No. 875,708. PATENTED JAN. 7, 1908.

M. HARD & E. CONEY.

VENTILATOR.

APPLICATION FILED APR. 6, 1907.

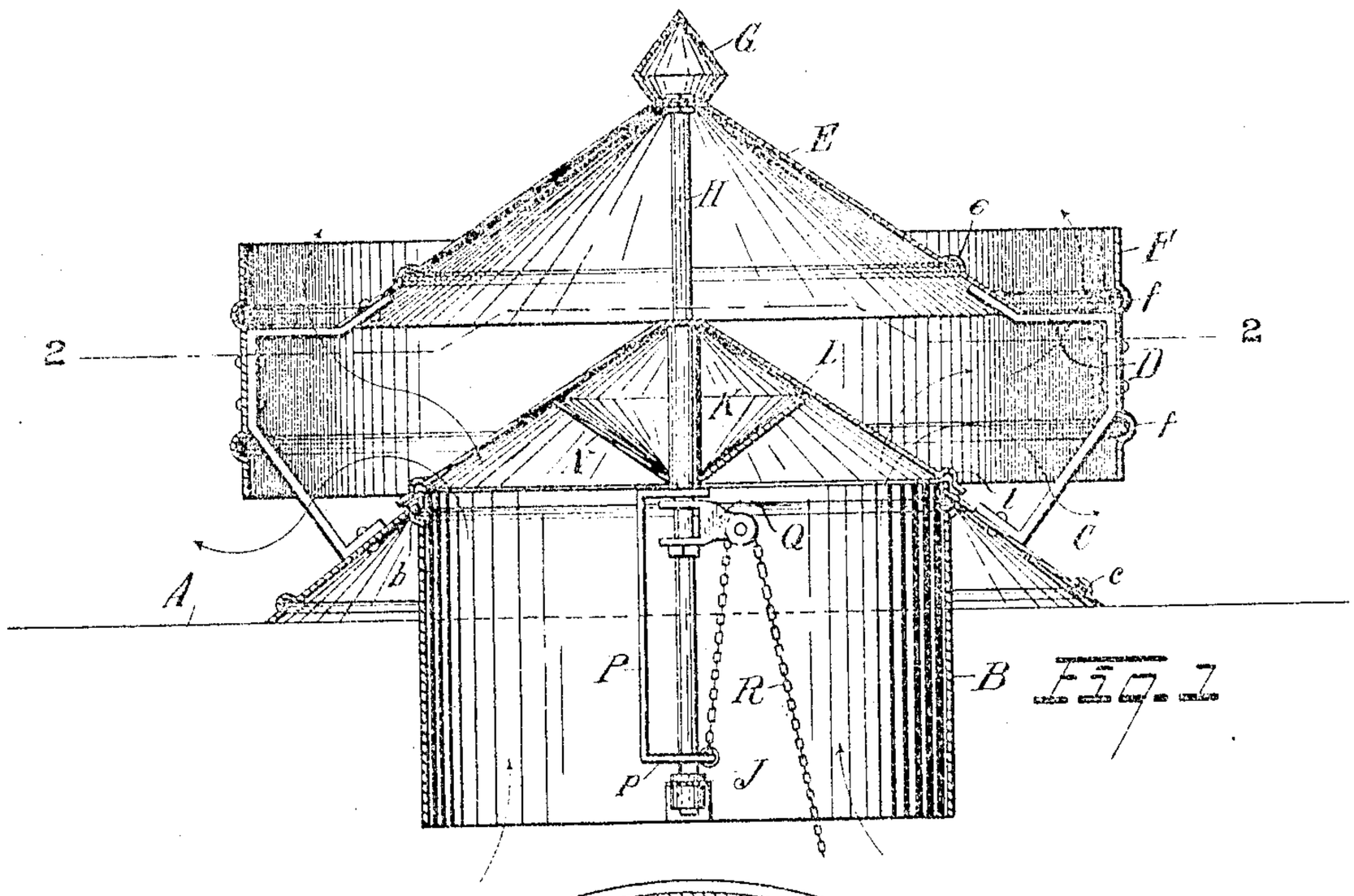

FIG. 1.

