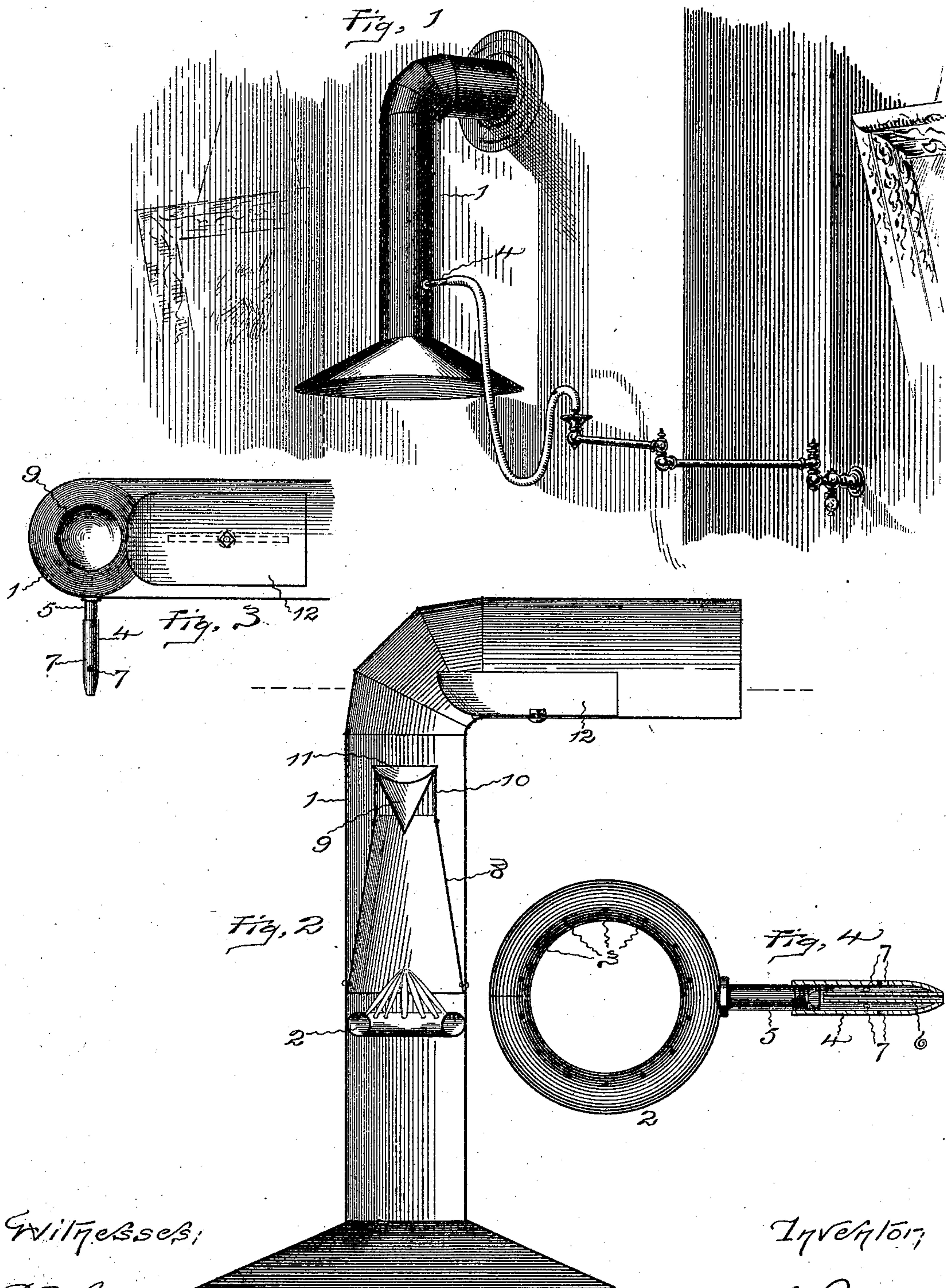


(No Model.)

W. L. POTTER.
SANITARY VENTILATOR.

No. 502,995.

Patented Aug. 8, 1893.



Witnesses:
C. E. Buckland,
Arthur F. Day

Inventor:
W. L. Potter,
by Harry B. Williams
att.

UNITED STATES PATENT OFFICE.

WILSON L. POTTER, OF HARTFORD, CONNECTICUT.

SANITARY VENTILATOR.

SPECIFICATION forming part of Letters Patent No. 502,995, dated August 8, 1893.

Application filed November 18, 1892. Serial No. 452,408. (No model.)

To all whom it may concern:

Be it known that I, WILSON L. POTTER, a citizen of the United States, residing at Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Sanitary Ventilators, of which the following is a full, clear, and exact specification.

