

(No Model.)

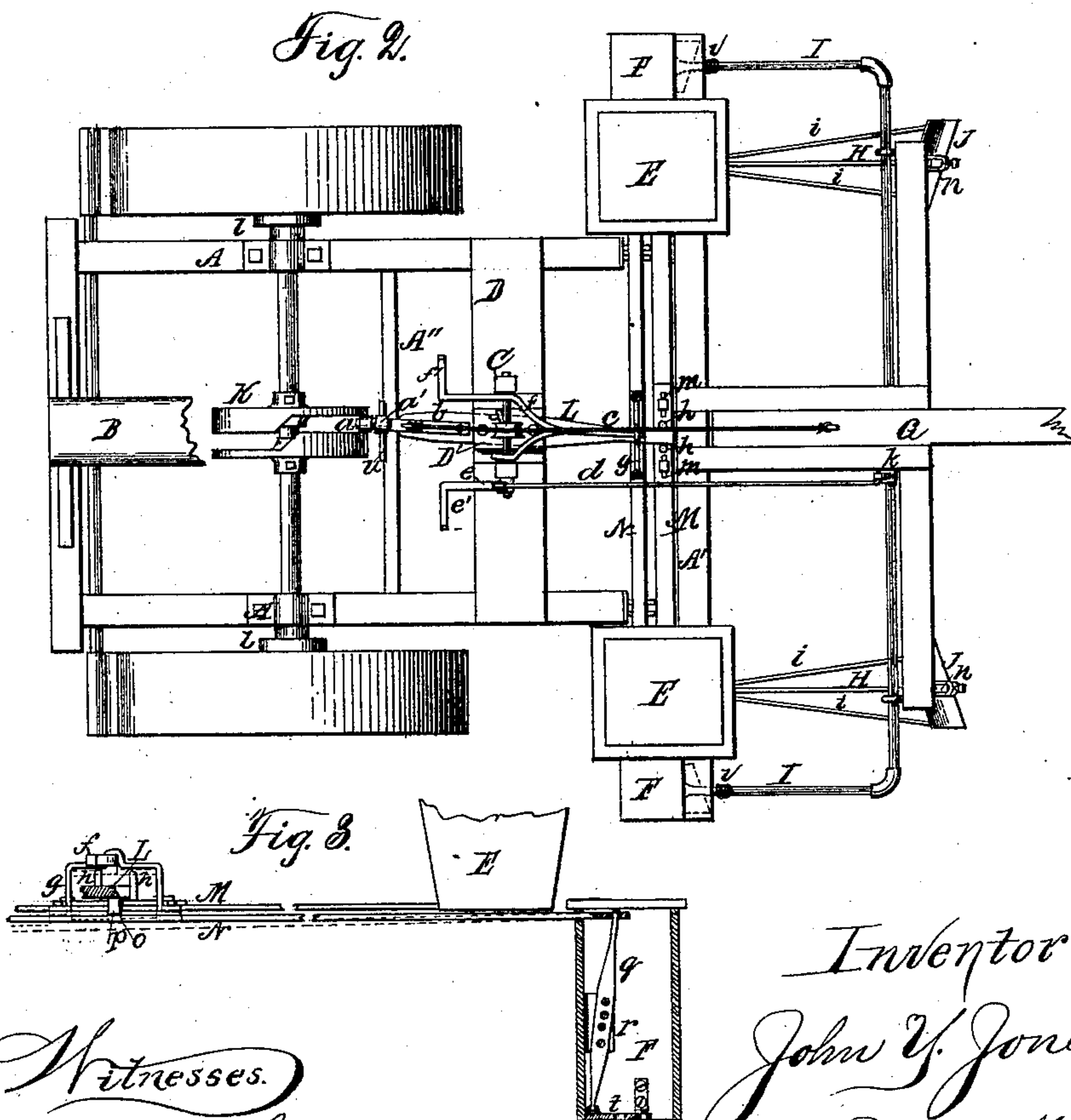
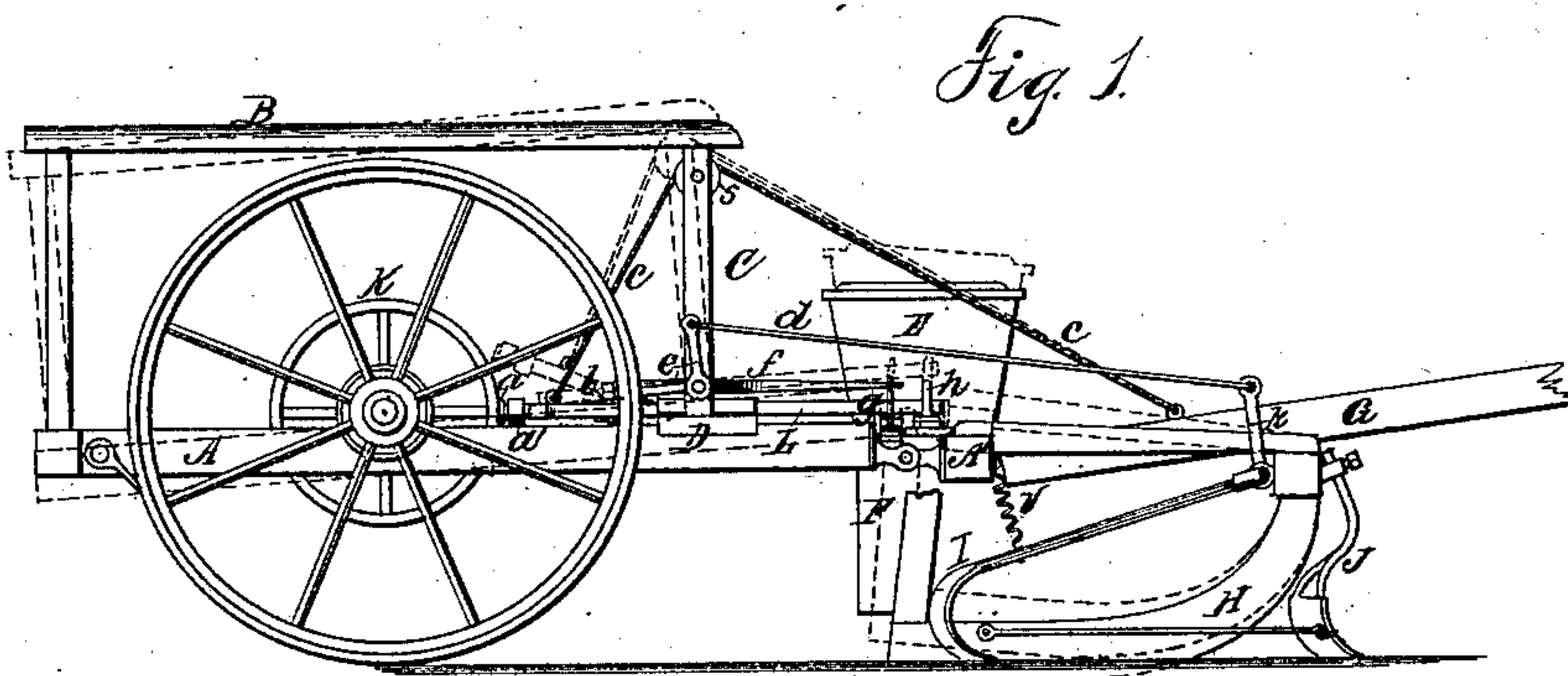
J. Y. JONES, Dec'd.