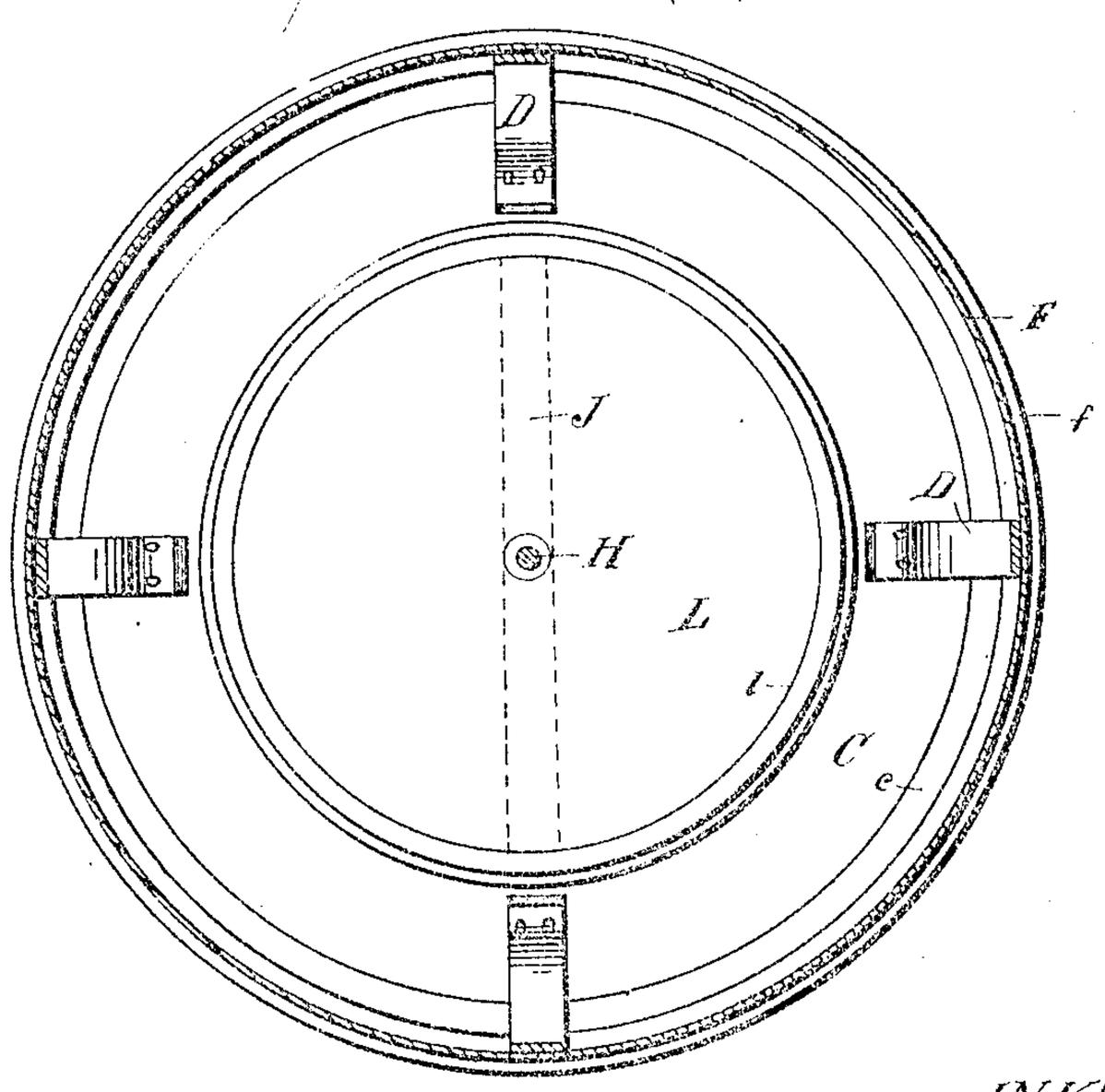

FIG. 2.

WITNESSES:

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UNITED STATES PATENT OFFICE.

MALCOLM HARD AND EDWARD CONEY, OF CLEVELAND, OHIO, ASSIGNORS TO THE OHIO BLOWER COMPANY, OF CLEVELAND, OHIO, A CORPORATION OF OHIO.

VENTILATOR.

No. 875,708. Specification of Letters Patent. Patented Jan. 7, 1908.

Application filed April 6, 1907. Serial No. 366,835.

To all whom it may concern:

Be it known that we, MALCOLM HARD and EDWARD CONEY, a citizen of the United States and a subject of the King of Great Britain and Ireland, respectively residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and useful Improvement in Ventilators, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings.

