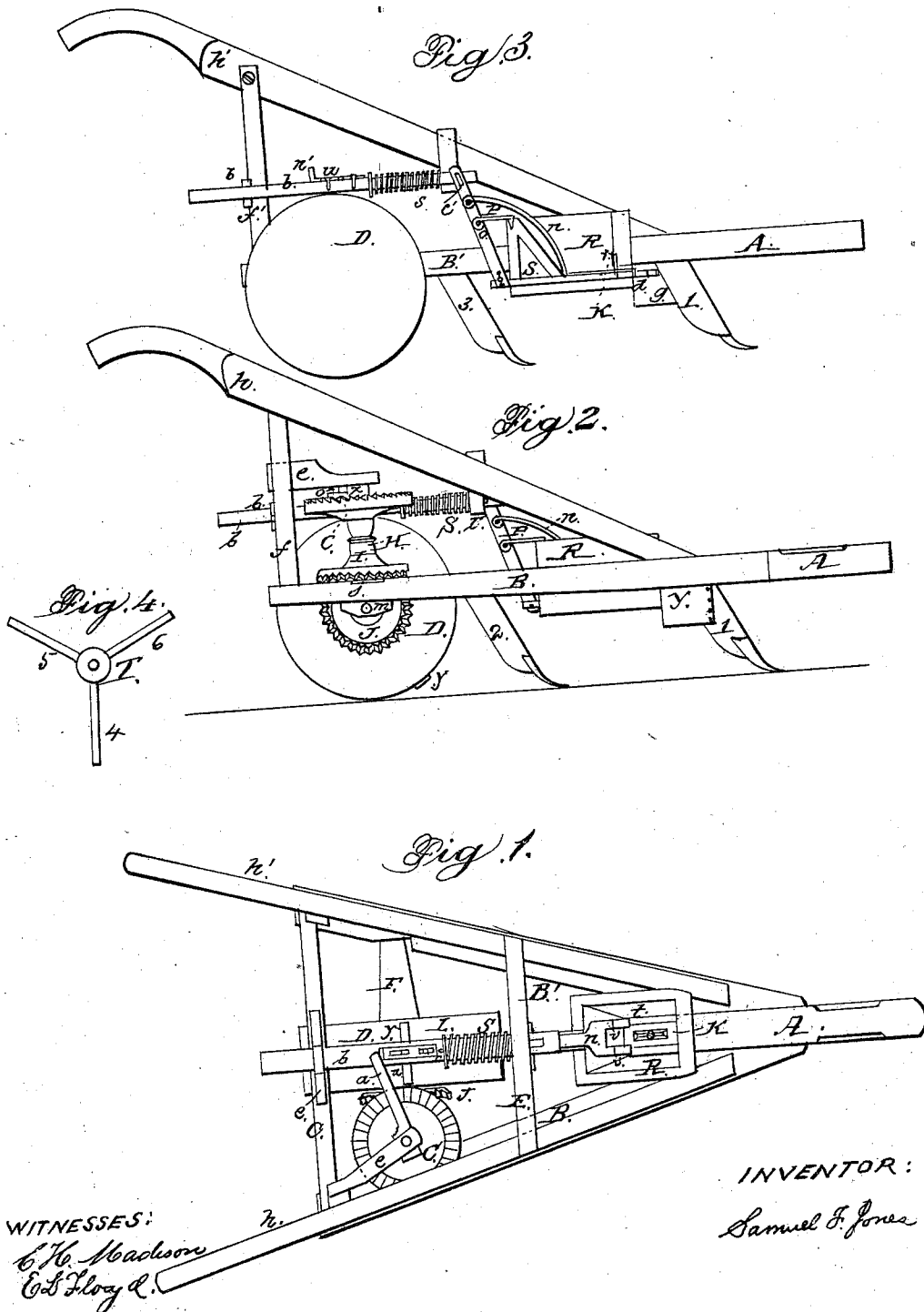


S. F. JONES.

Seed-Planter.

No. 42,196.

Patented Apr 5, 1864.



UNITED STATES PATENT OFFICE.

SAMUEL F. JONES, OF ST. PAUL, INDIANA.

IMPROVEMENT IN CORN-PLANTERS.

