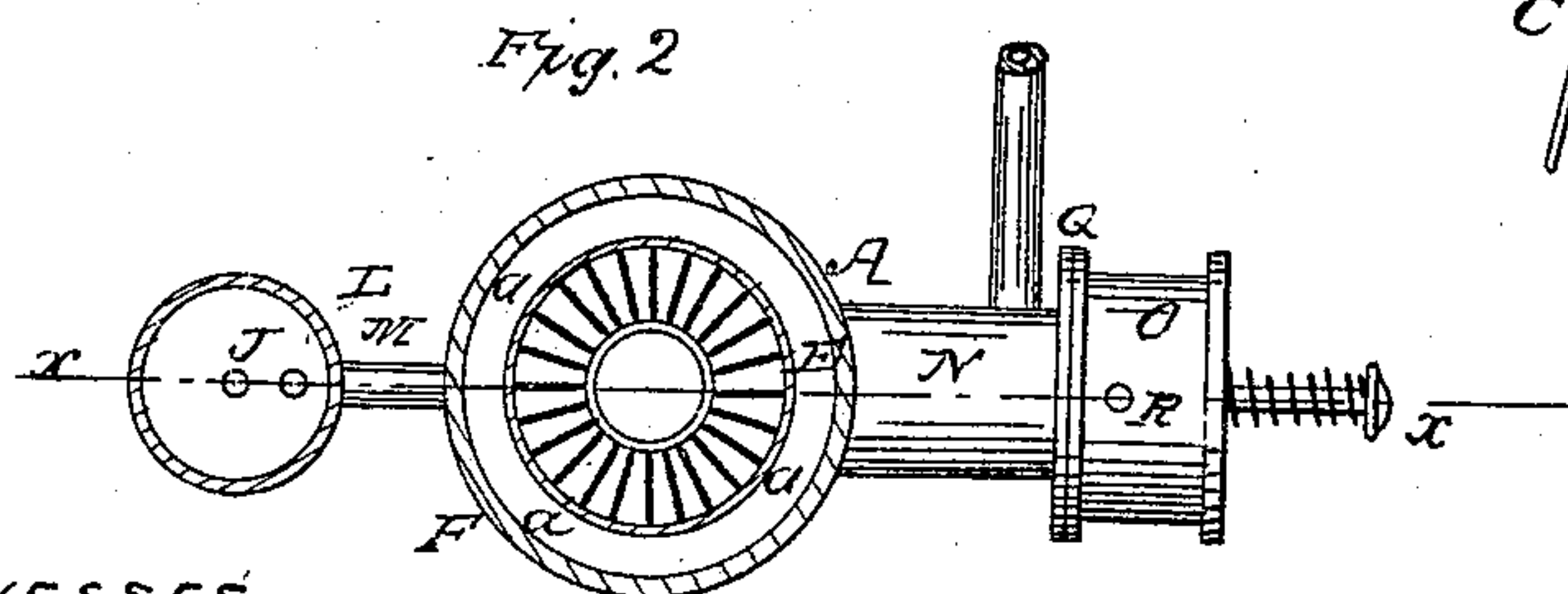
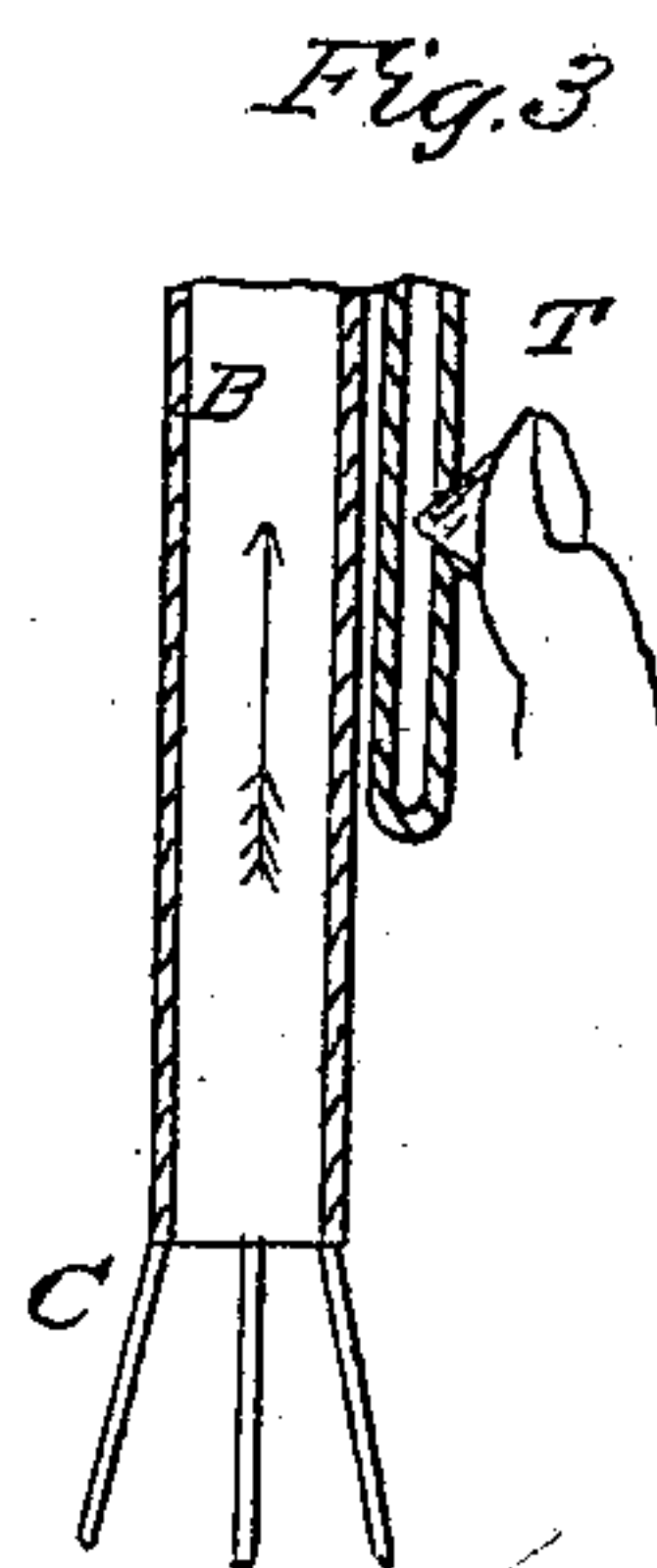
