

P. SUMNER.
Chimney Cowl.

No. 2,964.

Patented Feb. 20, 1843.

Fig: 3.

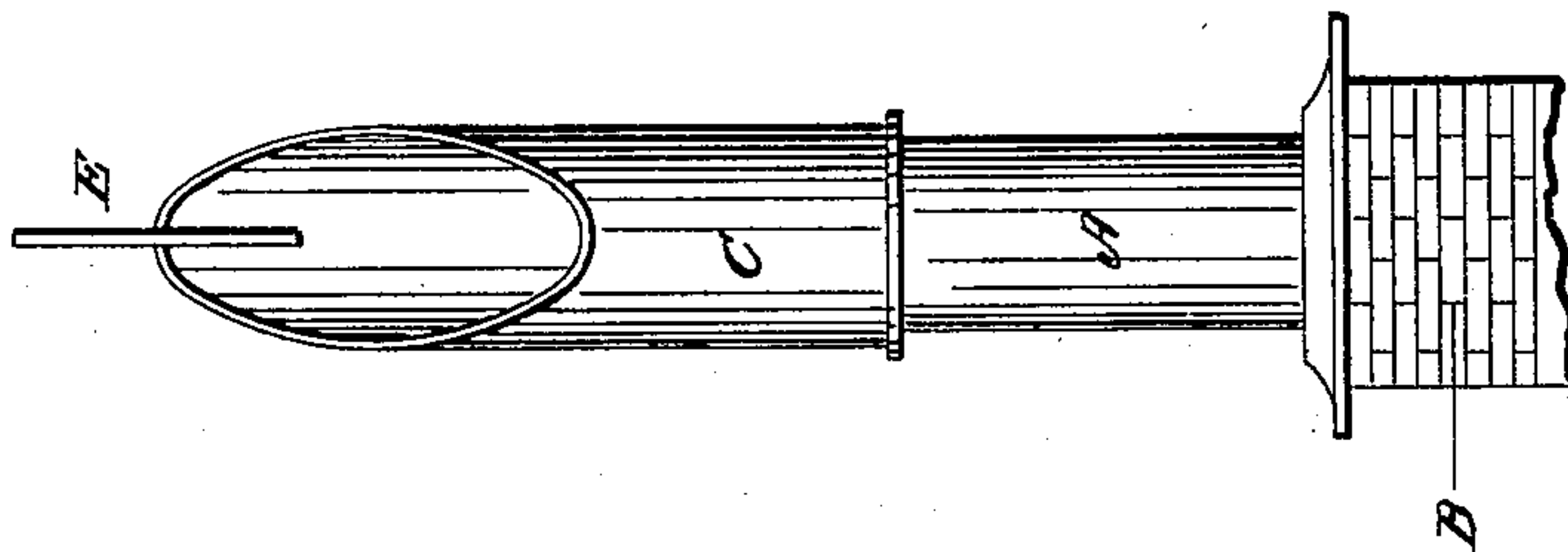


Fig: 2.

