

C. CHINNOCK.
POWDER-EJECTOR.

No. 176,279.

Patented April 18, 1876.

Fig. 1.

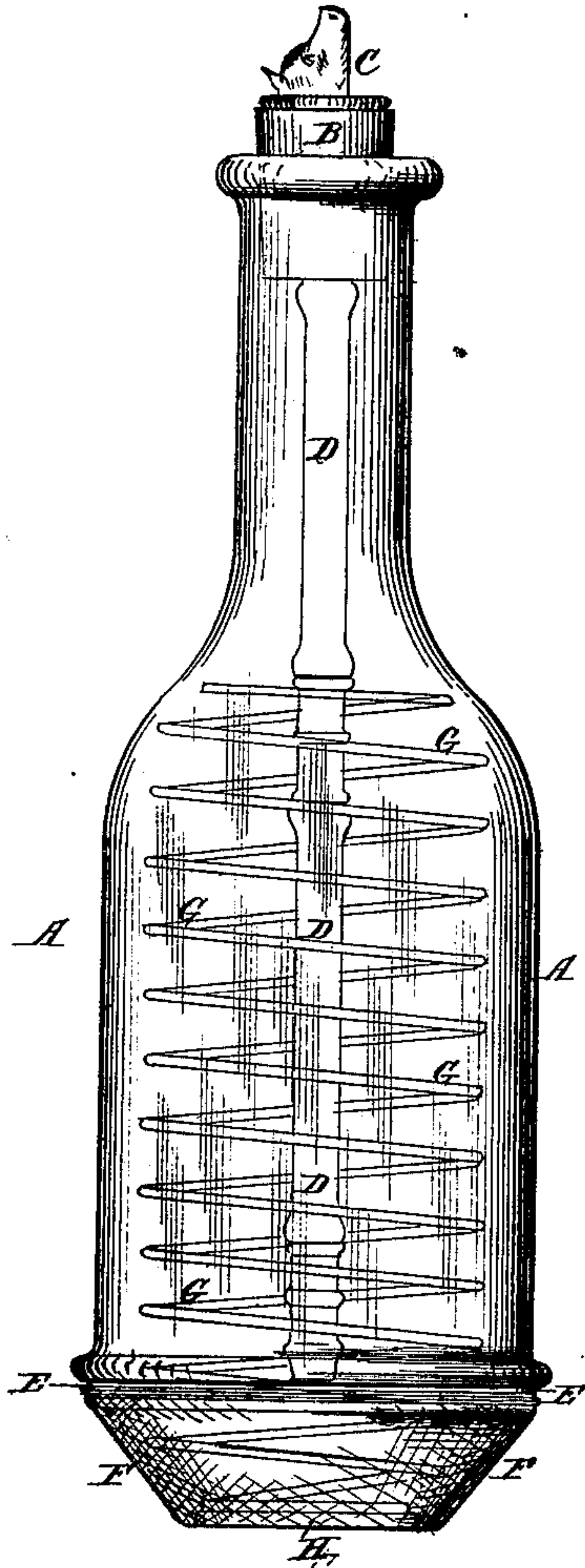
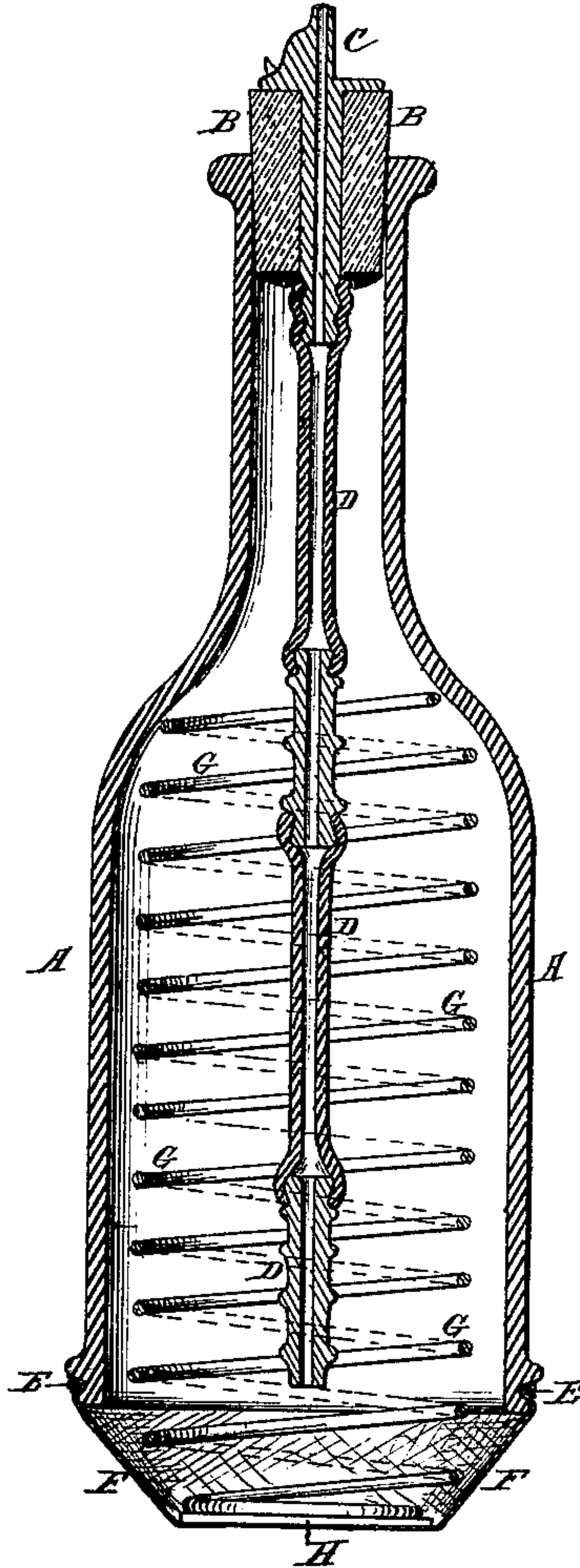


