(Model.)

# J. W. MANN.

## SEEDING MACHINE.

No. 263,188. Patented Aug. 22, 1882.

*Fig. 1.*

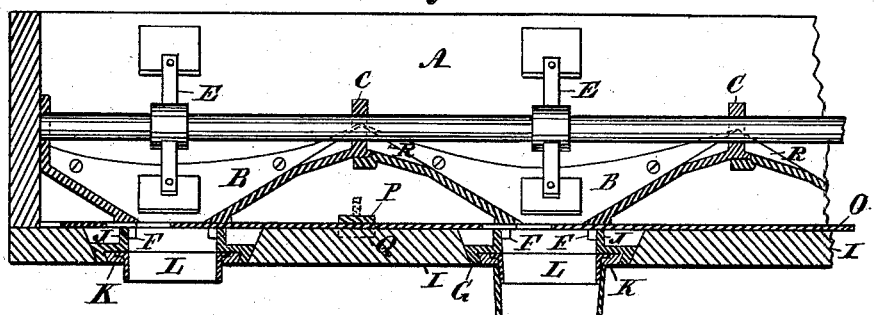



*Fig. 2.*

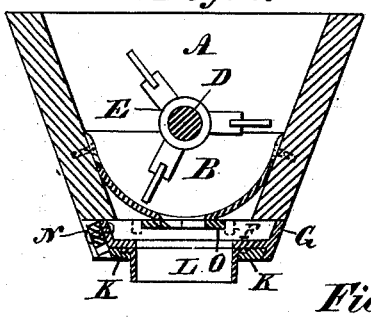
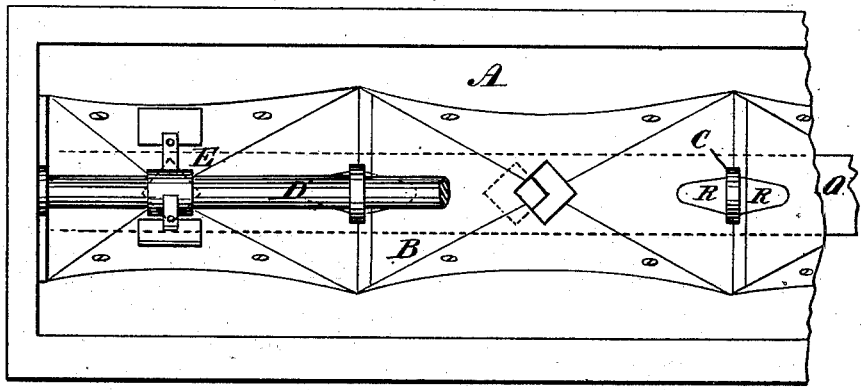



*Fig. 3.*

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# UNITED STATES PATENT OFFICE.

JAMES W. MANN, OF BROCKVILLE, ONTARIO, CANADA.

## SEEDING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 263,188, dated August 22, 1882.

Application filed December 1, 1881. (Model.)

*To all whom it may concern:*

Be it known that I, JAMES WALTER MANN, of Brockville, in the county of Leeds, in the Province of Ontario, Canada, have invented certain new and useful Improvements in Seeding-Machines; and I do hereby declare that the following is a full, clear, and exact description of the same.

The invention relates to improvements on my seed-hopper patented June 15, 1880, and has for its object to simplify the construction and lessen the cost of manufacture.

Figure 1 is a longitudinal section of part of my improved seed-hopper. Fig. 2 is a transverse section of the same. Fig. 3 is a top view.

A is the seed-hopper.

B B are sectional castings fitting together endwise by lapped joints, and secured to the sides of the hopper by screws or other fastenings, and form an internal bottom to the hopper. The castings B B have a downward slope toward the seed-aperture in the longitudinal direction of the hopper and semicircular transversely. The sections B at one end are cast with an eye, C, in a semicircular recess at the top of the slope, said eyes bearing the agitator-shaft D, and at the other end of the section is formed a concavity, R, to admit of the endwise insertion of the shaft into the eye, said shaft carrying the agitator-wheels E, as described in my former patent. The castings B are flat on the outside around the seed-apertures, and have downward lugs F in rectangular position, which serve the purpose of keeping in place the castings G and slide O, hereinafter referred to.

The exterior bottom of the hopper is composed of sectional castings G and blocks of wood I, which fit between the castings, and are secured to the bottom edge of the hopper by screws or other means. The castings have ribs J J, between which is the hole through which the seed descends. The ribs bear against the flat outside surface or bottom of the castings B, and prevent escape of seed except through the seed-apertures. The castings G on the outside are provided with a flat slide, K, running in boxed grooves or guides. The slides have a hole through which the seed passes, said hole having a collar, L, to which the seed-tubes are secured, whereby the seed-tubes, with the slide K attached, are independently removable from castings G, so as to permit of an interchangement of tubes adapted for either drilling or scattering.

N is a button on the end of castings G, to secure the slide in position. By means of these slides a change of scattering and drill tubes can be made.

O is a flat slide extending the whole length of the hopper, and is perforated at distances to correspond to the seed-apertures in the hopper. The slide operates between the lugs F of castings B and the ribs J of castings G. The ribs are notched to receive the slide by which the seed-apertures are opened and closed by the usual endwise movement.

P are bars crossing the bottom of the hopper above the wood blocks I, level with the flat face of the castings B, and serve as intermediate bearings for the slide. Said bars are cast with lugs Q to guide the slide, and are fixedly secured to the bottom edge of the hopper.

I do not broadly claim a hopper-bottom composed of sectional castings having seed-apertures and placed endwise together; but

I claim as my invention—

1. A seed-sower hopper having an internal bottom composed of sectional castings B, fitting endwise together, each section cast integrally to fit against the inner side of the hopper, the upper face formed of inclined sides sloping longitudinally of the hopper toward the seed-aperture, and graduated to a semicircular curve transversely, and having a half-round recess at both ends, and a semicircular eye over said recesses at one or both ends, for receiving the agitator-shaft, as set forth.

2. In a seed-hopper, an internal bottom composed of sectional castings B, fitting endwise together, each having downwardly-converging sides longitudinally of the hopper, an eye C in a recess at one end, and a concavity, R, at the other end for the reception of the agitator-shaft D, as set forth.

3. In a seed-hopper, the seed-tubes removably attached to the bottom of the hopper by a sliding and locking connection consisting substantially of casting G, fixed to the hopper, slide K, carrying the seed-tube, and button N, locking said slide in its seat in casting G, whereby tubes to either scatter or drill can be interchangeably applied, as set forth.

J. W. MANN.

Witnesses:
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