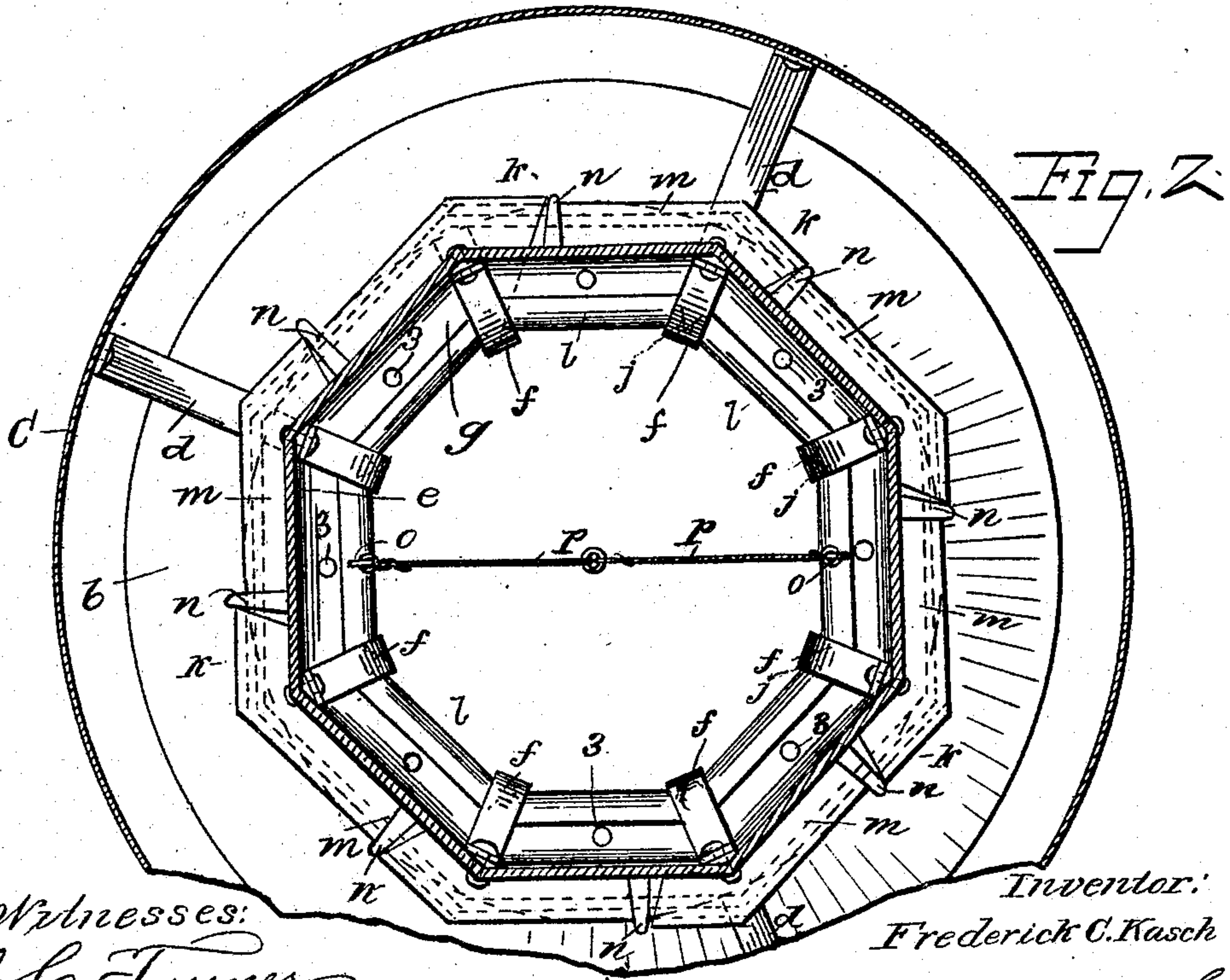
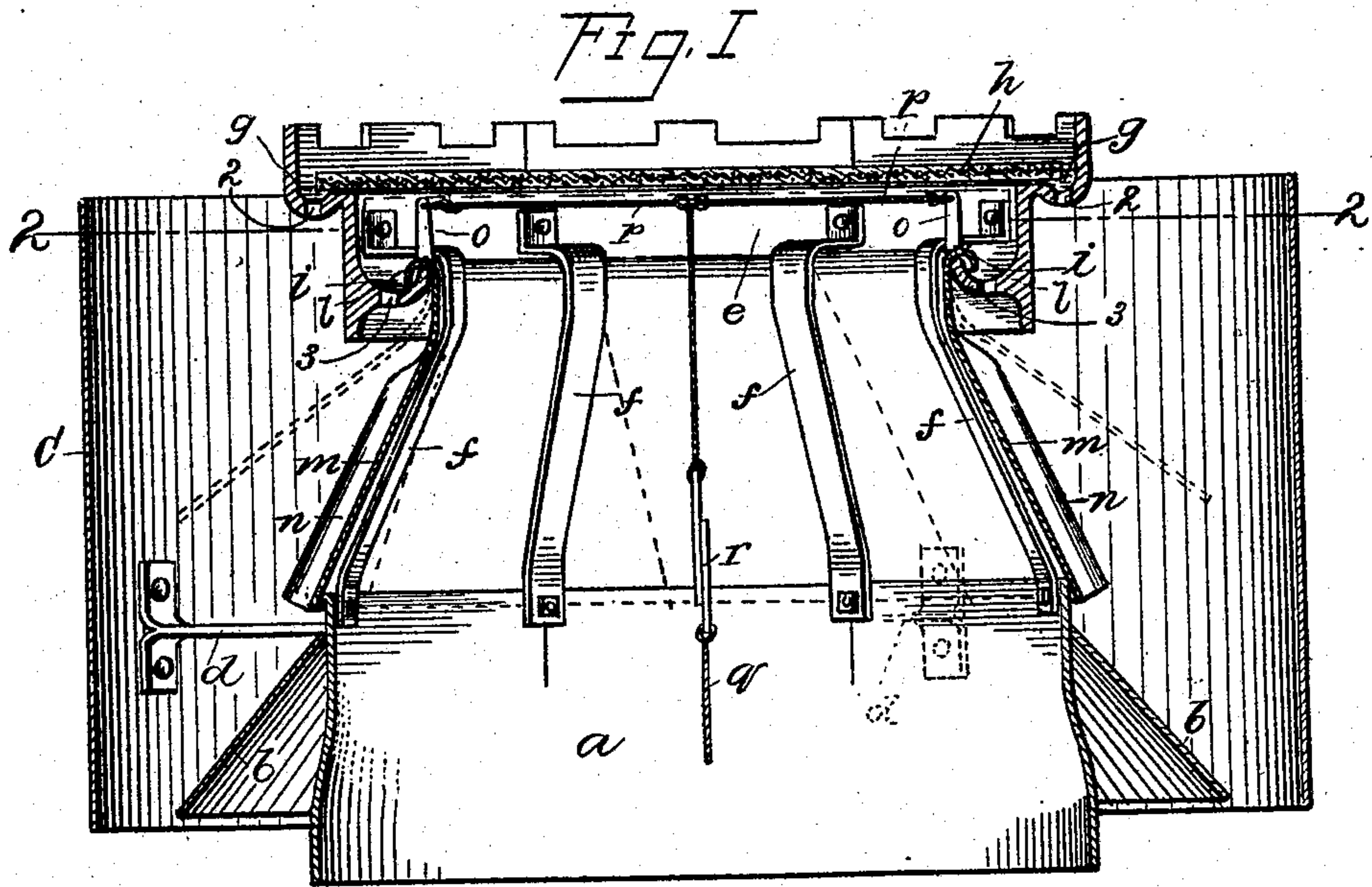


