C. T. JEWETT.

INSECT POWDER GUNS OR INJECTORS.

No. 180,135. Patented July 25, 1876.

Fig: 1

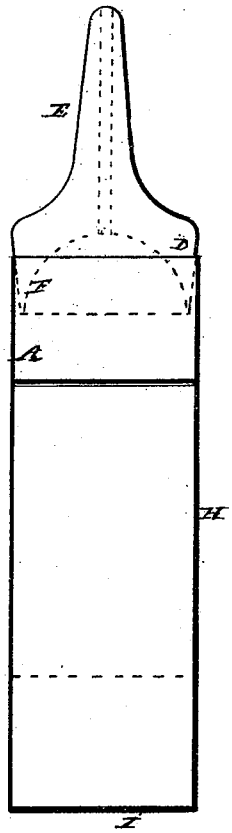


Fig: 2

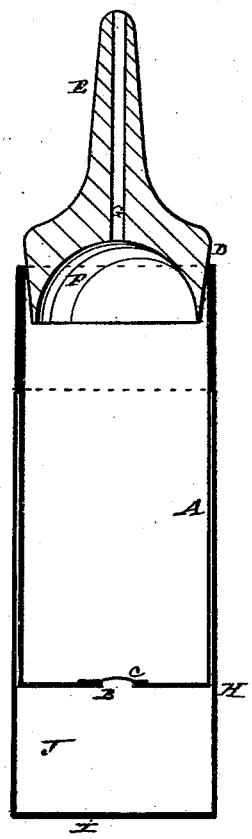


Fig: 3.

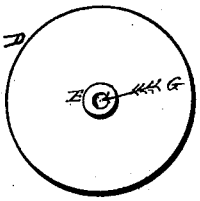
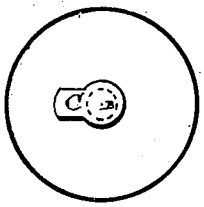


Fig: 4.



Witnesses
Charles L. Barrett
Abr. A. Greenhoot

Inventor
Charles T. Jewett.

UNITED STATES PATENT OFFICE.

CHARLES T. JEWETT, OF NEW YORK, N. Y.

IMPROVEMENT IN INSECT-POWDER GUNS OR INJECTORS.

Specification forming part of Letters Patent No. **180,135**, dated July 25, 1876; application filed June 13, 1876.

To all whom it may concern:

Be it known that I, CHARLES T. JEWETT, of the city, county, and State of New York, have invented an Improved Insect-Powder Gun or Injector, of which the following is a specification:

The object of my improvement is, first, to make a gun that will, with equal force and volume of powder, shoot it out of the nozzle in any direction and position in which the gun may be held; second, cheapen the cost of the manufacture of insect-powder guns; and, third, in making an adjustable nozzle with a conically-shaped base, to form an air-tight stopper or cap to the powder-magazine.

But to describe my invention more particularly, I will refer to the accompanying drawings, forming a part of this specification, the same letters of reference, wherever they occur, referring to similar parts.

Figure 1 is a side elevation of the gun. Fig. 2 is a vertical cut section of the same. Fig. 3 is a plan view of the nozzle. Fig. 4 is a transverse view of the powder-magazine, showing the valve in the bottom of it.

Letter A represents the powder-magazine, made of paper of a tubular shape, and may be made of any desired size and proportions deemed most convenient. The proportions shown in the drawings, however, I have found best adapted to shoot a full charge of the powder from the nozzle. In the bottom of the magazine is cut an aperture, B, covered on the upper side by a fly-valve, C, and held down by the powder and its elastic pressure, to prevent the escape of the powder downward from the magazine. The upper end of the magazine is made open, so as to admit of filling the powder into it. When thus filled it is closed by a conically-shaped stopper, D, having its external face tapered upward, as shown at E, to form a nozzle, and its internal or lower surface concaved, as shown at F, to concentrate the powder directly over the vent G of the nozzle, that it may be expelled in great volume and force from the gun.

The object of making the stopper of a conical shape is, first, to make it self-fastening in the upper end of the powder-magazine; and, second, to insure at all times an air-tight cover to the magazine.

It will be obvious that any leakage of air around the stopper would practically destroy the force of the jet of powder. The importance, therefore, of having a stopper made of such a shape as to be self-tightening must be apparent.

For the purpose of expelling the powder from the nozzle of the magazine it is inserted into a tightly-fitting outer tube, H, having a solid bottom, I, and distant from the bottom of the powder-magazine about one inch, more or less, as desired, to form an air-chamber, J. The admission of air into this chamber takes place at the time of drawing back the tube H by the leakage between the surfaces of the tube and magazine, but of not sufficient extent to allow of its escape thereby on rapidly closing the tube H again upon the magazine.

The operation of the invention is, first, removing the stopper from the upper end of the magazine and filling the powder therein; second, replacing the stopper into the magazine, so as to make a perfectly secure and air-tight fit therein; third, withdraw the tube H some one or more inches back on the magazine to charge the chamber between its lower side and bottom of the tube with air; and, lastly, drive the air in a compressed state into the powder in the magazine, through the valve in its bottom, to expel it from the vent in the nozzle in a jet by means of the rapid closing up of the tube H to its normal position on the magazine.

Having now described my improvements and their operation, I will proceed to set forth what I claim and desire to secure by Letters Patent of the United States—

In the new article of manufacture of insect-powder guns, the adjustable stopper, constructed with a conically-shaped base, D, nozzle E, and concave lower side F, in combination with the magazine A, having a solid bottom with a valve, C, therein, and sliding tube H, all arranged and operating substantially as described.

CHARLES T. JEWETT.

Witnesses:
CHARLES L. BARRITT,
ABR. A. GREENHOOT.