bars, and intermediate mechanism op-  
 30 eratively connecting the seed-slide with the auxiliary handle-bar, whereby the seed-slide may be worked by turning the said guiding-handle.

3. In a seed-planter, the combination, with  
 35 the seed-hopper, the reciprocating seed-slide, and the handle-bars, of the axially-movable auxiliary handle-bar provided with a handle for guiding the planter and hinged to one of the aforesaid handle-bars, an arm projecting

from the said auxiliary handle-bar, and a link 40 pivotally connecting said arm with the seed-slide, substantially as and for the purpose set forth.

4. In a seed-planter, the combination, with the handle-bars and the seed-spout provided 45 with a discharge-valve, of an axially-movable auxiliary handle-bar provided with a handle for guiding the planter and hinged to one of the aforesaid handle-bars, and intermediate mechanism operatively connecting the auxil- 50 iary handle-bar with the said discharge-valve, whereby said valve may be opened and closed by turning the said guiding-handle.

5. In a seed-planter, the combination, with the handle-bars, the hopper, the reciprocating 55 seed-slide, and the seed-spout provided with a discharge-valve, of an axially-movable auxiliary handle-bar provided with a handle for guiding the planter and hinged to one of the aforesaid handle-bars, and intermediate arms 60 and rods operatively connecting the auxiliary handle-bar with the seed-slide and with the discharge-valve, whereby both slide and valve may be simultaneously operated by turning the said guiding-handle. 65

6. In a seed-planter, the combination, with the handle-bars, of an axially-movable auxil- iary handle-bar hinged to one of the aforesaid handle-bars and adapted both to guide the planter and to operate the reciprocatory parts 70 of its seed-dropping mechanism.

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

JNO. H. GARDNER.

Witnesses:

W. A. MILES,  
 S. F. LAMBERT.