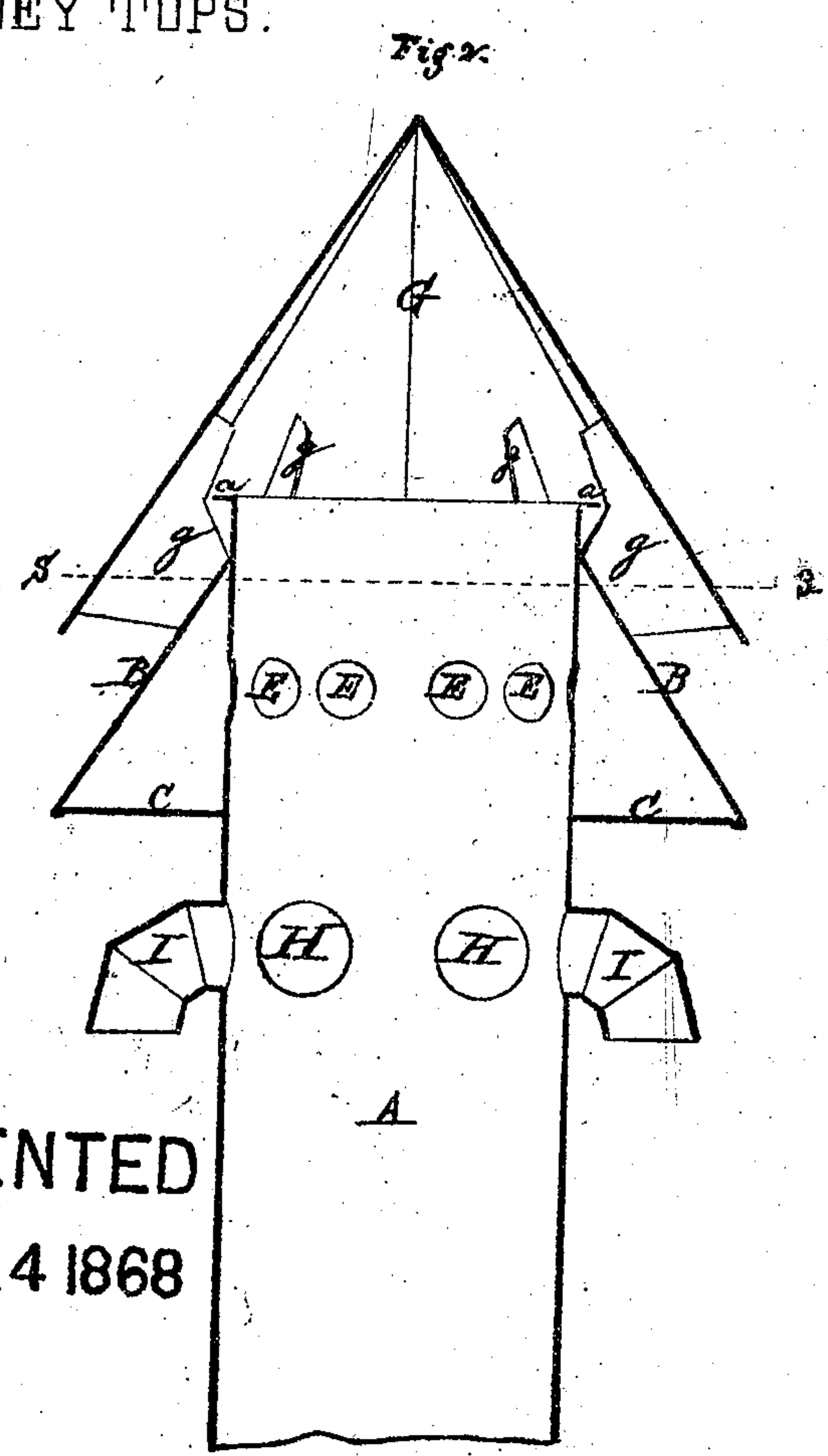