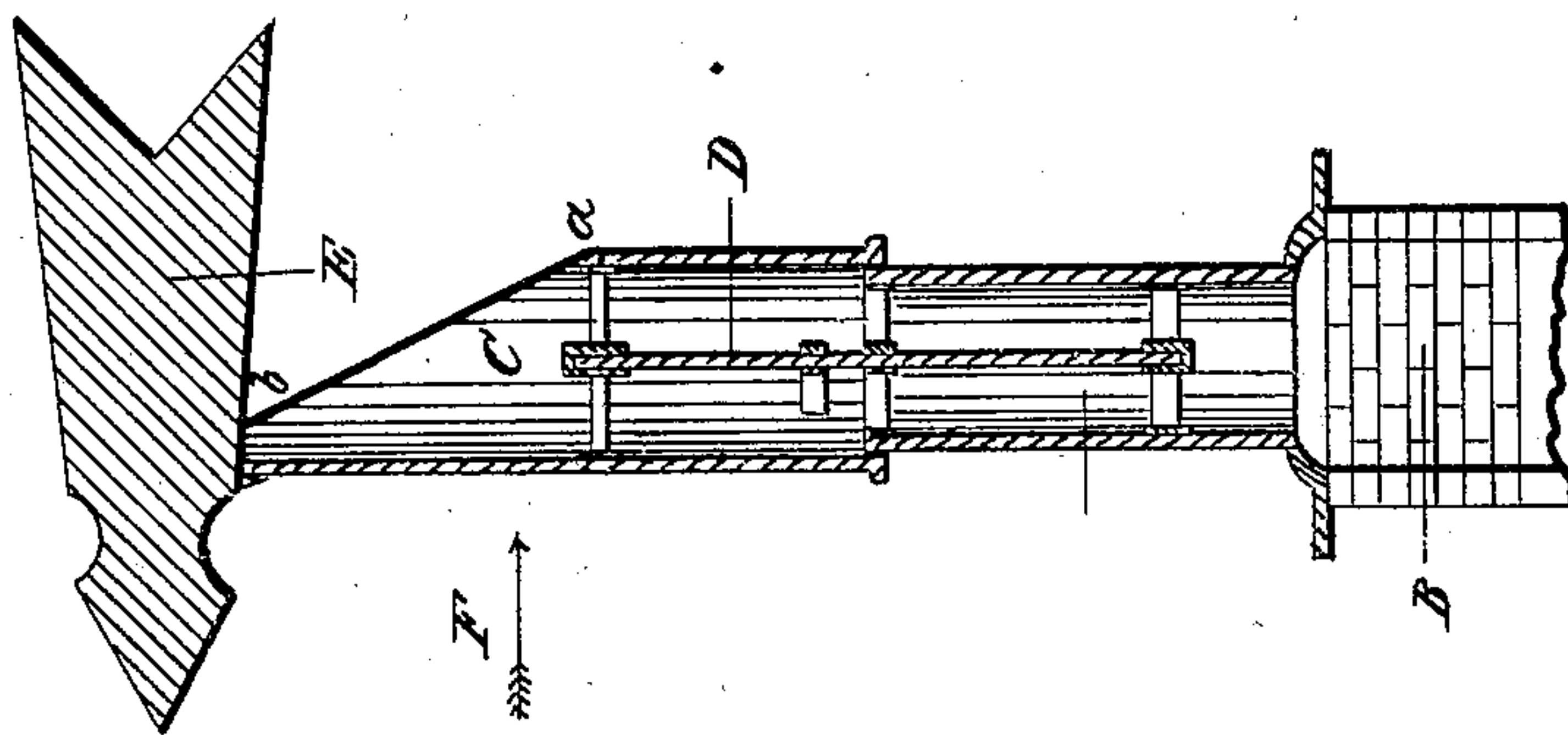


Fig: 4.

