S. WRIGHT.

Corn-Planter.

No. 167,287. Patented Aug. 31, 1875.

Fig. 1.

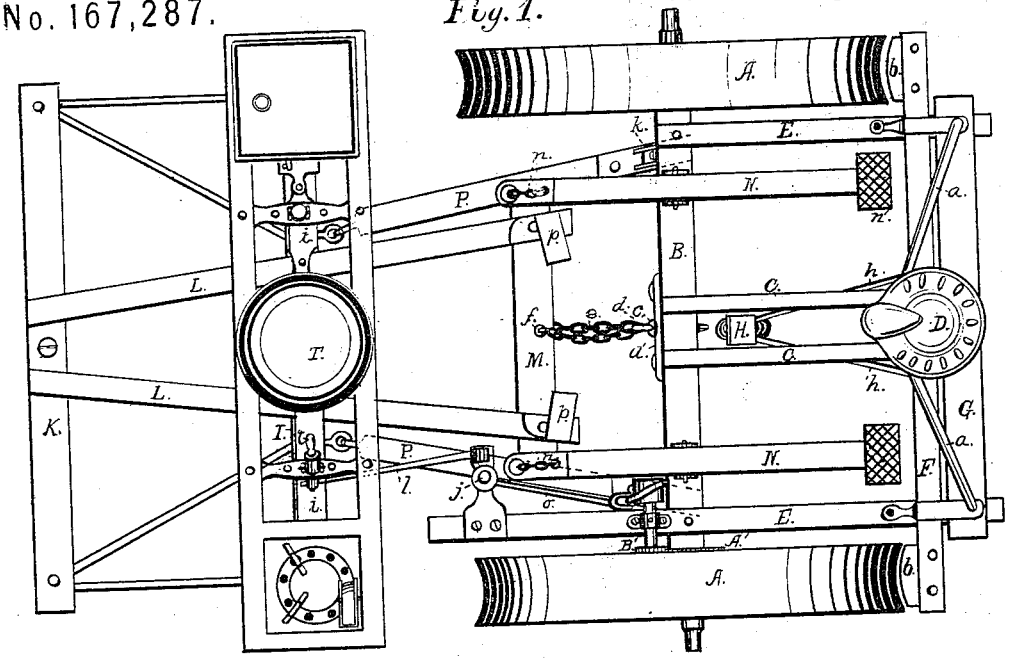

Fig. 5.

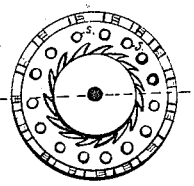

Fig. 3.

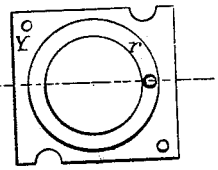

Fig. 6.

Fig. 4.

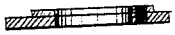

Fig. 2.

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UNITED STATES PATENT OFFICE.

SAMUEL WRIGHT, OF TROY, OHIO.

IMPROVEMENT IN CORN-PLANTERS.

Specification forming part of Letters Patent No. **167,287**, dated August 31, 1875; application filed May 3, 1875.

To all whom it may concern:

Be it known that I, SAMUEL WRIGHT, of Troy, in the county of Miami and State of Ohio, have invented certain new and useful Improvements in Corn-Planters, of which the following is a specification:

The nature of this invention consists in the improved method of arranging and connecting the frame-work of the planter in such a manner that the driver, by his feet, can raise either runner over an obstruction, and, without moving from his seat, can throw his entire weight upon both runners to sink them deeper in the soil.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I would thus describe it, referring to the accompanying drawing, in which—

Figure 1 is a top view of a double-row corn-planter provided with my improvements. Fig. 2 is a sectional side elevation of the same. Fig. 3 is an enlarged top view of my improved diaphragm-plate. Fig. 4 is a central sectional view of the same. Fig. 5 is an enlarged bottom view of my improved seed-plate. Fig. 6 is a central sectional view of the same.

The following is a description of my invention, which will be distinctly pointed out in the claims.

