C. K. EDWARDS.

Smoke-Ventilator.

No. 196,790. Patented Nov. 6, 1877.

Fig. 1

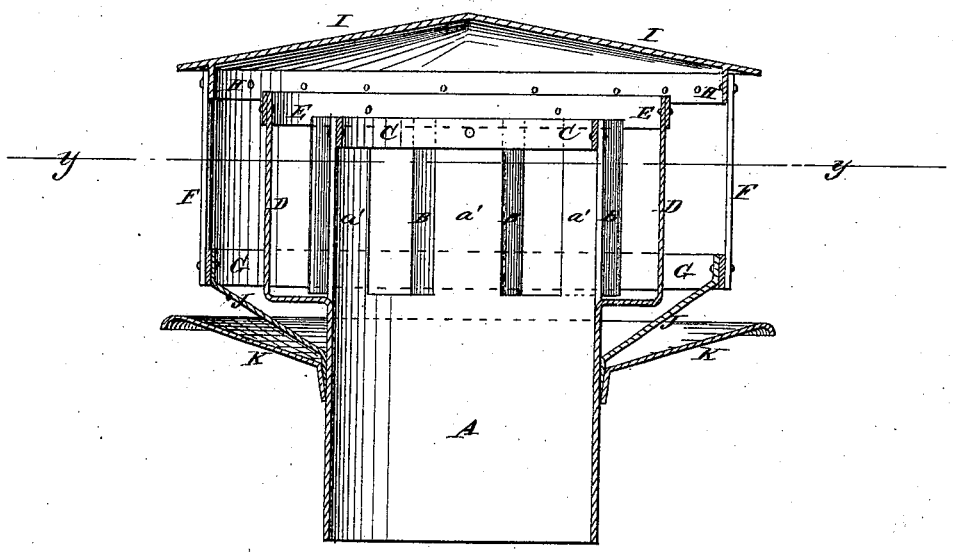
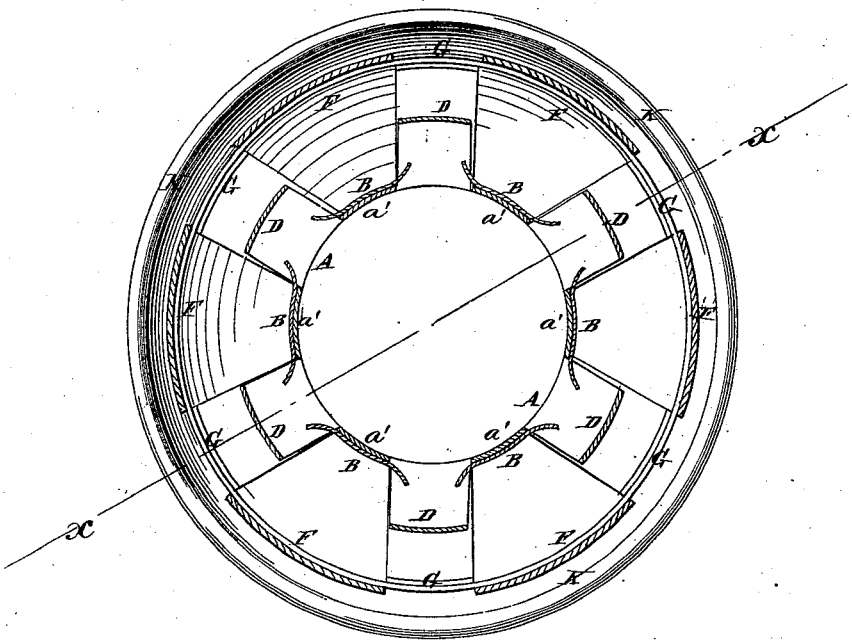


Fig. 2



WITNESSES:

A. W. Almquist

J. H. Scarborough.

INVENTOR:

C. K. Edwards.

BY Munn & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

CRAIG K. EDWARDS, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN SMOKE-VENTILATORS.

Specification forming part of Letters Patent No. **196,790**, dated November 6, 1877; application filed October 6, 1877.

To all whom it may concern:

Be it known that I, CRAIG KELMAN EDWARDS, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Smoke-Ventilators, of which the following is a specification:

Figure 1 is a vertical section of my improved ventilator, taken through the line *x x*, Fig. 2. Fig. 2 is a horizontal section of the same, taken through the line *y y*, Fig. 1.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish an improved ventilator for chimneys and other places, which shall be so constructed that the wind cannot blow down the flue with which said ventilator is connected, but must necessarily increase the upward draft through said ventilator, and thus more certainly carry off the smoke or foul air, and which shall be simple in construction and inexpensive in manufacture.

The invention consists in an improved ventilator, formed by the combination, with each other and with the pipe, of the four sets of strips, the four bands, the cover, the supporting-strips, and the flaring ring-flange, constructed and arranged as hereinafter fully described.

A represents a pipe, which is connected with the upper end of the chimney or other flue. In the upper end of the pipe A are formed six slots, leaving six upwardly-projecting strips, *a'*, the said slots and strips being all of equal size.

To the outer side of the strips *a'* are riveted strips B, of such width that their adjacent edges would nearly meet in the centers of the slots between said strips *a'*, and which are curved outward, as shown in Fig. 2.

The upper ends of the strips *a'* and the curved strips B are connected by a ring-band, C, riveted to them.

The strips D, cut out of the upper part of the pipe A to form the slots, are bent outward at right angles, and then upward at right angles, and are made of such a length that their upper ends may project a little above the upper ends of the strips *a'* B.

The upper ends of the strips D are connected and held in their proper relative positions by a ring-plate, E.

F are strips placed directly opposite the spaces between the strips D, and made wider than the said spaces. The lower ends of the strips F are connected by a ring-band, G, and their upper ends by a ring-band, H, to which is attached the cover I.

The cover I is made slightly conical, and its edge projects a little beyond the strips F, to serve as eaves to keep the rain from entering the ventilator.

The strips F are made of such length that their upper ends may project a little above the upper ends of the strips D.

The strips F and the cover I are supported from the pipe A by the strips J, the outer ends of which are riveted to the band G and strips F, and their lower ends are riveted to the said pipe A.

To the pipe A, a little below the lower ends of the strips D F, is attached the inner edge of a ring flange or plate, K, which flares upward a little, and its outer edge curves downward, and projects a little beyond the circle of the outer strips F, as shown in Figs. 1 and 2.

By this construction, the strips and openings or slots being all constructed by sixes, three openings will always receive the wind, leaving three for the wind and the smoke or foul air to escape through, the strips and openings or slots being so arranged that the wind cannot blow into the pipe A, but must pass out through the openings in the opposite side, carrying the smoke or foul air with it, and increasing the upward draft through the pipe A.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

An improved ventilator, formed by the combination, with each other and with the pipe A, of the strips *a'* B D F, the bands C E G H, the cover I, the supporting-strips J, and the flaring ring-flange K, constructed and arranged substantially as herein shown and described.

CRAIG KELMAN EDWARDS.

Witnesses:

NATHL. LYFORD,

HENRY M. HUNTER.