

A. PRITZ.

Grain Drill.

No. 21,212

Patented Aug. 17, 1858.

Fig. 3.

Fig. 2.

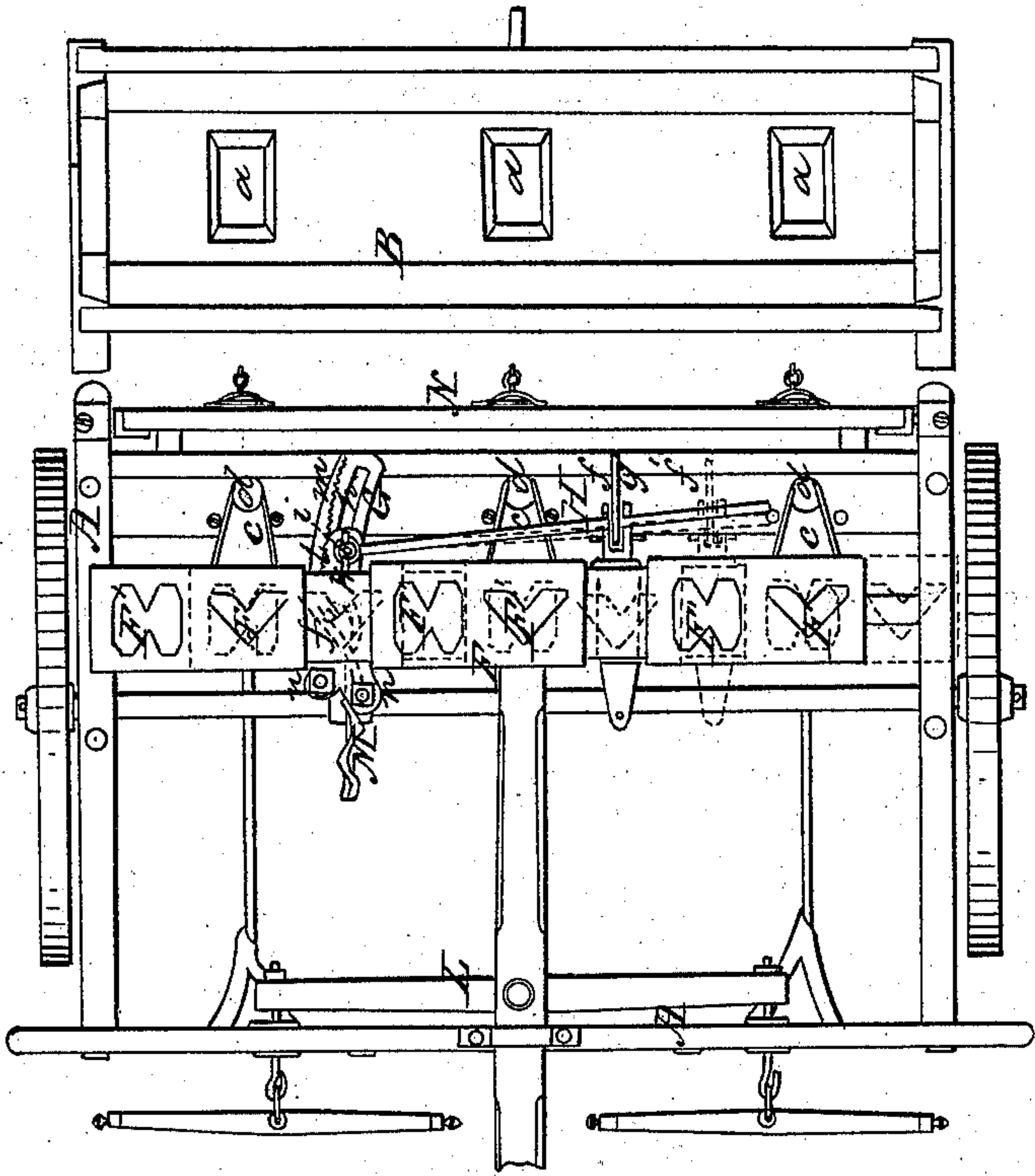
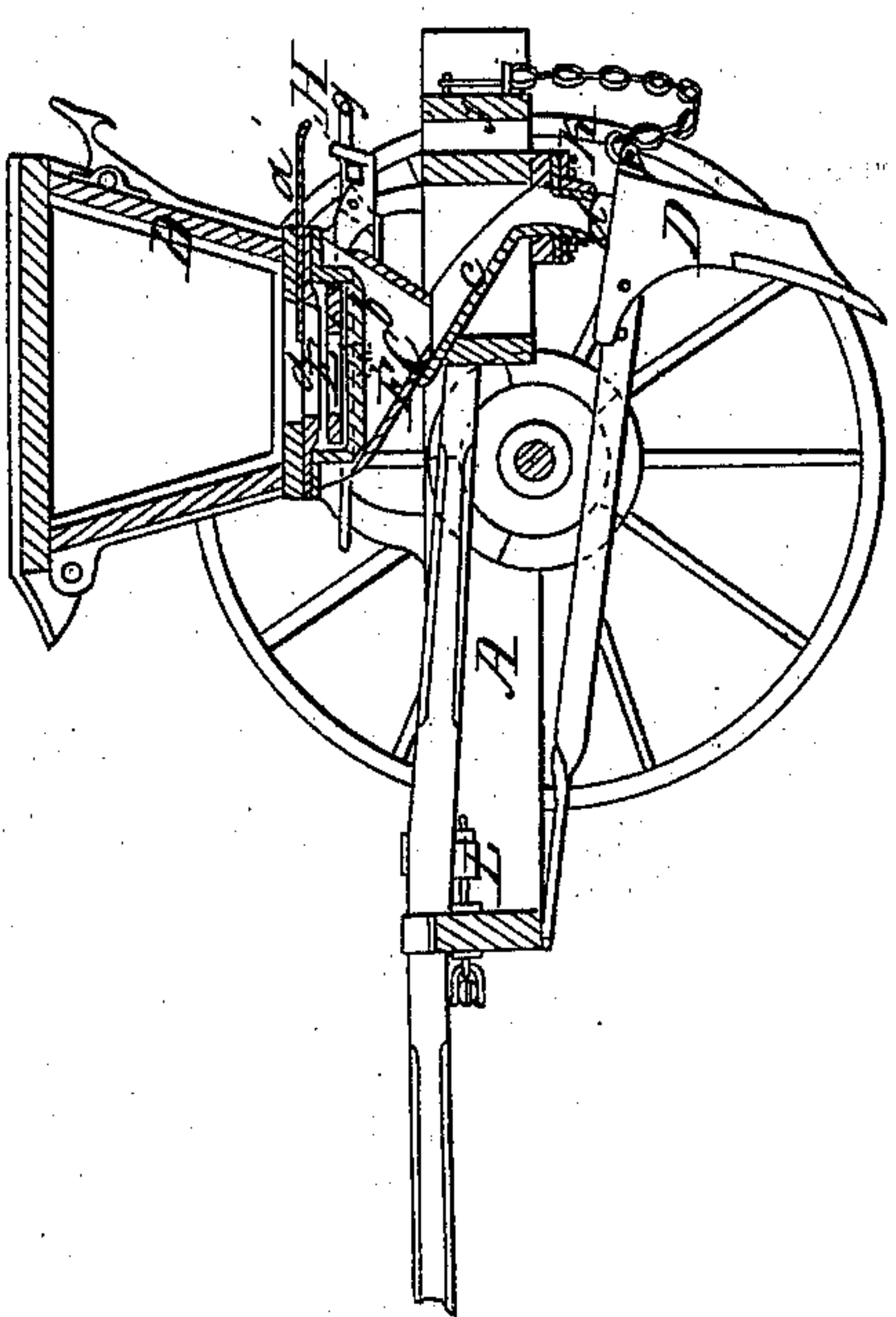