The supporting-wheels A are attached to the axle B in the usual manner. From the center of the axle extend upward the rearwardly-inclining beams C, which support the driver's seat D. Two beams, E, attached to the axle near its ends, extend in the rear and give support to the scraper-bar F. A cross-bar, G, unites the extremities of the beams E, and from its ends proceed the rods *a*, which are attached to the seat-beams, and aid in strengthening the frame-work just described. H is a weighted foot-lever, pivoted between the seat-beams, and connected, by means of the rods *h*, to the scraper-bar F. By pressing upon this lever the scrapers *b* at the ends of the bar are pressed against the surface of the wheels to free them of adhering dirt. In front of the axle B, and parallel to it, is the beam I, to which are bolted the standards J, and upon which the seed-boxes or hoppers are secured. This beam is united to the front cross-piece K by means of the convergent beams L, which extend rearwardly nearly to the axle, and have their ends united by a cross-bar, M. The runners are of the usual shape, and are attached in the customary manner to the beam K and the standards J. Two foot-levers, N, are pivoted upon the axle, one on each side of the seat-beams, and their forward ends lie over the ends of the cross-bar M, and are united to it by chains *n*, as shown. Bolted to the front side of the axle at its center is a plate, *a'*, supporting an upright rod, *c*, with a hook, *d*, upon its top, from which a chain, *e*, proceeds, and is attached to the under side of the cross-bar M. A second chain proceeds from the hook *f*, and is hung at the back of the axle, as shown.

An important feature of my invention is the arrangement of the beams P, situated upon the under side of the axle near its ends, and secured thereto by the hinges *k*, the turning-points of which should be just above the beams, and just in front of the axle. The shape of these hinges is immaterial, but I would suggest the employment of those represented in Figs. 1 and 2. The forward ends of the beams P, which are convergent, are attached to the rear side of the supporting-brace I by means of hook-bolts at right angles, forming a limited swivel-joint.

It will be noticed that the frame-work is composed of two rigid portions, supporting, respectively, the seed-boxes and the driver's seat, and united by the hinged beams P and the chain *e*, and connected by the foot-levers N. Now, suppose the planter to be in use and an obstruction to be lying in the way of the right-hand runner. The driver immediately presses his foot upon the right-hand treadle *n'*, and the runner is raised out of the ground, and the obstruction safely passed over. The bearing-block upon the axle becomes the first fulcrum, and as the frame is raised the opposite runner becomes the second. This result could not be accomplished if the beams P were rigidly attached to the brace I.

I am aware that both runners have been simultaneously raised by the weight of the driver, and that a cross-treadle in the rear of the driver's seat, attached to the forward part of the frame, has been employed for a similar purpose; but

in such cases the result has been accomplished with greater difficulty than by my improved arrangement of parts.

When it is desirable to sink the runners deeper in the soil, the driver places his feet upon the elevated rests *p*, secured to the ends of the beams L. As he throws his weight upon them and assumes an upright position, the rear frame-work, turning upon the pivots of the hinges *k*, is elevated, and the seat follows him, so that, in reality, he shifts his position without leaving the seat.

The employment of the chain *e* is not new; but attaching it to the rod *c*, with the hook *d* some distance above the axle, as described and shown, produces a much more efficient connection than if it were attached directly to the axle.

The second part of my invention is an improvement upon Patent No. 157,262, November 24, 1874, and relates to an improved dropping mechanism, whereby I am enabled to drop, at regular intervals and distances, a single grain of corn. I employ a seed-plate, Fig. 5, just a little thicker than a grain of corn lying flat. This plate, which is circular, has a number of equidistant orifices, *s*, equally distant from the center, and just large enough to accommodate a single grain of corn. It rests on an annular disk, *r*, forming part of the diaphragm Y, Fig. 4. The hub of this plate projects through the diaphragm, and its periphery consists of ratchet-teeth, corresponding in number with the orifices in the plate, and in the same radial line. Upon the under outer edge of the plate are also a similar number of teeth arranged in the manner of a crown-wheel, and also in a radial line with the orifices. The inner face of the seed-plate rests upon the annular disk *r*, which is provided with an orifice, *s'*, corresponding with the seed-opening in the bottom of the hopper.

The arrangement and operation of the parts are the same as described in the cited patent. The dropper is seated at T, and, by means of the hand-lever *t*, works the reciprocating slide *i;* or the slide may be operated automatically by the spur-wheel A', attached to the supporting-wheel A, and engaging with a pinion, B', journaled upon the beam E, which extends forward of the axle. This pinion, by means of the eccentric projection *u* upon its end, oscillates, horizontally, an arm, *o*, pivoted at *j*. Hinged to a projection from the arm *o*, so as to admit of a vertical but not lateral motion, is the rod *l*, connected to the slide *i*. As the wheels revolve the slide is operated by the oscillating arms *o* and *l*.

Having fully described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination and arrangement of the foot-levers N, axle B, pivoted beams P, and cross-bar M, substantially as described, and for the purpose specified.

2. The beams P, in combination with the forward and rear frames of a corn-planter, when hinged to the axle so as to allow of only a vertical motion, and united to the forward frame by means of eyebolts, forming a partial swivel, substantially as described, and for the purpose specified.

Witness my hand this 31st day of March, A. D. 1875.

SAMUEL WRIGHT.

Witnesses:

J. P. WHITMORE,

CHAS. M. PECK.