2 Sheets—Sheet 1.

W. A. VAN BRUNT & S. E. DAVIS.

FORCE FEED SEEDING-MACHINES.

No. 195,858. Patented Oct. 2, 1877.

Fig. 1.

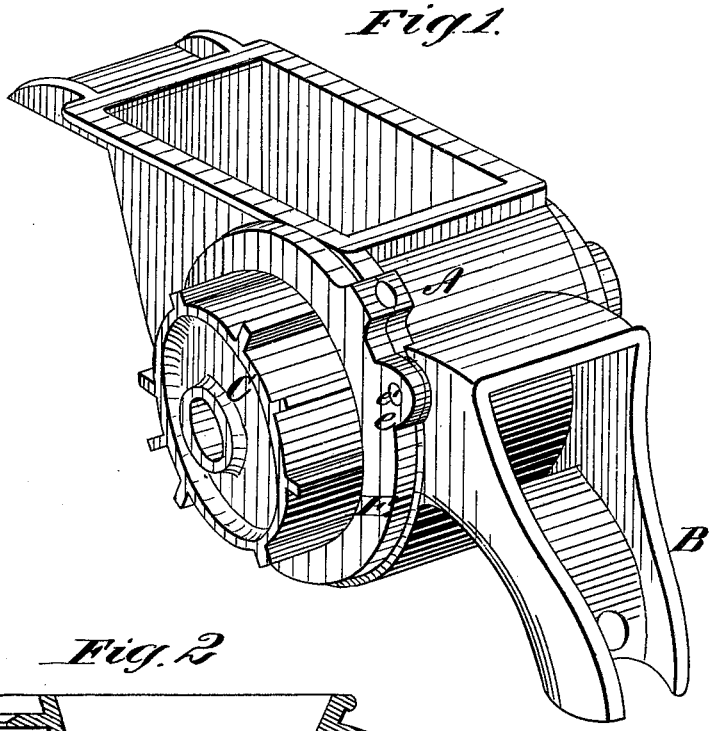
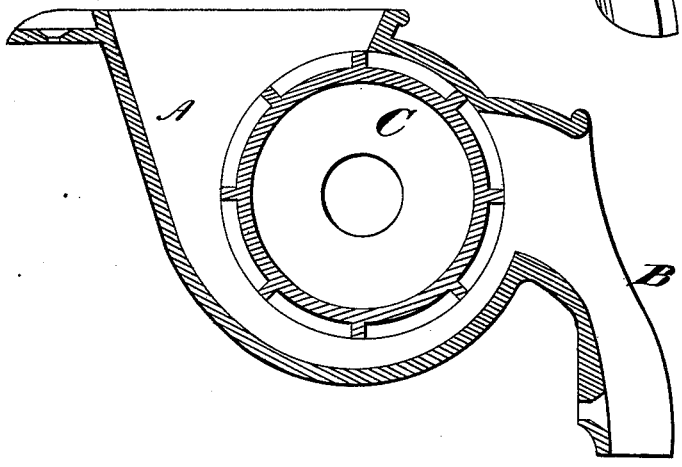


Fig. 2.



Witnesses

Jos. B. Connolly

A. C. Caldwell

By

W. A. Van Brunt

S. E. Davis

Inventor

Connolly Bros.

Attorneys

2 Sheets—Sheet 2.

W. A. VAN BRUNT & S. E. DAVIS.

FORCE-FEED SEEDING-MACHINES.

No. 195,858. Patented Oct. 2, 1877.

Fig. 3

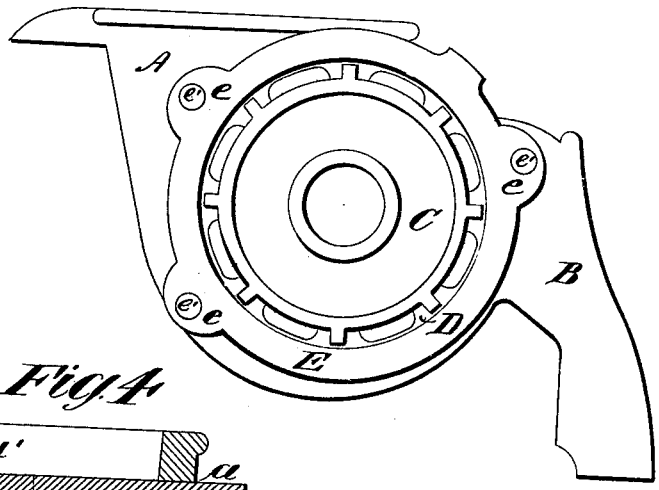


Fig. 4

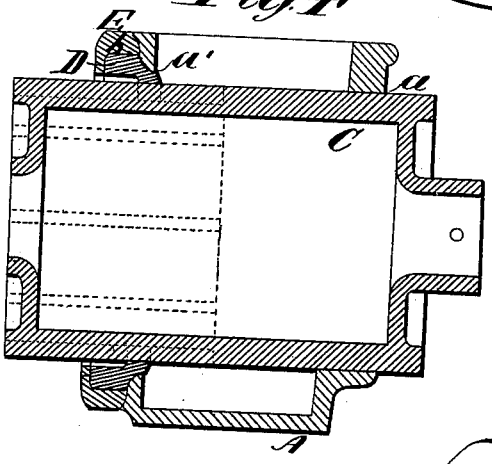
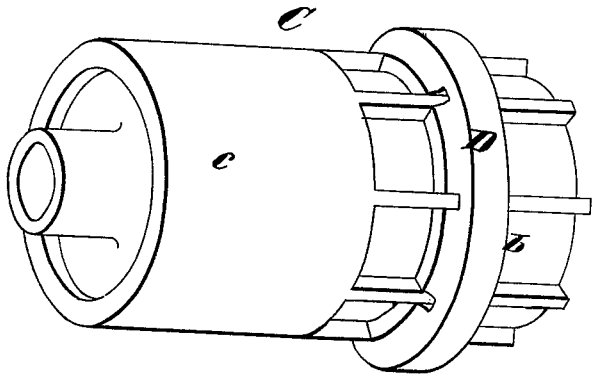


Fig. 5



Witnesses.

