S. T. HOLLY.

Corn-Planter.

No. 28,483. Patented May 29, 1860.

Fig. 1.

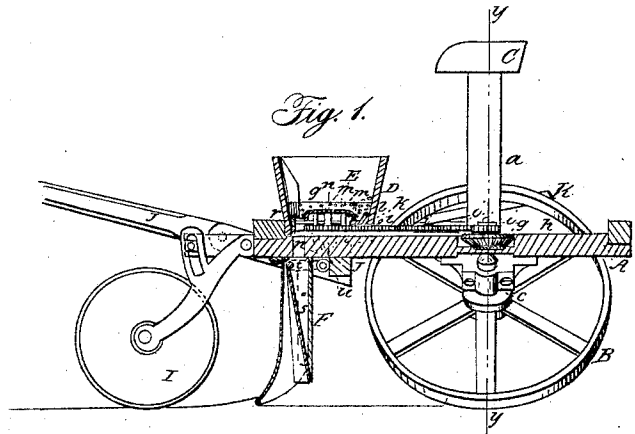


Fig. 2.

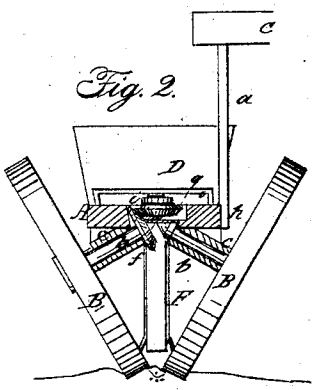
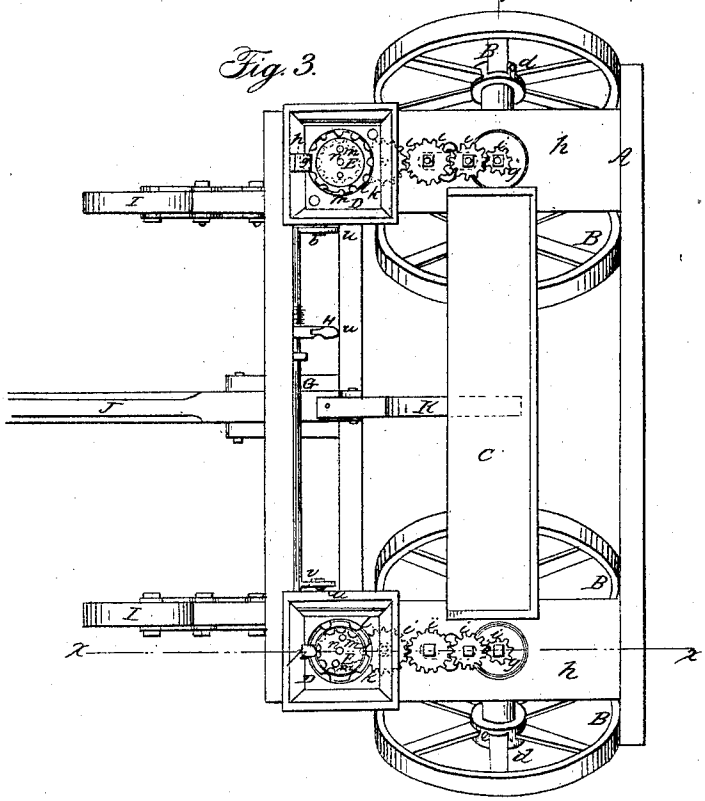


Fig. 3.



Witnesses:

J. E. Manlove

Inventor:

Solomon T. Holly

AM. PHOTO-LITHO. CO. N.Y. (OSBORNE'S PROCESS.)

UNITED STATES PATENT OFFICE.

SOLOMON T. HOLLY, OF ROCKFORD, ILLINOIS.

IMPROVEMENT IN SEEDING-MACHINES.

Specification forming part of Letters Patent No. **28,483**, dated May 29, 1860.

To all whom it may concern:

Be it known that I, S. T. HOLLY, of Rockford, in the county of Winnebago and State of Illinois, have invented a new and Improved Seeding-Machine; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a side sectional view of my invention, taken in the line *x x*, Fig. 3. Fig. 2 is a transverse vertical section of the same, taken in the line *y y*, Fig. 1. Fig. 3 is a plan or top view of my invention.

Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to certain improvements in that class of seeding-machines which are designed for planting seed either in hills or drills.