Fig. 1.



UNITED STATES PATENT OFFICE.

ADAM PRITZ, OF DAYTON, OHIO.

IMPROVEMENT IN GRAIN-DRILLS.

Specification forming part of Letters Patent No. 21,212, dated August 17, 1858.

To all whom it may concern:

Be it known that I, ADAM PRITZ, of Dayton, in the county of Montgomery and State of Ohio, have invented a new and useful Improvement in Grain-Drills; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a vertical longitudinal section of a grain-drill constructed with my improvements. Fig. 2 is a plan of the same with the hopper removed. Fig. 3 is a plan view of the hopper.

Similar letters of reference in each of the several figures indicate corresponding parts.

The nature of my invention consists, first, in the employment of a distributing-slide which has two sets of different character of discharge-passages and a connecting-rod having two adjusting-notches, in combination with a set-screw which has a serrated sliding cap, and with a slotted actuating-lever which has a serrated rib on its upper side, whereby the slide can be adjusted so as to serve for planting either wheat and rye or oats and barley, and whereby the nicest possible adjustment may be conveniently given to the slide, so as to have it plant any desired quantity to the acre, all as presently set forth; second, in combination with the above, the employment of short flanged metal tubes for securing the flanged gum or leather conducting-tubes to the drill-frame in the particular manner shown, thus fastening the gum or leather tubes in place on the frame, preventing the tearing off of the flange, as is the case when the tubes are fastened by screws or nails only, and also providing a lateral support to the tubes near their upper ends.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A represents the frame of the drill. It may be of any suitable form adapted for receiving my improvements.

