PATENTED

FEB 18 1868

H.B. Worth. Fan Ventilator.

assigned to Self Wm H. Chapin & A. L. Creamer.

74655

Fig. 1.

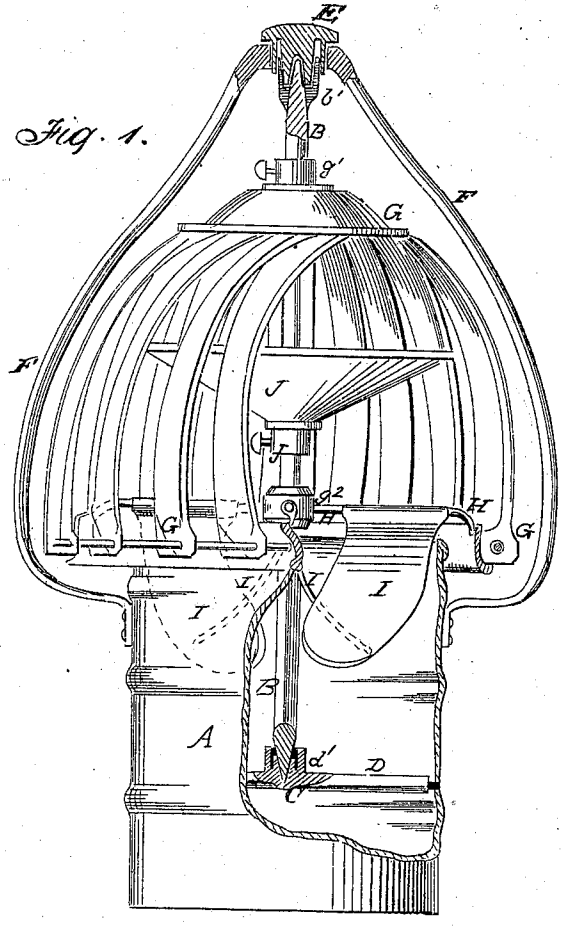
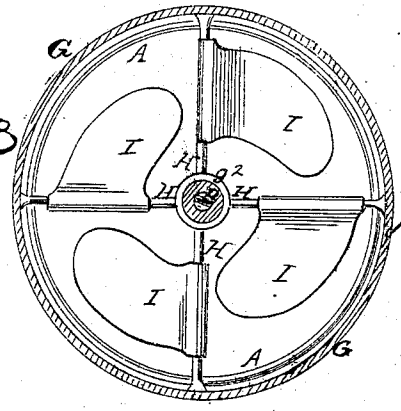


Fig: 2.



WITNESSES.

H. C. Ashcroft

Theo. Tuschi

INVENTOR.

H. B. Worth

per Munn & Co

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United States Patent Office.

H. B. WORTH, OF CHICAGO, ILLINOIS, ASSIGNOR TO HIMSELF, WILLIAM H. CHAPIN, AND A. L. CREAMER.

Letters Patent No. 74,655, *dated February* 18, 1868.

IMPROVEMENT IN VENTILATORS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, H. B. WORTH, of Chicago, in the county of Cook, and State of Illinois, have invented a new and useful Improvement in Fan-Ventilators; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

Figure 1 is a side view of my improved ventilator, part being broken away to show the construction.

Figure 2 is a detail horizontal section of the same.

Similar letters of reference indicate corresponding parts.

My invention has for its object to improve the construction of the ventilator known as Griffith's patent ventilator, so as to make it more effective and satisfactory in operation; and it consists in the combination of an inverted cone, with the shaft and revolving fan-cap, and in the manner in which the propelling-fans are connected with the revolving fan-cap, the whole being constructed and arranged as hereinafter more fully described.

A represents the upper end of the chimney or ventilating-flue. B is a vertical shaft, the lower end of which revolves in a step, C, formed within the oil-cup d' attached to the centre of the cross-bar D, the ends of which are secured to the side walls of the flue A. The upper end of the shaft B, which has an oil-cup, b', attached to it, revolves in a step, E, adjustably attached to the supports F, and which projects downward into the oil-cup b', as shown in fig. 1. The lower ends of the supports F are secured to the side walls of the flue A. G is the revolving fan-cap, in the crown of which is secured a collar, g^1, fitting upon the shaft B, and adjustably secured in place by a screw. H are cross-bars, the outer ends of which are secured to the base of the revolving fan-cap G, and the inner ends of which are secured to the collar g^2, which fits upon and is adjustably secured to the shaft B by a set-screw. To the cross-bar H are rigidly attached the propelling-fans I, which project down into the flue A, and by the action upon which of the stream of air or smoke ascending through the flue A, the fan-cap G is revolved. J is an inverted cone, having a collar, j', attached to its apex, which fits upon and is adjustably secured to the shaft B.

By this construction, the rising stream of air or smoke is thrown against the fans of the revolving cap, and is prevented from collecting within the upper part of said cap, as is the case when the inverted cone J is not used. In the case of wind rebounding from high buildings, or blowing down upon the ventilator, it strikes against the cone J, and is so deflected as to pass out at the sides of the cap G instead of blowing down the flue.

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

1. The combination of the inverted cone J with the shaft B and revolving fan-cap G, substantially as herein shown and described, and for the purpose set forth.

2. In combination with the above, I claim the propelling-fans I, mounted on rods H attached to the revolving fan-cap G and hub g^2 on shaft B, substantially as and for the purpose set forth.

H. B. WORTH.

Witnesses:

R. A. TENNEY,

CLARK HILL.