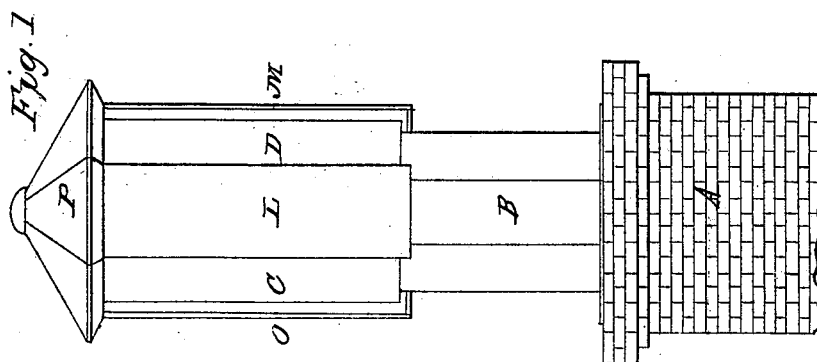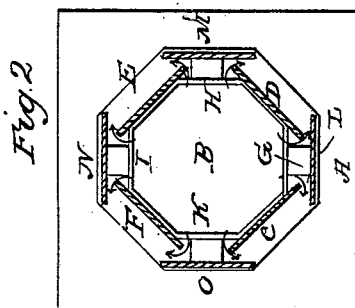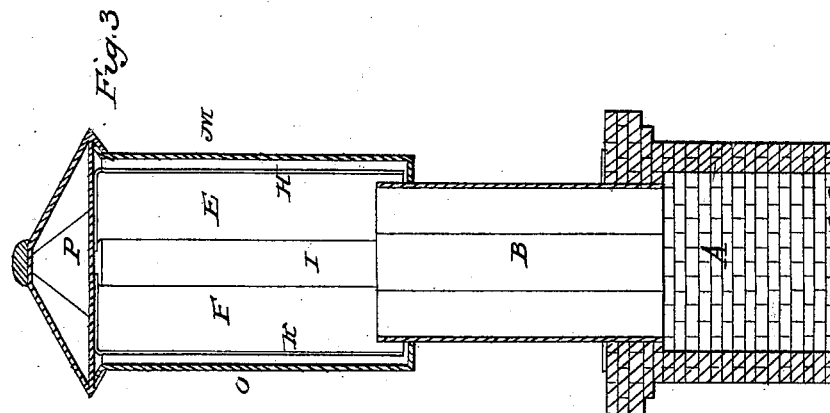# E. WHITELY.

Ventilator.

No. 7,152.

Patented March 5, 1850.

UNITED STATES PATENT OFFICE.

EDWARD WHITELY, OF BOSTON, MASSACHUSETTS.

CHIMNEY-CAP.

Specification of Letters Patent No. 7,152, dated March 5, 1850.

To all whom it may concern:

Be it known that I, EDWARD WHITELY, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new or Improved Ventilator for Removing Smoke, Noxious Gases, or Foul Air from a Chimney or Flue; and I do hereby declare that the same is fully described and represented in the following specification and accompanying drawings, letters, figures, and references thereof.

Of the said drawings Figure 1, denotes a side elevation of the said improved ventilator applied to the top of a chimney. Fig. 2, is a horizontal section of it. Fig. 3, is a vertical and central section of it.

In the said drawings A represents the chimney, while B, is the tubular conductor or lower part of the ventilator and which supports the upper part, or that which is constructed in my improved manner.

On the part B, is erected a series of vertical plates C, D, E, F, which are arranged at equal distances apart around the vertical axis of the ventilator and so as to leave rectangular spaces or openings G, H, I, K. Outside of these spaces and covering them respectively and placed at about two inches from the adjacent edges of each two plates is a series of plates L, M, N, O. The whole arrangement of plates is surmounted by a pyramidal roof or cover P.

Each plate L, M, N, or O, should be made in its horizontal width greater than the width of the opening G, H, I, or K, covered by it, or in other words the several exterior plates should be made of such widths that each of the distances between the next adjacent edges of any two of them shall be less than the width of the internal plates C, D, E, or F, included immediately between them. The small curved arrows represented in Fig. 2, exhibit the manner in which the smoke can escape out of the ventilator. The ventilator so made of any suitable material is calculated to be what is generally termed a stationary one, or in other words, when erected on a chimney or flue, neither it or any part of it is revoluble by the action of the wind. It is intended to operate when the wind blows from any quarter of the compass. If a current of air is blown directly and perpendicularly against the plate C, it will spread outward both ways and impinge against the plates O, and L, and pass between them and the plate C, F, and D, and by or across the opening K, and G, and not blow or pass into the ventilator to any material extent, the smoke which may be in the act of passing out through the openings K and G, being carried off by the said currents. So should a current of air impinge against the outer side of one of the outside plates L, M, N, O, it will be prevented from passing into the passage or opening G, H, I, or K, protected by it. The air when in such a direction will also impinge against the two adjacent internal plates C and D, or D and E or E and F or F and C, and be reflected against and pass between the two plates O, and M, or L, and N, and by so doing will meet some of the issuing currents of smoke and carry them off. The current or currents of air so impinging against the ventilator operates not only to carry off the smoke but to increase the internal draft of the ventilator. Besides this the wind and rain are prevented from passing into the body of it.

What I claim as my invention, is—

The improved ventilator constructed of a combination of a series of external plates, a series of internal plates and openings or smoke passages, arranged covered, and applied to a flue and made to operate together substantially in the manner as above specified.

In testimony whereof I have hereto set my signature this second day of October A. D. 1849.

EDWARD WHITELY.

Witnesses:
F. GOULD,
GARDINER G. HUBBARD.