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CORN PLANTER.

No. 367,407.

Patented Aug. 2, 1887.



Witnesses.
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UNITED STATES PATENT OFFICE.

JOHN Y. JONES, OF WESTERN COLLEGE, IOWA; LUCY A. JONES ADMINISTRATRIX OF SAID JOHN Y. JONES, DECEASED.

CORN-PLANTER.

SPECIFICATION forming part of Letters Patent No. 367,407, dated August 2, 1887.

Application filed November 23, 1886. Serial No. 219,580. (No model.)

To all whom it may concern:

Be it known that I, JOHN Y. JONES, a citizen of the United States, residing at Western College, in the county of Linn and State of Iowa, have invented certain new and useful Improvements in Corn-Planters, of which the following is a specification.

The object of my invention is to produce an automatic corn-planter adapted to operate without the use of check-wires; and the invention consists in the construction, arrangement, and adaptation of parts to that end, as will be fully hereinafter set forth.

In the accompanying drawings, forming a part of this specification, Figure 1 represents a sectional side elevation of the invention, the nearer seed-boxes being removed, so as to expose the mechanism beyond; Fig. 2, a plan view of the same with a portion of the seat removed, and Fig. 3 an enlarged detail of the auxiliary seed-box and the dropping mechanism.

Similar letters of reference indicate like parts.

This invention belongs to that class of planters in which the dropping mechanism is actuated by the traction of the covering wheels, and in the adaptation of the principle to practical operation I have devised certain novel features, which I will now describe.

A is the frame of an ordinary corn-planter mounted on suitable covering-wheels. The forward end is hinged to the cross-beam A' in the usual manner. A simple form of seat, B, is shown, it being such as to enable the operator to readily adjust his position thereon for the purpose of tilting it, as indicated by the dotted lines in Fig. 1. In practice I make the rear supports of the seat flaring at the lower ends, as shown, while the forward ones are preferably parallel to admit of the attachment of levers and other parts, as will be hereinafter described.

The covering-wheels of the planter are mounted on a suitable axle, in connection with ratchet-wheels *ll*, in a common and well-known manner. To the axle is secured a cam-wheel, K, which I make in two similar parts, as shown, which admits of an exact adjustment of the same on the shaft, and with respect to the size of the roller *a* on the lever L. This

lever is mounted on a cross-timber of the frame D, with a cap, D', above. Several holes through the lever and its seat admit of any desired change in the position of the pivot-pin, whereby the stroke of the lever is regulated. The extremity next to the roller *a* is provided with another similar roller or traveler, *a'*, which rests upon a short metallic track, *u*, attached to a cross-bar, A', just forward of the cam-wheel. By this means the rear end of the lever is supported, and the lever moves back and forth with little friction.

