No. 876,972. PATENTED JAN. 21, 1908.

H. J. KELLHOFER.

VENTILATOR.

APPLICATION FILED AUG. 30, 1907.

Fig. 1.

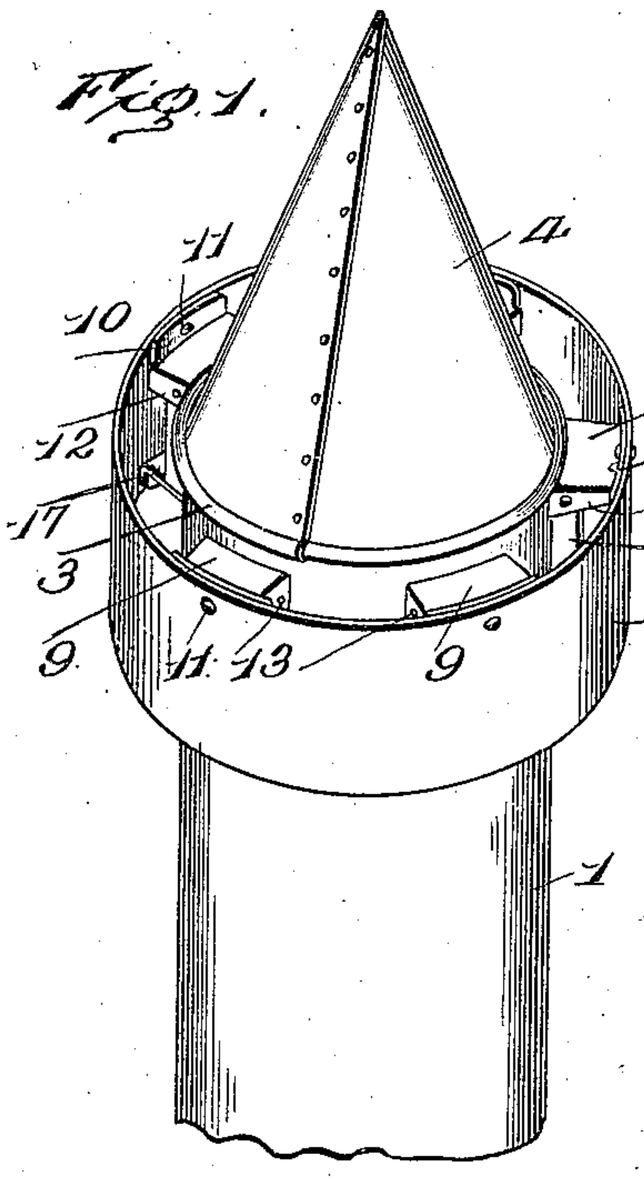


Fig. 2.