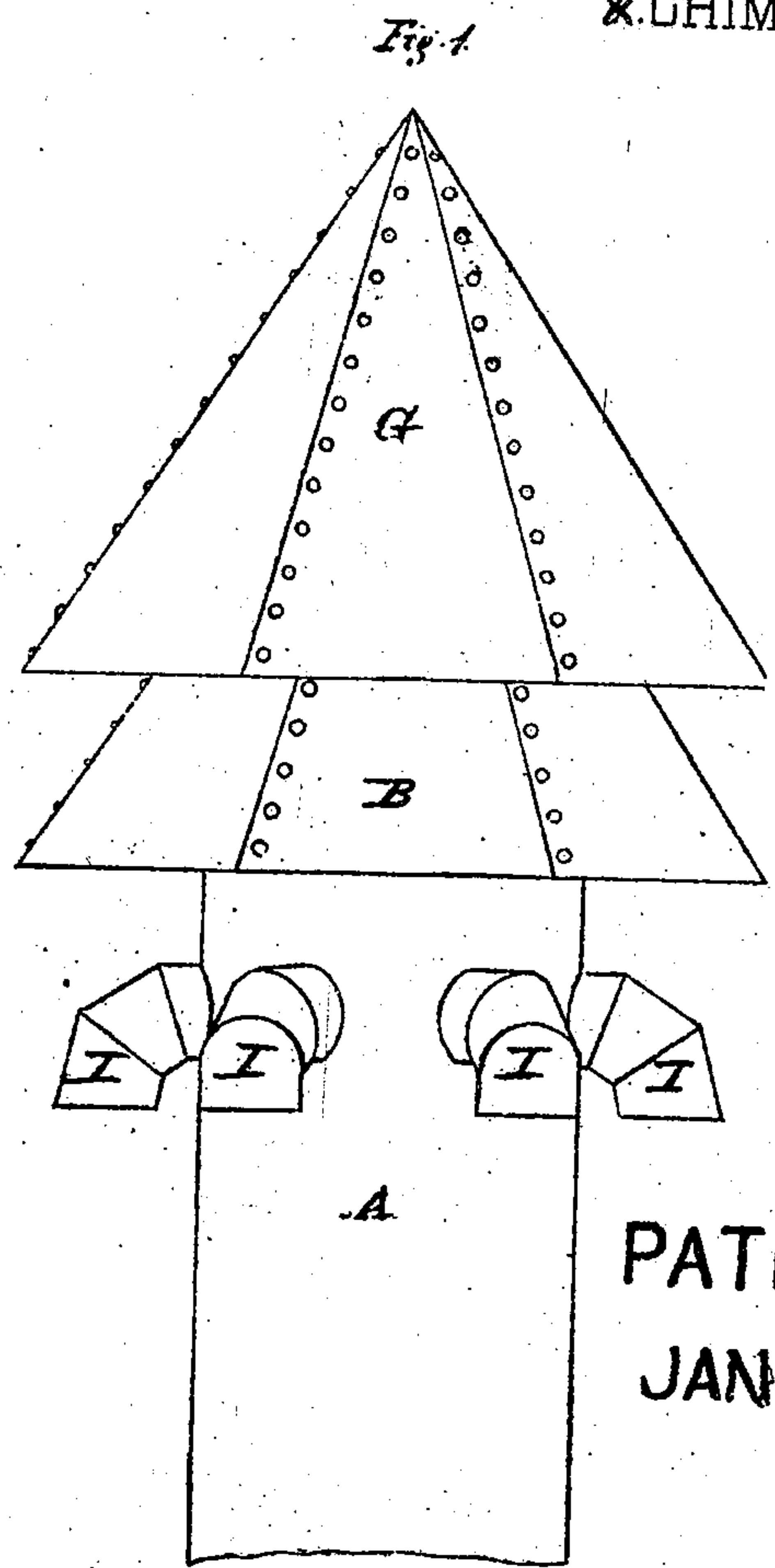