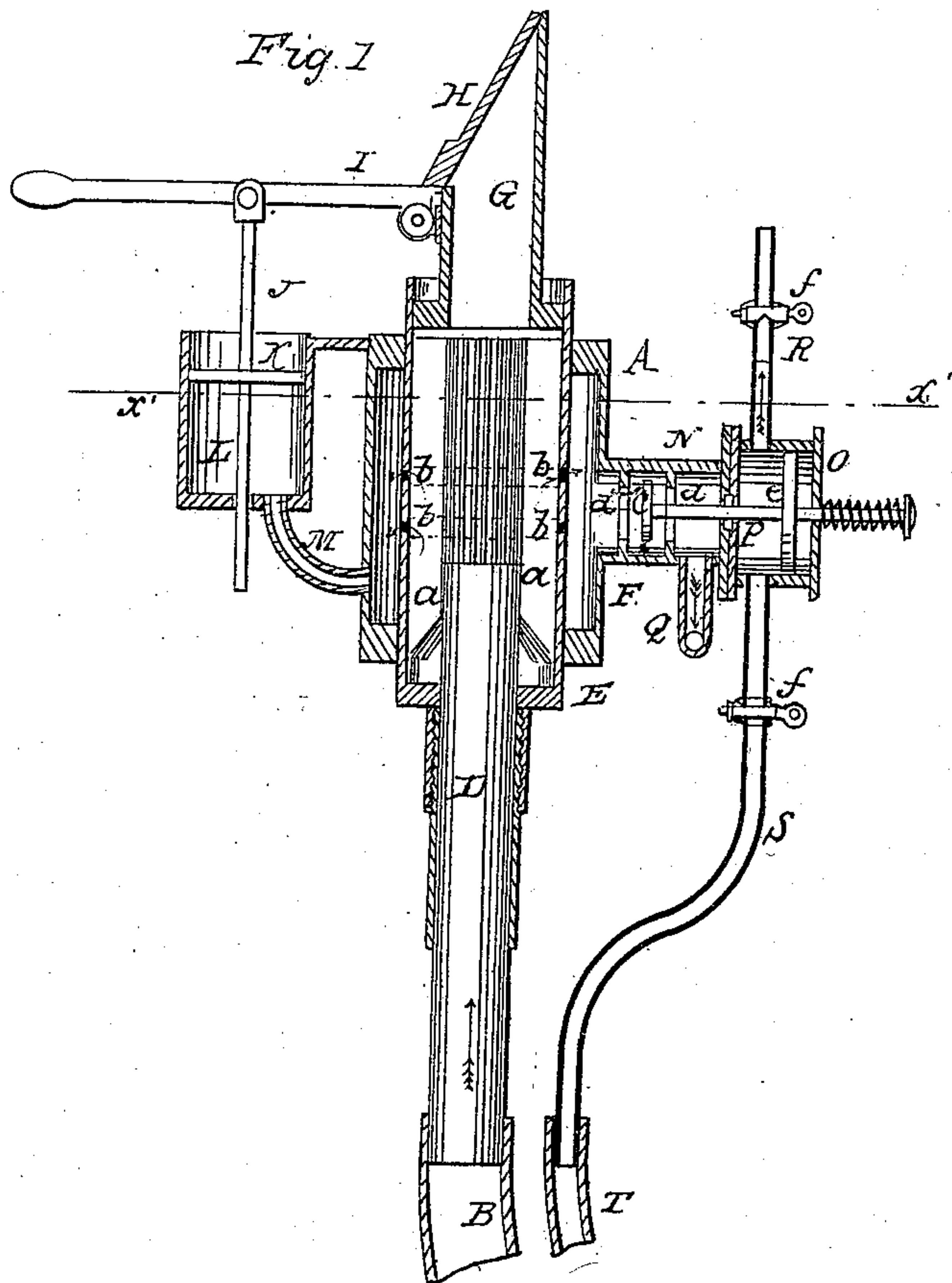