F. C. KASCH.
VENTILATOR.
APPLICATION FILED MAY 9, 1908.

907,813.

Patented Dec. 29, 1908.



Witnesses:
J. C. Turner
Frank Krenck.

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UNITED STATES PATENT OFFICE.

FREDERICK C. KASCH, OF AKRON, OHIO.

VENTILATOR.

No. 907,813.

Specification of Letters Patent.

Patented Dec. 29, 1908.

Application filed May 9, 1908. Serial No. 431,979.

To all whom it may concern:

Be it known that I, FREDERICK C. KASCH, of Akron, in the county of Summit and State of Ohio, have invented certain new and useful Improvements in Ventilators, of which the following is a specification.

My invention relates to means for accomplishing the ventilation of buildings and also for admitting light thereto. Its objects are to provide fire-proof and storm-proof apparatus having efficient, easily adjustable and in case of fire occurring, self-closing ventilating means, while at the same time offering but a minimum of obstruction to the admission of light therethrough.

To these ends the invention consists in the features, arrangements and combinations hereinafter described and claimed an embodiment thereof as usually installed, being illustrated in the accompanying drawing in which—

Figure I is a sectional elevation taken through the axis of a ventilator. Fig. II is a plan view and horizontal section taken on line 2—2 of Fig. I.

The reference letter *a* indicates the lower shell of the ventilator which has a circular contour at the bottom merged into an octagonal or other polygonal contour at its top. The shell *a* is designed to be fitted to and supported upon a roof-plate or a tube leading down into the building or compartment to be ventilated. A sloping deflector *b* is secured to the top of the shell *a*, surrounding the same, as shown, and may be circular in its outer contour. A cylindrical shell *c* of somewhat larger diameter than the deflector *b* surrounds the entire apparatus, being upheld and secured to the shell *a* by a plurality of brackets *d*.

