No. 836,442. PATENTED NOV. 20, 1906.

E. C. DUNNING.

ATOMIZER.

APPLICATION FILED NOV. 29, 1905.

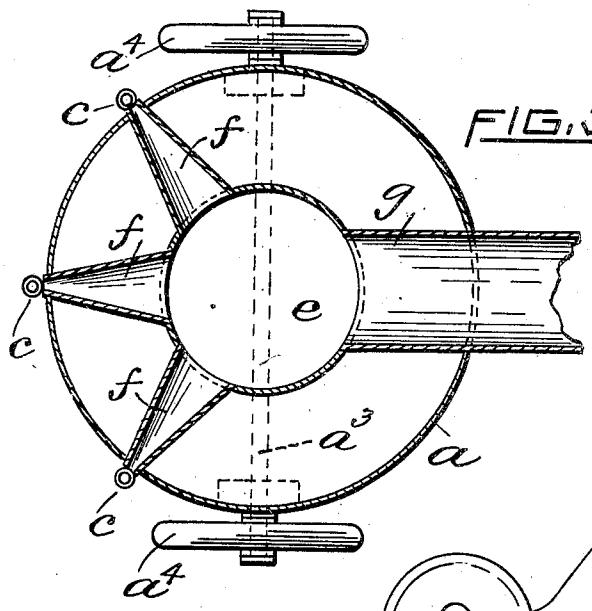

FIG. 3.

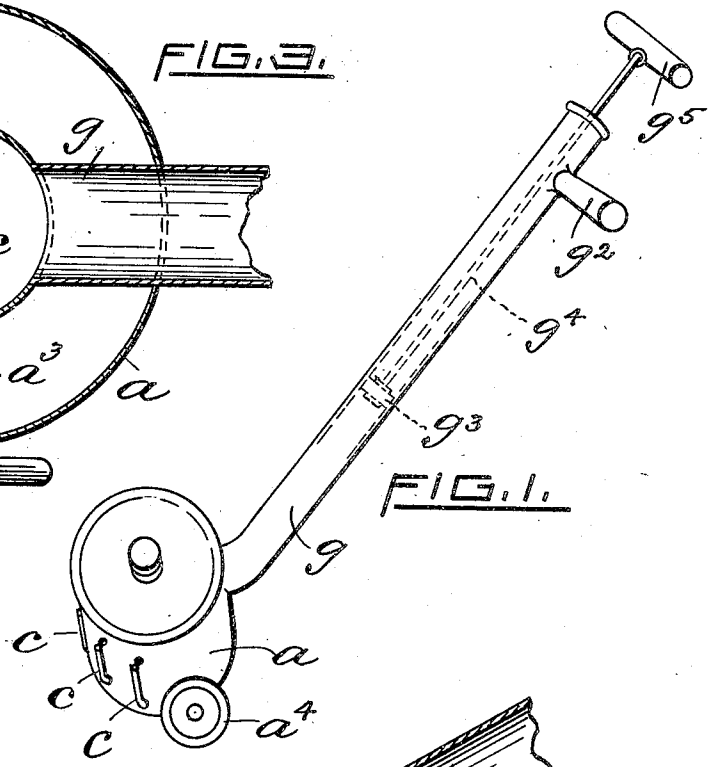

FIG. 1.

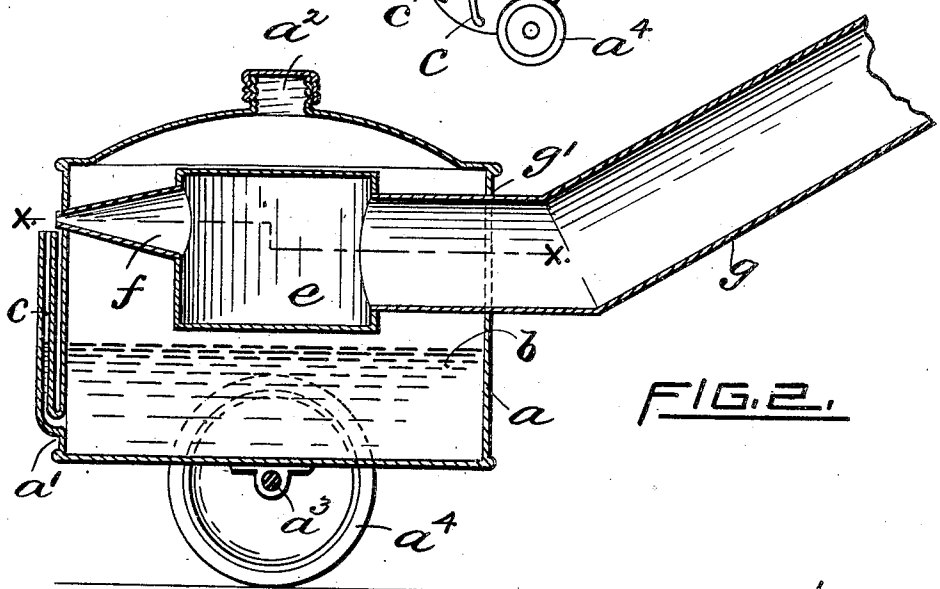

FIG. 2.

