Boyer & Creat.

Broadcast Seeder.

No. 18,495. Patented Oct. 27, 1857.

Fig: 1.

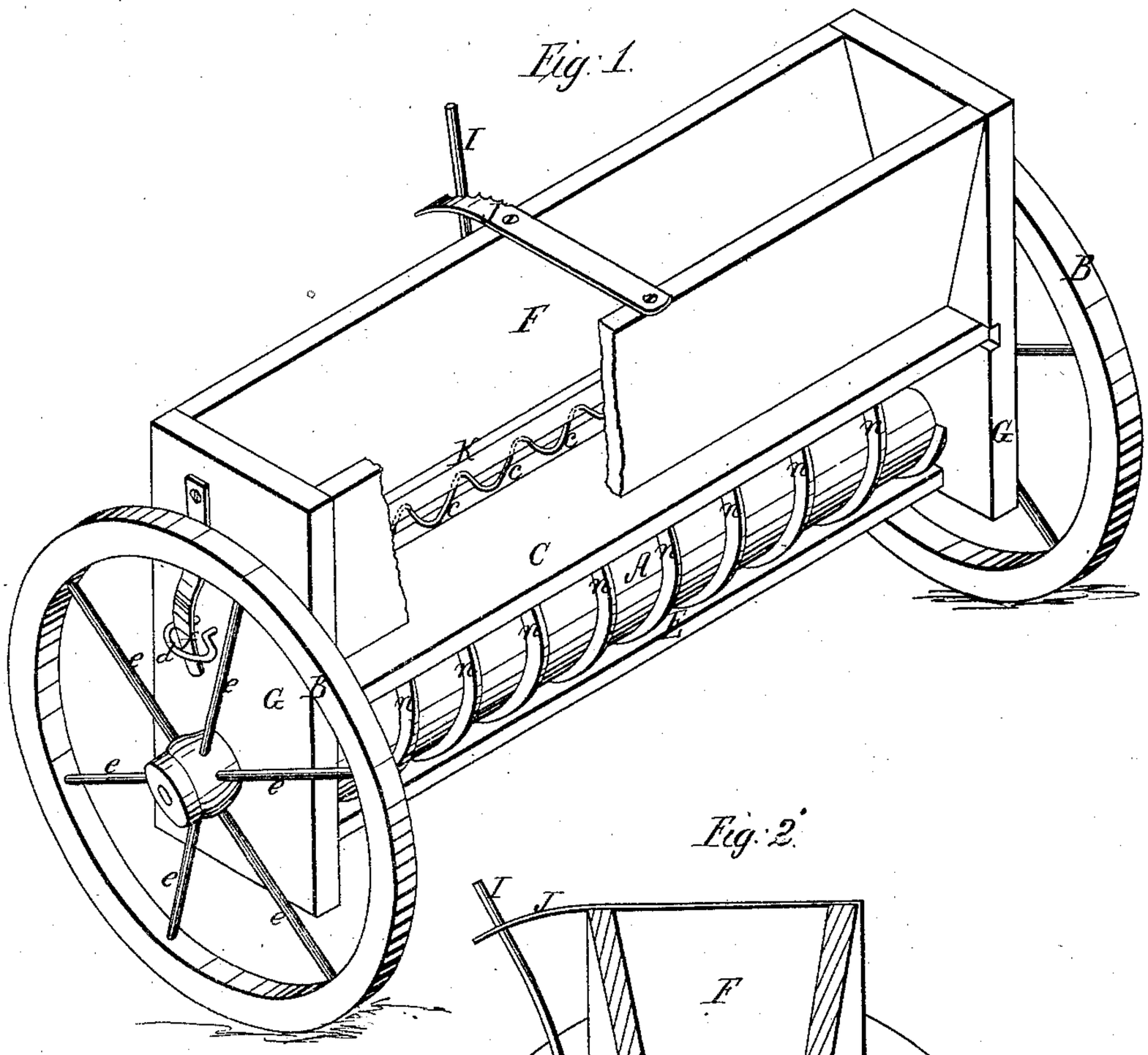
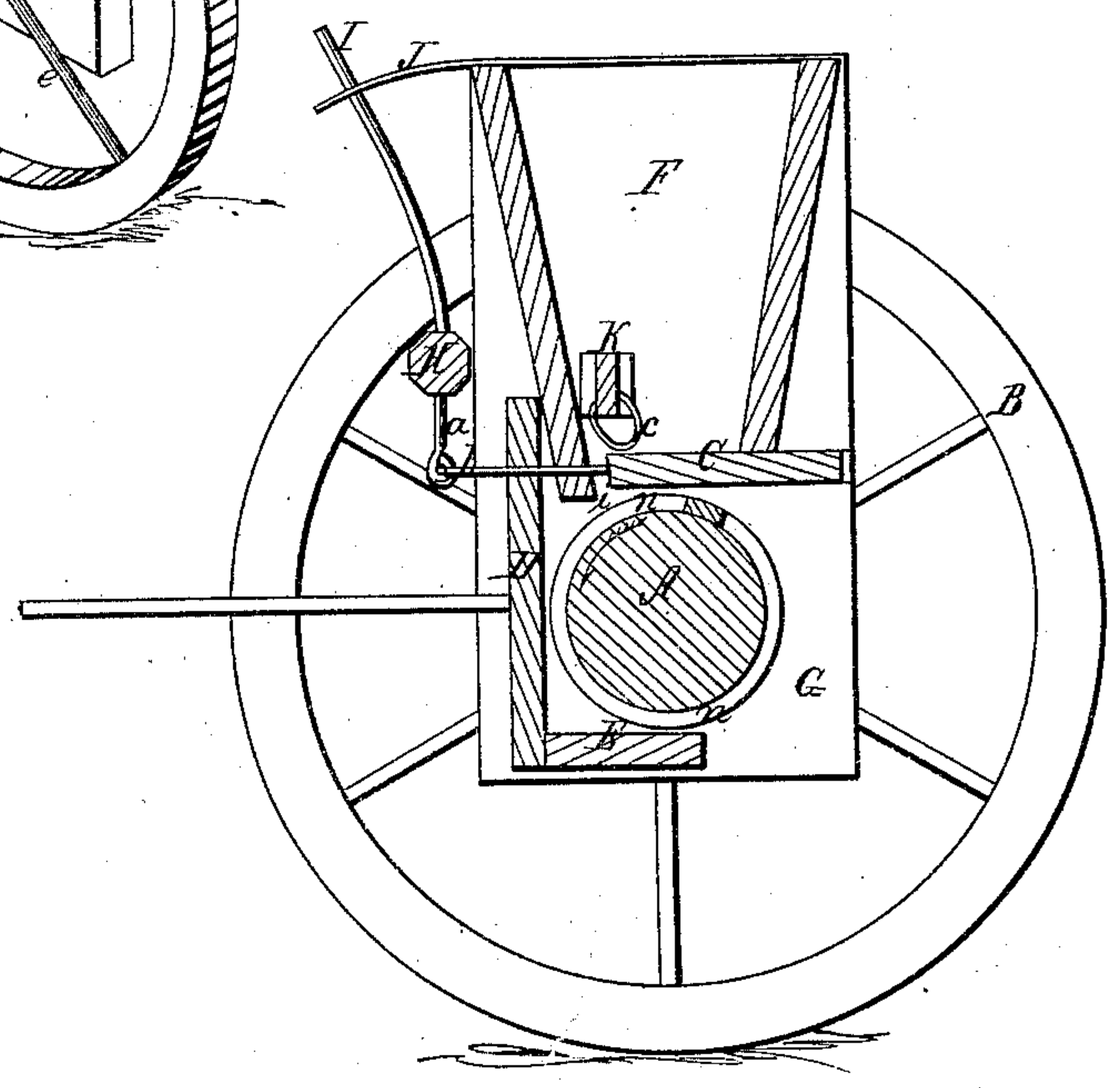


Fig: 2.



