

(No Model.)

J. JAEGER.
INSECT POWDER GUN.

No. 378,687.

Patented Feb. 28, 1888.

Fig. 1.

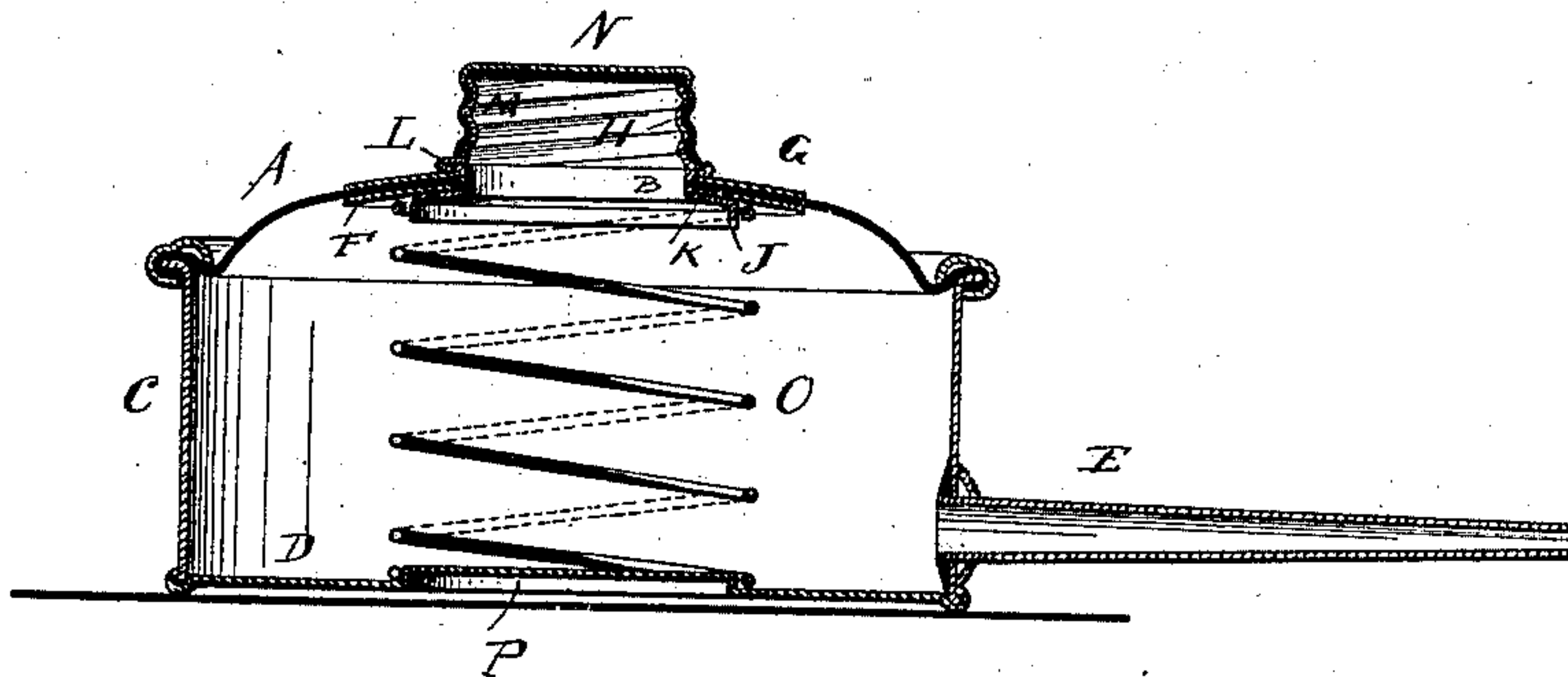


Fig. 2.

