

HALE & HORTON.

Chimney Cap.

No. 16,644.

Patented Feb. 17, 1857.

Fig: 1.

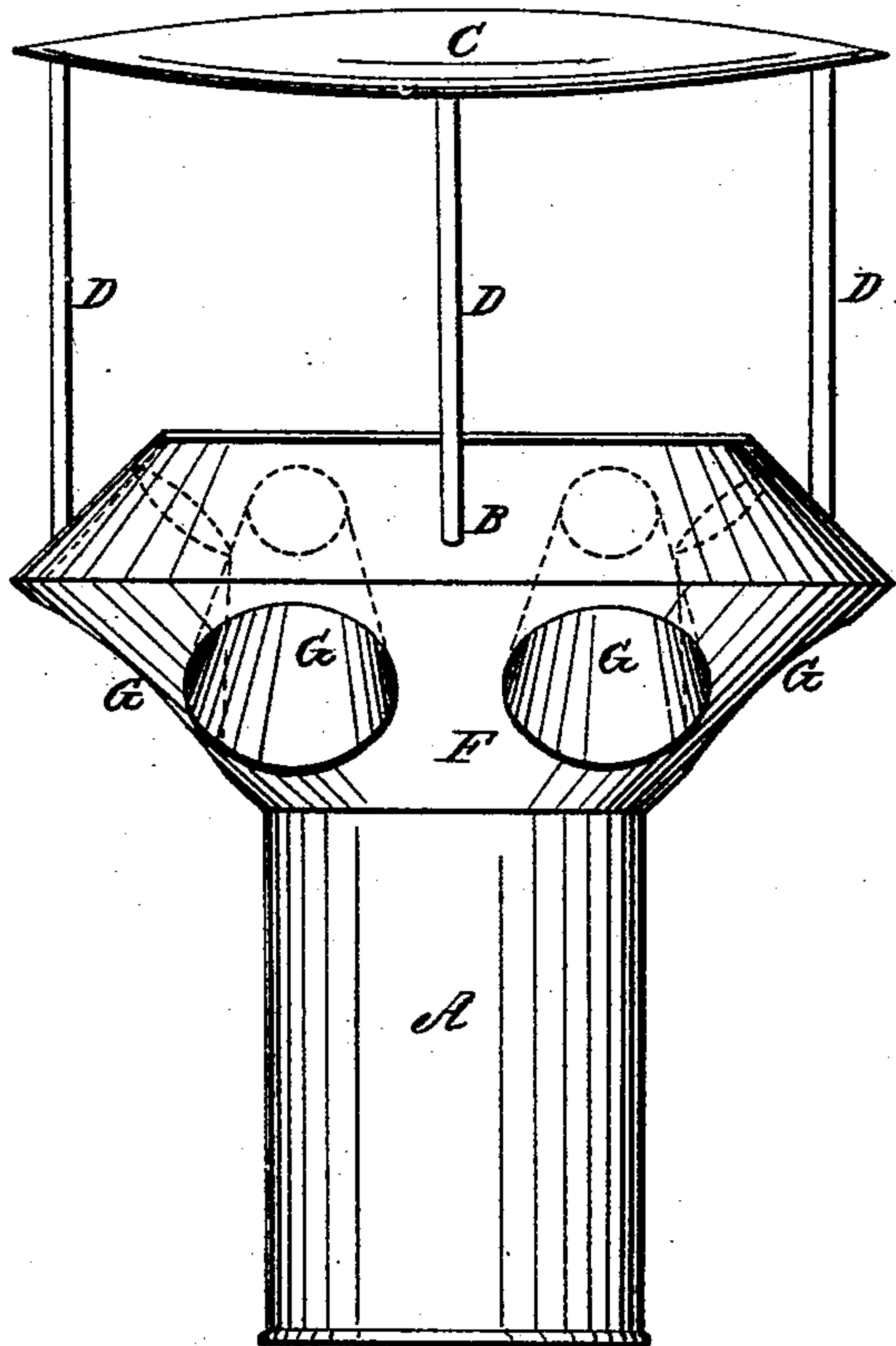
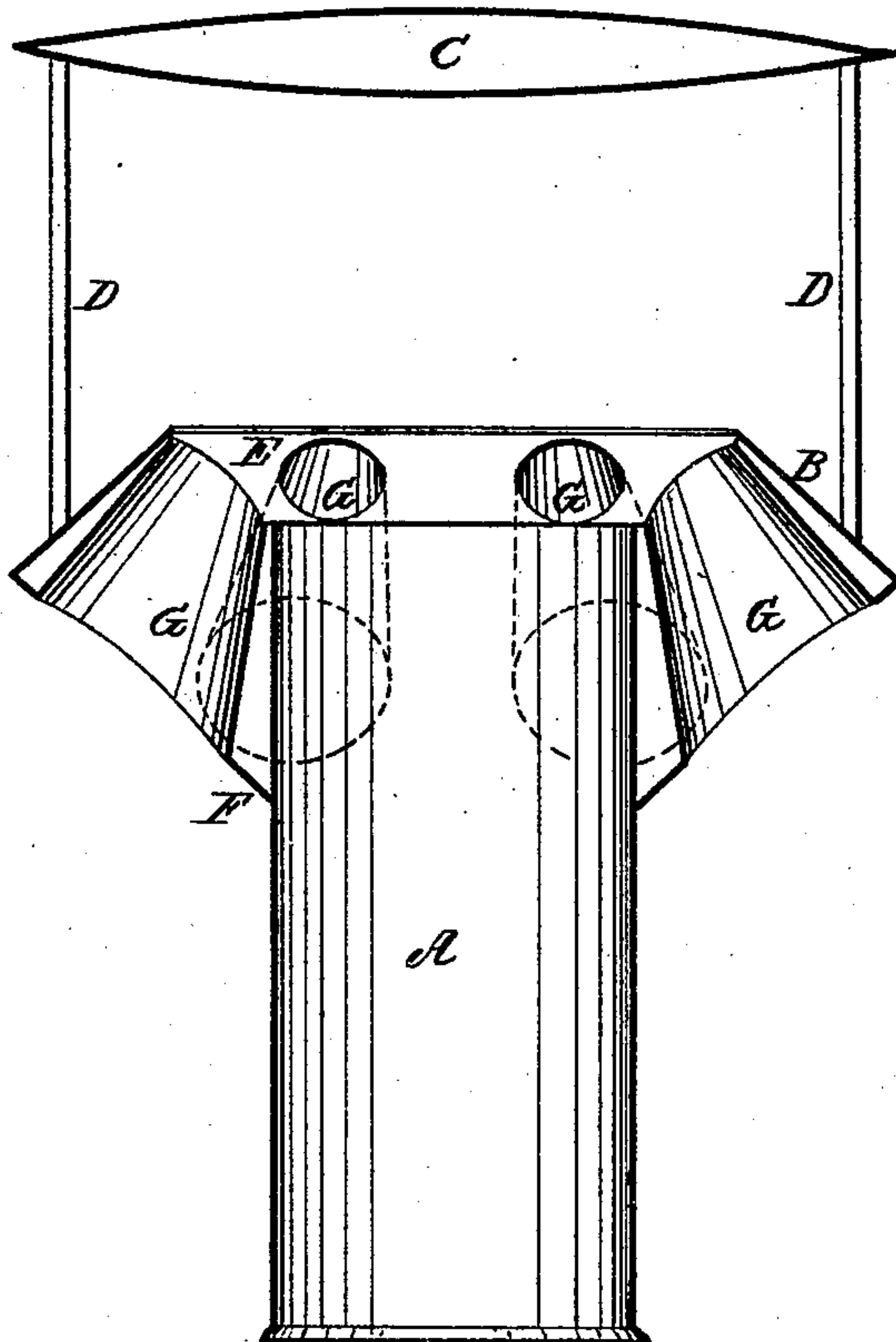