WITNESSES,

George A. Harrington

John L. Bucklin.

INVENTOR.

Edward C. Dunning.

By Charles T. Hannigan,

attorney.

THE NORRIS PETERS CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

EDWARD C. DUNNING, OF PROVIDENCE, RHODE ISLAND.

ATOMIZER.

No. 836,442. Specification of Letters Patent. Patented Nov. 20, 1906.

Application filed November 29, 1905. Serial No. 289,630.

To all whom it may concern:

Be it known that I, EDWARD C. DUNNING, a citizen of the United States, residing at the city of Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Atomizers, of which the following is a specification.

My invention relates to atomizers, and has for its object to provide a convenient device to operate in laying the dust of wood floors or carpets prior to their being swept and at the same time a device which may be used very effectively in exterminating insect life on vegetation.

With these ends in view my invention consists of the novel construction, arrangement, and combination of parts, as hereinafter described and claimed.

In the accompanying sheet of drawings, Figure 1 represents a perspective view of the device embodying my improvements. Fig. 2 is an enlarged side elevation of the device with parts in section, and Fig. 3 is a top plan sectional view taken on line $x\,x$ of Fig. 2.

Like reference characters indicate like parts.

Referring to the drawings, a designates a vertically-arranged cylindrical tank adapted to contain a chemical liquid b. Three small pipes $c\,c\,c$ are secured at the front side of the tank a, near the bottom thereof, as at a point a' in Fig. 2, and each of these pipes communicates with the chamber of said tank and projects above the level of the liquid therein. The top of the tank a is provided with a cap-covered opening a^2, which forms an inlet-passage for the liquid. The tank a is properly secured upon an axle a^3, having two wheels $a^4\,a^4$ mounted thereon.

In the upper portion of the tank and concentric thereto is mounted a cylinder e, which is held in place by three small tubes $f\,f\,f$ and large tubular shaft g. These tubes $f\,f\,f$ extend horizontally from the side of the cylinder e and radially to the vertical center thereof. Said tubes are in conical form and have their larger ends communicating with the chamber of the cylinder e and their smaller ends projecting through the wall of the tank a and terminating over and close to the exposed ends of the small pipes $c\,c\,c$. The tubular shaft g, which communicates with the cylinder e, passes through the rear side of the tank, as at a point g' in Fig. 2, and from this point said shaft extends at an angle upwardly from the structure described. This shaft g is provided with a handle g^2, a piston g^3, piston-rod connection g^4, and pump-handle g^5, thus forming a single-acting air-pump for operating the device.

At each downward movement of the piston g^3 the air is forced through the conical tubes $f\,f\,f$ and causes a suction to take place in the pipes $c\,c\,c$, whereby the liquid is drawn from the same and mingles with the air from said tubes in a mist form.

By this construction and arrangement of parts I form an atomizer that permits of little exertion on the part of an operator to spray a chemical liquid over a large surface area either in laying the dust of carpeted floors or else destroying insect life on vegetation in an expeditious manner.

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

1. The herein-described device, comprising a cylindrical tank vertically arranged and properly mounted on wheels, said tank having three outer vertical pipes secured thereto and communicating with the chamber therein; a cylinder vertically mounted within the tank, concentric thereto, and having three conical tubes extending horizontally from its side and radially to the vertical center thereof, said tubes having their smaller ends projecting through the wall of the tank and terminating over and close to the exposed ends of the pipes of the latter; a tubular shaft having one end communicating with the chamber of said cylinder and provided with a handle near its opposite extremity; a piston slidable in said tubular shaft; and a rod to operate said piston, all arranged as shown and for the purpose specified.

2. In an atomizer, the combination with a tank adapted to contain a chemical liquid, said tank properly mounted on wheels and having a series of pipes arranged on its outer side and communicating with the liquid

chamber, of a cylinder mounted within the tank and having a series of conical tubes whose smaller ends project through the wall of the tank and terminate over and close to the exposed ends of the pipes thereof; a tubular shaft having one end communicating with the chamber of said cylinder and provided with a handle near its opposite end; a piston mounted in said shaft, and a piston-rod for operating, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

EDWARD C. DUNNING.

Witnesses:

GEORGE A. HARRINGTON,

JOHN C. BUCKLIN.