UNITED STATES PATENT OFFICE.

JACOB BOYER AND D. S. GREER, OF GRANVILLE, VIRGINIA.

IMPROVEMENT IN MACHINES FOR SOWING SEED BROADCAST.

Specification forming part of Letters Patent No. **18,495**, dated October 27, 1857

To all whom it may concern:

Be it known that we, JACOB BOYER and DAVID S. GREER, of Granville, in the county of Monongalia and State of Virginia, have invented certain new and useful Improvements in Machines for Sowing Seed Broadcast; and we do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 represents a perspective view taken from the rear of the machine, and showing a portion of the hopper broken away, so that the interior thereof can be seen. Fig. 2 represents a vertical cross-section through the machine.

Similar letters of reference, where they occur in the separate figures, denote like parts of the machine in both.

To enable others skilled in the art to make and use our invention, we will proceed to describe the same with reference to the drawings.

A represents an axle, upon which are hung two ordinary supporting or carrying wheels, B, but so that said axle shall revolve with one or both of the wheels, it being better, however, to have one wheel loose on the axle to facilitate the turning around of the machine. This axle A is incased on three of its sides—viz., by the hopper-bottom C above it, the permanent board D in front of it, and the receiving-board E underneath it; but in rear the axle is entirely exposed, so that the user walking behind it can see whether his machine be properly working. The hopper F is supported on this axle A by means of its two end pieces, G G, which have boxes or bearings in them for the journals on said axle to turn in. The hopper-bottom C is a sliding one, so as to regulate by it the quantity of seed that is to be let out of the hopper, or to close the hopper when the machine is being transported from field to field, as follows: A rock-shaft, H, is supported in suitable bearings in front of the hopper, and to this rock-shaft is connected, by rods or levers *a b*, the hopper-bottom C.

I is a lever fastened to the rock-shaft, by which said shaft is turned in its bearings, the rocking or rolling of the shaft sliding the hopper-bottom one way or the other, just as it is to be more or less opened or closed.

J is a catch-bar, into which the lever I catches and is held, so that the hopper-bottom will stand or be held at the point at which it has been adjusted.

Inside of the hopper, and extending longitudinally through it, is a stirrer-bar, K, with bent wire teeth *c* on it. A yoke, *d*, connected to one end of this stirring-bar K, but outside of the hopper, is so arranged that the spokes *e* of the wheel at that end of the machine will strike it and force it away as they come around, and a spring, *f*, returns it again. Thus the stirrer is kept in motion and prevents the seed or whatever may be in the hopper from clogging in it.

The seed from the hopper drops through at the point *i*, Fig. 2, which is between the center (vertically) of the axle A and permanent board D. The axle has a spiral flange, *n*, arranged around its perimeter, and the grain falling upon this axle from the hopper is carried around between the axle and the board D until it drops on the receiving-board E, and as the axle continues to turn its worm or spiral flange is sweeping the grain off at the edge of the board E, whence it drops to the ground and may be harrowed in in any of the usual ways. Should the machine strike any obstruction, or be moving over rough ground, it would not by the jar spill or throw out an undue quantity of grain, as it must all pass forward of the axle, and cannot pass out faster than the spiral on the axle moves and brings it to the edge of the board E, and as the spiral touches every portion of the edge of the board E it must deliver the seed there in uniform quantities, and thus make exceedingly regular sowing in this class of machines.

Having thus fully described the nature of our invention, we would state that we are aware that spirally grooved or fluted cylinders have been placed under seed-hoppers to act as distributers. This we do not claim, as they are inefficient and the seed too readily flies off by any jar of the machine; but

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

In combination with a seed-hopper, an incased spirally-flanged roller or axle, which receives, carries around, and delivers the grain in uniform quantities at the edge of the receiving-board without being affected by the jar of the machine in passing over the ground, as herein set forth and explained.

JACOB BOYER.
D. S. GREER.

Witnesses:
LEVI FORTNEY,
THOMAS F. RAMSEY.