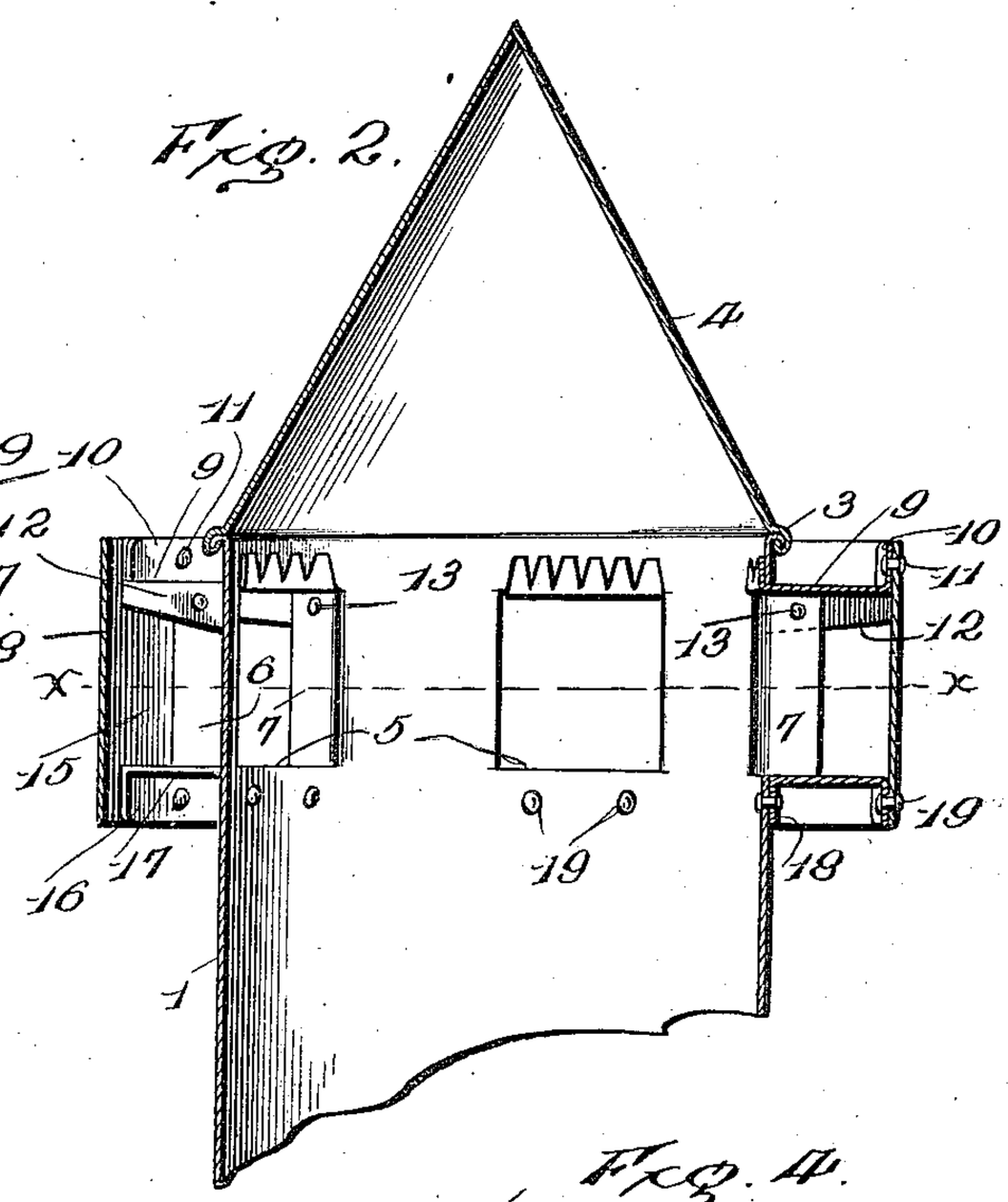


Fig. 3.

