

HANSON & CALLAWAY.

Seed Dropper.

No. 103,454.

Patented May 24, 1870.

fig. 1.

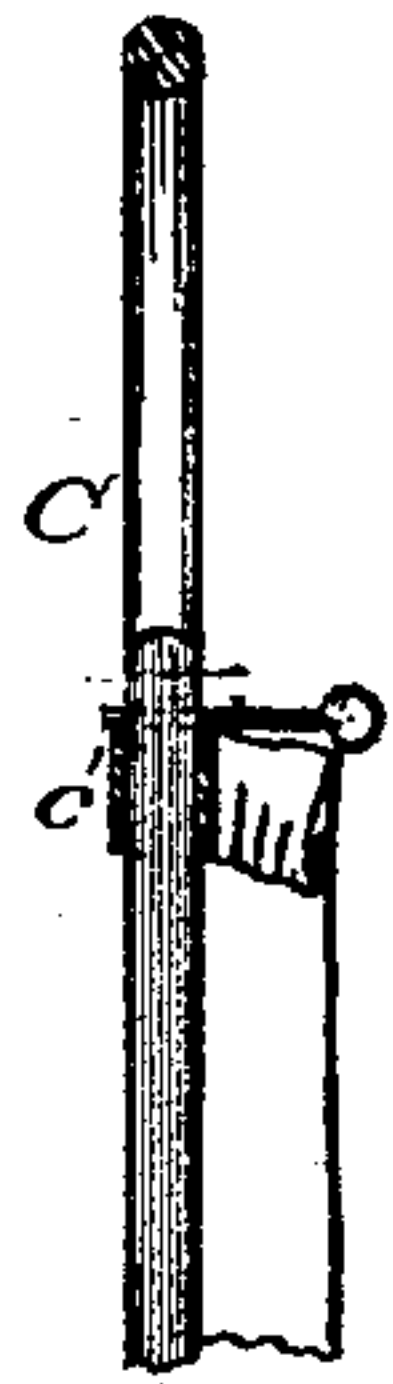
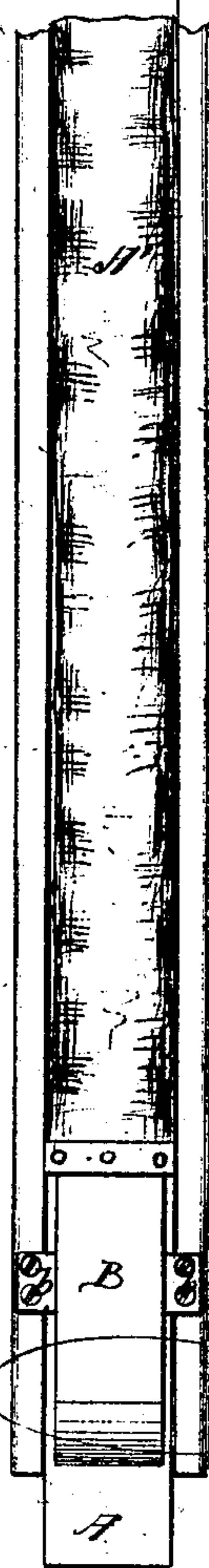
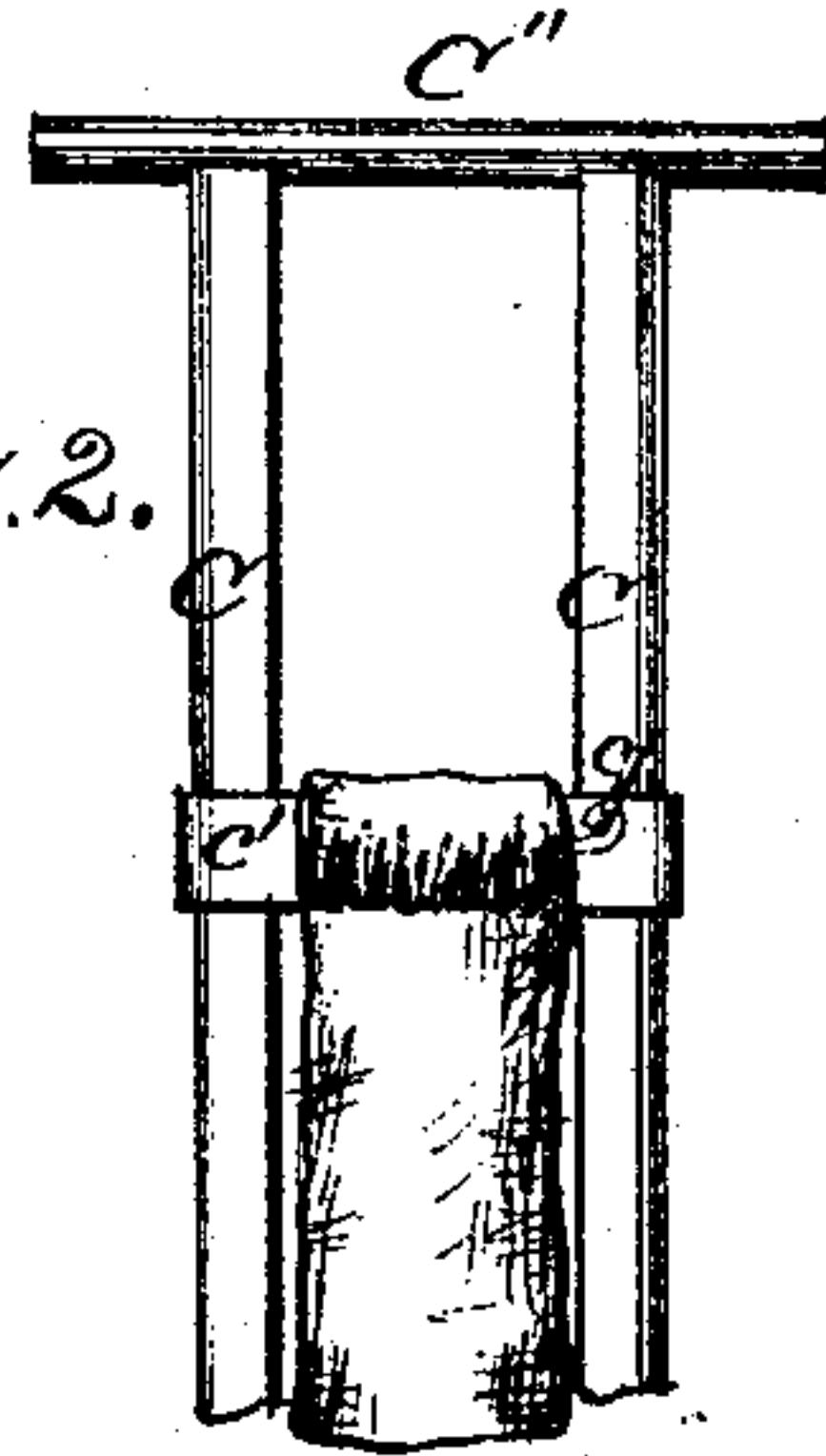