Specification forming part of Letters Patent No. 42,196, dated April 5, 1864; antedated April 2, 1864.

To all whom it may concern:

Be it known that I, SAMUEL F. JONES, of St. Paul, in the county of Decatur and State of Indiana, have invented a new and Improved Seed-Planter; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, in which—

Figure 1 is the plan or top view. Fig. 2 is a side elevation. Fig. 3 is a vertical section. Fig. 4 is a perspective view of the hub T and arms 4 5 6, by the use of which the planter is readily converted into a drill.

The nature of my invention consists in constructing and arranging the several parts of a seed-planter, substantially in the manner hereinafter described.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

The tongue-piece A is made the size and shape of those used in a one-horse cultivator. The frame-pieces B B' are made any length and size desired, with the inside of the front ends tapered, and bolted to the rear end of the tongue-piece, with the rear ends spread apart far enough to bring the journals of the axle F under the rear ends of the frame-pieces and rest in the bearings *m*, Fig. 2. The bearings are bolted to the under side of said frame-pieces. The handles *h h'* are secured to the frame-pieces near the front end by means of screws, and are supported by the posts *f f'*, which stand on the rear ends of the frame-pieces. The wheel D is fastened to the axle F. On the same axle the bevel-wheel J is secured to the right of the wheel D. The perpendicular shaft H is supported at its lower end by the step *j*, which is secured to the upper side of the frame-piece B, Fig. 2. The said shaft is supported at its upper end by the reach *e*, which is bolted to the post *f*. Near the lower end of this shaft the bevel-wheel I is secured and gears into the wheel J. The wheels J and I are the same size and make equal revolutions with the wheel D. Near the upper end of the shaft H the crown-wheel C is secured. The lever *a* is slipped loosely on the end of said shaft, above the wheel C, and rests in the cogs of said wheel with its outer end projecting beyond the wheel, so as to extend over the

vibrating slide *b* far enough to strike the adjustable pin-plate *u*, Fig. 1. Said pin-plate is held in place by a set-screw in the slot *i* and is guided by a pin in slot *o*. The vibrating slide *b* operates through notches in the blocks *l l'*, Figs. 1 and 2. The block *l'* is secured to the under edge of the cross-bar E in Fig. 1, and *l* to the stretcher G on the upper edge. These blocks are screwed or otherwise fastened to G and E. E rests on and is fastened to the handles. The stretcher G is secured to the posts *f f'*. The spiral spring S is put on the front end of the vibrating slide *b*, and operates between the cross-bar E and the pin O and washer L, Fig. 1. To the front end of said slide the lever O' is attached by means of a pin, which passes through the slide and through the slot *c'*, Fig. 3, in the upper end of the lever O'. The fulcrum for the said lever is formed by the plate P, Fig. 3, which is secured to the upper edge of the rear end of the seed-box R. Said lever extends below the fulcrum to the bottom of the seed-box and its lower end is attached to the rear end of the seed-slide S', Fig. 3, by means of a pin, which passes through the slot *c* and the lower end of said lever, and is fastened to the seed-slide. The rear end of the seed-slide is notched to receive the lower end of the lever. The seed-box R is tapered at the sides, making it widest at the top. Said seed-box is provided with an inclined false bottom, which reaches from the top of the back end of the seed-box about two-thirds of the distance to the front end of said box near the bottom. The seed-box is placed between the frame-pieces B B', at the rear end of the tongue-piece A, with about half of its depth below and half above the frame-pieces, and is held in place by means of screws passed through its sides into the frame-pieces. The seed-slide is provided with a seed-hole, *d*, Fig. 3. The size of the seed-hole is regulated by means of the slotted slide K, Fig. 1, which has its front end turned down, and reaches nearly through the seed-slide. The slide K is let into the upper side of the seed-slide, and is held in its place by the set-screw in slot *t*. By loosening this screw the slide K may be moved back or forward, as may be desired, to regulate the size of the seed-hole. The seed-slide operates through openings in each end of the seed-box and between the bottom and false bottom of the seed-box.