J. GRIFFIN.
Cotton Harvester.

No. 55,283.

Patented June 5, 1866.



WITNESSES
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UNITED STATES PATENT OFFICE.

JOHN GRIFFIN, OF LOUISVILLE, KENTUCKY.

IMPROVEMENT IN DEVICES FOR PICKING COTTON.

Specification forming part of Letters Patent No. 55,283, dated June 5, 1866.

To all whom it may concern:

Be it known that I, JOHN GRIFFIN, of Louisville, Jefferson county, State of Kentucky, have invented a new and Improved Device for Picking Cotton; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a central vertical section of my invention, taken in line *xx*, Fig. 2; Fig. 2, a transverse section of the same, taken in the line *xx*, Fig. 1; Fig. 3, a section of the receiving-cup pertaining to the same.

Similar letters of reference indicate like parts.

This invention relates to a new and improved device for picking cotton by means of a blast produced through the medium of an exhaust-chamber and certain mechanism hereinafter fully set forth and described, whereby it is believed that the work may be done in a much more rapid and economical manner than it can be performed by hand.

The invention is designed as an improvement upon cotton-picking devices patented by me March 8 and November 22, 1859, July 3, 1860, and June 22, 1861.

A represents a discharging device attached to one end of a flexible tube, B; and C is the cup at the receiving or induction end of tube B, (shown in red in Fig. 3.)