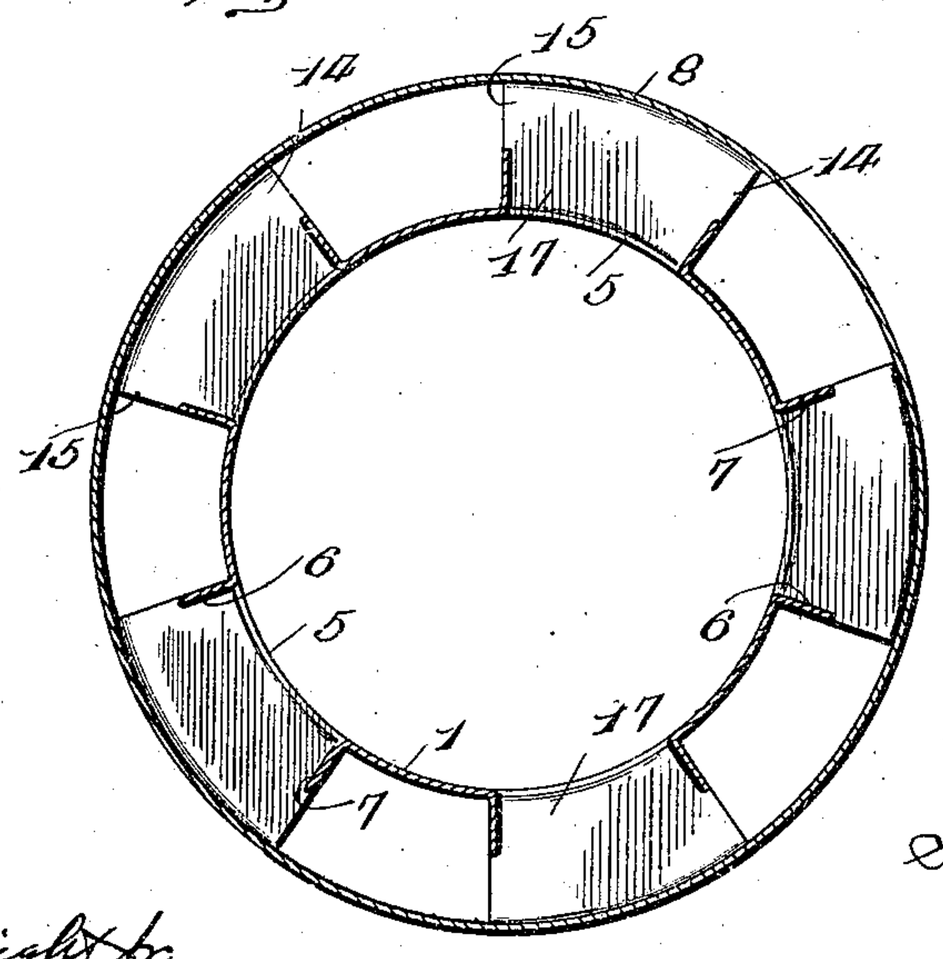
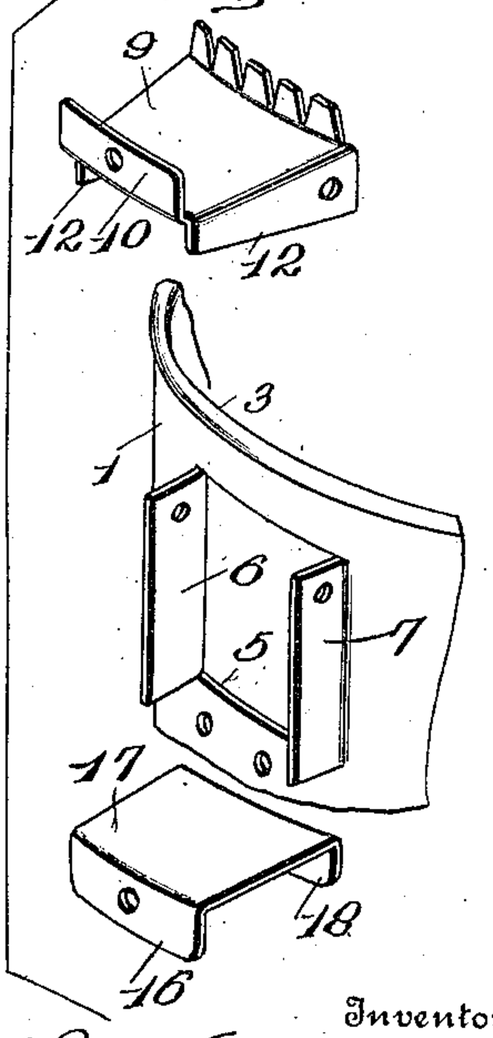


Fig. 4.



Witnesses
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UNITED STATES PATENT OFFICE.

HARRY J. KELLHOFER, OF CHILLICOTHE, OHIO.

VENTILATOR.

No. 876,972. Specification of Letters Patent. Patented Jan. 21, 1908.

Application filed August 30, 1907. Serial No. 390,771.

To all whom it may concern:

Be it known that I, HARRY J. KELLHOFER, a citizen of the United States, residing at Chillicothe, in the county of Ross and State of Ohio, have invented certain new and useful Improvements in Ventilators, of which the following is a specification, reference being had therein to the accompanying drawing.

My invention relates to improvements in ventilators.

The object of my invention is to provide a ventilator which is more simple, cheap and effective, and adapted to be used for ventilating buildings, and also adapted to be used on a chimney.

In the accompanying drawings, Figure 1, is a perspective view of my improved ventilator. Fig. 2, is a vertical sectional view, and Fig. 3, is a transverse sectional view taken on the line *x*—*x* of Fig. 2. Fig. 4, is a perspective view of a portion of the cylindrical member, and showing the band-supporting plates 9 and 17 removed.

