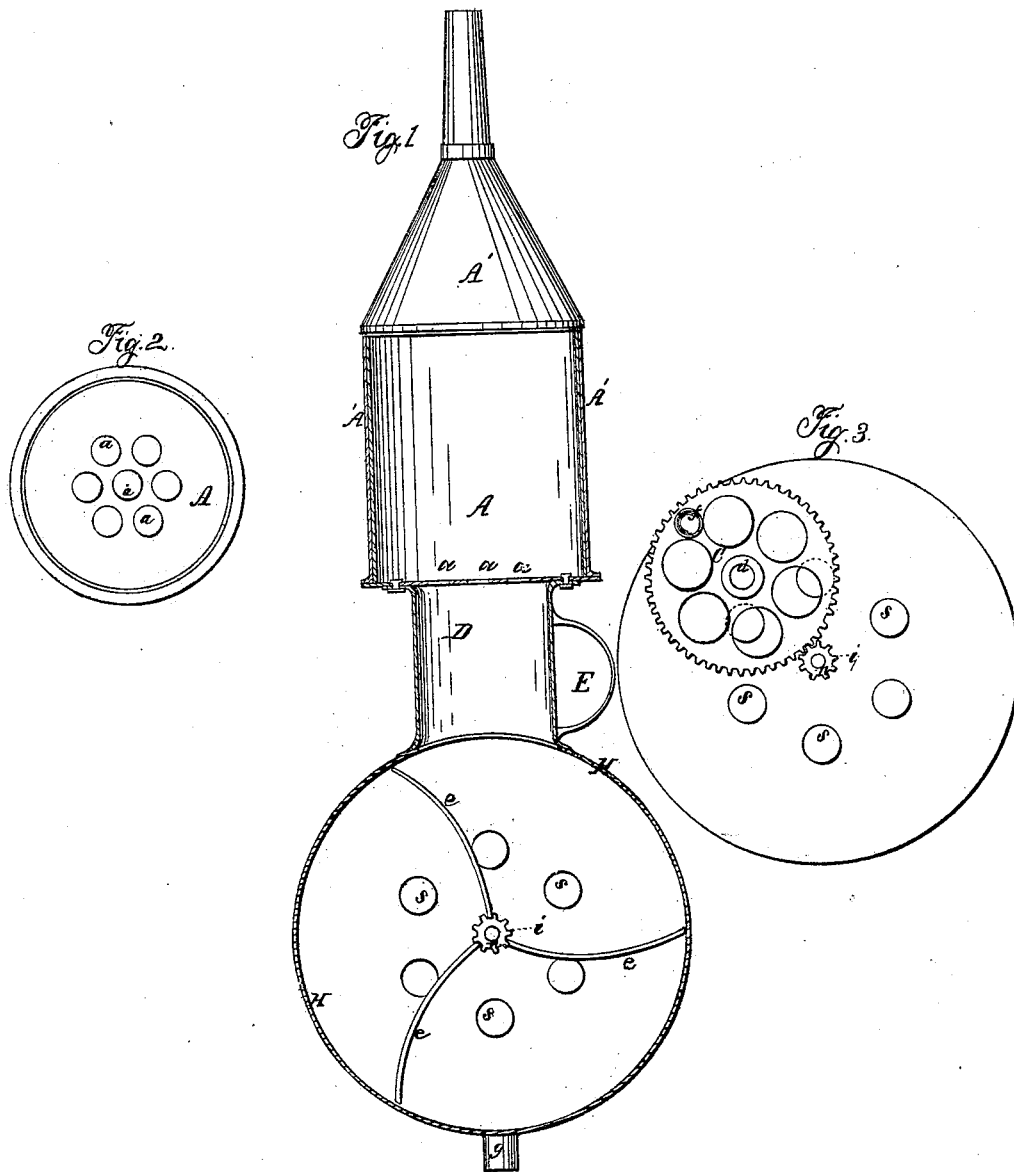


S. VANSTONE.
Insect-Destroyer.

No. 50,752.

Patented Oct. 31, 1865.



Witnesses:
Isaac A. Brownell
John Coligan

Inventor:
Samuel Vanstone

UNITED STATES PATENT OFFICE.

SAMUEL VANSTONE, OF PROVIDENCE, RHODE ISLAND.

IMPROVED FUMIGATOR.

Specification forming part of Letters Patent No. 50,752, dated October 31, 1865.

To all whom it may concern:

Be it known that I, SAMUEL VANSTONE, of Providence, in the county of Providence and State of Rhode Island, have invented a new and Improved Fumigator or Apparatus for Generating and Discharging Fumes of Burning Material for Various Useful Purposes; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a longitudinal elevation and section of my improved apparatus. Figs. 2 and 3 are details of the same.

Similar letters of reference indicate corresponding parts in all the figures.

My invention consists of a combination of a retort or receptacle for holding the material to be burned and a blower for creating and maintaining combustion therein, and for expelling the fumes therefrom, as hereinafter described.

To enable others skilled in the art to make and use my invention, I will proceed to describe the same.

In the drawings, A is the retort, formed generally of sheet metal in two parts, the one, A', having a funnel-shaped top for the escape of the fumes, while its lower straight cylindrical portion shuts over and incloses snugly the retort H, which is also cylindrical.

The bottom of the retort is provided with a number of holes, *a a*, shown in Fig. 2, through which the draft or blast from the blower is transmitted to the burning material in the retort. To this bottom of the retort is riveted a cylindrical neck, D, which is also secured by riveting or soldering to the drum H of the blower. Within this drum there is a number of fans, *eee*, on a shaft, *i*, at the center, which constitutes the blower for producing the blast or artificial draft, and in the circular sides of the drum H, around and near the center thereof, are a number of holes or openings, S, through which the external air is drawn into the drum,

and from thence carried forcibly through the neck into and through the retort by means of the rapid revolution of the blower.

The blower, as represented, is revolved by means of the pinion *n* on the blower-shaft and the gear C on a stud, *d*, on the outside of the drum, the latter being revolved by the stud *f* on said gear, serving as a crank. The blower may also be revolved by means of a large and a small pulley in place of the two gears, said pulleys being connected in their motions by a suitable band passing around both in the usual way.

A handle, E, is formed on the neck D with which to hold the apparatus steadily and firmly in the hand while it is being operated, and a projection or ferrule may be formed at *g* on the drum with which to attach the apparatus to the end of a pole or rod to carry it up to a certain height or into places difficult of access.

This apparatus is designed for fumigating plants, shrubs, and trees in gardens and green-houses for the destruction of obnoxious insects and vermin thereon, and for other purposes of a similar nature.

In using this apparatus some lighted slivers of wood or pieces of burning charcoal are first deposited in the bottom of the retort A, and the material to be burned therein—tobacco, sulphur, &c.—is deposited on the fire and the funnel is placed over the retort. The blower is then revolved and the material is kindled, and as it burns the fumes arising therefrom are discharged from the end of the funnel upon the object to be fumigated.

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

The combination of the retort A, or its equivalent, with the blower and suitable devices for operating the same, constructed substantially as and for the purposes described.

SAMUEL VANSTONE.

Witnesses:

ISAAC A. BROWNELL,
JOHN COLEGAN.