As it is necessary to disengage the lever from its connection with the cam-wheel, I make a joint in it a short distance forward of the traveler *a'*, as shown. A spring, *b*, tends to depress the end of the lever and throw it into engagement with the cam-wheel, while the contiguous parts of the lever, bifurcated as shown, impart to the hinged portion the requisite lateral stiffness. A cord, *c*, connects with the hinged part of the lever, and, passing up over a sheave, *s*, mounted under the fore part of the seat, connects with the pole G. Now, when the operator desires to disengage the lever, as at the end of a row, he leans back and tilts the machine to the position indicated by the dotted lines in Fig. 1, with the result there shown. Similarly, if he does not desire to lift the runners out of the ground, he simply pulls back on the rear portion of the cord, with the same result. The forward end of the lever L passes between two upright pins, *h h*, rising from the main slide-rod M. To admit of any slight adjustment that may be desired, these pins are secured to a slotted plate, *m*, which is fastened to the slide-rod by suitable bolts or screws.

Outside of the main seed-boxes E E are placed two auxiliary seed-boxes, F F, which drop their contents outside the path of the covering-wheels. The object of this device is to enable the operator to designate with certainty the position of the hill of covered corn, and thus secure the proper transverse alignment of the rows. The auxiliary boxes are therefore set so as to drop a few kernels of corn just in line laterally with the corn that is covered, and are set lower than the others, so that the operation of the slide therein will

coincide with that in the heel of the runner, and the corn from the respective boxes reach the ground at the same time. The seed-slides of these auxiliary boxes are operated by the
 5 slide-rod N through the medium of a lever, *g*, pivoted inside the box to the lugs *r*, and engaging at the foot with the slide *t*. As it is not necessary that this part should be in continuous operation, the machine is provided with
 10 a device whereby it is engaged and disengaged at will. In the upper side of the slide-rod N, under the lever L, is a notch, *o*, adapted to engage with a corresponding lug on the under side of the lever *p*.

15 Over the lever, and wide enough to allow it to move unobstructed from one extreme to the other, is a stirrup, *g*, resting upon the forward end of a foot-lever, *f*. The weight of the slide-rod causes it ordinarily to sag in the middle, as indicated by the dotted lines in
 20 Fig. 3, in which case it is out of engagement with the lever L. A slight pressure upon the pedal *f'* throws it in gear, continuing at the will of the operator.

25 In order that the machine may operate successfully, it is necessary to provide a comparatively clear smooth path for the covering-wheels, since upon their movement depends the position of the hills. I therefore connect
 30 with the planter, preferably in front of the runners H H, two shovels or shares, J J, which cut off projecting clods and tend to fill up hollows in front of the wheels, making a level path for them to follow. They also aid in the
 35 proper planting of the seed, since by leveling the surface they provide for the even and uniform covering of the grain. In practice I set these shares diagonal, as shown, like a common plowshare, connecting them with the run-
 40 ners by the rods *i i i i*, of unequal length. By means of an upwardly-extending shank passing through a suitable eye, *n*, the altitude of these shares may be adjusted by the set-screws. Similar provision is made for clearing the path
 45 before the auxiliary seed-boxes, as a project-

ing clod or other object would tend to throw the dropping grain out of its proper position. These, being only occasionally required, are adapted to be controlled by the foot of the operator. A simple bail of light strong ma-
 50 terial, as gas-pipe, having the shovels at the ends of the terminal arms, is pivoted to the fore part of the frame. A spring, *v*, under each arm supports the shovel out of the ground. An arm, *k*, connects by a rod, *d*, with a bell-
 55 crank, *e*, having a pedal, *e'*. By pressing down on the pedal the shovels are forced to and into the ground, as may be desired.

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

1. In a corn-planter, the combination of the cam-wheel K, the vibrating lever or arm L, having the rollers *a* and *a'*, the track *u*, and the slide-rod M, substantially as and for the
 65 purpose set forth.

2. In a corn-planter, the combination of the hinged lever L, the hinged frame A and A', the cord *c*, and the sheave *s*, substantially as
 70 and for the purpose specified.

3. The combination of the flexible auxiliary slide N, adapted to bend downward, as specified, and having the notch *o* and the stir-
 75 rup *g*, the lever L, having the lug *p*, and the foot-lever *f*, substantially as and for the pur-

4. The combination of the pivoted bail or frame for the shovels I I, having the arm *k*, the foot-lever *e e'*, the connecting-rod *d*, and the spring *v*, all substantially as set forth.
 80

5. The combination of shares J J, adjusting devices *n n*, rods *i i i i*, and runners H H, substantially as specified.

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

JOHN Y. JONES.

Witnesses:

A. J. LOSEY,

WM. LANGHAM.