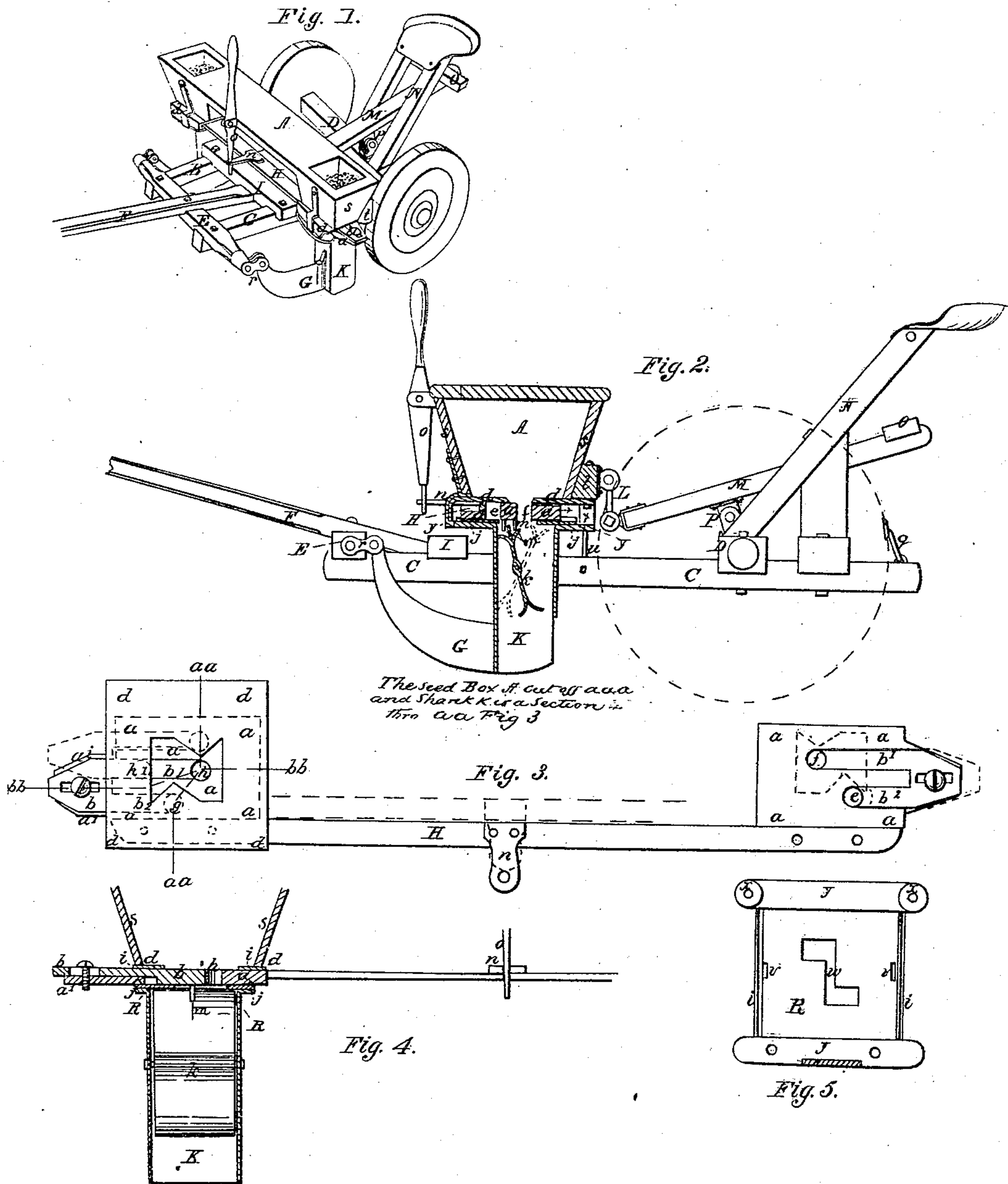


A. WINDECK.
CORN PLANTER.

No. 84,666.

Patented Dec. 1, 1868.



Witnesses:
Edmund Hurton
Bernard Bailey

Inventor:
Albert Windeck

United States Patent Office.

