

A. N. MERRILL.

Grain-Drill.

No. 26.041.

Patented Nov, 8. 1859.

Fig. 1.

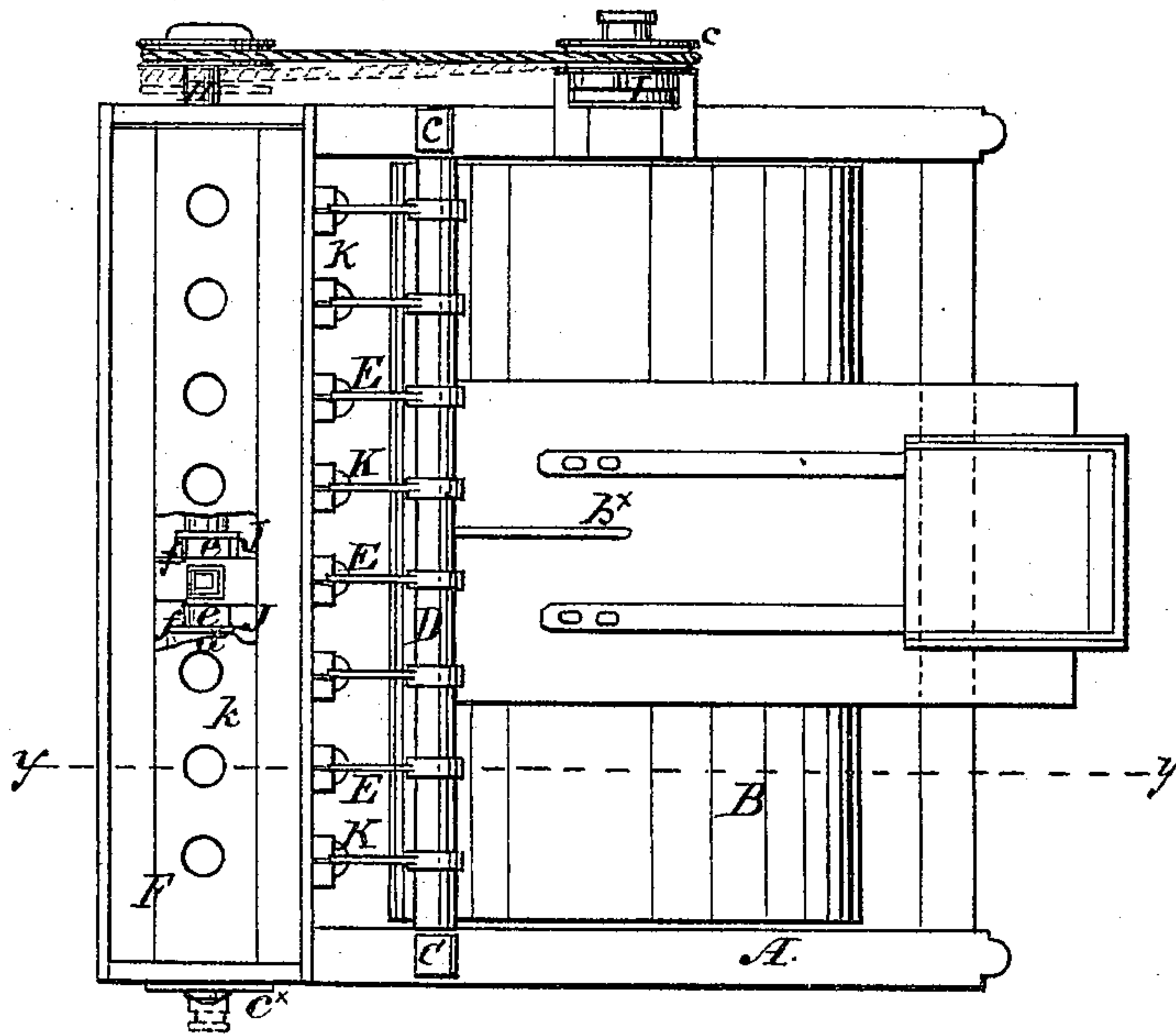
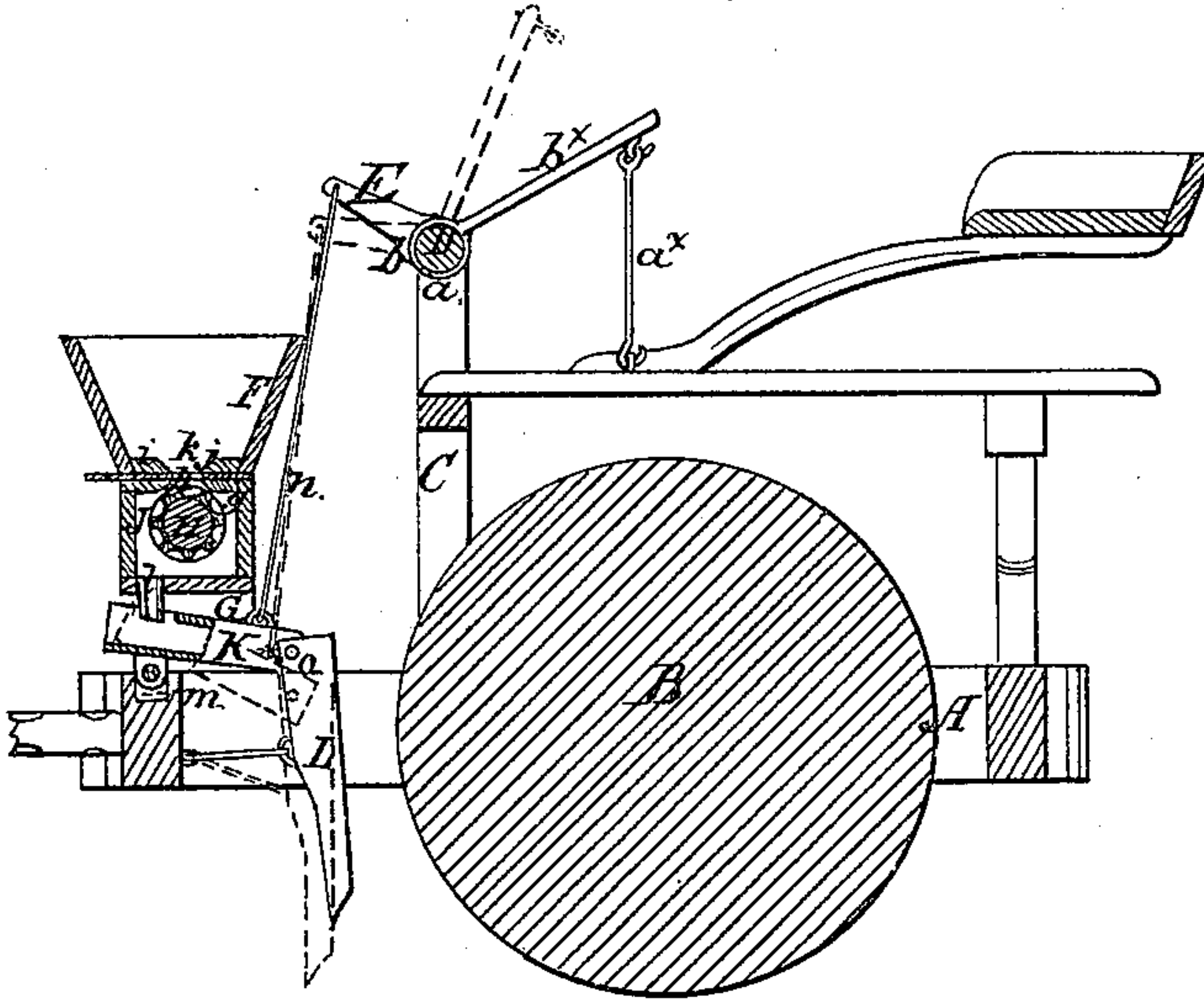


