J. SELBY.

Seed Dropper.

No. 27,390. Patented Mar. 6, 1860.

Fig. 1.

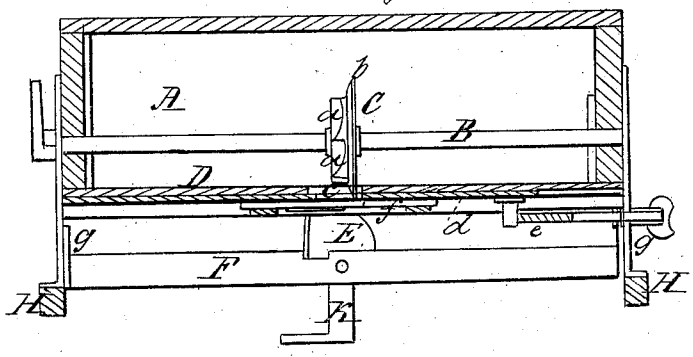


Fig. 2.

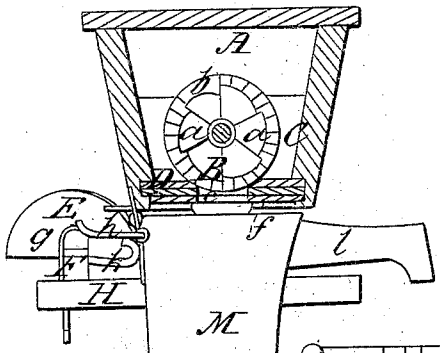


Fig. 4.

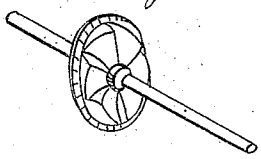
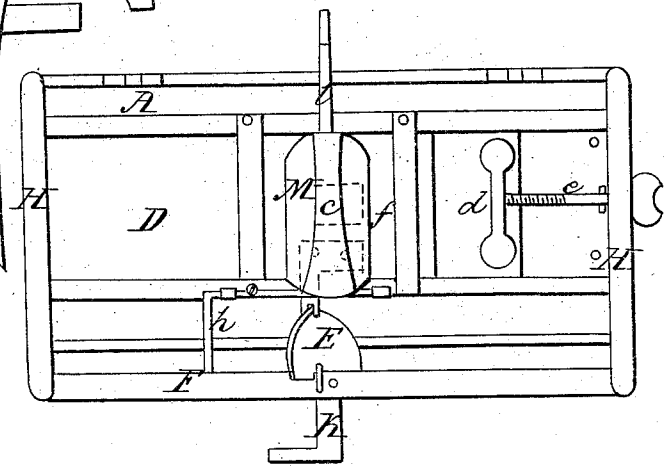


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

JAMES SELBY, OF PEORIA, ILLINOIS.

IMPROVEMENT IN SEED-DRILLS.

Specification forming part of Letters Patent No. **27,390**, dated March 6, 1860.

To all whom it may concern:

Be it known that I, JAMES SELBY, of Peoria, in the county of Peoria and State of Illinois, have invented certain new and useful Improvements in Seed-Drills, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents a longitudinal sectional elevation of a seed-box and frame of a drill embracing my improvements, showing the serrated wheel and the shaft on which it revolves into the discharge-opening in the bottom of the box. Fig. 2 represents a cross-vertical section of the same, showing the manner in which the seed spouts or flukes are hinged to the box or frame and operated by the cam-lever. Fig. 3 represents a plan of the under side of the seed-box, showing the discharge-opening therein, and the sliding valve and cam-lever which operate it to close said opening. Fig. 4 represents a perspective view of the serrated flanged wheel employed to clear the discharge-opening and facilitate the passage of the grain through it.

In the figures, A represents the seed-box. The shaft B has its bearings in either end of this box, and is provided with serrated wheels C, which revolve into or through the discharge-openings in the bottom of the seed-box. This shaft is driven by band and pulley and other means of gearing. The wheel C is provided with a series of radial cavities, *a*, on one side and a flange, *b*, on the opposite side. This flange, which is beveled on the inside of the wheel, enters into or through the discharge-opening *c*, and tends to force the grain toward and into the cavities of the wheel which revolves immediately above it. The peculiar form and arrangement of the cavities in the construction of this wheel adapt it effectually to the purpose of agitating, clearing, and facilitating the passage of the grain through the discharge-openings, as they are of that form which admits of constant pressure of the grain against or into them, while at the same time the grain is forcibly discharged through the opening by the shoulders formed by the back of the cavities.

The bottom D of the seed-box is arranged and constructed in the usual manner. The slide *d* is adjusted by means of the thumb-screw *e* to vary or regulate the size of the discharge-opening. The sliding valve *f* is operated by the cam E to close and unclose the discharge-opening. A horizontal bar, F, parallel with the seed-box, extends from one end to the other, and is connected at either end to a hinge, *g*, secured to the frame H, upon which it turns. The bar is raised and lowered on this hinge by means of the arm K, which is secured to it, and provided with a cam, E, which operates the sliding valve to close and unclose the discharge-opening.

The fluke or seed-spout M is hinged to the bottom of the seed-box or frame of the drill, and as the cam is turned to close and open the discharge-opening the fluke is raised by means of the bar coming in contact with the arm *h*, which extends out from the fluke, and when the cam is turned to unclose the discharge-opening the fluke is lowered and held down by means of the arm *k*, projecting from the bar. Instead of being arranged in this manner, the fluke may be swung to the frame in the usual way and arranged to slide backward and forward on the arm *l*, and be connected to the bar F by any well-known means that will effect the purpose of raising and lowering the flukes when the cam is turned to close and unclose the discharge-opening.

The great advantage of closing the discharge-opening by the same operation that raises the flukes out of the ground arises not only from the economy effected in saving the grain that is wasted when the discharge-opening is left unclosed after the machine has been thrown out of gear and the flukes raised, which is often the case from neglect when this is done by an operation independent of the same that closes the openings, but also from the certainty there is of discharging the seed when the machine is thrown into gear and the flukes lowered into the ground, so that there is no liability of the seed not being supplied and deposited when the machine is in operation.

Having thus described my improvements in seed-drills, what I claim therein as new, and desire to be secured by Letters Patent of the United States, is—

The arrangement of the shaft B, serrated wheel C, slide *f*, bar F, and cam-lever E, when the same are used substantially as and for the purpose herein specified.

JAMES SELBY.

Attest:
BERNARD BAILY,
S. K. HOPKINS.