The brush or cut-off *r* is attached to the inside of the front end of the seed-box and over the seed-hole to brush back the corn in the box from that deposited in the seed-hole. The seed is thrown from the seed-hole into the guide *g*, and is conducted down into the furrow in the rear of the shovel, which is bolted to the shank 1, which is framed into the tongue-piece near therear end. The corn is covered by the shovels that are attached to the shanks 2 and 3, Figs. 2 and 3. These shanks are framed into the frame-pieces. The wheel D rolls over the corn after it is covered and breaks any clods that may be on it and packs the ground. The upper end of the agitator *n* is attached to the lever O' below the vibrating slide by means of a pin, with its prongs *v v* resting on the seed-slide in such a manner that when it is forced forward by the action of the lever O' one prong will pass on either side of the seed-hole. The pin *n* on the pin-plate *u*, Fig. 3, is formed by turning up the rear end of the plate. The hub T, with arms 4 5 6 set or bent in such manner that when the hub is put on the shaft H in the place of the movable lever *a*, Fig. 1, the arms will rest in the cogs or teeth of the crown-wheel C, and project beyond the wheel far enough to strike the pin *n* and actuate the slide *b*. The block *x*, between the reach *e* and movable lever *a* in Fig. 2, fills the place of the hub T when the lever *a* is used.

The operation of my seed-planter is as follows: After the land is broken and rolled or harrowed, the planter is taken into the field and one furrow is run to start from. The corn being in the seed-box, the attendant takes hold of the handles, and as the planter is drawn forward the wheel D, rolling upon the ground, actuates the bevel-wheel J. This wheel is geared to the bevel-wheel I and drives it, the crown-wheel C, being on the same shaft, is put in motion, the bevel-wheels, being the same size, give the ground or driving wheel D and the crown-wheel C equal revolutions, and at each revolution the outer end of the movable lever *a* is brought in contact with the pin *n'* and forces the vibrating slide *b* forward. This actuates the lever O', which draws the seed-slide backward, and at the same time forces the agitator forward, its prongs passing one on either side of the seed-hole and agitate the corn and insure the filling of the seed-hole. When the movable lever *a* passes out of reach of the pin *n'* the spiral spring S forces the vibrating slide *b* back and the seed-slide forward through the medium of the lever O', and deposits the seed in the furrow through the guide *g'*. The guide prevents the seed from scatter-

ing, the shovels on the shanks 2 3 cover the corn, and the wheel D rolls it. The block *y*, Fig. 1, makes its impression in the ground over the corn planted. This enables the operator to know when he is planting the corn in check-rows for cultivation each way and when to regulate the planter, if he is not. If the wheel *d* has gained or lost distance by running over uneven ground or around a stump or other obstructions, the dropping is easily regulated by lifting the movable lever *a* and placing it back or forward in the teeth or cogs of the crown-wheel *c*, Fig. 1, as the circumstances may require. If the dropping is not quick enough, move the lever forward; if too quick, move it back. The object of the movable pin-plate *u*, Fig. 1, is to increase or decrease the line of travel of the seed-slide and agitator; also, to provide for the wear of the pin *n'* and lever *a* when the seed-slide is required to reach a given point, by loosening the set-screw and moving the pin-plate back. When the operator desires to drill the corn the reach *e* is unbolted from the post *f* and taken off of the shaft H, the lever *a* and block *x* are removed, and the hub T, with arms 4 5 6, put in its place, with the arms resting in the cogs of the crown-wheel C. The reach is then put back to its place and the planter is effectually converted into a drill, the vibrating slide and seed-slide being actuated three times as fast as when moved by the lever *a*.

From the above-described arrangement of the several parts it will be seen that a cheap and effective seed-planter is produced, one that can be easily regulated to insure the accurate and certain dropping of the corn, and one that is not easily impaired.

Having thus fully described the construction and operation of my improved seed-planter, what I claim as new, and desire to secure by Letters Patent, is—

1. Operating the seed-slide *s'* through the medium of the crown-wheel C, movable lever *a*, adjustable pin-plate *n'*, vibrating slide *b*, spiral springs S, and lever O', the whole being constructed and arranged to act conjointly, as shown and described, for the purpose set forth.

2. The agitator *n*, when constructed and operated as shown and described.

3. The hub T, with arms 4 5 6, when used in connection with the crown-wheel C, as shown and described, for the purpose set forth.

SAMUEL F. JONES.

Witnesses:

C. H. MADISON,
E. L. FLOYD.