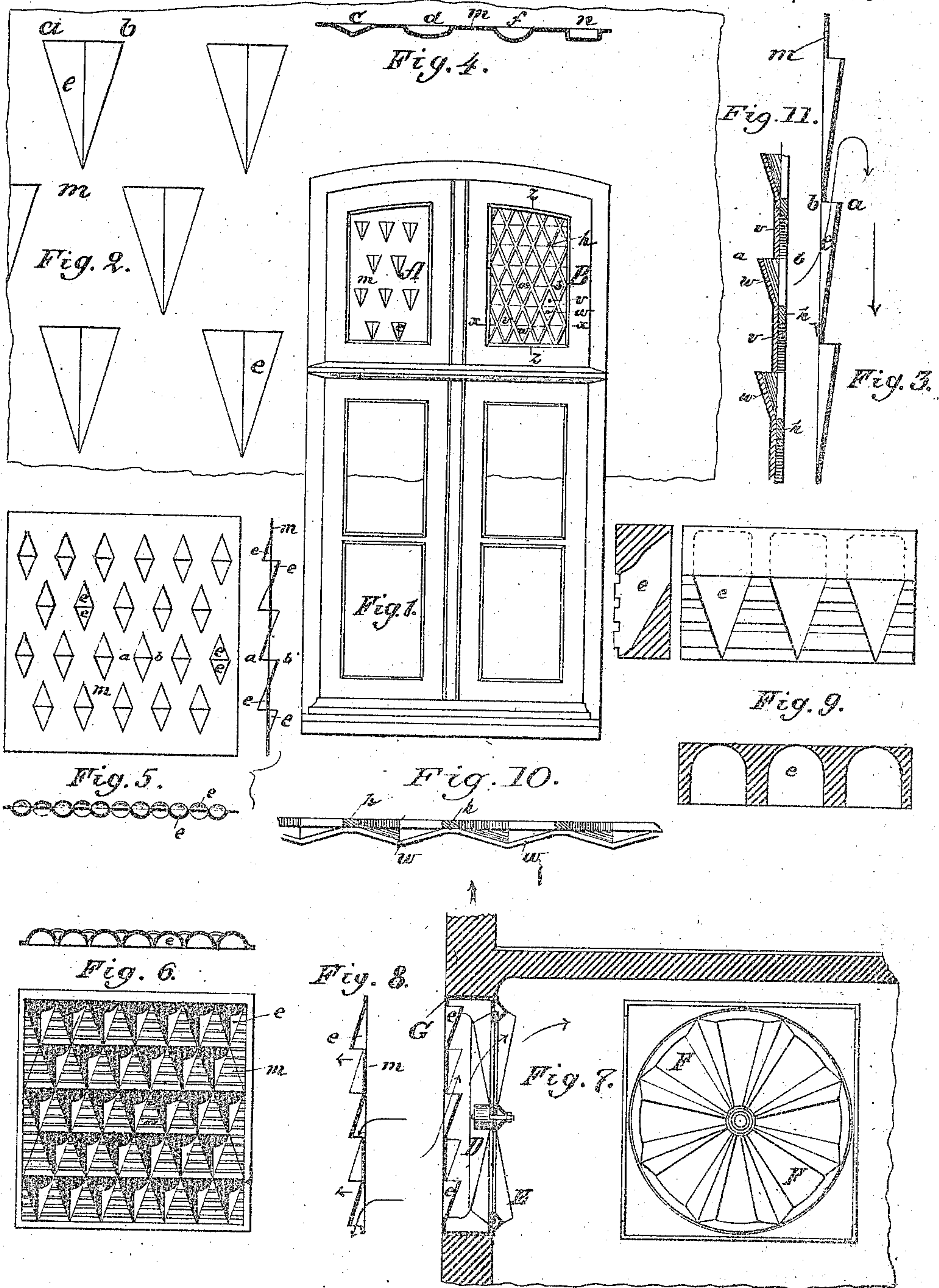


(No Model.)

C. F. MÜLLER.
WINDOW VENTILATOR.

No. 287,848.

Patented Nov. 6, 1883.



