M. L. NICKELS.

Grain-Drill Feed.

No. 106,950. Patented Aug. 30. 1870.

FIG. 1

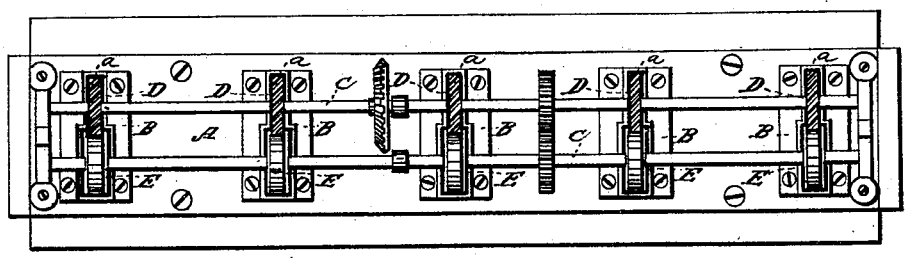
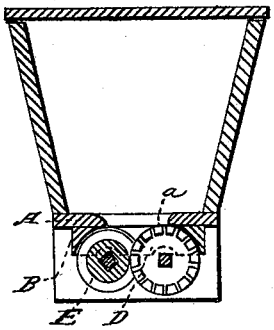


FIG. 2



WITNESSES:

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Attys.

United States Patent Office.

MICHAEL LEWIS NICKELS, OF DUNLAPSVILLE, INDIANA, ASSIGNOR TO HIMSELF AND THOMAS NICKELS, OF SAME PLACE.

Letters Patent No. 106,950, *dated August* 30, 1870.

IMPROVEMENT IN FEEDER FOR GRAIN-DRILLS.

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, MICHAEL LEWIS NICKELS, of Dunlapsville, in the county of Union and in the State of Indiana, have invented certain new and useful Improvements in Feed for Grain-Drills; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon making a part of this specification.

The nature of my invention consists in the construction of a "feed for grain-drills," consisting of wheels with cogs set diagonally across the periphery working in combination with grooved rollers.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a bottom view of a grain-hopper with my feed attached, and

Figure 2 is a vertical cross-section of the same.

A represents the bottom of a grain-hopper provided with a series of slots at suitable distance apart through which the grain is fed.

On the under side of the bottom surrounding each of said slots is secured a shoe, B, and in suitable bearings at the end of the hopper are placed two shafts, C C, running longitudinally under the bottom. On one of these shafts are placed wheels D D, which are provided with wings *a a*, set diagonally across their periphery, and on the other shaft directly opposite each of the wheels D D is placed another wheel or roller, E, which is flanged at the sides, forming a circumferential groove in the center, in which the wings *a a* work. Each set of wheels D and E works inside of a shoe, B. By this arrangement the grain is taken in at the top and carried down by the diagonal wings between the flanges forming the grooved rollers.

The advantages of using the grooved rollers B, in combination with the winged rollers or wheels D, are obvious. The wheels revolving toward each other, the wings *a a* on the wheels D form with the flanges on the wheel E, so to say, boxes in which the grain is carried downward until the wheels separate, when the grain falls out at once, preventing unnecessary scattering.

Having thus fully described my invention,

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

The combination of the circumferential grooved wheels E and wheels D, provided with the diagonal wings *a a*, both mounted upon shafts, and operating under the hopper A of a grain-drill, substantially as set forth.

In testimony that I claim the foregoing, I have hereunto set my hand this 28th day of February, 1870.

M. L. NICKELS.

Witnesses:

ALFRED BURK,

LEVI L. SCUDDER.