Fig. 2.



Attest:
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CHARLES CHINNOCK, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN POWDER-EJECTORS.

Specification forming part of Letters Patent No. **176,279**, dated April 18, 1876; application filed February 24, 1876.

To all whom it may concern:

Be it known that I, CHARLES CHINNOCK, of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Powder-Ejector, of which the following is a specification:

This invention relates to an improved injector or powder-gun, for throwing obnoxious or poisonous powders into or upon places occupied by insects, for destruction and extermination of the same; its object being to provide an apparatus that can be cheaply constructed, and that can be conveniently filled and handled, and in which the contents are in full view of the operator, in order to indicate when it is necessary to replenish the apparatus.

The invention consists of a flask or other suitably-shaped receptacle, constructed of glass or other suitable material, and provided with an open mouth and bottom, the mouth being adapted to receive a cap or stopper, provided with a discharge-tube, having a flexible-jointed extension projecting into the interior of the receptacle, and the open bottom being provided with a flexible bottom, distended from the inside by means of a spiral or other spring. The inner flexible end of the discharge-tube is adapted to fall to the lower side of the receptacle in whatever position the flask may be held, in order to provide for the discharge of the last portions of the contents of the flask, and is made in sections, jointed together, in order to enable it to be shortened or lengthened as the bottle is filled and emptied, so that it may be properly inserted and will always fall in proper position. The flexible bottom may be made removable, in order to allow the flask to be filled from the bottom; or it may be permanently attached to the flask, the flask being formed with an external groove around its lower edge, in which the bottom may be secured by means of an elastic band of rubber, metal, or other material, or by a binding cord or wire of any suitable material.

In the drawing, Figure 1 represents a perspective view of my apparatus, and Fig. 2 a sectional view of the same.

The letter A represents a flask or other shaped receptacle for the powder, constructed of glass or other transparent medium, with an

open mouth and bottom. B represents a stopper or cap, adapted to fit into or be otherwise secured to the mouth of the flask. C represents a discharge-tube, extending through the stopper or cap, and provided at its inner end with a flexible tube or extension, D, formed in sections, which are jointed together in such manner that the sections may be separated and the tube shortened, as desired.

The object of such construction of the flexible extension is to enable the same to be shortened, as desired, when the flask is filled through the mouth, so as to enable the cap and tube to be inserted when the bottle is completely filled, and to be extended as the flask becomes empty.

Around the exterior of the edge of the open mouth of the flask is formed a groove or annular recess, E, for the purpose of receiving and holding the edge of the flexible bottom F. Said bottom is composed of flexible cup or disk, of rubber, oiled silk, or other suitable material, secured or bound into the groove or recess E by means of an elastic or detachable band of rubber, metal, or other suitable material, or by a permanent binding cord or wire of any suitable material.

G represents a spiral spring sitting within the flask, its upper end having a bearing against the interior of the shoulder of the flask, and its lower end against a rigid disk, H, of metal or other material, sitting against the flexible bottom F.

The object of said spring is to keep the flexible bottom distended outwardly, and allow it to be pressed inwardly to discharge the powder.

As thus constructed, it will be seen that the powder can always be discharged as long as any remains in the flask, as the end of the flexible extension of the discharge-tube always lies at the lowest part of the flask in whatever position it may be turned.

By constructing the flexible connection in sections, provision is made for the insertion of the top and flexible extension in the flask, and providing for the thorough discharge of the powder whether the flask is full or partially full, and by means of the flexible bottom a convenient means of discharging the powder is obtained.

The flexible bottom also, as before stated, may be made removable, if it is desired to fill the flask from the bottom, and, as the flask is transparent, it will readily be perceived when it needs replenishing.

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

A powder ejector for exterminating insects, consisting of a vessel, A, having a flexible bottom, expanded by a coiled spring arranged in the vessel, in combination with a tube passing through the stopper B of the vessel, and pro-

vided with a flexible sectional discharge-tube, D, the whole being constructed and arranged substantially as described, for the object specified.

In testimony that I claim the foregoing I have hereunto set my hand in the presence of the subscribing witnesses.

CH. CHINNOCK.

Witnesses:

JOS. L. COOMBS,
A. H. NORRIS.