

THOMAS & MAST.

Seed Dropper.

No. 50,545.

Patented Oct. 17, 1865.

Fig. 1.

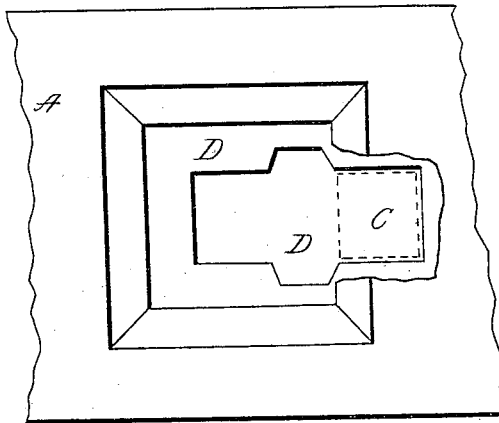


Fig. 2.

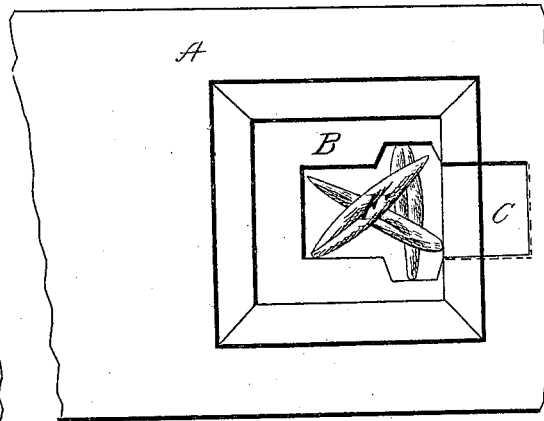
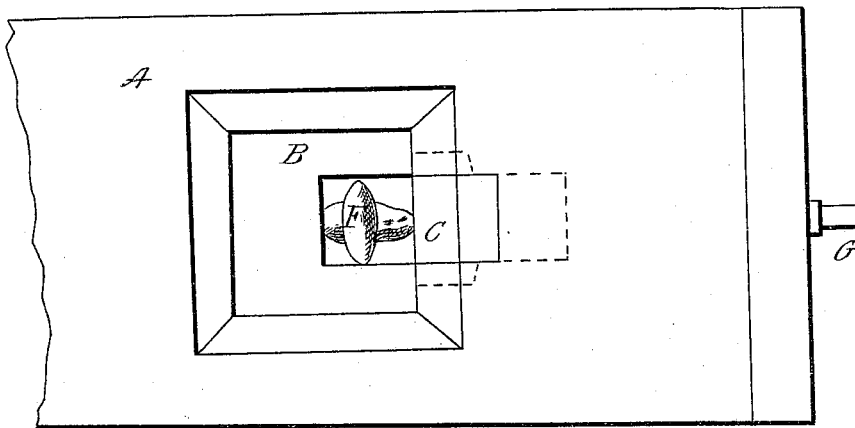


Fig. 3.



Witnesses:

C. M. Kean
P. T. Dodge

Inventor:

J. H. Thomas
P. P. Mast
By their attys
Smith & Dooley

UNITED STATES PATENT OFFICE.

J. H. THOMAS AND P. P. MAST, OF SPRINGFIELD, OHIO.

IMPROVEMENT IN GRAIN-DRILLS.

Specification forming part of Letters Patent No. 50,545, dated October 17, 1865.

To all whom it may concern:

Be it know that we, J. H. THOMAS and P. P. MAST, of Springfield, in the county of Clarke and State of Ohio, have invented certain new and useful Improvements in Grain-Drills; and we hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, and to the letters of reference marked thereon.

Figure 1 is a plan view of the bottom of a hopper and seed-slides of a grain-drill containing our improvements. Fig. 2 is a plan view of the same, looking from below upward; and Fig. 3 is a longitudinal vertical section taken in the line of *x x*, Fig. 1.

The nature of our invention consists in certain improvements upon the devices patented to us on the day of , 186 , by which we are enabled to change the size and shape of the openings through which the grain is fed in the seed-slide, and thereby adapt the machine to sowing various kinds of grain more perfectly than heretofore.

To enable others skilled in the art to construct and use our invention, we will proceed to describe it.

A represents the bottom of the hopper, made of wood.

B represents the metallic seed-slide, located directly underneath the wood bottom, and being supported by a metallic frame or bottom secured to the under side of the hopper-bottom, and provided with a shut-off slide, these parts being all constructed and arranged as described in the patent granted to us and dated , to which reference is made for a more detailed description.

Experience proves that when the openings in the seed-slide are made of the proper size for wheat, as in our former patent, and when provision is made for enlarging the hole in one direction only it will not operate satisfactorily in sowing oats and similar grains the kernels of which are longer than those of wheat, for the reason that the oats, being longer than the diameter of the openings or holes in the seed-slide, become lodged across said openings and thereby prevent the proper flow or distribution of the seed. Even in cases where but one end of the oat becomes lodged upon one side of the slide it is still prevented from passing

through by the pressure of the superincumbent mass of grain which prevents the oat from tipping up so as to pass through endwise.

Our present invention obviates this difficulty in a most efficient and simple manner; and it consists, primarily, in making the openings in the seed-slide of the form shown by D in Fig. 1. A square block or lug, C, projects upward from the metallic plate or frame underneath the slide B, and is made of such a size as to just fill that portion of the hole or opening at either side of the central enlargement, as shown in blue in Fig. 2. The wood bottom is so located in relation to metallic bottom, of which the lugs C form a portion, that the upper face of said lugs are entirely or nearly covered by the wood; and as the wood and metallic bottoms are firmly united, this relative position of the parts is always the same. The seed-slide B, however, is movable, and is provided with a screw, G, at one end of the hopper, by which it can be adjusted as desired.

When it is desired to use the machine for sowing oats, rye, and similar grain, the slide B is adjusted as shown in Fig. 2, in which case the lug C occupies or fills the right-hand portion of the opening D, and thus leaving an opening of the size and form shown at E of Fig. 2. When thus arranged it will be seen that the grains of oats will drop through the opening in the slide when presented in either of the positions indicated in red, and that thus the machine is made to deposit them regularly, and all clogging or choking is prevented, whereby the "bunching" of the seed, as it is technically termed, is obviated.

When it is desired to use the machine for sowing wheat, the slide B is moved still farther to the right, as shown in Fig. 3, in which case the lug C occupies the central portion of the opening D, leaving exposed the rectangular opening F, the remaining portion of the opening D being drawn under the edge of the wooden bottom, as there shown, whereby the wheat is prevented from entering any portion of the original opening D, except that shown at F, which is of the proper size to permit grains of wheat to pass through readily, no matter in what position they are presented, as there indicated in red.

By these means we produce a machine that

will sow oats, wheat, barley, rye, and similar grains in a most satisfactory manner, and thus save the necessity of employing different machines or different seed-slides in the same machine.

Having thus described our invention, what we claim is—

1. A seed-slide or hopper-bottom provided with rectangular holes or openings for the passage of the grain, when said openings are of such a form that by a longitudinal movement of the slide containing the openings, or of the

part which covers or closes the same, said openings shall be both widened and lengthened.

2. The seed-slide B, provided with holes D, constructed and operating substantially as set forth.

P. P. MAST.
J. H. THOMAS.

Witnesses:

B. HOLTZ,
W. C. DODGE,
WILLIAM ENOCH.