Referring now to the drawings, 1 represents a cylindrical sheet metal member having at its lower end a flange tube or any other means whereby it may be readily secured to the roof or the chimney. The upper end of the cylindrical member has crimped thereon, as indicated at 3, the cone-shaped cap 4 which protects the cylindrical member and forms a water-shed for the same. Arranged at equal distances apart around the periphery of the cylindrical member are openings 5. These openings are formed by cutting the metal of the cylindrical member and turning it outwardly at the sides and forming the radially extending vertical flanges 6 and 7.

Surrounding the cylindrical member is a band 8 which is of a width greater than the openings 5 and spaced a distance from the said cylindrical member. Riveted to the inner face of the band 8 adjacent the upper end thereof are plates 9 which have the vertically-disposed portion 10 conforming to the inner periphery of the band, and through which the rivets 11 pass. The inner ends of said plates pass through the openings 5 and extend upwardly against the inner periphery of the cylindrical member. The said plates have their sides turned downwardly at 12 against the flanges 6 and 7, and are riveted thereto by the rivets 13. These downwardly-turned ends 12 of the plates convey the water from the plate downwardly and prevent it from passing between the flanges 6 and 7, and thus absolutely prevent any water from entering the openings 5. This arrangement also allows for the proper passage of the air from the cylindrical member through the openings 14 and 15 between the outer edges of the flanges 6 and 7 and the band. These plates also hold the band in its spaced position from the cylindrical member.

Riveted to the inner periphery of the band at its lower end is a vertical portion 16 of the plates 17. These plates are of a width equal to the distance between the flanges 6 and 7, and pass between the same. The inner ends of these plates are turned downwardly at 18 against the outer periphery of the cylindrical member 1 and riveted thereto by means of rivets 19.

By the construction and arrangement of the parts herein set forth I have produced a ventilator in which it is absolutely impossible for any water to enter the same, and yet at the same time having all the advantages of the ventilators now in use.

Having thus described my invention, what I claim and desire to be secured by Letters Patent, is:—

1. A ventilator comprising a cylindrical member having a closed upper end, and having openings arranged around the outer periphery thereof, a band surrounding the cylindrical member opposite the openings and spaced a distance therefrom, and plates connecting the band and the cylindrical member above and below the openings.

2. A ventilator comprising a cylindrical member having a closed upper end and having openings cut therein, and the metal cut to form the openings turned outwardly forming vertical flanges, a band surrounding the cylindrical member opposite said openings and spaced a distance therefrom, and plates secured to the band and extending inwardly over said openings and having downwardly extending side portions riveted to the said vertical flanges.

3. A ventilator comprising a cylindrical member having a closed upper end and having openings cut therein, and the metal cut to form the openings turned outwardly forming vertical flanges, a band surrounding the cylindrical member opposite said openings and spaced a distance therefrom, and horizontal plates having vertically-turned outer ends riveted to the inner periphery of the band, and their inner ends extending through the openings and turned upwardly

on the inner periphery of the cylindrical member, and said plates having downwardly-turned side portions extending over the vertical flanges and secured thereto, and plates secured to the inner periphery of the band and the outer periphery of the cylindrical member below the opening, whereby the band is rigidly supported a distance from the cylindrical member.

4. A ventilator comprising a cylindrical member having a closed upper end and having openings cut therein and the metal cut to form the openings turned outwardly forming vertical radially-extending flanges, a band surrounding the cylindrical member opposite said openings and of a width to extend above and below the ends of the openings and spaced a distance from the vertical flanges, horizontal plates having vertically-turned ends riveted to the inner periphery of the band and their inner ends extending through the openings and turned upwardly on the inner periphery of the cylindrical member, said plates having downwardly-turned side portions extending over the vertical flanges and secured thereto by transverse rivets, and plates of a width equal to that of the vertical openings and having a downwardly-turned flange secured to the inner periphery of the band, and a downwardly-turned flange at its inner end secured to the outer periphery of the cylindrical member.

In testimony whereof I affix my signature in presence of two witnesses.

HARRY J. KELLHOFER.

Witnesses:
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