B. J. Burnett,

Ship Ventilator,

No. 49,374. Patented Aug. 15, 1865.

Fig: 2.

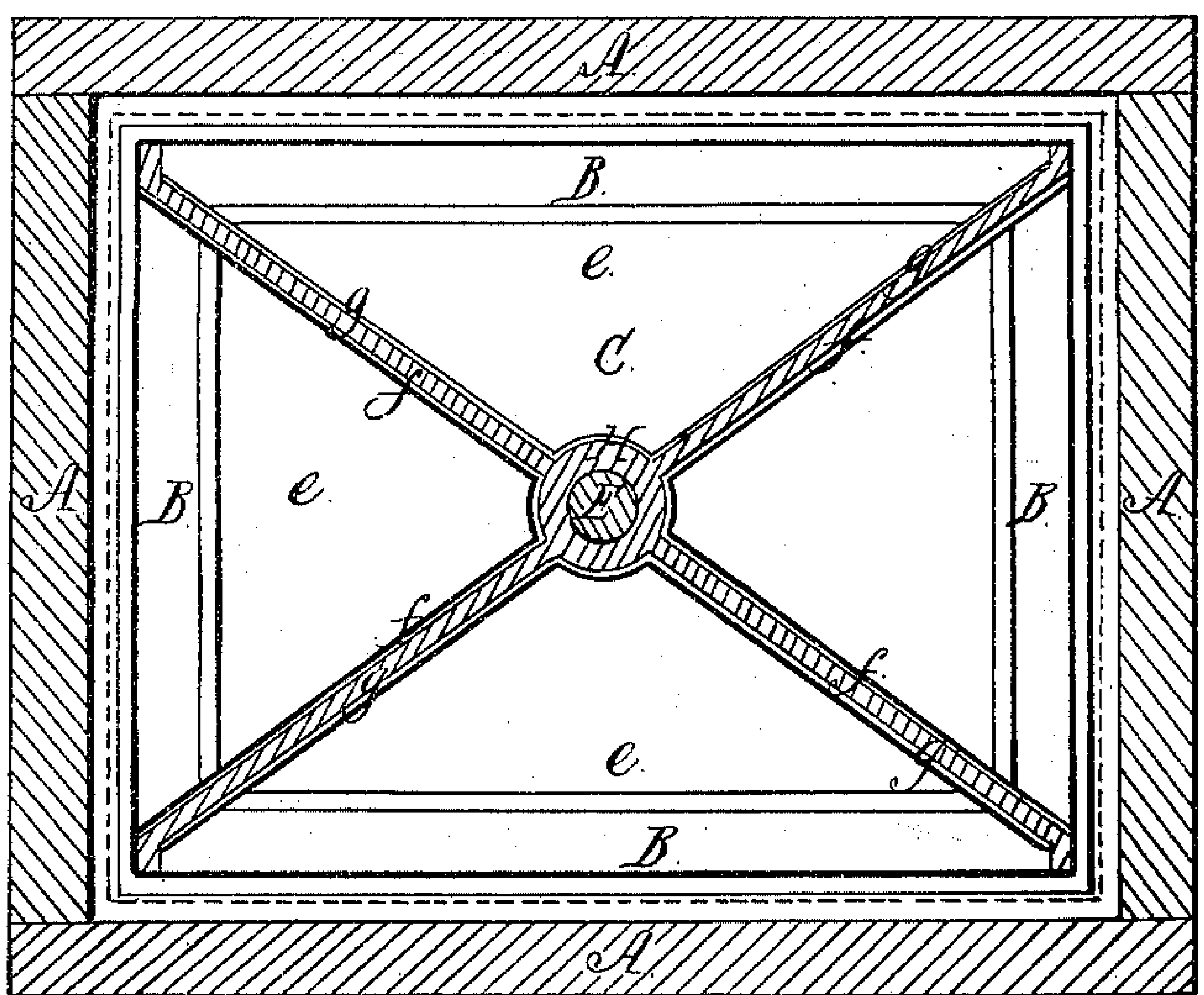
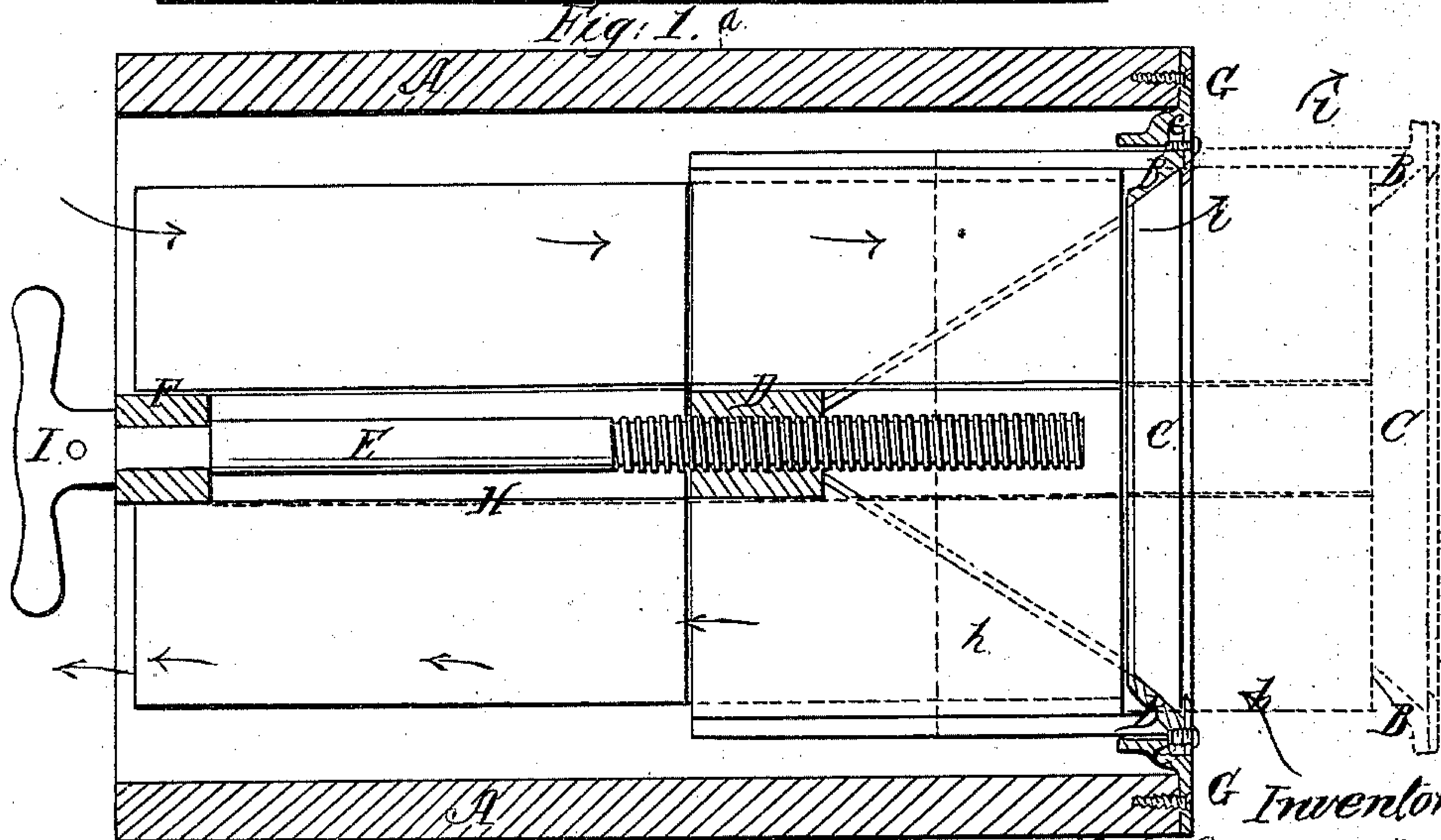


Fig: 1.



