

THOMAS & MAST.
Seed Drill.

No. 105,386.

Patented July 12, 1870.

Fig. 1.

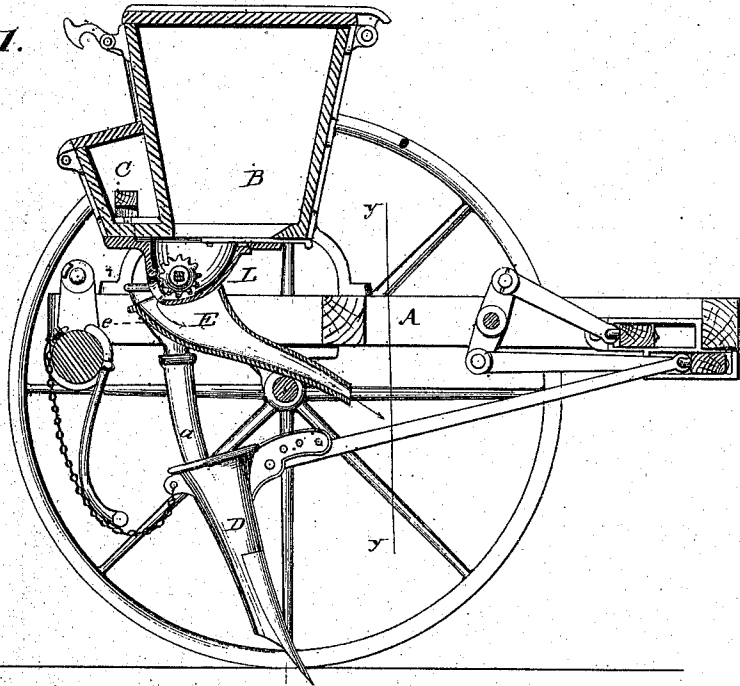
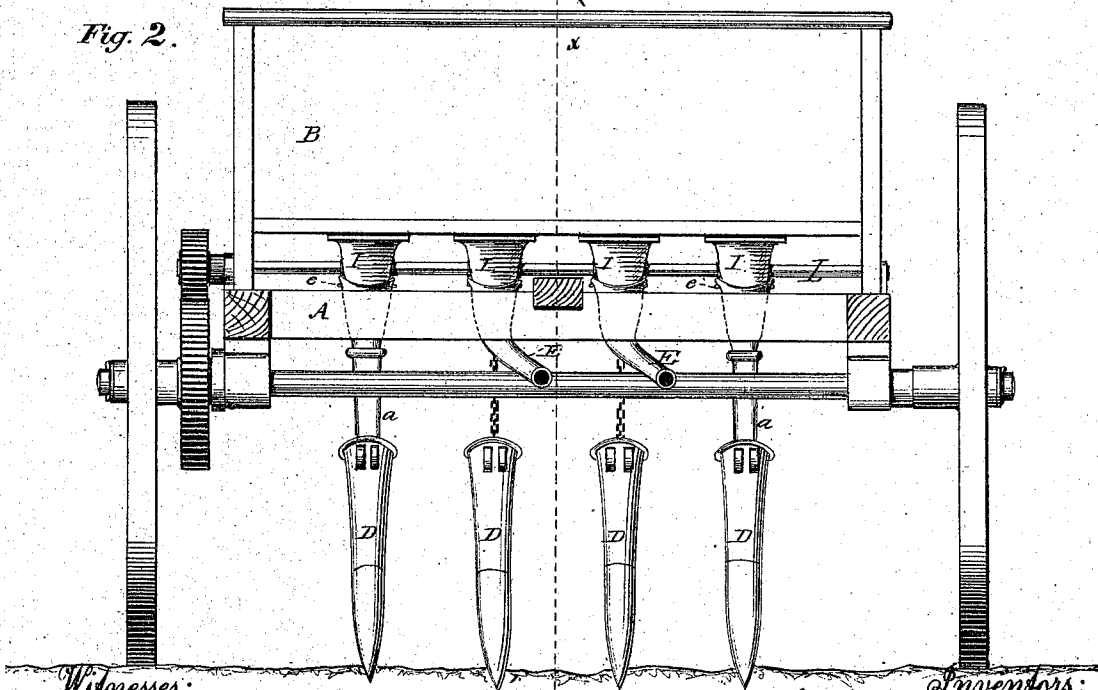


Fig. 2.



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United States Patent Office.

JOHN H. THOMAS AND PHINEAS P. MAST, OF SPRINGFIELD, OHIO.

Letters Patent No. 105,386, dated July 12, 1870.

IMPROVEMENT IN SEEDING-MACHINES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that we, JOHN H. THOMAS and PHINEAS P. MAST, of Springfield, in the county of Clark and State of Ohio, have invented certain Improvements in Seeding-Machines, of which the following is a specification, reference being had to the accompanying drawing.

Our present invention relates to improvements in machines used for sowing grain; and

The invention consists in providing, and applying to the machine, a series of curved tubes for sowing the grain broadcast, as hereinafter explained.

Figure 1 is a longitudinal vertical section on the line *x x* of fig. 2.

Figure 2 is a transverse vertical section on the line *y y* of fig. 1.

The general construction of the drill or machine, in this case, is the same as that described in the several patents heretofore granted to us, and consists essentially of a rectangular frame, A, mounted on two wheels, like a cart, and having a seed-hopper, B, mounted thereon, with or without a grass-seed hopper, C, as represented in fig. 1.

As usually constructed, these machines are provided with drill-tubes or hoes D, connected to drag-bars hinged at the front end of the frame, or, more recently, to sliding bars mounted in the frame at the front, as represented in fig. 1, and, when so constructed, are adapted to sow the grain in drills or rows only.

In many sections of the country, and at certain times, it is preferred to sow the grain broadcast, instead of in drills, or both together, and it is to enable this to be done with the same machine that our present invention is designed.

To do this, we provide a series of curved tubes, E, which are so constructed that they can be attached to hopper-bottom, and have their front end extend forward in front of the drill-tubes, as shown in fig. 1, and thus scatter the grain broadcast in front of the hoes or tubes, which latter, if left attached, will cover the seed thus scattered more or less perfectly.

In order that these tubes may be applied to the machine and not be in the way of the drag-bars, they are curved or bent to one side, as represented in fig. 2, so that the drag-bars and drill-hoes D may be raised up between the tubes E without any interference.

In a machine of the kind here shown, in which feed-rollers and cups are used, the secondary cup or spout *e*, with its tube *a*, will be detached from the cup I, and the spout B attached to the cup or to the shaft L instead.

In that class of machines in which a reciprocating slide is used, instead of feed-rollers the tubes E will be attached to the under side of the hopper, in place of the tubes leading to the drill-hoes, which tubes will be removed for that purpose. Thus, by simply changing the tubes, the machine may, at will, be converted from a drill to a broadcast-seeder, or *vice versa*, as desired. Or, if preferred, each alternate tube only may be changed, in which case the machine will become a combined drill and broadcast-seeder, each alternate spout sowing broadcast, while the remaining alternate cups would deposit their seed through the hoes D, in drills, and thus the farmer may be provided with a machine which, without any other change than opening and closing the proper slides, may be used to sow grain broadcast or in drills, or both at once.

Having thus described our invention,

What we claim is—

1. The curved spouts E, attached to the hopper-bottom, or to the seed-cups or shaft of a grain-drill, substantially as described.

2. The curved spouts E, so arranged as to receive the grain directly from the feeders or cups I, and scatter it broadcast in front of or between the drill-hoes, substantially as described.

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Witnesses:

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