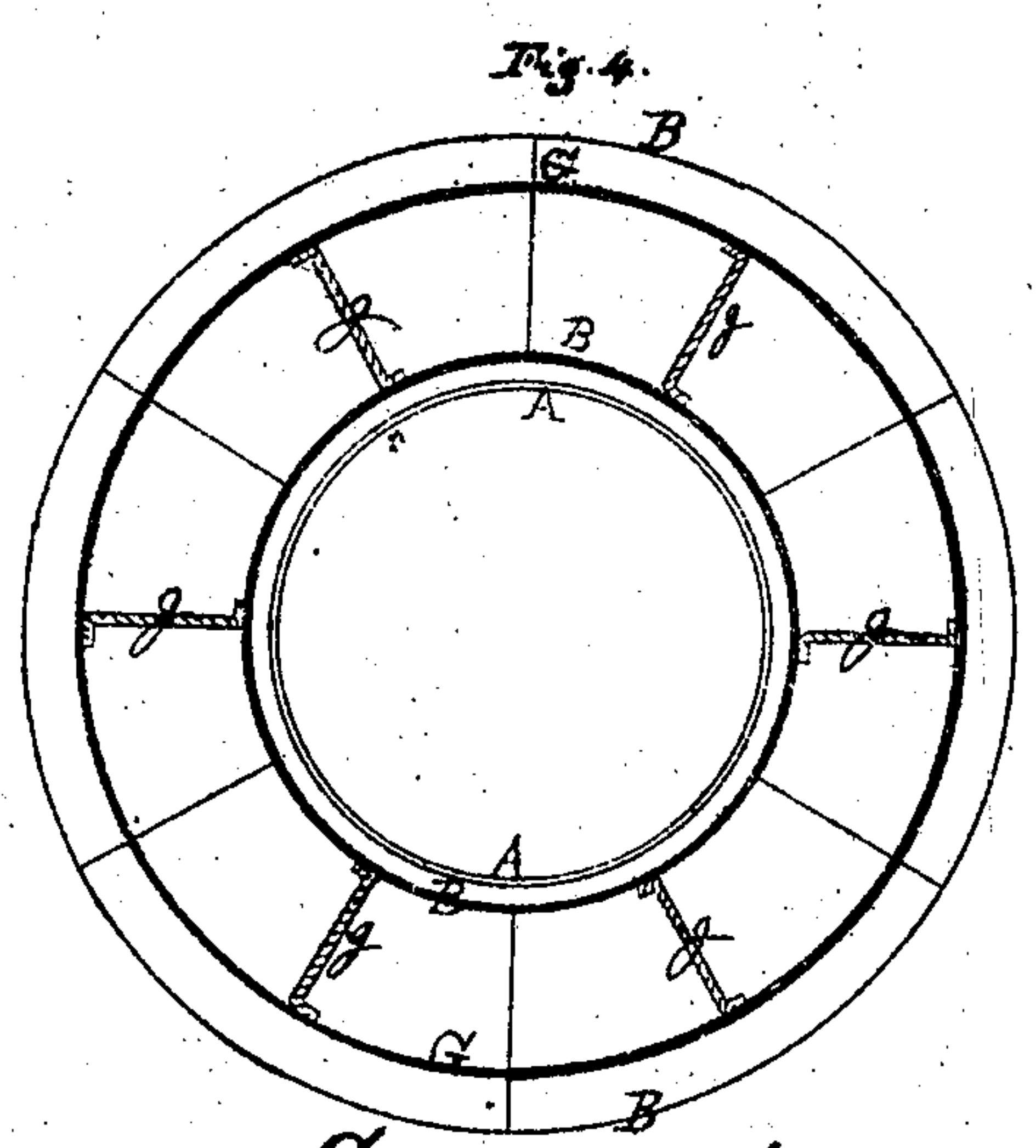