The object of this invention is to provide in a very simple and efficient form a ventilator for roofs, adapted to be easily opened and closed and at all times protect the opening from rain and snow, and when closed make a very tight connection.

The ventilator is illustrated in the drawings herein, and hereinafter more fully described.

In the drawings, Figure 1 is a vertical central section of the ventilator. Fig. 2 is a horizontal section on the line 2—2 of Fig. 1.

The ventilator shown in the drawings is made largely of sheet metal.

Referring to the parts by reference characters, A may be taken as representing the line of the roof.

B is a vertical drum passing through the roof and defining the ventilator opening.

C is a conical shaped shedding member extending diagonally downward from near the upper portion of the drum to the surface of the roof. The drum is provided with a stiffening bead *b* and the member C starts from just above this bead. The member C may be provided with a stiffening bead *c*.

Secured at intervals to the shedding member C are upwardly extending legs or straps D formed as shown. These straps are bent inward at their lower ends and riveted to the member C. They then extend outwardly and then vertically at *d*, and then inwardly horizontally and finally are turned upwardly diagonally. Secured to the uppermost inclined portion of the legs is the conical member E forming a roof for the ventilator. This member extends outwardly to a point beyond the line of the drum wall. This member E is provided with an upwardly pressed annular stiffening bead *e* which is preferably just above the ends *d'* of the straps and is directly over the drum wall.

Surrounding the vertical portion *d* of the legs is the vertical drum or shield F which is open above and below. This member may be strengthened by annular stiffening beads *f* which are preferably located just above and just below the vertical portions *d* of the legs. This shield protects the opening at the upper end of the drum B from rain or snow, and at the same time allows a large draft space out of the top of the drum and upwardly between the upper cone E and the shield F, and downwardly between the shield and the shedding surface C,—this being indicated by arrows in the drawing.

At the peak of the cone E may be secured a small conical ornamental member G. Depending from this peak is a vertical rod H which is secured at the peak. At its lower end, this rod is secured to a cross bar J extending from one side of the drum to the other. Slidable on this rod H is the sleeve K to which is secured an inner cone L which forms a cover or gate for the drum. This cone is braced by an under cone N secured to the member L and to the sleeve K near its lower end. A stiffening bead 1 formed in the cone L near its edge is adapted to snugly fit over the upper end of the drum B. This inner cone may thus form a tight cover for the ventilator drum, closing the ventilator. On the other hand, the cone may be elevated to nest beneath the cone E, opening the ventilator. In this open position, the bead 1 occupies the recess provided by the bead *e*.

To raise the inner cone to open the ventilator, we provide a bar P secured to the sleeve K and depending parallel with the rod H and at its lower end loosely yoking around the rod, and secured to the rod H is a bracket Q carrying a pulley over which a chain R passes,—the lower end of the chain being secured to the end *p* of the rod P. When the chain R is pulled, the bar P is drawn upward, raising the inner cone, and opening the ventilator. At its extreme height this inner cone nests against the under side of the outer cone E, as above explained.

It will be seen from the above description that our ventilator is simple yet rigid in construction, neat in appearance and easily operated, while providing tight closure when closed and a large draft space when opened.

Having thus described our invention, we claim:

1. In a ventilator, the combination of a wall around the ventilation opening, a movable member adapted to close the upper end

thereof and having a bead adapted to extend over the extreme upper edge of the wall, a roof member suitably supported some distance above the wall, said roof member having a bead, which bead the bead of the movable member is adapted to occupy when the movable member is elevated.

2. In a ventilator, the combination of a ventilator roof, a vertical rod depending therefrom, a gate for closing the ventilator opening slidable up and down on said rod, a pulley carried by the rod below the gate, a bar depending from the gate below the pulley, means passing over the pulley and connected to said bar for raising the gate, and a cross bar for supporting the lower end of said rod.

3. In a ventilator, in combination, a drum adapted to extend through the roof, upwardly extending legs outside of the drum, a cone carried by the upper portions of said legs, a shield carried by the outer portions of the legs, a rod depending from the cone, an inner cone slidable on said rod, a member depending from the inner cone and yoking around the rod, a pulley carried by said rod at a point beneath the inner cone, and a chain passing over said pulley and connected at its end with the member yoking around the rod, whereby the chain may elevate the inner cone to open the ventilator.

In testimony whereof, we hereunto affix our signatures in the presence of two witnesses.

MALCOLM HARD.
EDWARD CONEY.

Witnesses:
D. K. SWATHWOUT,
ALBERT H. BATES.