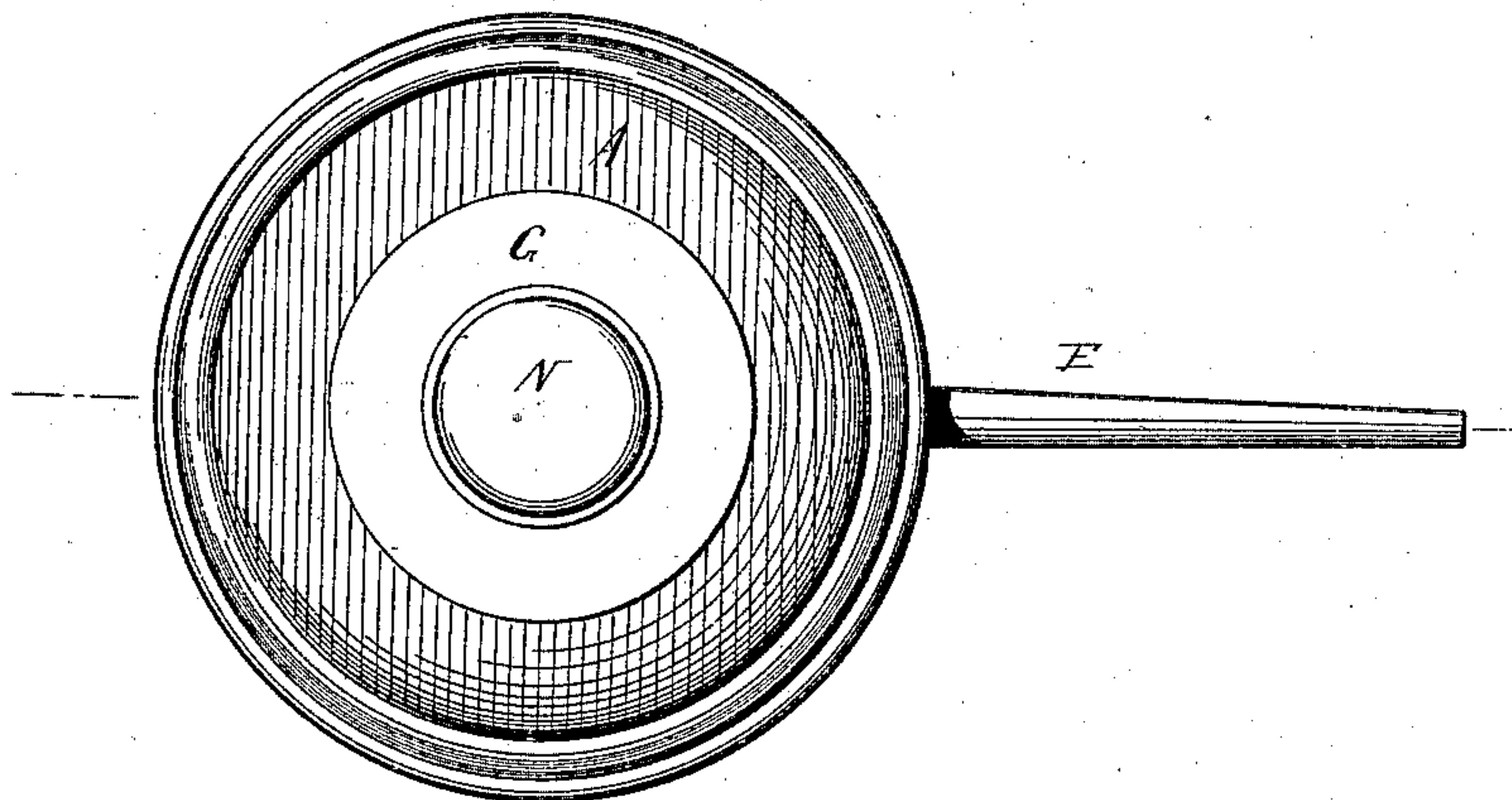
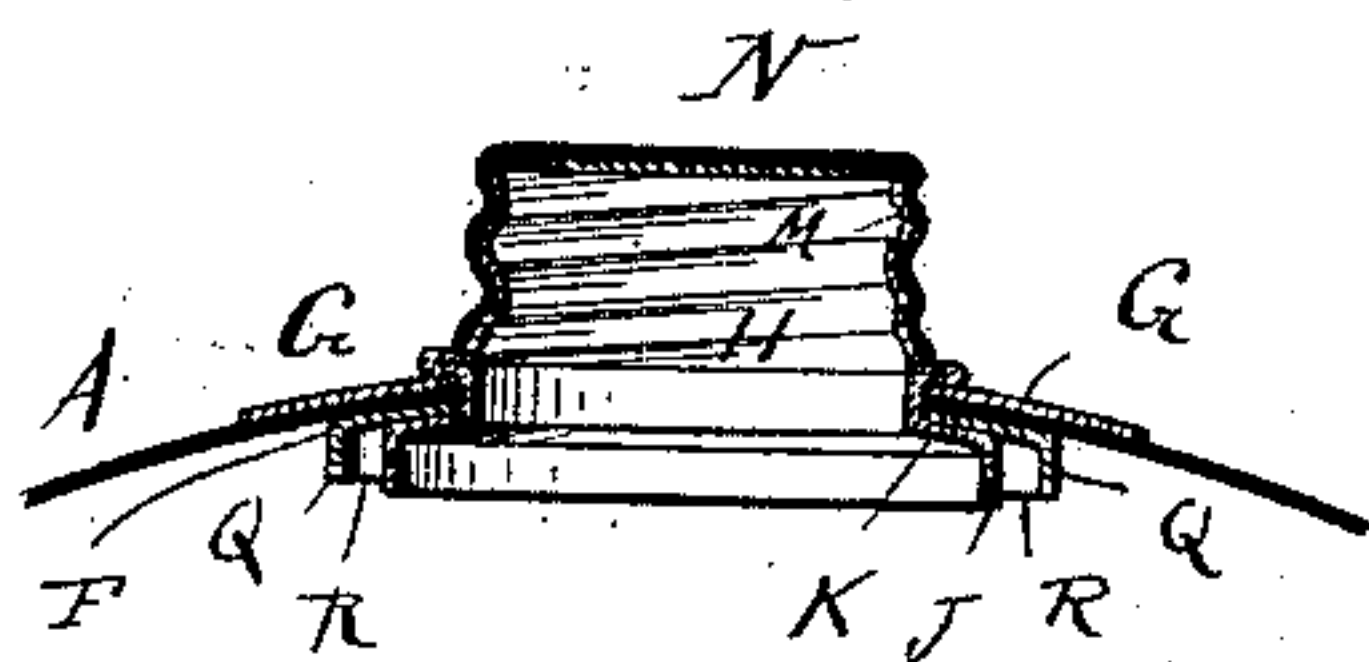