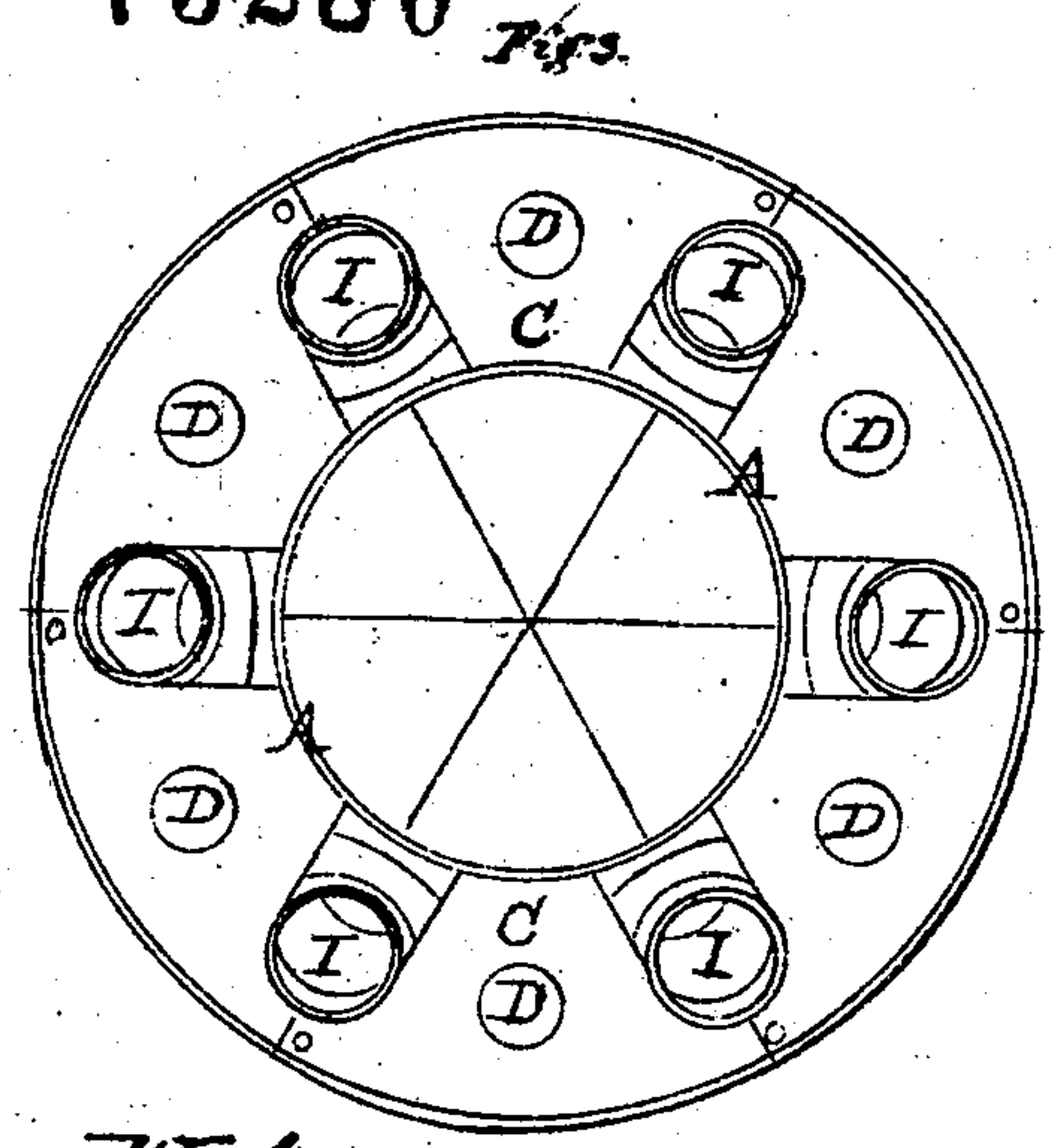