ALBERT WINDECK, OF PEORIA, ILLINOIS.

Letters Patent No. 84,666, dated December 1, 1868.

IMPROVEMENT IN CORN-PLANTERS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern :

Be it known that I, ALBERT WINDECK, of the city and county of Peoria, and State of Illinois, have invented a new and useful Improvement in Corn-Planters; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a perspective view.

Figure 2 is a side elevation, combined with section of the seed-box and cut-off shank, &c.

Figure 3 is a plan of plate at bottom of seed-box slide and gauge and shaking-bar.

Figure 4 is a section of slide and planting-apparatus and shank with valve.

Figure 5 is a plan of top plate over shank, &c.

Like letters in the figures of the drawings indicate like parts.

The frame of this machine is similar in construction and materials to other corn-planters now in use.

A is the seat connecting the seed-boxes.

B C, side bars of frame.

D, axle-tree.

E, forward bar, supporting runners G.

F, draught-pole.

H, shaking-rod.

I, cross-bar.

K, shank of runner.

L, link connecting seed-box with lever.

N, seat-bars.

O, cross-bar for driver's feet to bear on lever.

The seed-box A and seat are of the ordinary kind in corn-planters; so are the runners G, and shank K, and the slide *a*.

I attach the runners of my machine to jaws or clevises projecting from a thimble, *r*, fitting on to end of front bar E, and made of cast-iron, and bolted into end of bar.

The thimble may be two inches long, by one and three-fourths inch wide, and is a part of my improvement, as is also the cut-off, with its two diamond-pointed teeth. This cut-off, *d d d d*, figs. 2 and 3.

The slide *a a* is nearly square, four and one-half by five inches, and one-half inch thick, having the usual arm *a'*, on the outside of recess under seed-box, to which is adjusted the end of the sliding gauge *b*, by a slot and screw or bolt.

The usual pair of slots is cast therein, for admitting the two arms *b' b'* of gauge, by means of which the escape of corn is regulated through the round hole left between ends of arms and the circular ends of slots.

The slide, one under each seed-box, (and under bottom plate of same,) slides on the ribs *j j*, one on each side of an iron plate, R, by means of corresponding grooves cut on under side of slides.

The ribs run fore and aft on the sides of the plate

R, parallel with runners, which plate is about one-fourth inch thick, and about three and one-half by four and one-half inches square, and lies over the upper part or mouth of shank, closing it, and secured there by projections, on each side of shank, (from the shank,) which rise into corresponding holes, *v v*, in the plate next to ribs *j j*. (See fig. 5.)

This plate is made a little longer than slide, so as to allow the lateral motion of same upon it. It has two square openings, of the shape seen in said fig. 5, which openings are connected by a slot, for admission of the fork *m*, under slide, which moves the valve *k*.

These holes are an inch and a quarter long, by five-eighths broad, and are to receive and discharge corn alternately into shank from the slide.

The slides under each box are moved back and forth on the ribs, and under plates *a a a*, at bottom of seed-boxes, in a direction from front to rear, instead of, by the common manner of corn-planters, from side to side of machine.

They are fastened to the end of and receive motion from the "shaking-rod" H, which is a wrought-iron bar, one inch by three-sixteenths of an inch, and about four feet long.

An iron lever, *o*, having its fulcrum in an ordinary clevis, at edge of seat A, moves the shaking-rod, the end of lever passing through a staple riveted to the rod, in the centre of same.

The lever may be seventeen inches long, so as to be convenient for a boy sitting on box or seat, and I make it either a straight one, or fork it below the fulcrum, so as to connect with bar H in two places, so as to secure smooth motion of slides.

The valve *k*, in the shank K, is designed for the second dropping of corn, and is not new; but I improve it by dividing it at its upper end and turning one-half, ending at fork, backwards, and the other forwards, so that the bent portion receives the corn, and conducts it to sides of shank, where it is retained on the lower deflection of valve, until it is liberated by the next reciprocation of slide; so for the other hole, and both alternately.

A small fork, *m*, is riveted to under side of slide *b*, which moves the valve just described.

The seed-box rests immediately on an iron plate, *d*, which has an opening of the shape shown in fig. 3, which is a hole about two and three-fourths inches square, having a projecting tooth on each side of opening, so disposed as to cut off but one hole in slides *a a* below at a time.