Witnesses:
H. Müller
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UNITED STATES PATENT OFFICE.

CHRISTINE F. MÜLLER, OF COLOGNE, GERMANY.

WINDOW-VENTILATOR.

SPECIFICATION forming part of Letters Patent No. 287,848, dated November 6, 1883.

Application filed March 26, 1883. (No model.) Patented in Germany December 24, 1881, No. 18,351.

To all whom it may concern:

Be it known that I, CHRISTINE FRANZISKA MÜLLER, a subject of the King of Prussia, residing at Cologne, in the German Empire, have invented certain new and useful Improvements in Window-Ventilators, of which the following is a specification.

The nature of my invention consists in the construction of panes of glass, metal, or other suitable material, which may be inserted in the upper part of a window, to give the desired ventilation and prevent the admission of rain or dust.

In the accompanying drawings, Figure 1 is a front view of a window with ventilators arranged in the upper part. Fig. 2 shows the ventilator A in Fig. 1, on an enlarged scale, in front view. Fig. 3 is a vertical section, and Fig. 4 a horizontal section, of the same. Fig. 5 represents front view, vertical and horizontal sections of a ventilator with modifications. Fig. 6 is a front view and horizontal section of a ventilator made of metal, such as cast-iron. Fig. 7 is a vertical section of a ventilator inserted in a wall, with arrangement for closing the same. Fig. 8 is a vertical section, showing modifications. Fig. 9 represents front view, vertical and horizontal sections of a ventilator made of clay or its equivalent. Fig. 10 is a horizontal section of ventilator B, shown in Fig. 1 at line *x x*. Fig. 11 is a vertical section of the ventilator B, shown in Fig. 1 at line *z z*.

Similar letters represent similar parts in all the figures.

Fig. 1 represents a window, in the upper part of which the ventilators A or B are inserted. The ventilator A (shown on an enlarged scale in Fig. 2) consists of a glass pane, *m*, having prismatic or conical indentations or cavities *e*, arranged so as to come toward the inside of the room, the upper plane, *a b*, being open for the free admittance of the air. These cavities may be made in section, as shown in Fig. 4, either triangular, as *c*, oval, as *d*, circular, as *f*, or square, as shown at *n*. The ventilator B is made of a metal framing, *h*, of zinc, lead, or any other suitable material, the framing being placed diagonal, to form diamond-shaped openings, the upper half, *v*, having straight pieces of glass inserted, and the lower half, *w*, conical or prismatic shaped

pieces of glass, open at the upper plane, to allow the air to enter.

The ventilator represented in Fig. 5 has two conical or prismatic indentations or cavities, *e e*, placed above each other and reversed, the one toward the inside and the other toward the outside, and open at their line of connection *a b*.

The ventilator represented in Fig. 6 is made of cast-iron or any other suitable metal, and attached to a frame or box, G, to be placed in a suitable opening made in the wall of the building. The indentations or recesses *e* may be arranged either to open into the building, as shown in Fig. 7, or to project toward the outside, as shown in Fig. 8. In the former arrangement the air will pass into the building, and by the latter arrangement the current will pass outward, as shown by the arrows. The end of this box G is closed by a suitable register, D, upon which a corresponding disk, E, is placed, so as to open or close the openings F, as may be desired.

Fig. 9 represents the construction of a ventilator when made of clay or similar material, to be inserted in the wall of the building.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The herein-described ventilator, consisting of the plate *m*, of glass or other suitable material, with conical prismatic recesses or indentations *e*, open at their largest plane *a b*, adapted to be arranged in a window or wall of the building, in the manner and for the purpose set forth.

2. A ventilator consisting of a metal frame, *h*, forming diamond spaces, in combination with a straight flat piece of glass, *v*, in the upper and a conical prismatic recessed piece, *w*, in the lower part of each of said diamond-shaped spaces, open at its largest plane *a b*, substantially as and for the purpose described.

3. As a new article of manufacture, a window-glass consisting of a plane surface, *m*, with conical prismatic recesses or indentations *e*, open at their largest plane *a b*, substantially as and for the purpose herein described.

CHRISTINE FRANZISKA MÜLLER.

Witnesses:

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