

J. M. WESTCOTT.
SEEDING-MACHINE.

No. 176,719.

Patented April 25, 1876.

Fig. 1

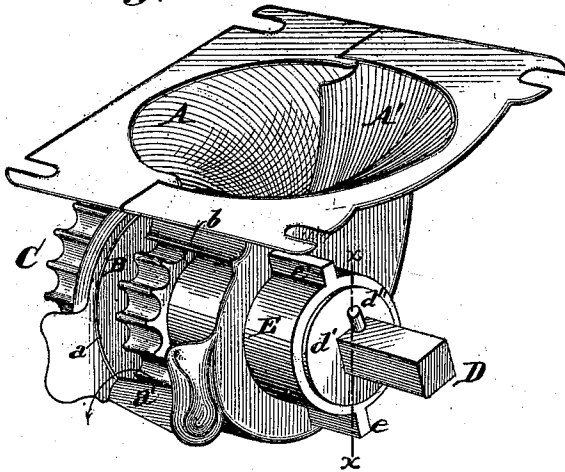


Fig. 2

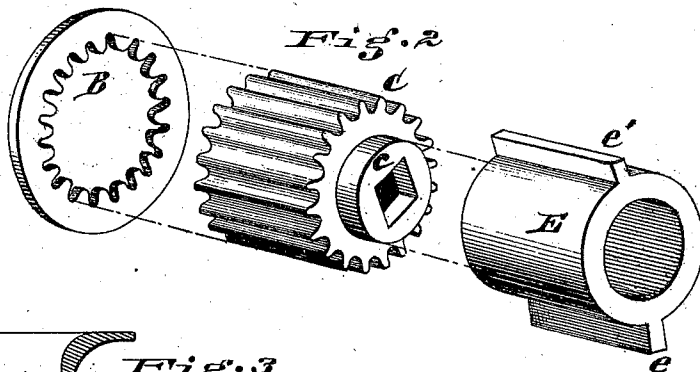
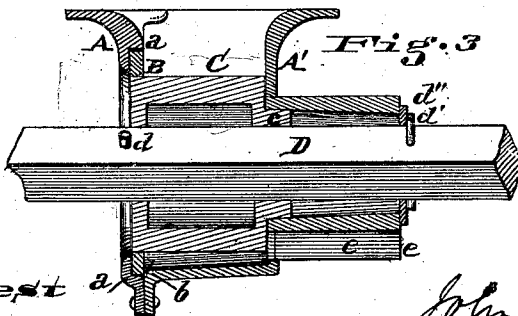