Witnesses: J W Coombs
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UNITED STATES PATENT OFFICE.

BENAJAH J. BURNETT, OF MOUNT VERNON, NEW YORK.

VENTILATOR FOR SHIPS, &c.

Specification forming part of Letters Patent No. **49,374**, dated August 15, 1865.

To all whom it may concern:

Be it known that I, BENAJAH J. BURNETT, of Mount Vernon, in the county of Westchester and State of New York, have invented a new and useful Improvement in Ventilators for Ships and other Vessels, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a longitudinal vertical section through the center of the ventilator, and Fig. 2 is a transverse vertical section of the same in a plane indicated by the line *a a* in Fig. 1.

Similar letters of reference indicate corresponding parts in both figures.

This invention consists in certain improvements whereby ventilators on the principle of that which is the subject of my Letters Patent dated January 10, 1865, are adapted to the sides of ships and other vessels, and provision is made for regulating the supply of air in fine weather, and also for excluding water in rough weather, such improvement enabling the ventilators to be applied to the windows or side-lights of the vessel.

To enable others skilled in the art to make and use my invention, I will describe its construction and operation.

A is the stationary casing of the ventilator, which is also the casing of the side-light when the ventilator is combined with the side-light, as represented. To the outer end of this casing is screwed or otherwise firmly secured a frame, G, provided with a rabbet, *c*, around the inner edge. Into said rabbet a frame, B, is neatly fitted, and a strong pane of glass, C, is fitted tightly into the frame B, and is firmly secured therein by any well-known means. To this frame B are cast or otherwise secured four deep diagonal wings, *f f*, which are connected with a central boss, D, in the center of which there is a female screw-thread for the reception of a male screw-thread, *d*, on a spindle, E, which is fitted to turn freely, but prevented from moving longitudinally by a bearing in a fixed cross-piece, F, which is placed across the opening of the ventilator and secured to the casing thereof.

The casing A is divided diagonally into four triangular compartments, *e*, by means of four partitions, *g*, radiating from a central hub, H, to the four corners of the casing, or nearly so. These partitions extend from one end to the other of the casing, and are firmly attached thereto by any well-known means.

The central hub, H, extends only to about the center of the casing longitudinally, where it is met by the central boss, D. The four wings *f*, which are attached to the boss D, are fitted closely to the sides of the partitions *g g*, but in such manner as to be able to slide longitudinally, so that when the ventilator is opened and the air-ducts are lengthened the said air-ducts will be kept separated.

By a handle, I, being attached to the spindle E the said spindle can be turned, and by these means the frame B, with the four wings *f f*, can be moved longitudinally, so as to either close or open the ventilator and to regulate the opening thereof.

The ventilator is properly fitted and secured in the side wall of a ship or other vessel, with the glass of the frame B toward the outside and the open end toward the inside of the ship, so that when the ventilator is opened a free passage for the ingress of fresh air and for the egress of impure or vitiated air.

The red outlines at the right-hand side of Fig. 1 of the drawings represent the ventilator to be open, and as the fresh air passes in at one side of the ventilator and through it, as shown by the arrows *h h*, this will cause a pressure of air inside of the vessel, which pressure will force the warm, impure or vitiated air through the opening on the other side of the ventilator, opposite to the side where the fresh air enters, as shown by the arrows *i i*, and the passages on the sides of the partitions will of course act in the same manner, according as the current of air outside may strike the ventilator.

This ventilator may be made of quadrangular, circular, or polygonal form. When it is to be used merely as a ventilator, and not in connection with a side-light or window, a solid shutter of wood or metal is substituted for the frame B and glass C.

Having thus fully described my improvement in ventilators as applied to ships or other

vessels, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination of the stationary or fixed partitions with the longitudinally-movable partitions or wings, arranged and operating substantially as and for the purpose herein described.

2. The combination of the side-light or shutter with the movable partitions or wings, applied and operating substantially as described.

B. J. BURNETT.

Witnesses:
J. W. COOMBS,
G. W. REED.