e represents a polygonal upper shell, the number of sides of which correspond to and are parallel with the sides of the upper part of the shell *a*. The shell *e* is upheld by struts *f*, one such being secured at each reentrant angle thereof, carried horizontally and then downward, and fastened at its lower end to the inside of the shell *a*, as shown. A gutter *g* is formed in the upper and outer flange of the shell *e* and provided with drain holes 2. A glass plate *h*, preferably of wire-inserted glass, rests upon the inner rim of the gutter *g*, and may be puttied thereto. Thus sunlight may enter the interior of the apartment to be ventilated, while rain water is carried off through the gutter

and drain holes before mentioned. Another gutter *i* is formed about the interior and lower portion of the shell *e*, and provided with drain holes 3 for leading off water which may condense upon the inner surfaces of the glass and shell. The inner upturned edge of the gutter *i* is rounded and follows the polygonal contour of the shell, having at each reentrant angle a small inwardly projecting lug *j* which serves both to separate the swinging louvers and to keep the struts *f* in proper position, as will presently be explained.

m, m indicate swinging louvers, or doors, overlapping each other, and each provided with a hook-shaped flange *l* at its top designed to hook over the edge of the gutter *i* so as to form a supporting hinge, and fitted loosely between the lugs *j*. When the struts *f* are in place they prevent the hooked flanges *l* of the louvers being displaced from the supporting edge of the gutter *i*, while the lugs *j* keep the said struts from binding the said louvers. It is obvious that as many louvers are required as there are sides to the polygons of the shells *a* and *e*, and that the said louvers *m* when closed rest by gravity against the outer edge of the upper end of the shell *a*. Each louver *m* is provided with a flange *k* overlapping the adjacent louver and meeting when closed an outside rib *n* of said adjacent louver. Thus it will be seen that close joints are made between the closed louvers, and when one of them is swung outwards it opens all the others.

Upright lever arms *o* are formed on an even number of oppositely disposed louver flanges *l*. In the drawing only two arms *o* are shown, but a larger ventilator may require four, six or eight. A wire cord *p* is drawn taut between the said arms *o*, and has depending from its middle another cord *q* which is carried down to some accessible fastening within the building. A fusible link *r* is interposed in the operating cord *q*.

In the operation of the device it will readily be understood that by pulling downward the cord *q* the louvers *m* are swung outward as far as may be desired, or until they reach the position shown by dotted lines in Fig. I, thus regulating at will the area of the opening for ventilation. Any desired system of pulleys or fastenings for the operating cord *q* may be employed. When the cord *q* is released the louvers *q, m*, which are preferably quite heavy, close by gravity, so as to form a complete housing in of the ventilating tube.

In case of fire the ventilator will close by the separation of the fusible link *r*, thus making the device a fire retarder. It will also be noticed that the device may be readily taken
 5 apart so as to occupy but small space in shipment, which is a commercial advantage much desired.

I further point out and distinctly claim as my invention—

10 1. In a ventilator, the combination with a top polygonal shell, of depending louvers hinged thereto and provided with overlapping flanges, substantially as set forth.

15 2. In a ventilator, the combination with a top polygonal shell, of depending louvers hinged thereto, and supporting members for said shell overlapping said louvers, substantially as set forth.

20 3. In a ventilator, the combination of an upper polygonal shell, a gutter formed around the interior of said shell, and depending louvers hinged thereto, substantially as set forth.

25 4. In a ventilator, the combination of an upper polygonal shell, a gutter formed around the interior of said shell, and swinging louvers having upper flanges adapted to hook over the edge of said gutter, substantially as set forth.

30 5. In a ventilator, the combination with a lower shell having a polygonal top and an upper polygonal shell, of swinging louvers hinged to said upper shell and adapted to rest when closed against the upper edge of
 35 said lower shell, substantially as set forth.

40 6. In a ventilator, the combination with a lower shell having a polygonal top, and an upper polygonal shell having a gutter formed around its interior, of swinging louvers having upper flanges adapted to hook over the edge of said gutter, and supporting members

for said upper shell overlapping the upper flanges of said louvers, substantially as set forth.

7. In a ventilator, the combination with a 45 lower shell having a polygonal top, and an upper polygonal shell having sides corresponding thereto, of swinging louvers hinged to said upper shell, and a side flange upon each of said louvers adapted to overlap the 50 adjacent louver, substantially as set forth.

8. In a ventilator, the combination with a lower shell having a polygonal top, and an upper polygonal shell having sides corresponding thereto, of swinging louvers hinged 55 to said upper shell, a side flange upon each of said louvers overlapping the adjacent louver, and a rib on the outside of each of said louvers adapted to meet the said side flange of the adjacent louver when the ventilator is closed, 60 substantially as set forth.

9. In a ventilator, the combination with a lower shell having a polygonal top, and an upper polygonal shell having its top closed in, of swinging and overlapping louvers 65 hinged to said upper shell so as to rest when closed against the upper edge of said lower shell, upright arms upon the tops of a pair of said louvers which are opposite each other, a cord connecting said arms, and an operat- 70 ing cord depending from the aforesaid cord having a fusible link therein, substantially as set forth.

In testimony whereof I affix my signature in the presence of two subscribing witnesses 75 at Cleveland, Ohio, this 4th day of May, 1908.

FREDERICK C. KASCH.

Witnesses:

F. W. LANGIN,
 G. G. LANGIN.