Fig. 3



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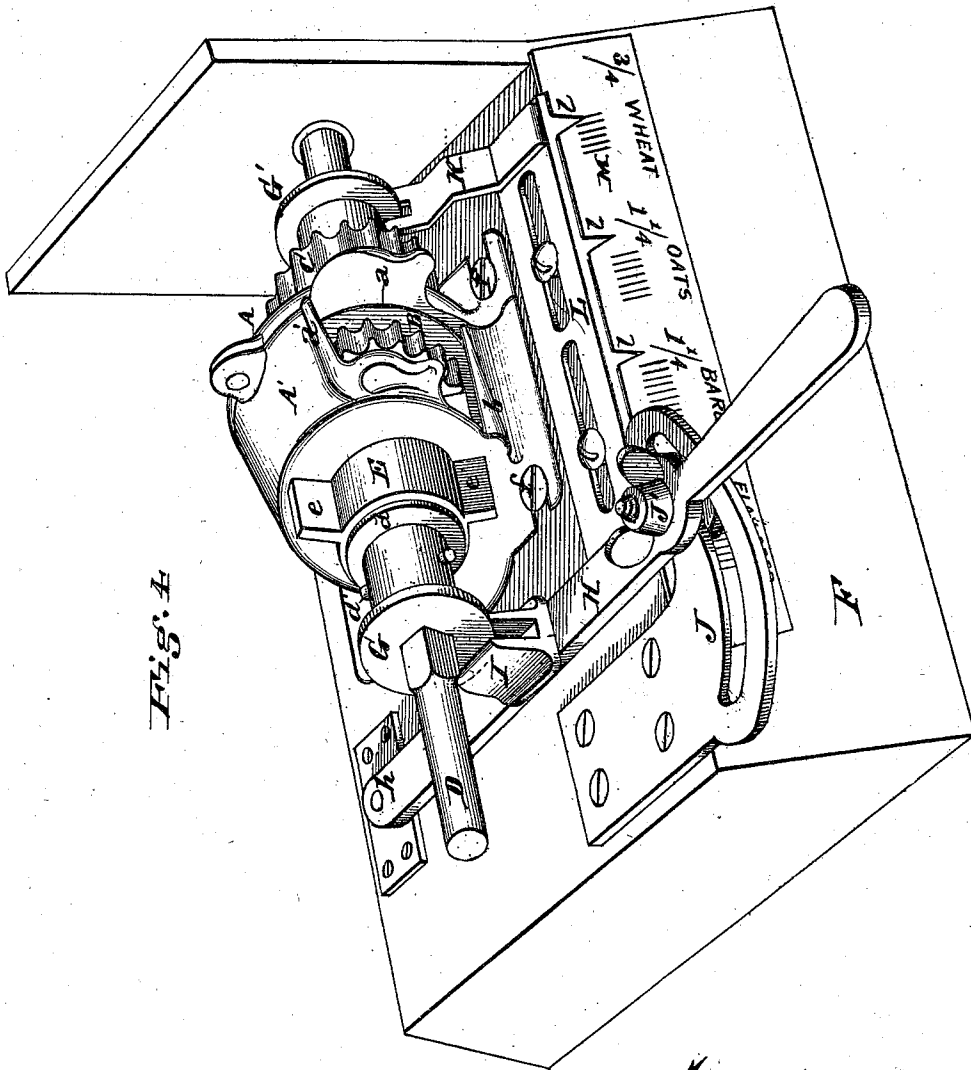


Fig. 4

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UNITED STATES PATENT OFFICE

JOHN M. WESTCOTT, OF MILTON, INDIANA.

IMPROVEMENT IN SEEDING-MACHINES.

Specification forming part of Letters Patent No. 176,719, dated April 25, 1876; application filed September 22, 1875.

To all whom it may concern:

Be it known that I, JOHN M. WESTCOTT, of Milton, Wayne county, State of Indiana, have invented an Improvement in Seeding-Machines, of which the following is a specification:

My invention relates to that class of seeding-machines in which the quantity of seed or grain sown is regulated by the longitudinal moving of the feed-supply shaft, and more particularly to that class in which the carrying capacity of the feed-wheel is regulated by sliding through a scalloped ring at one side of the cup.

My invention consists, first, in a certain construction of the scalloped sliding feed-wheel, and sleeve in which it is carried, by which the wheel is enabled to receive grain freely, both at its periphery and sides; second, in the provision of cut-off wings to the sleeve in which the feed-wheel is carried, to cut off the grain at the top and bottom of the cup, outside of the diameter of the sleeve, so that the operator can increase or decrease the quantity of seed delivered without change in the width of seed-cup, and at times when the cup is either full or empty; third, in a certain construction of the feed-wheel and its carrying-sleeve, by which the wheel is supported by a hub in the sleeve, and the driving-shaft permitted to fit loosely into the feed-wheel: My invention further consists in certain peculiar devices and combinations of devices by which the feed-wheel is adjusted by the operator and the amount of seed-opening indicated.

In the accompanying drawings, Figure 1 is a view of the seed-cup, feed-wheel, and accompanying parts. Fig. 2 represents detached views of the scalloped ring, feed-wheel, and sleeve. Fig. 3 is a section of the cup, scalloped ring, feed-wheel, sleeve, and driving-shaft. Fig. 4 is an under-side view of the seed-cup and attachments applied to the bottom of the seed-hopper of a machine.