J. W. C. ANDERSON'S *improvement* EXHAUSTING VENTILATORS & CHIMNEY TOPS.



PATENTED
JAN 14 1868

73280



Witnesses.
W. B. Day
C. C. Livingston

Signature.
James W. C. Anderson

United States Patent Office.

JAMES W. C. ANDERSON, OF NEW YORK, N. Y., ASSIGNOR TO HENRY DEMAREST, OF THE SAME PLACE.

Letters Patent No. 73,280, dated January 14, 1868.

EXHAUSTING-VENTILATOR AND CHIMNEY-COWL.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, J. W. C. ANDERSON, of the city and county of New York, in the State of New York, have invented certain new and useful Improvements in Exhausting-Ventilators and Chimney-Tops; and I do hereby declare that the following is a full and exact description thereof.

The principles on which my invention operates are old and well-known, but the construction and arrangement of the parts of my ventilator involve novelties which are of much importance in practice.

I will first describe what I consider the best means of carrying out my invention, and will afterwards designate the points which I believe to be new. The accompanying drawings form a part of this specification.

Figure 1 is a side view.

Figure 2 is a central vertical section.

Figure 3 is a view of the entire ventilator from below.

Figure 4 is a horizontal section on the line S S in fig. 2.

Similar letters of reference indicate like parts in all the figures.

A is the cylindrical casing, which forms the main upright pipe or body of my ventilator. Its lower end is flanged, squared, or otherwise shaped to be connected to the building or to the brick-work on any approved plan. The upper edge of the body A is turned outward, or flanged, as indicated by *a*. B is the lower inclined portion. It is the frustum of a cone, and is formed of sheet metal, preferably galvanized iron, like the other parts. It is attached to the body A below the flange *a*, as represented. C is a horizontal sheet, which connects the lower edge of the frustum B to the body A, as represented. I make holes, D, in the horizontal plate C, and make corresponding holes, E, in the body A above the horizontal plate C. G is the upper inclined portion. It is a complete hollow cone, mounted in the position represented by webs or connections *g*. A little below the horizontal plate C, I form holes, H, in the body A. To these holes I connect, on the outside of the body, short pipes, I, presenting their open ends downward, as represented.

The junction of the material in forming these several parts and securing them together may be made by any ordinary means known to sheet-metal workers, but I prefer to both rivet and solder. I do not confine myself to galvanized sheet iron as a material.

When a high wind with rain or snow strikes the lower incline B, and is deflected upward in the ordinary manner to curl over the top and form a partial vacuum there, the rain or snow is arrested by the flange *a*, and only the air is allowed to flow upward further. This flange *a*, therefore, performs an important function in its construction and arrangement relatively to the other parts. The pipes I, as arranged, receive a constant current of air, and discharge it inclined upward into the body A. These currents have the effect to increase the exhaustive action of the ventilator or chimney-cap. The fact that the outer mouths of the pipes I are presented horizontally goes far to prevent the reception of rain and snow. The lower incline B is braced and stiffened very effectually by the horizontal plate C, and the holes D E, as arranged, operate in somewhat the same manner as the pipes I, and receive a constant current of air and discharge it inclined upward into the body A. These currents have the effect to increase the exhaustive action of the ventilator or chimney-cap. The horizontal position of the plate C forbids the entrance of any considerable quantities of rain or snow through the holes D, even in strong winds, and the small quantities of rain or snow rising through the holes D are diffused in the space or chamber above, and do not flow through the next holes E.

One of the principal uses for my invention, as in fact for any exhausting-ventilator, is on the top of chimneys where from any cause the natural draught is found to be insufficient. I have tested my improved ventilator in this situation with success, and also as a general exhausting-ventilator for crowded halls. Calvary church, in this city, is now provided with a number, the escape of air from the same being controlled by ordinary valves at the point of exit from the interior of the church.

Having now fully described my invention, what I claim as new in exhausting-ventilators and window-caps, and desire to secure by Letters Patent, is as follows:

1. I claim the collar or water-stop *a*, arranged relatively to the cone B and body A, substantially as and for the purpose within set forth.
2. I claim the within-described construction and arrangement of the body A, incline B, connection C, and holes D and E, as and for the purposes herein specified.

JAMES W. C. ANDERSON.

Witnesses:

W. C. DEX,

C. C. LIVING.