Fig. 3.



WITNESSES:

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JULIUS JAEGER, OF RUTHERFORD, NEW JERSEY.

INSECT-POWDER GUN.

SPECIFICATION forming part of Letters Patent No. 378,687, dated February 28, 1888.

Application filed December 28, 1887. Serial No. 259,229. (No model.)

To all whom it may concern:

Be it known that I, JULIUS JAEGER, of Rutherford, in the county of Bergen, State of New Jersey, have invented certain new and useful Improvements in Insect-Powder Guns, of which the following is a specification.

This invention relates to certain new and useful improvements in the implements used for ejecting insect-powder into cracks, slits, &c.

The object of my invention is to provide a new and improved insect-powder gun which is simple in construction, can be filled through a top opening that can be closed perfectly, and in which gun the spring is securely held in such a manner that it cannot become displaced.

The invention consists in the combination, with a casing, of a diaphragm fixed in the same, and a neck clamped on said diaphragm, which neck is provided with a flange having a downwardly-bent edge which is surrounded by the upper end of the spiral spring in the casing.

The invention further consists in the combination, with said casing and diaphragm, of a screw-neck and a screw-cap on said neck or in said neck.

The invention also consists in the construction and combination of parts and details, as will be fully described and set forth hereinafter, and then pointed out in the claims.

In the accompanying drawings, Figure 1 is a vertical longitudinal sectional view of my improved powder-gun. Fig. 2 is a top view of the same. Fig. 3 is a vertical transverse sectional view of the top portion of the same, showing a modified construction of parts.