B is the hopper, constructed and arranged as shown, and furnished with holes *a a a* in its bottom and cut-off plates *a' a' a'*, as usual, each of said holes having a box-formed stop-plate, *b*, placed directly under it, so that the grain, after escaping from the holes in the hopper, shall require to be moved laterally right and left, in order to escape into the conducting-

tubes, which lateral movement is imparted to it by the vibrating action of the distributing-slide.

C C C represent funnel-cups for concentrating the grain as it escapes from the sides of the stop-plates, and thus causing a regular stream to pass into the tubes. These caps are placed under the box-formed stop-plates and over the conductors *c c c*, which conduct the grain into the tubes *d d d*, that lead down into the drill-teeth D D D.

E represents the distributing-slide. It is arranged to slide between the bottom of the hopper and the box-formed stop-plates, as shown. This slide is peculiar in its construction, it having two sets of discharge-passages, F F', which are of different shapes, the passages F being of V shape, while those F' are formed so as to resemble two octagonal figures placed side by side, the meeting sides of the two octagons being removed. The two sets of passages are intended to be used at different times and for planting different kinds of seed, and are therefore so arranged that but one set comes into operation at the same time. The passages F are designed for planting wheat and rye, those F' for planting barley and oats. The shapes which I have given to these passages are found in practice to be peculiarly adapted for the distributing of the different kinds of grain above named. The slide is connected to the actuating-lever G by means of a connecting-rod, H, said rod being furnished at one end with two adjusting notches, *f f'*, and coupled to an extension of the slide by a falling spring-latch, *g*, and one or the other of said notches. With this mode of coupling, by raising the latch the connection of the slide with the actuating mechanism can be broken, and thus the distribution of the grain stopped. The other end of the connecting-rod is coupled to the actuating-lever by a curved slot, *h*, in said lever, and a set-screw, *i*, as shown, said set-screw serving as the axis for the rod to play upon as the actuating-lever vibrates on the pivot *j*. Over the set-screw a sliding cap, *k*, with serrations or V-shaped teeth *b* on its edge, is arranged to fit and slide in the curved slot of the actuating-lever and to gear with similar teeth, *m*, of said lever, as shown. By coupling the slide to the actuating-lever, as above stated, either set of its discharge-passages can be brought into operation when desired, for by raising the drop-

latch out of the notch f and shifting the slide from the position shown in black, which position shows the wheat and rye passages in operation, to the position shown in red, the double hexagonal passages can be brought under the discharge-holes of the hopper, ready for planting barley and oats, and the V-shaped passages thrown out of operation. When this has been accomplished the drop-latch is allowed to fall into the notch f' and couple the slide with the actuating mechanism, so that the planting may be proceeded with; and, again, by coupling the rod to the actuating-lever by means of set-screw, cap, and serrated teeth, as above stated, the nicest adjustment with very little trouble can be given to the slide, so as to have it plant any desired quantity of seed to the acre.

K K K are short metal flanged tubes for confining the conducting-tubes d d d to the frame. The flange of the metal tubes are horizontal, while the cylindrical portion sets oblique to a vertical line, so as to accommodate the tubes which are set at an angle to a vertical line, in order to allow the drill-teeth to be adjusted over them, said flanges fitting against the flanges of the conducting-tubes, and the whole being confined by screws. The cylindrical portion of the short tubes K K K serve to support the conducting-tubes laterally.

L is the double-tree. It is pivoted loosely to the under side of the tongue of the frame, and has its ends connected to the single-trees by means of sliding rods, which pass through the front bar of the frame A. By this arrangement

of the double-tree there is no danger of the single-trees coming in contact with the propelling-wheels and being worn away and bruised. The power of the team is applied also nearer to the weight, and thus more advantageously.

The motion is communicated to the actuating-lever by means of a serpentine cam, M, on the propelling-axle, and two friction-rollers, n n , on the end of said lever.

The adjustment or raising and lowering of the drill-teeth is accomplished in the ordinary manner by means of a transverse eccentric bar, N, and chains, as shown in the drawings.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The employment of a distributing-slide, E, which has two sets of different character of discharge-passages, F F', and a connecting-rod, H, having two adjusting-notches, f f' , in combination with a set-screw, i , which has a serrated sliding cap, k , and with a slotted actuating-lever, G, which has a serrated rib on its upper side, substantially as and for the purposes set forth.

2. In combination with the above, the employment of short flanged metal tubes K for securing the flanged gum or leather conducting-tubes d to the drill-frame, substantially as and for the purposes set forth.

ADAM PRITZ.

Witnesses:

G. YORKE ATLEE,
R. W. FENWICK.