A A' represent the two parts of the seed-cup, the part A having a recess at *a a*, to receive the scalloped ring B, and the part A' inward projections *b b*. In this recess the scalloped ring B is permitted to revolve freely, but it cannot become displaced, owing to the presence of the projections *b b*. The division of the case permits the introduction of the

ring, and removal when necessary. C is the feed-wheel, having upon its periphery seed-cavities or scallops, as shown, the scallops on the wheel corresponding with the scallops in the ring, so that the former may slide snugly within the latter, and the latter prevent the escape of seed. The feed-wheel has a square aperture through it for the introduction of the driving-shaft D, the latter being preferably smaller than the hole in the wheel, so as to allow for irregularities in manufacture, and allow the shaft to diverge from the axial line of the feed-wheel without causing the wheel to bind in its bearings. In practice I put a number of these seed-cups and wheels under the same hopper, as is customary, the same shaft D driving the wheels of all the cups. E is the sliding sleeve. It is bored to receive the hub *c* of the feed-wheel, so that a supporting-bearing is thus provided for the feed-wheel at all points of its adjustment, and the sleeve itself is sustained by the circular bearing-surface in the part A'. The shaft D is prevented from moving independently of the wheel by the presence of the pin *d* and the pin and washer *d' d''*, and it is by the lateral movement of the shaft that the amount of seed fed by the wheel is regulated. In order that the wheel C may receive seed freely, I make the sleeve E of smaller diameter than the wheel, so as to expose the ends of the scallops at this end outside of the periphery of the sleeve, as clearly shown in Fig. 1; and in order to further facilitate the receiving of the seed upon the scallops of the wheel, I flare the cup upward and outward, as shown in Figs. 1 and 3.

Inasmuch as the wheel C is laterally adjustable, and the sleeve for the purpose stated is of smaller diameter, I have to provide some means of preventing the seed from passing out, over, and under the sleeve when the wheel is adjusted to feed less than its full capacity. For this purpose I attach to the sleeve two wings, *e e'*, which move through corresponding notches in the case A'. (See Fig. 1.) For the purpose of enabling this peculiar wheel and sleeve C E to both receive and deliver seed with the greatest efficiency, the flaring seed-cup A A' has an oblique discharge-orifice, *a'*, so that the seed forced out by the wheel will be discharged in a continuous stream. The seed

cup is secured to the bottom of the hopper F, (see Fig. 4) by screws *f*, the shaft D being operated, as usual, by suitable connection with the wheels of the machine. To the shaft D I attach collars G G', which revolve with the shaft and move laterally with it. A lever, H, is pivoted at *h* to the hopper, which carries a jaw-arm, I, fitted to swivel in the lever, the space between the jaws corresponding with the width of the collar G. This lever serves to adjust the feed-wheel, the arm preserving a broad surface contact with the collar, and swiveling in the lever as the latter moves. To secure the lever in any desired position, I employ the slotted arc J and thumb-screw J', connected as shown in Fig. 4. I embrace the collar G' by a stiff jaw-arm, K, to which I rigidly secure a sliding pointer, L, having preferably several pointers, *l*, to pass over graduations M, as shown in Fig. 4, on the side of the hopper, the several pointers, with their separate indication-marks, being designed for different kinds of seed.

I claim—

1. The combination of scalloped feed-wheel C and sleeve E, the sleeve E being of smaller diameter than the wheel C, to provide for the free access of grain to both the periphery and ends of the scallops, as set forth.

2. The combination of the peripheral seed-wheel and the sliding sleeve E, provided with cut-off wings *e e'* at top and bottom of the seed-cup, substantially as and for the purpose specified.

3. The combination of revolving peripheral feed-wheel C and sleeve E, the wheel having a bearing at its outer end, and at its other end a projecting hub, *c*, resting and revolving within the sleeve E, substantially as and for the purpose specified.

4. The combination of sliding shaft D, collar G', jaw-arm K, pointer-slide L *l*, and scale M, substantially as and for the purpose specified.

5. The combination of sliding shaft D, collar G, swiveling jaw-arm I, and lever H, operating substantially as and for the purpose specified.

6. The combination of sliding shaft D, collars G G', indicator K L *l* M, swiveling-jaw I, and lever H, connected and operating substantially as and for the purpose specified.

In testimony of which invention I hereunto set my hand.

JOHN M. WESTCOTT.

Witnesses:

JOHN E. JONES,
J. L. WARTMANN.