The forward sides of this plate are bent downwards, the forward end resting on the plate *y*, forming a horizontal extension of upper part of the shank K, and the rear end secured by two bolts passing through the cross-bar *t*, behind boxes, the block *x* and plate *d*, and said upper extension of shank.

The seed-boxes are elevated by the lever M, having

its fulcrum at the clevis P, on the axle-tree D, between the seat-bars.

This lever M is four feet long, of wood, and about three inches wide by two inches deep, and its forward end is connected with the seed-boxes, or rather the bar behind, *t*, by means of the link L, which is about four inches wide and five inches from centre to centre, and secured, by bolts, in the opening between the iron jaws, for receiving the ends of link, one jaw on the bar *t* and the other on the end of lever. The latter is cast with a shoe or strap large enough to admit end of lever, and fastened thereto with bolts.

A scraper or rod, with crank at each end, sharpened, lies horizontally across frame behind wheels, and is secured in place by staples at each side of frame, to clear wheels from soil.

The operation of this machine is as follows:

On driving to field, the driver, with his feet, presses the cross-bar of lever L, which, by means of the link L, elevates the seed-box, to which are attached runners and shank, from the ground, until required for planting.

The boy or man who regulates the dropping of corn sits on seat A, and works the lever *o*, which gives lateral motion to the shaking-bar H, to the ends of which the slide *a a* is attached, and which slide brings the holes in same (for corn to pass into shank) alternately from under the diamond-shaped teeth, in the sides of iron plate *d*, at bottom of seed-box, (see these two different positions of slide in fig. 3,) where the two different positions of holes, *g* and *h*, are indicated by blue and red dots. The amount of kernels of corn is regulated by the gauge *b*, which is adjusted by the screw in the slot, at its end, the screw passing through slot into the slide *a a* below, and is fastened beneath with a nut. This gauge is the one commonly used in machines of this kind.

The slide *a a* passes backwards and forwards on the ribs *j j*, on the plate R, over shank, by means of corresponding grooves on its under side.

The corn falls through the holes on to plate just mentioned, where it is retained until the slide makes its next movement, when the corn is brought over one of the holes in the plate R, where it falls on to the shifting-valve *k*, and is thrown across to other side of shank, and held by curved end of valve, until the reverse motion of slide liberates it, by again moving the shifting-valve, and it falls into the ground.

The depth of planting of the seed is managed by the gauge *u*, one on each side of the machine, under the cross-bar *t*, behind the seed-boxes, and are merely the usual upright sliding bars, of iron, pierced with holes at intervals, and set in guides, and adjustable by means of set-screws.

The advantages of this machine are—

First, that it is of simpler and cheaper construction, in proportion to goodness of work performed, the slides being not so liable to stick or jam, as they are guided and slide on ribs.

Second, the cut-off teeth being diagonally sloped from the points, present no hindrance to their passage among the corn.

Third, the curving of the upper half of valve in opposite directions increases the facility for proper dropping of corn, by retarding its too quick descent and consequent scattering.

Fourth, the superior means of raising the shank and runners, by means of link preventing the forward motion of boxes, in raising lever, from dragging on the lever.

Having thus fully described my invention,

What I claim therein as new, and desire to secure by Letters Patent, is—

1. The slides *a a*, with forks *m*, for operating the valves *k*, in combination with plates R, having ribs *j j* fitting the grooves, and gauges *b*, substantially in the manner and for the purpose as herein set forth.

2. The valves *k*, in combination with the slides *a a*, when constructed and operated substantially as set forth.

3. The construction of the valves *k*, curved straight across at their bottom ends outwardly, and divided in the middle, at their upper ends, and curved outwardly in reverse directions, substantially as and for the purpose set forth.

4. The construction of the plate *d*, with diamond-shaped teeth, for cut-offs, in the bottom of the seed-boxes, substantially in the manner and for the purpose as set forth.

As evidence that I claim the foregoing, I have hereunto set my hand, in the presence of two witnesses.

ALBERT WINDECK.

Witnesses:

EDWARD THURLOW.

BERNARD BAILY.