The discharging device is composed of a tube, D, on which a cylinder, E, is secured, provided internally with radial plates *a*, which extend its whole length, with suitable spaces between, a cylindrical opening being formed by the inner edges of the plates *a*, into which the tube D projects a short distance, as shown clearly in Fig. 1. The cylinder E is encompassed by a larger cylinder, F, and the latter communicates with the former by means of openings *b*. The outer end of the cylinder E has a tube, G, attached to it, which projects out from it a short distance, and has a beveled end, over which a flap, H, fits, said flap having an arm, I, attached to it, which arm is pivoted to a rod, J, having a piston, K, upon it, the piston being fitted in a cylinder, L, connected to cylinder F. The inner end of the cylinder L

communicates with the cylinder F by means of a tube, M.

N is a cylinder, which has a right-angular position relatively with the cylinder F, and has a cylinder, O, rather larger in diameter, at its outer end. P is a valve-stem, which passes centrally through the cylinder O into cylinder N, and has a valve, *c*, upon it within the cylinder N, said valve being between two seats, *d d'*. On the valve-stem P, within cylinder O, there is secured a plunger, *e*, the area of which is considerably larger than that of the valve *c*, as shown in Fig. 1. Q is a tube which leads from the cylinder N between the valve-seat *d* and the outer end of cylinder N to the exhaust-chamber. R is a tube, considerably smaller in diameter than Q, which leads from the cylinder O to the exhaust-chamber, and S is a tube, larger in diameter than R, which leads from the cylinder O, and has a flexible tube, T, attached, which is nearly equal in length to the flexible tube B, and is provided with an orifice, *e*^x, which may be closed by the thumb of the operator when desired. The tubes R S are provided with cocks *f f*. The head of cylinder O is perforated, as shown at *a*^x.

The operation is as follows: The operator places the cup C over a cotton-boll on the standing plant, and closing the orifice *e* with his thumb, a suction is produced in cylinders O and N, and the valve *c* is moved from the seat *d* toward seat *d'*, the pressure of the atmosphere upon the plunger *e* being greater than the pressure upon the valve *c*, owing to the greater area of the former, and a blast is immediately created in the tube B, the external air forcing the boll through tube B into tube D and past the openings *b b* in cylinder E. The air in tube B is drawn by the exhaust through the openings *b* into cylinder F, and thence into cylinder N, and through tube Q into the exhaust-chamber. On opening the orifice *e*^x the air rushes into the cylinder O, between the plunger *e* and the inner end of said cylinder, and the valve *c* is then moved toward the seat *d* on account of the valve being acted upon by the external pressure, the plunger *e* being neutral, as it has an atmospheric pressure at both sides of it. S being larger than R supplies air to O faster than R can exhaust it; hence a succeeding blast is obtained to drive a suc-

ceeding boll through tube B. The cup C is applied to the bolls during the interval of the movement of valve *c*, the blasts occurring as the valve is moving from one seat to the other. The momentum of the bolls will carry them through the tube G.

The flap H is made to operate perfectly by means of the piston attachment, the blast through M into cylinder L having a tendency to close the flap, and the flap having a tendency to open at the cessation of each blast.

The plates *a* in the cylinder E prevent the bolls from clogging or choking up the openings *b*.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The tube D with the cylinders E F and plates *a* within cylinder E, in combination with

the cylinders N O, piston *c*, and plunger *e*, with the tubes Q R S, the tubes Q R communicating with an exhaust-chamber, and the tube S provided with an orifice, *e*^x, to be opened and closed by the thumb of the operator, substantially as and for the purpose set forth.

2. The piston K, working within the cylinder L and connected with the flap H, as shown, and the cylinder L communicating with the cylinder F, substantially as and for the purpose specified.

The above specification of my invention signed by me this 15th day of February, 1866.

JOHN GRIFFIN.

Witnesses:

SAML. MATLOCK,
JNO. K. LANE.