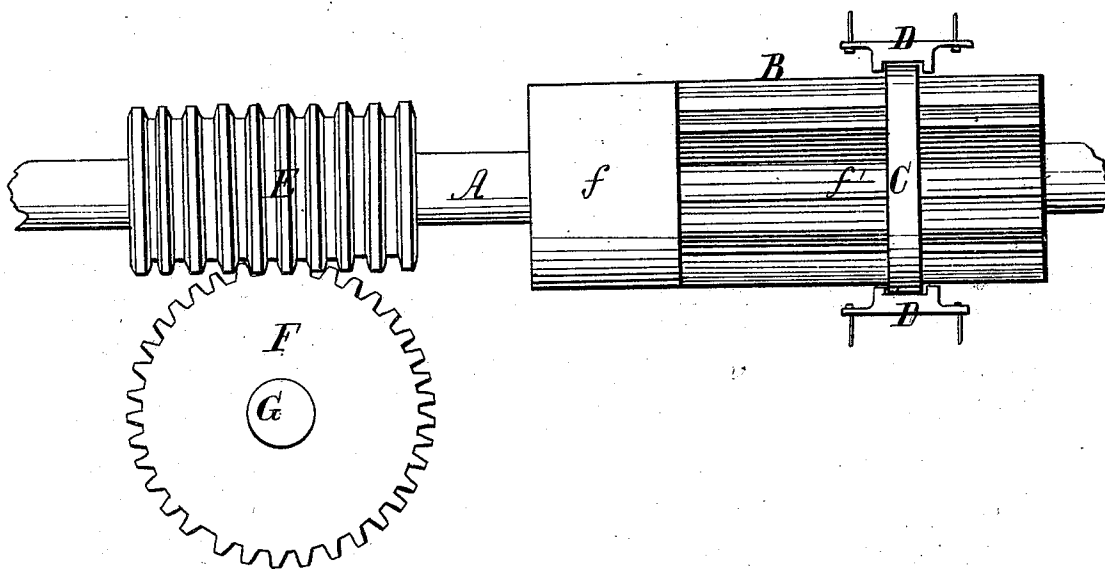


W. Neusthoff.
Seed Dropper.
N^o 92,678. Patented Jul. 13, 1869.



Witnesses;
A. C. M. W. W.
Em. J. M. W.

Inventor;
W. Neusthoff
by Pundell and Gyar. attys.

UNITED STATES PATENT OFFICE.

WILLIAM WEUSTHOFF, OF DAYTON, OHIO.

IMPROVEMENT IN GRAIN-DRILLS.

Specification forming part of Letters Patent No. **92,678**, dated July 13, 1869.

To all whom it may concern:

Be it known that I, WILLIAM WEUSTHOFF, of Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Grain-Drills; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, making a part of this specification, in which is represented a side elevation of a seed-wheel and shaft with my improvement attached.

My invention relates to a class of grain-drills in which the seed is discharged from the hopper by means of a number of wheels (secured to and revolving with a shaft) provided with a series of longitudinal grooves upon their periphery for containing the grain, which grooves are shortened or lengthened by moving said shaft and wheels longitudinally; and it consists in the use of a circular rack upon said seed-wheel shaft, with which the teeth of a pinion are caused to engage, so that by revolving said pinion the shaft may be moved endwise.

There are many modifications of such seed-wheels in use, to all of which my invention is applicable, but for convenience of illustration I will describe one of said modifications.

In the annexed drawing, A represents a seed-wheel shaft, to which is secured the seed-wheel B, consisting of a plain cylindrical end, *b*, and a grooved or corrugated body, *b'*.

C represents a ring fitted upon the grooved portion of the seed-wheel, so that, while fitting closely to its surface, said wheel may slide

freely lengthwise through said ring, which is held in position by means of suitable guides, D D.

E represents a cylindrical rack, having grooves corresponding to the teeth of a gear-wheel, F, secured to a shaft, G, which is placed beneath and at a right angle to the seed-wheel shaft, so that the teeth of said wheel may engage with the grooves in the cylindrical rack. As thus arranged, it will be readily seen that if the shaft G and gear-wheel be caused to revolve the seed-wheel shaft will be moved lengthwise, while at the same time allowed to revolve with perfect freedom, so that it is only necessary to provide means for operating said shaft G to enable the capacity of the seed-wheels to be adjusted with certainty and ease whether the machine is in motion or rest. This method of adjusting the seed-wheels possesses many advantages over any in use, being more accurate and durable, while equally simple and cheap.

Having thus fully set forth the nature and merits of my invention, what I claim as new, and desire to secure by Letters Patent, is—

The circular rack E and pinion F, in combination with the wheel-shaft A, substantially as and for the purpose shown.

In testimony that I claim the foregoing I have hereunto set my hand this 22d day of May, 1869.

WILLIAM WEUSTHOFF.

Witnesses:

THOS. D. MITCHELL,
A. F. WITTICH.