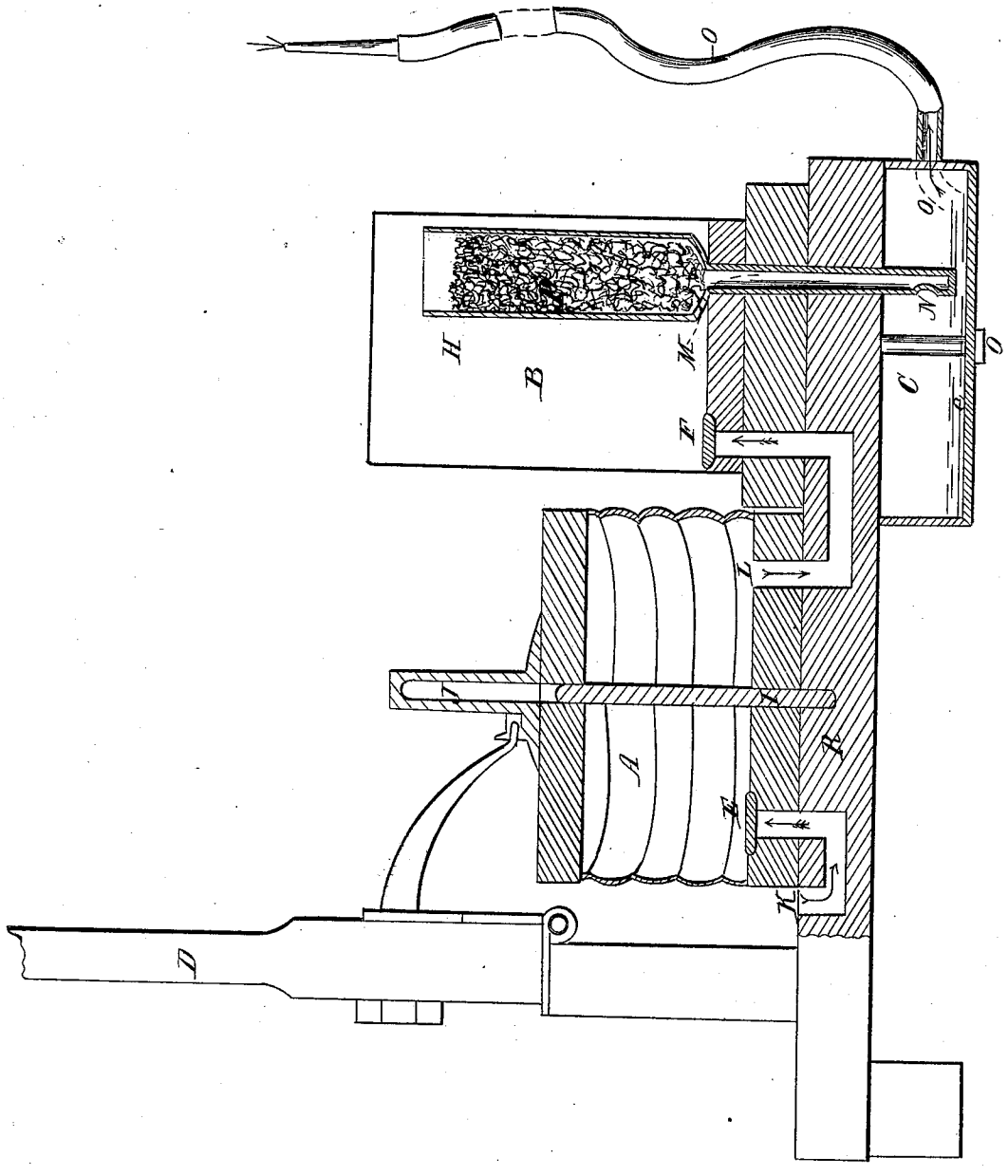
W. WHITAKER.

Insect-Destroyer.

No. 16,516.

Patented Jan. 27, 1857.



N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

WELCOME WHITAKER, OF TROY, NEW YORK, ASSIGNOR TO HENRY L. PALMER AND JULIUS A. SKILTON.

VERMIN-DESTROYER.

Specification of Letters Patent No. 16,516, dated January 27, 1857.

To all whom it may concern:

Be it known that I, WELCOME WHITAKER, of Troy, in the county of Rensselaer and State of New York, have invented a new and useful apparatus for producing and applying noxious gases or vapors to destroy or dislodge insects or vermin in the crevices of houses or ships or on trees, plants, or animals; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed sectional drawing, making a part of this specification.

It is well known that the gases or vapors arising from the combustion, roasting or volatilization of tobacco, sulfur, and many other deleterious substances, will destroy the lives of the insects or vermin which infest houses, trees, or plants, when applied to these animals for a short time; yet heretofore it has been impracticable to produce and at the same time apply these gases or vapors in a steady and prolonged stream, or in an economical way to destroy such insects or vermin in their various lodging places. But by the use of my apparatus herein described, a person is able to copiously produce, and at the same time apply these vapors or gases in a steady stream, during a long time, and thereby effectually destroy or dislodge such insects or vermin, wherever found, in an expeditious and economical manner.

My said apparatus consists of a common air pump or bellows, a suitable combustion chamber inclosing an appropriate contrivance in which the tobacco or other deleterious material can be ignited and burned, and a discharge hose or pipe with or without a receptacle for receiving the solid and liquid products of said combustion; all so arranged together that when the deleterious material in the combustion chamber is ignited and the bellows or pump then operated, air shall be taken from the atmosphere by the pump and forced into the combustion chamber and upon or through the ignited material therein in such manner that the said material shall be kept burning and the said air at the same time saturated or charged with the noxious products of such combustion and then such deleterious air or gas be forced out of the apparatus through the discharge pipe in a steady stream until the pump is stopped or the ignited material consumed.

In the drawing, A is a bellows-pump, worked by the lever D, and kept upright by the bar I and slot J. Air is drawn by A from the atmosphere through the passage K, and prevented from returning by the valve E; and is forced into the combustion chamber B, through the passage L and its return prevented by the valve F.

H is the generator or contrivance in which the deleterious material P, is burned by first igniting it at its top surface when the condensed air in B, passes down through P, and keeps it ignited and thereby becomes charged or saturated with the deleterious gaseous products of such combustion; and then passes through the pipe M and orifice N into the receptacle C, which retains the solid and liquid products of combustion, and gives more steadiness to the stream of noxious air or gas as it passes out of C, through the pipe O, to be applied to the victims. I make the hose, O, of such length and material as circumstances require; and attach the combustion chamber to the base R, in such manner as to be quickly removed to renew and ignite the material therein; and I also attach the receptacle for the solid and liquid products of combustion so as to be easily removed to empty it of accumulated deposits. When all the products of the combustion will pass out through the discharge hose with ease, this receptacle may be dispensed with. When the substance to be volatilized is incombustible, I mix it with some combustible material and burn the mixture in the generator. I variously construct and arrange the generator within the combustion chamber, and ignite the material at the top, bottom, or other place as most suitable; but in all cases I so arrange these that the material shall be kept ignited and the air be saturated with the noxious gases of combustion as it is forced through the combustion chamber, until said material is consumed.

What I claim as my invention, is—

Combining with a fumigating furnace or combustion chamber, bellows and a flexible pipe in the manner herein above set forth.

I limit my claim to the use of bellows and flexible pipe, and to their use in the manner above set forth.

WELCOME WHITAKER.

Witnesses:

R. CRUIKSHANK,

AUSTIN F. PARK.