Fig: 2. Section.



UNITED STATES PATENT OFFICE.

MOSES H. HALE AND SAMUEL HORTON, OF NEWBURYPORT, MASSACHUSETTS.

CHIMNEY-COWL.

Specification of Letters Patent No. 16,644, dated February 7, 1857.

To all whom it may concern:

Be it known that we, MOSES H. HALE and SAMUEL HORTON, of Newburyport, in the county of Essex and State of Massachusetts, have invented an Improved Chimney-Cap; and we do hereby declare that the same is fully described and represented in the following specification and the accompanying drawings, of which—

Figure 1 is a side elevation of our improved cap. Fig. 2, a vertical section of the same.

Our improvement has reference to the chimney cap or ventilator on which Letters Patent of the United States of America, numbered 5183 and dated July 3rd, 1847, were granted to Frederic Emerson, of Boston, Massachusetts.

While constructing our improved chimney cap so as to embody the principles of that of the said Emerson, we combine therewith an improvement or certain devices by which said cap is made to operate to better advantage.

In the drawings, A, denotes the discharge pipe of the cap; B, is the external conic frustum that surrounds the same; C, the circular fender, arranged over the discharge pipe A and supported in place by vertical rods or standards D, D, extending up from the frustum B.

In carrying out our invention, we connect the upper base of the frustum B, with the top of the discharge pipe A by a short inverted frustum, E, which constitutes a flaring mouth of discharge to the pipe A. We also connect the lower base of said frustum B, with the pipe A, by another inverted frustum F, made to surround the pipe, A. We also extend through the two frustums, E, and F, a series of frusto conical pipes G, G, arranged as shown in the drawings, and so that the axis of each of the said pipes G, if extended to the fender, C, could touch

the same about the center of its lower surface. We have found by experiments, that when a chimney cap is so constructed, it will operate to much better advantage than when made without the passages, G, G, entirely like that described in the specification of said Emerson's patent. Horizontal currents of wind striking against the cap instead of passing horizontally over the mouth of discharge are met by currents passing upward through some of the pipes, G, and are deflected upward over the mouth of discharge of the pipe, A, so as not to blow smoke down the same. Inclined currents of air operate to better advantage, and do not cause smoke to pass down the flue.

We do not claim the ventilator or chimney cap above referred to as patented by said Emerson, but what we do claim as our invention is as follows; and although it is not new to make a chimney cap with passages extending around its mouth of discharge and for the purpose of receiving currents of air and directing them up into or over the discharge flue, we have applied such in a particular way and under a peculiar arrangement of parts which render our ventilator new and advantageous in some respects.

We claim—

The improved cap constructed substantially as described, viz. with a discharge pipe, A, the inverted frustum, E, the outer frustum, B, its wind passages, G, G, and the shield or fender, C, arranged together essentially as specified.

In testimony whereof, we have hereunto set our signatures this thirty-first day of December, A. D. 1856.

MOSES H. HALE.
SAMUEL HORTON.

Witnesses:

EZRA I. MERRILL,
C. W. HALE, Jr.