Fig. 2.



Witnesses:

Chas W Shumway
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A. N. MERRILL, OF BATAVIA, ILLINOIS.

IMPROVEMENT IN SEEDING-MACHINES.

Specification forming part of Letters Patent No. 26,041, dated November 8, 1859.

To all whom it may concern:

Be it known that I, ALLEN N. MERRILL, of Batavia, in the county of Kane and State of Illinois, have invented a new and Improved Seeding-Machine; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a plan or top view of my invention; Fig. 2, a side sectional view of the same, taken in the line *y y*, Fig. 1.

Similar letters of reference indicate corresponding parts in the two figures.

This invention consists in a peculiar arrangement and combination of parts, substantially as hereinafter shown and described, whereby different kinds of seed may be planted with one and the same machine and at different distances apart, as may be required.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represents a rectangular frame, in the back part of which a roller, B, is placed transversely, the frame being supported by said roller, which extends the whole width of the frame, as shown clearly in Fig. 1.

At each side of the frame A, and in line with the front part of the roller B, an upright, C, is attached, the upper parts of which form bearings for a shaft, D, on which a series of arms, E, are placed loosely, but which may be elevated when the shaft is turned in consequence of projections *a* on the shaft coming in contact with shoulders *b* on the arms. (See Fig. 2.)

On the front part of the frame A a seed-box, F, is supported by uprights G. This seed-box extends the whole width of the frame A, and within it a shaft, H, is placed longitudinally and allowed a certain degree of end-play. The shaft H is rotated by a belt from a sliding clutch-pulley, *c*, on the shaft or axis of roller B, the pulley *c* being adjusted by a lever, I.

On the shaft H a series of cylinders, J, are placed at suitable and equal distances apart. These cylinders may be of cast-iron, and each divided circumferentially into two equal parts, *d e*, by a flange, *f*. Each part of each cylinder J is provided with seed-cells, the cells in one part, *d*, being smaller or of less capacity than those in the other, as plainly shown in Fig. 1.

Directly over each cylinder J a bar, *g*, is placed. These bars are each provided with a hole, *h*, and over each bar a slide, *i*, is placed, said slides being also provided with a hole, *j*, by regulating which more or less seed may be allowed to be fed to the cylinders. Directly over the slides *i* a perforated plate, *k*, is placed, the perforations in said plate registering with the holes in the bars *g* and slides *i*.

To the bottom of the seed-box F a series of spouts, *l*, are attached. These spouts communicate with the seed-box, one directly under each cylinder, and the lower ends of the spouts fit into the front parts of conductors or troughs K, the front ends of which are fitted and allowed to work on a longitudinal rod, *m*, in the front cross-piece of the frame. The back ends of the conductors are connected by rods *n* to the outer ends of the arms E. To the back end of each conductor K a shoe-spout, L, is attached by a pivot, *o*.

The operation of the machine is as follows: As the machine is drawn along the shaft H is rotated from the axis of roller B by means of a belt on the clutch-pulley *c*. As said shaft and its cylinders J rotate the seed passes down through the perforations of plate *k* and holes *h j* in the bars *g* and slides *i* into the cells in the cylinders J, and is conveyed by them into the spouts *l*, and thence into the conductors K and shoe-spouts L, the latter carrying the seed into the drills made by the lower ends of the spouts. Each shoe-spout is retained in proper position by a rod, *p*, and it will be seen that the shoe-spouts are allowed to readily rise and fall to conform to the inequalities of the ground on account of the yielding-joint attachments *m o*.

In consequence of allowing the shaft H an endwise movement either part, *d* or *e*, of the cylinders J may be made to register with the holes in the bars, slides, and plate, and seed-cells of greater or less capacity obtained, as the kind of seed to be sown may require.

When the machine is not in use the shoe-spouts may all be raised simultaneously by turning the shaft D, and retained in an elevated position by means of a hook, *a*^x, which is engaged with an arm, *b*^x, attached to shaft D, as shown clearly in Fig. 2. The shaft H is retained in either of its two positions by a key, *c*^x, at one end of the seed-box F.

Having thus described my invention, what I

claim as new, and desire to secure by Letters Patent, is—

1. The employment or use of a longitudinal adjustable shaft, H, provided with cylinders J, having different-sized seed-cells, in connection with perforated bars *g*, slides *i*, and plate *k*, arranged to operate substantially as and for the purpose set forth.

2. The arrangement and combination of the

spouts *l*, conductors K, shoe-spouts L, and elevating-arms E on shaft D, connected to the conductors K, the whole being arranged substantially as and for the purpose set forth.

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Witnesses:

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