H. CLAYTON.

FEEDING-DEVICE FOR GRAIN-DRILLS.

No. 186,080. Patented Jan. 9, 1877.

Fig. 1

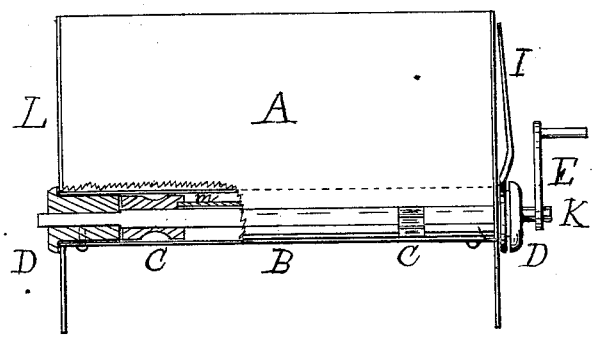


Fig. 2.

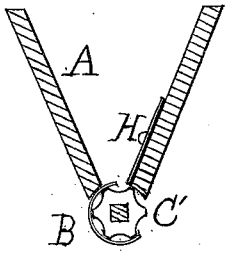
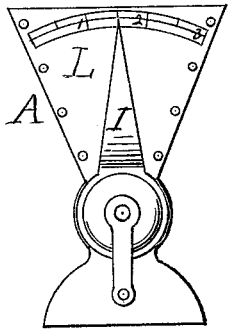


Fig. 3.



Witnesses.
Patrick H. Smeese
Ashley Brown.

Inventor.
Henry Clayton

UNITED STATES PATENT OFFICE.

HENRY CLAYTON, OF DAYTON, OHIO, ASSIGNOR OF ONE-HALF HIS RIGHT TO JOSIAH S. TURNER AND BARTON PICKERING, OF SAME PLACE.

IMPROVEMENT IN FEEDING DEVICES FOR GRAIN-DRILLS.

Specification forming part of Letters Patent No. **186,080**, dated January 9, 1877; application filed June 15, 1876.

To all whom it may concern:

Be it known that I, HENRY CLAYTON, of the city of Dayton and State of Ohio, have invented an Improved Feeding Mechanism for Grain-Drills, of which the following is a specification:

The object of my invention is to so construct a feeding device for grain-drills in which the amount of grain discharged shall be determined by the position of the case that incloses the feed-rollers, and thereby dispense with changeable gear.

Figure 1 is a side elevation of the feeding device with a portion in section. Fig. 2 is a transverse section through the feed-roller. Fig. 3 is an end elevation.

A represents the feed-box, illustrated by a side, end, and sectional view in the several figures. It is of the usual form, and consists of two boards held together by the end pieces L. The bottom consists of a hollow case or tube, which serves both as a bottom for the feed-box and a support to the feed-rollers. The case B is a hollow metallic cylinder, having a length slightly longer than that of the feed-box. To the right end is attached the index I, which points to a scale on the end of the box, the use of said scale being to indicate the quantity of grain passing through the feeding device. The case has a series of orifices for the passage of the grain through into the feed-rollers C. These orifices extend about one-third the circumference of the case, (see C′, Fig. 2,) and are adapted in width to the motion given to the feed-rollers to discharge the proper amount of grain. The ends L of the feed-box have orifices that support the ends of the case, and within which the same freely moves. To prevent the movement of the case by the friction of the rollers when the index is placed in position, it should be secured in some suitable manner. D D are bearings for the roller-shaft K, which are snugly fitted into the case, the flanged heads of which serve to hold the shaft longitudinally. These bearings extend sufficiently inward to form a side bearing to the end rollers, as shown at Fig. 1. The shaft is square, and the shoulders at the spindles engage the bearings, and thus prevent longitudinal movement of the same. To the right end of the shaft is attached a crank, E, for the purpose of turning the rollers.

In a practical machine cog-gear connects the roller-shaft with the wheel-shaft, to give the requisite motion. The rollers C have square orifices through their centers and cavities about their peripheries, the ends being cylindrical, and fill the case, and the ends are notched to receive the bar *m*. These bars serve to stay the rollers in their proper places as they extend from one to another of a series of rollers, the end rollers being held by the end bearings, as heretofore described.

To put the rollers into the case, it is only necessary to slip them onto the shaft with the dividing-bars between, and then place the shaft within the case and secure the bearings with screws.

At H, Fig. 2, is shown a slide, which sets close down upon the roller, and this, with the side of the box closing over one of the cavities of the roller, prevents the grain passing out in that direction. The amount of grain that may enter the rollers is determined by the width of opening between the longitudinal edges of the orifies within the case and the slide, and this space is enlarged or contracted by moving the index-arm which carries the case; and thus is regulated the amount of grain discharged by the rollers from the feed-box. If the index-arm is turned to the right the amount is increased, and if to the left, diminished. When properly adjusted the index-plate will indicate a given amount of grain discharged.

The movement of the feeding-rollers is from left to right, and as the grain passes into the cavities it is carried within the case and discharged at the lower end of the orifice within the same.

The feeding device herein described is a simple and effective mechanism used in connection with grain-drills, for the purpose of regulating the discharge, and thereby dispensing with the complicated gear usually used for the purpose.

What I claim as my invention is—

1. The cylindrical case B, having a series of orifices, C′, combined with the feed-box A and the slide H, and operated with the index-arm I, for the purpose of regulating the discharge of the grain from the feed-box, substantially as set forth.

2. The combination of the seed-rollers C, the bearings D, and dividing-arms *m*, to support the said seed-rollers in proper position laterally, substantially as set forth.

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Witnesses:
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