Similar letters of reference indicate corresponding parts.

The diaphragm A, made of oil-cloth, sheet-rubber, leather, or any suitable fabric, is provided with the central aperture, B, and is fastened at its circumference in any well-known or suitable manner to the top edge of the cylindrical casing C, having the closed bottom D, and the outlet-nozzle E in its side directly above the bottom.

On the under side of the diaphragm A, I place a flat annular piece or ring, F, of sheet metal, and on the top of the diaphragm I place a like sheet-metal ring, G, the apertures in the diaphragm and in the metal rings registering. From the inner side I pass the neck H, provided with the external flange, K, having the

turned-down edge J, through the said apertures, and rest the flange K against the under side of the inner sheet-metal ring F.

Directly above the upper surface of the upper sheet-metal ring, G, I form an external bead, L, by forcing part of the metal of the ring H outward by means of a suitable implement, whereby the two flat sheet-metal rings F and G and the inner edge of the diaphragm A are firmly and securely clamped between the flange K and the said bead L, and thus the sheet-metal rings and the neck H are held securely on the diaphragm. Said neck is provided with the screw-thread M, and on or in said neck I screw the threaded cap N.

The neck H may be made with a shoulder to lie on the outside ring, G, and through the inner ring, F, and bent over the inner ring, F. If this is done, the inner ring, F, must have a downward flange, Q, to hold the spring in position; or the neck H may be made without the flange J. If so, the inner ring, F, must have a downward flange, Q.

The upper end of the spiral spring O is placed around the bent-down edge J of the flange K, and is thus retained in place; and the lower end of said spring is placed around a cylindrical projection, P, on the upper surface of the bottom D, and is thus also retained in place. If desired, the outer edge of the bottom sheet-metal ring, F, can be bent down to form the annular flange Q, with which the bent-down edge J forms an annular receptacle, R, for the upper end of the spring.

When the cap N is unscrewed, the gun can be filled with insect-powder through the neck, and when said cap is screwed on the neck it forms a rest for the thumb when pressing down the diaphragm for operating the gun.

As the spiral spring cannot be displaced, its ends cannot cut or mutilate the diaphragm.

The cap N is to be provided with a suitable packing, so that when it is screwed down over or in the neck H it will form an air-tight seal.

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

1. In an insect-powder gun, the combination, with a casing, of a centrally-apertured diaphragm on the same, a neck provided with a flange passed through the central aperture of the diaphragm, said flange being at the inner side of the diaphragm, and said neck hav-

ing an external projection above the upper surface of the diaphragm, which flange and projection serve to hold the neck on the diaphragm, substantially as set forth.

5 2. In an insect-powder gun, the combination, with a casing, of a centrally-apertured diaphragm on the same, sheet-metal rings on the upper and lower faces of the diaphragm, a neck provided with a bottom flange having
10 its edge bent down, which neck is passed through the central aperture of the diaphragm, the flange being at the under side of the diaphragm, and a spiral spring in the casing, the upper end of said spring surrounding the bent-
15 down edge of the flange on the neck, substantially as set forth.

3. In an insect-powder gun, the combination, with a casing, of an apertured diaphragm secured on the same, the sheet-metal rings F
20 G on opposite sides of the same, the neck H, having the flange K, provided with a bent-down edge, J, and secured on the said plates

and diaphragm, the flange Q of the sheet-metal ring F, and the spiral spring O in the casing, the upper end of said spring being located between the bent-down edge J and the flange Q, substantially as set forth. 25

4. In an insect-powder gun, the combination, with a casing having a centrally-apertured diaphragm on the same, of a neck held
30 in the central aperture of the diaphragm and provided at its inner end with a flange having its edge bent down, and a spiral spring in the casing, the upper end of said spring surrounding the bent-down edge of the flange on the inner end of the neck, substantially as set forth. 35

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

JULIUS JAEGER.

Witnesses:

WM. HAYWOOD,
H. H. COPELAND.