fig. 2.



Witnesses:

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# United States Patent Office.

JOHN F. HANSON AND JOHN E. CALLAWAY, OF BARNESVILLE, GEORGIA.

Letters Patent No. 103,454, dated May 24, 1870.

## IMPROVEMENT IN SEED-DROPPER.

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 F. HANSON and JOHN E. CALLAWAY, of Barnesville, in the county of Pike and State of Georgia, have invented a new and improved Seed-Dropper; and we do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 is a side elevation, and

Figure 2, a transverse vertical section.

This invention consists of a board for making holes in the earth, combined with a case for holding seed and a tube for dropping it on opposite sides of the shove-board, and communicating by an orifice in the latter; and with bars sliding lengthwise of the shove-board for operating the valves which control the orifice between the seed-case and seed-tube, and alternately admit the charge into said orifice and let it out.

In the drawing—

A is the shove-board, to which the pea-bag A' is attached.

B is the seed-case at the bottom of the pea-bag, affixed to the board.

B' is the seed-tube, affixed to the opposite side of the board A, and communicating with the seed-case B through an orifice, *a*, in the board. Said orifice is guarded by metal plates or valves *b b'*, affixed at their ends to the sliding bars C C, which play at the sides of the board A.

The plate *b* moves in a slot in the seed-case, and the plate *b'* in a slot in the seed-tube, on opposite sides of the shove-board, and said plates are placed at such an interval apart that, when one closes the orifice *a*, the other opens it.

When the machine is not in use, and the bag A' contains grain, the plate *b'* should be fastened across

the orifice *a*, so as to keep the seed from running out, by means of a pin, *c*, placed in one of the sliding bars C just above the loop *c'*, the latter being fastened to the shove-board, and passing around the sliding bars, in which loop the latter play.

On arriving at the field, before commencing work, the pin *c* is removed, which leaves the bars C free to slide.

The lower end of the shove-board is thrust into the ground by pressing upon the cross-piece C'', which unites the upper ends of the sliding bars C. This movement brings the metal plates *b b'* to the lower ends of their respective slots, thus closing the seed-case B and allowing the pease already in the orifice *a* to fall through the seed-tube to the ground, and into the hole made by the shove-board when the same is lifted out.

The movement of the side bars C in lifting the shove-board out of the ground, closes the seed-tube and opens the seed-case, allowing a charge of seed to enter the orifice *a*, which charge is there retained by the plate *b'* until the next hole is made in the earth by the shove-board, when it falls out, as before described.

The machine makes the holes, measures the seed, and drops it, and may be used as fast as the operator can walk.

Having thus described our invention,

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

The shove-board A, seed-case B, seed-tube B', sliding bars C, and valves *b b'*, combined and arranged as and for the purpose described.

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JNO. E. CALLAWAY.

Witnesses:

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