Jos. B. Connolly.

A. C. Fassell

By

W. A. Van Brunt Inventor

S. E. Davis

Connolly Bros Attorneys.

UNITED STATES PATENT OFFICE.

WILLARD A. VAN BRUNT AND SPENCER E. DAVIS, OF HORICON, WISCONSIN.

IMPROVEMENT IN FORCE-FEED SEEDING-MACHINES.

Specification forming part of Letters Patent No. **195,858**, dated October 2, 1877; application filed December 5, 1876.

To all whom it may concern:

Be it known that we, WILLARD A. VAN BRUNT and SPENCER E. DAVIS, of Horicon, in the county of Dodge and State of Wisconsin, have invented certain new and useful Improvements in Force-Feed Seeding-Machines; and we do hereby 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification, in which—

Figure 1 is a perspective view of our invention. Fig. 2 is a vertical longitudinal section. Fig. 3 is a side view; Fig. 4, a vertical transverse section; and Fig. 5, a perspective view, showing feed-wheel and notched ring.

This invention has relation to force-feeds in broadcast seeding-machines; and consists in the novel construction, combination, and arrangement of parts, having special reference to, first, the confining or seed case, cast in one piece with the discharge-spout; secondly, the feed wheel or cylinder, cast hollow, with bearings for the shaft at each end; thirdly, the rotating notched disk through which the cylinder is adjustable to regulate the feed, said disk being located outside the confining-case, and held in place by a cap, yoke, or equivalent, which serves as one of its bearings; fourthly, the means, substantially as described, for retaining the notched disk in position, and allowing it to rotate with the feed-wheel, while preventing lateral movement.

Referring to the accompanying drawings, A designates the confining or seed case, of any suitable or usual size, which, with the discharge-spout B, is cast in one piece, saving the trouble, inconvenience, and increased cost of constructing case and spout separately, and afterward fitting and fastening them properly together. The case is constructed with annular openings *a a'* for the passage of the feed wheel or cylinder, which is longitudinally adjustable for the purpose of regulating the discharge of seed. C designates the feed-wheel, having a plain cylindrical surface, *c*, occupying a part of its periphery, the balance of which is alternately recessed and ribbed, the ribs being radial and horizontal, as shown, and adapted to the force-feeding action for which feed-wheels of its class are intended.

The plain cylindrical portion of the feed-wheel passes through and has its bearing in the annular opening *a* in the side of the case, and when the feed-wheel is adjusted the interior portion of the case unoccupied by the ribbed part of the wheel is filled by said plain part. The cavity or interior of the case is eccentric with reference to the feed-wheel, thereby producing a channel for the passage of the grain, which converges toward the discharge-opening, and thus confines the grain and renders it perfectly subject to the forcing action of the feed-wheel. The receiving and discharging openings of the case are on opposite sides of the vertical diameter of the feed-wheel, and the lower lip of the discharge-opening is above the floor of the cavity; hence the grain cannot fall through the case, and can only discharge when the feed-wheel is in motion.

D represents the notched ring, through which the feed-wheel slides, and which regulates the size of the seed-spaces between the ribs. The notches and intervening solid portions of the ring correspond with the ribs and intervening spaces of the feed-wheel. The ring fits into the annular opening formed at *a'* in the side of the case, and has an annular flange, *b*, which abuts against the outer surface of the case or rim of the opening *a'*, and prevents the ring from passing too far into the case.

The ring is supported on the outside by a cap, yoke, or other equivalent device, but preferably by the means shown, which consists of a cap-ring, E, flanged so as to embrace the edge and face of the notched ring, and formed with eyes *e* for the passage of rivets, bolts, or other devices, *e'*, which secure it to the case.

The notched portion of the ring D may consist of an inwardly-projecting annular flange the diameter of which equals that of the feed-wheel through its recessed portion. The ring has its bearings in the aperture *a'*, and in the socket between the cap-ring and the side of the case, and when the feed-wheel turns, the notched ring turns with it.

Having described our invention, we claim—

1. A confining or seed case for a force-feed

seeding-machine, cast in one piece, with a delivery-spout, substantially as and for the purpose described.

2. The combination, with a confining or seed case and a ribbed or flanged force-feed wheel, of a notched ring applied and secured to one side of said case by an external cap, yoke, or equivalent, substantially as described.

3. The combination, with the seed-case, cast in one piece, and the notched disk applied outside the same, of a yoke, cap, or equivalent fastening, to hold said ring in place, as described.

4. The adjustable seed-wheel, cast hollow, with a bearing at each end for the shaft, to which it is attached.

In testimony that we claim the foregoing we have hereunto set our hands this 14th day of November, 1876.

WILLARD A. VAN BRUNT.
SPENCER E. DAVIS.

Witnesses:
C. L. BUTTERFIELD,
CHARLES ALLEN.