

(No Model.)

R. E. RICHARDSON.  
SEED PLANTER.

No. 416,498.

Patented Dec. 3, 1889.

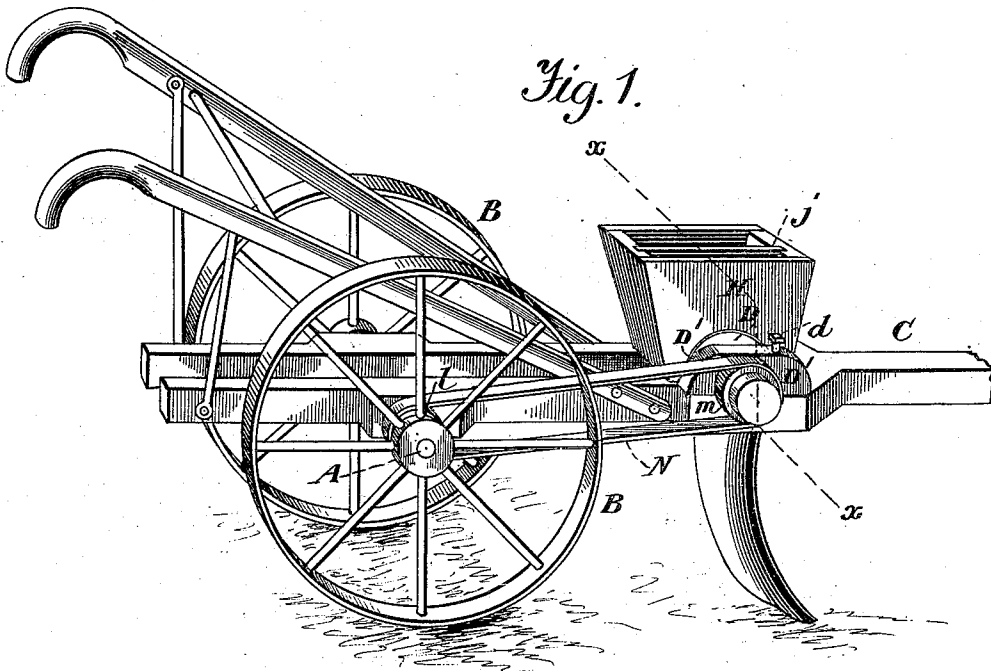


Fig. 2.

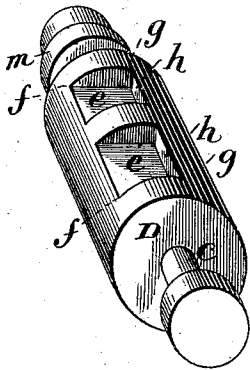
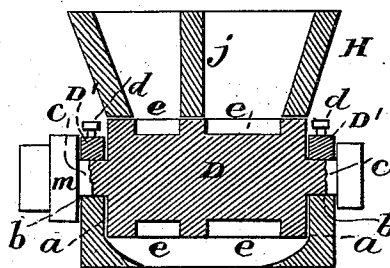


Fig. 3.



Witnesses.  
A. Ruppert.  
B. H. Laverick.

Inventor:  
Rufus C. Richardson  
by Franklin H. Fongh  
his Attorney

# UNITED STATES PATENT OFFICE.

RUFUS E. RICHARDSON, OF HESSVILLE, WEST VIRGINIA.

## SEED-PLANTER.

SPECIFICATION forming part of Letters Patent No. 416,498, dated December 3, 1889.

Application filed August 7, 1889. Serial No. 320,030. (No model.)

To all whom it may concern:

Be it known that I, RUFUS E. RICHARDSON, a citizen of the United States, residing at Hessville, in the county of Harrison and State of West Virginia, have invented certain new and useful Improvements in Corn and Seed Planters; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to certain new and useful improvements in seeders and planters; and it has for its object to provide an improved seed-wheel by which the seed will be best distributed, to provide an improved driving mechanism for the seed-wheel, and to otherwise improve the device as a whole.

The invention consists in the peculiar combination and the construction, arrangement, and adaptation of parts, all as more fully hereinafter described, shown in the drawings, and then particularly pointed out in the appended claim.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a perspective view of a seeder provided with my improvements. Fig. 2 is a perspective view of the seed-wheel detached. Fig. 3 is a vertical transverse section through the line X X of Fig. 1.

Like letters of reference indicate like parts throughout the several views.

Referring now to the details of the drawings by letter, A designates the axle, B the wheels, and C the frame, of the seeder. The front end of the frame-beams are formed with a socket or recess *a*, concaved, as shown, and in this concavity the seed-wheel D is designed to work. The end walls of the concavity are provided with bearings *b* for the journals of the seed-wheel.

The seed-wheel C is formed with the trunnions *c*, having bearings in said bearings *b*, and D' are boxes designed to fit over the said trunnions, as shown, being secured to the frame by means of suitable fastenings, as the

screws *d*, in such a manner that they may be readily removed when necessary to remove the seed-wheel. The periphery of the seed-wheel is formed with pockets *e*, the shape of which is important. Heretofore it has been the practice to provide a seed-wheel with pockets with round, flat, or square bottoms, sometimes providing the same with screws forming the bottom of the pockets; but it has been found that with such pockets the seed does not empty satisfactorily, beginning to fall from the pocket as soon as the seed-wheel turns, so that the advance edge of the pocket gets past a vertical line drawn through the wheel, and thus spreads the seed over a much greater compass than is desired, instead of dropping it all at once—as, for instance, in a hill.

The pockets in the seed-wheel are each formed as follows: The one side of the pocket is open and begins at the periphery of the wheel, as shown at *e* in Fig. 2, extending along the line *fg* on the chord of the circle and joining the side *h*, formed on the radius of the circle. It will thus be seen that the pocket has one side, two ends, and a bottom, the abrupt side *h* serving to retain the seed in the pocket till after the pocket passes the vertical plane, when the seed drops all at once. I consider this an important feature.

The hopper H is secured to the frame and is provided with a partition *j*, dividing the same into two compartments of unequal dimensions, the pockets on the wheel being also arranged that the two pockets in the same horizontal line through the wheel shall be of different capacity, so that the same wheel and hopper may be used for different kinds or amounts of seeds, when desired. On the extended end of the axle is a pulley *l*, and on the extended end of one of the trunnions of the seed-wheel is a pulley *m*, and N is an endless belt connecting these two pulleys and connected to impart motion to the seed-wheel from the drive-wheel, thus dispensing with gearing or sprocket-wheels and chain.

The operation will be readily understood, and a detailed description, therefore, is not deemed necessary.

What I claim as new is—

The improved seed-wheel described, consisting of a drum formed with pockets, each

pocket being formed directly in the body of the drum and having an open side beginning at the periphery of the drum and extending in the arc of a circle, with its bottom on the  
5 chord of a circle and its rear side on the radius of a circle, the said pockets being divided by a portion of the drum, the said rear side and the ends of the pockets being at right angles to the bottom and to each other,

substantially as shown and described, and 10 for the purpose specified.

In testimony whereof I affix my signature in presence of two witnesses.

RUFUS E. RICHARDSON.

Witnesses:

J. D. WILKINSON,  
L. M. JARVIS.