The invention relates to the class of hygienic or sanitary ventilators more particularly adapted for use in hospitals, houses or apartments in which there is illness or disease, for drawing off and conveying away all the carbonic acid gas, effluvia, noisome exhalations and polluted atmosphere contaminated by the disease, and destroying the bacillus, spores, animalcules, microbes and all other forms of bacteria and disease propagating germs.

The object of the invention is to provide a simple, cheap and inconspicuous ventilator of this class, which can be easily and quickly placed in or removed from position, so constructed that it will operate effectually without sensible draft, avoiding any possibility of a back draft which at a time when the wind is high, besides causing unpleasant and irritating noises, will disseminate germs from the tube throughout the apartment, bring cold air into the room and extinguish the germ destroying and outward draft-producing flames.

Referring to the accompanying drawings: Figure 1 is a perspective view of the apparatus in use. Fig. 2 is an enlarged vertical section of the ventilator. Fig. 3 is a horizontal section on the plane denoted by the dotted line in Fig. 2; and Fig. 4 is an enlarged plan of the burner.

In the views 1 indicates a pipe or tube, usually made of thin sheet iron or tin, bent on an angle. The upper end of the tube is adapted to be inserted into a stove pipe or similar opening in a chimney, through the side of a building or out of a window, and the lower end is provided with a bell-shaped or flaring mouth of a size that enables it to rest against the side of the wall for support when the upper end is in the chimney or other opening. A circular burner 2 formed of a coil of small pipe with perforations or openings 3, is placed in the tube above the mouth and connected with a nozzle attached to the nipple of this

burner is a flexible pipe, leading from any gas bracket in the room in which the device is placed. The nozzle is preferably formed of a tube 4 that is secured to the nipple 5 of the burner, with an interior duct 6 of smaller diameter, that is open to the pipe from the gas bracket. Perforations 7 of any desired size are made through the tube 4 for the entrance of air, so that when the burner is lighted the intermingling of the hydrogen gas and the atmospheric oxygen will produce a hot flame. The perforations 3 are made through the inside of the circular burner in such manner that the jets of flame converge and come to a point at the center so that nothing can escape through the tube without passing through the flames. A short distance above the burner a thin sheet metal truncated cone 8 is placed with the larger end at the bottom of a size that just fits the wall of the tube to which it is secured. Above and with an end projecting into this truncated cone is an inverted cone 9, this latter cone being held above the former by rods 10, and having a concave base 11 which is slightly greater in diameter than the open top of the lower cone above which it is held. On the bottom of the horizontal portion of the tube is a slide or shield 12 that is adjustable back and forth to regulate the opening at the bent portion of the tube.

One of these ventilators, which are simple, cheap and light, can be conveniently placed in any sick room or hospital ward with one end projecting into the chimney or through a window. When connected with the gas and lighted the hot flames create a draft which quietly draws the foul atmosphere in the room out through the tube, and as this atmosphere passes through the flames all the organic germs with which it is laden are destroyed. If the wind outside is blowing hard the shield 12 is pushed inward to partially close the opening through the tube at the bend, and this shield being curved tends to deflect the inward current upward against the top of the tube so as to check its force. Any inward current that passes the shield at the center is checked and sent upward by the concave base of the inverted cone, and any current that passes down the sides of the tube is checked by the sloping walls of the truncated cone so

that no back draft can pass into the truncated cone to blow out or flicker the flames of the burning gas. This checking of any inward current avoids any liability of driving into
5 the room any germs or foul gases collected in the tube, and also prevents any tendency of cold air to be driven into the room, as well as checking any violent current of air which
10 noise or sound in the tube or by blowing across its end in the chimney.

I claim as my invention—

1. A sanitary ventilator consisting of a tube adapted to pass from the interior to the ex-
15 terior of a room, a burner in the interior of the tube, a truncated cone placed above the burner in the tube, and an inverted cone having a base larger in diameter than the top of the truncated cone placed just above and se-
20 cured thereto within the tube, substantially as specified.

2. A sanitary ventilator consisting of a tube

adapted to pass from the interior to the exterior of a room, a burner in the interior of the tube, a truncated cone placed above the
25 burner in the tube, a disk larger in diameter than the top of the truncated cone placed just above and secured thereto within the tube, substantially as specified.

3. A sanitary ventilator consisting of a tube
30 adapted to pass from the interior to the exterior of a room, a burner in the interior of the tube, a truncated cone placed above the burner in the tube, a disk larger in diameter than the top of the truncated cone placed
35 just above and secured thereto within the tube, and a deflector located in the tube above the disk and adapted to be moved to open or close the passage through the tube, substantially as specified.

WILSON L. POTTER.

Witnesses:

H. R. WILLIAMS,

CLARENCE E. BUCKLAND.