The invention consists in the employment or use of oblique supporting and driving wheels, arranged substantially as hereinafter described, whereby the same are made to cover the seed and press the earth thereon in a very efficient manner and in certain ways, as the nature of the case may require, to favor the speedy germination of the seed.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represent a quadrilateral frame, which is mounted on wheels B, and has a driver's seat, C, placed thereon, and supported at a suitable height by uprights *a*. There are two wheels, B, at each side of the frame A, the arms *b* of which are fitted in inclined boxes *c*, so that the two wheels at each side of the machine will have oblique or inclined positions, one being inclined in a reverse direction to the other, as shown clearly in Figs. 2 and 3. The wheels B are secured to their arms *b* by set-screws *d*, which pass through their hubs *e* and bear against the arms *b*, the latter being allowed to rotate freely in their boxes. The peripheries of the wheels B are parallel with the arms *b*, so that the wheels bear obliquely on the earth, as shown clearly in Fig. 2.

To the inner ends of the arms *b* of the outermost wheels, B, bevel-pinions *f* are attached, one to each. These bevel-pinions each gear into horizontal bevel-wheels *g* in the side pieces, *h h*, of the frame A, and each wheel *g* is connected by gearing *i* with a wheel, *j*, below the bottom of the hopper D, which is directly in front of it, a hopper D being at each side of the frame A. The hoppers D may be of the usual quadrilateral taper form, and their bottoms are each formed of a plate, *k*, having a circular opening, *l*, made in it centrally, the plate being inclined around the opening, and the latter receiving a horizontal distributing-wheel, E, which is allowed to rotate freely within the opening, while fitting snugly within it. These distributing-wheels E E are fitted on vertical pins *m m n* on the wheels *j*, the pins *m m* serving as drivers and *n* as center-pins. The wheels E E have convex upper surfaces, their under sides being correspondently concave, as shown clearly in Fig. 1. The wheels E rest at their edges on plates *o*, which are secured to the side pieces, *h*, and the edges of said wheels are notched radially to form seed-cells, as shown clearly in Fig. 3. Each plate *k*, at the front part of its opening *l*, is notched, as shown at *p*, and a cut-off brush, *q*, is placed over each notch *p* and secured to the front part of each hopper. The notches *p* are considerably larger than the seed-cells in the wheels E, and to the under side of each side piece, *h*, a seed-conveying tube, F, is attached, the upper ends of which are in line with the notches *p* and holes *r* in the side pieces, *h*, and plates *o*, as shown clearly in Fig. 1. Each seed-conveying tube F is provided with a valve, *s*, which are simply plates attached at their upper ends to shafts *t*, which pass within the tubes F, and have their outer ends connected by links *u* to arms *v v* of a shaft, G, which is placed on the front part of the frame A, has a treadle, H, attached, against which a spring, *w*, bears, said spring having a tendency to keep the valves *s* closed.

To the front part of the frame A gage-wheels I I are attached and so arranged as to be capable of being adjusted higher or lower.

The lower ends of the seed-conveying tubes F are made, as usual, of share or tooth form, in order that they may open the furrows to receive the seed, and the tubes F are in line with the centers of the spaces between each pair of wheels B.

The draft-pole J is attached to the frame A, as usual, and a treadle, K, is connected to its back end for the purpose of elevating, when necessary, the front part of the machine, in order that it may pass over any obstructions that may lie in its path.

The operation is as follows: As the machine is drawn along the distributing-wheels E E are rotated, and the seed-cells of said wheels being filled with seed, it is conveyed in cellsful underneath the cut-off brush *q* and discharged therefrom into the tubes F, the seed discharging itself by its own gravity as soon as each cell in the wheel registers with the notches *p*. The notches *p*, it will be seen, virtually enlarges each seed-cell as it passes in line with them, for the seed-cells are cut into the edges of the wheels. By this arrangement the free discharge of the seed is insured and all clogging or choking of the distributing-wheels effectually prevented. (See Fig. 3, in which the cut-off brush in one of the hoppers D is removed.) The seed is covered by the wheels B B. It will be seen, by referring to Fig. 2, that the wheels bear each side of the furrows, and the earth is pressed obliquely into the furrows at opposite sides. The wheels, therefore, not only cover the seed, but they also compact the earth around them. In case the soil is of a stiff clayey nature, tenacious of wet, and liable to crust or bake under the action of the sun, the wheels B are placed further outward on their arms *b*, so as to leave a space of requisite width between their lower parts. By this adjustment the seed will be covered in the furrows, but the earth directly above the seed will not be compacted. It will be left in a loose state, permeable to air and moisture, to favor the germination of the seed. If the soil be loose and light, of a friable nature, the lower parts of the wheels should be nearly in contact, to compact the earth firmly over the seed.

The valves *s* are opened by the foot of the driver, and the treadle K is also depressed by the foot of the driver when it is necessary to elevate the front part of the machine.

I do not claim any part or parts pertaining to the seed-distributing device; but

I do claim as new and desire to secure by Letters Patent—

The oblique supporting and driving wheels B, applied to the machine, and arranged to operate substantially as and for the purpose set forth.

SOLOMON T. HOLLY.

Witnesses:

J. G. MANLOVE,

JOHN STEWART.