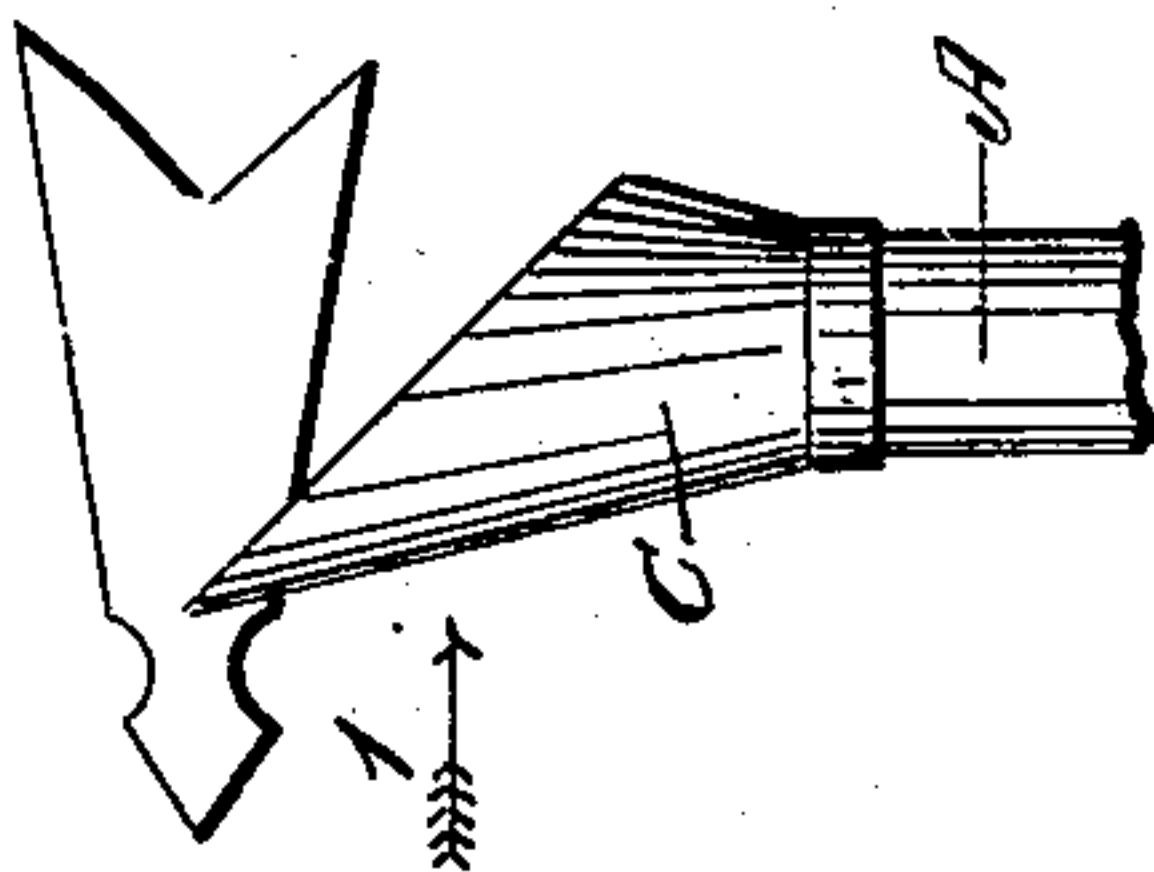
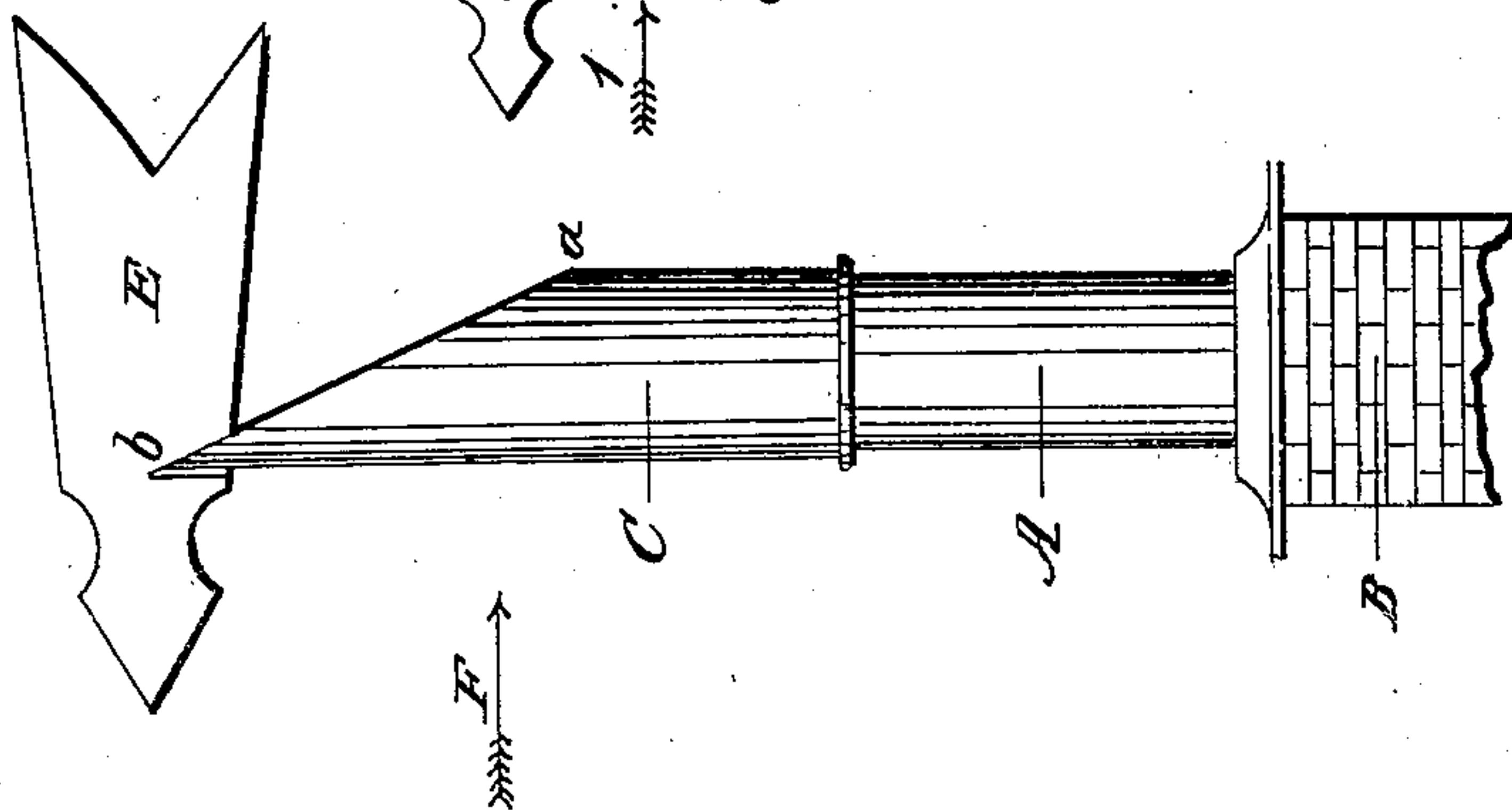


