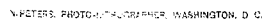


Grain-Drill.

Patented Dec. 17, 1850.



UNITED STATES PATENT OFFICE.

JOSEPH W. FAWKES, OF BART, PENNSYLVANIA.

IMPROVEMENT IN SEED-PLANTERS.

Specification forming part of Letters Patent No. 7,837, dated December 17, 1850.

To all whom it may concern:

Be it known that I, JOSEPH W. FAWKES, of Bart township, in the county of Lancaster and State of Pennsylvania, have invented new and useful Improvements to the Grain-Drill; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

The nature and object of my invention and improvement consists in sowing grain, wheat, and oats with more constant regularity by curved slots or apertures in the horizontal cog-wheels, as arranged under the hopper, with the devices for gearing and ungearing and the adjusting-shovels.

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

A is the frame-work; B, the hopper; C, a circular grate attached underneath to the hopper for the purpose of a guard to confine the grain to the horizontal seeding-plate underneath, with an aperture, D, to allow the grain to pass through and into the curved apertures or slots uninjured or unbroken at their termination; E, the seven cast-iron horizontal cog-wheel sowers, with four (more or less) curved apertures or slots, so arranged and curving with each other as to allow the grain to pass through with the most constant regularity, and on account of the constant and regular dropping of the seed and preserving them unbroken is an improvement over the grain-drills made with slides or straight or round apertures. These wheels E revolve with a journal working in the plate F underneath.

F are cast-iron circular plates underneath the sowers E, having an oblong aperture for the grain to pass through into the funnels. These plates F are screwed fast to the flat wooden levers G underneath, and by the moving of the lever G at any time from right to left, and vice versa, the sowing of one or more of the sowers is stopped.

H is the jointed carriage-axle, having a main driving cog-wheel, I, attached by a thumb-screw and a lever, J, at the joint of the axle. One end of the lever J is firmly screwed onto the center of a cross-piece of frame-work, and the other end projecting through the oblong angular slot of the sliding plate K, for the purpose of throwing the machine in or out of gear by the operation or application of the upright lever L. The sliding plate K has two oblong

apertures and one angular, and slides or operates from right to left, and vice versa, upon the hind cross-piece of frame-work, and is supported by two screw-bolts. This plate K is operated upon and receives its side motion from the upright lever L, which keys into the plate K and holds the lever L firm when the machine is thus ungeared.

M is the center cast-iron driving horizontal wheel, operated upon by the main driving-wheel I underneath, acts as a sower, and acts and operates upon three sowers, E, on each side. This wheel M has two or more circular ranges of cogs underneath, for the purpose of regulating the quantity of grain to be sown to the acre by the shifting of the main cog-wheel I upon either range of cogs, and whenever the sliding plate K is moved to the left the lever J is drawn downward, and at the same time draws the axle H down, which ungears the main wheel I from the wheel M.

N represents the cast-iron shovels, made of two pieces, forming a circular tube, grooved into each other, and having two points beneath and two projections, O, on each piece, and a handle, P, attached to one of the pieces. These shovels N revolve in a cast-iron cylinder, Q, with spiral-shaped ends, and are for the purpose of raising and lowering the points of the shovel, and, when revolved, in order to keep the hind point so raised as not to obstruct the grain or interfere with it when deposited; and whenever the mouth becomes clogged with any obstruction, by drawing the handle P to the right or left the front point of the shovel is drawn back and the back point is brought forward, while with the same motion the front point is lowered and the back point raised, and the mouth of the shovel is thus completely cleared of all obstructions by this operation and the friction of the ground.

R represents the funnels underneath the levers G, by which the grain is passed through apertures S in cross-piece of frame-work, and secures a regular and constant dropping of the grain into the shovels N.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The peculiar construction of the adjustable shovels N to clear the mouth of any obstructions.

2. The mode and manner of sowing the grain through the slots, as herein described.

Witnesses: JOSEPH W. FAWKES.

W. T. AMWEG,
JOHN ROCK.