Fig: 1.



UNITED STATES PATENT OFFICE.

PALMER SUMNER, OF NEW YORK, N. Y.

CHIMNEY-COWL.

Specification of Letters Patent No. 2,964, dated February 20, 1843.

To all whom it may concern:

Be it known that I, PALMER SUMNER, of the city of New York, in the State of New York, have invented a new and useful improvement in ventilators or smoke-dischargers which are usually applied to the tops of chimneys or other flues for facilitating the escape of smoke or noxious gases from fireplaces or other apartments of a building, of which improvements the following specification, taken in connection with the accompanying drawings, forms a full and exact description, the nature and principles of my said invention by which it may be distinguished from others of like character, together with such parts thereof as I consider new and claim as my discovery, being therein duly represented.

Figure 1, of the drawings above specified, represents a side elevation of one of my improved ventilators as applied to the top of a flue or chimney, the same exhibiting the position which the ventilator assumes with respect to the wind or atmospheric current acting upon it. Fig. 2, is a vertical, central and longitudinal section of the said ventilator, while Fig. 3, is a front elevation thereof, the same being taken in a plane at right angles to that of Fig. 1, or so as to represent the mouth or opening of the ventilator.

A, Figs. 1, 2, 3, may be supposed to exhibit the upper part of an ordinary cylindrical smoke pipe, or a short piece of pipe or tube, suitably secured on the top of a chimney B, or a flue connecting with any apartment of a building from which it may be desirable to remove any smoke, foul air or noxious effluvia. A cylindrical or inverted conical frustum pipe C Figs. 1, 4, is fitted upon the top of the pipe A, by means of a rod or spindle D, Fig. 2, or by any other convenient and proper method as

usually adopted by mechanics to secure a cowl upon the upper part of a pipe, and to permit the former to be turned about thereon horizontally by the action of wind. This pipe C is cut off diagonally or in a plane, at about sixty degrees, more or less, to the horizon as seen at *a b* Figs. 1 and 2, and has a vane E so arranged upon its upper part or top *b*, that the action of the wind upon said vane, shall cause the mouth or elliptical opening *a b* of the tube C to be always opposite to the "quarter" from whence the wind blows, the arrow F in Figs. 1, and 2 denoting the said direction of the wind in regard to the opening *a b*. By this arrangement of the mechanism, as the wind passes in contact with, and by, the tube C, it creates a powerful rush or current of air up the chimney or flue, the extent whereof must be in proportion to the size of the opening *a b*. As, by my peculiar construction of the turning cowl or top C, Fig. 4, I am enabled to produce a very large elliptic opening for the escape of the smoke.

I conceive that I have discovered a simple, cheap and effective improvement, and in concluding my specification thereof I shall confine my claim to the mode herein above described of constructing the turning part of a chimney cowl or ventilator, that is to say, by forming the same of a vertical inverted frustum which is cut off on its top in a plane inclined to the horizon and otherwise arranged as above set forth.

In testimony that the foregoing is a true description of my said invention and improvement I have hereto set my signature this tenth day of October in the year eighteen hundred and forty two.

PALMER SUMNER.

Witnesses:

JOS. P. PERSSONS,
GEORGE A. LOCKS.