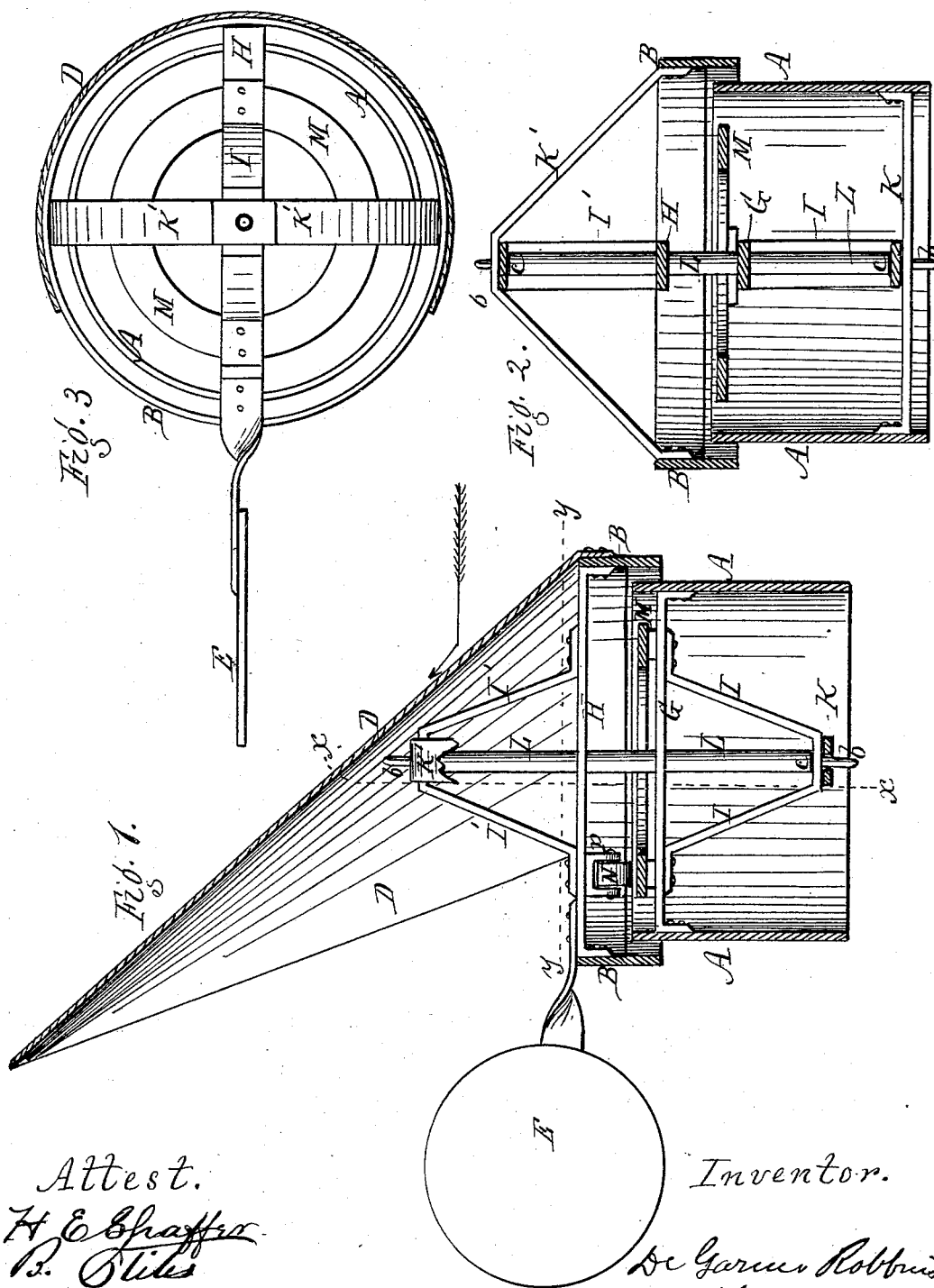


(No Model.)

DE G. ROBBINS.  
VENTILATOR.

No. 267,256.

Patented Nov. 7, 1882.



Attest.  
H. E. Chaffin  
B. O. Oles

Inventor.

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att'y

# UNITED STATES PATENT OFFICE.

DE GARMO ROBBINS, OF ROCHESTER, NEW YORK.

## VENTILATOR.

SPECIFICATION forming part of Letters Patent No. 267,256, dated November 7, 1882.

Application filed March 1, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, DE GARMO ROBBINS, of Rochester, Monroe county, New York, have invented a certain new and useful Improvement in Ventilators; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, in which—

Figure 1 is a longitudinal vertical section of the device. Fig. 2 is a transverse vertical section in line *x x*, Fig. 1. Fig. 3 is a horizontal section in line *y y*, looking downward.

My improvement relates to conical ventilators mounted on chimneys, fruit-evaporators, dry-houses, &c., and which turn on a central spindle or shaft, so as to oppose the wind. Such ventilators are well known.

My invention consists more especially in the internal construction of the device for centering, bracing, and supporting the same, as hereinafter more fully described and claimed.

In the drawings, A shows a base ring or cylinder, which is fixed at the top of the chimney or set into a hole in the roof of the house or the fruit-evaporator.

B is a movable ring, and D is the hood or bonnet, secured to the ring B, and differing from common hoods by standing directly over the ring, but sloping backward, as shown in Fig. 1. To the rear of the ring B is attached a vane, E, for holding the ventilator to the wind, as usual. Under ordinary circumstances this vane might be dispensed with, as the retreating form of the hood will cause it to move to face the wind.

My improvement is as follows:

G is a cross bar or arm, extending across the ring A and riveted thereto, and H is a similar bar, extending across and riveted to the top ring, B. I I' are two bent straps, forming bearings, one attached to and projecting downward from the under side of the bar G, the other attached to and projecting up from the upper side of the bar H. The outer ends of these bearings are a considerable distance from each other, as shown.

K is a brace beneath the strap I in the lower ring, the same being a straight bar standing crosswise and at right angles to the strap, and riveted to the sides of the ring.

K' is a brace on the upper ring, also standing crosswise or at right angles to the strap I', but bent in elbow form, so as to reach down and be riveted to the narrow ring.

L is a vertical spindle or shaft, forming the center or axis upon which the ventilator turns. It passes bodily through holes in the two cross-bars G H, and it has two pintles, *b b*, one at each end, of smaller diameter, which rest in smaller holes in the straps and braces which form the bearings. Shoulders *c c* are thus formed on the spindle, the lower one resting upon its bearing as a step, and the upper one supporting its bearing, and by this means the upper rotary ring and its hood are supported and allowed to turn free of the lower stationary ring. While the spindle is thus set into and held in place in its bearings at the ends, the said bearings are sustained by the cross-bars G H, and the latter are stayed by the cross-braces K K', so that the whole is stiff and substantial, and will sustain itself against any wind.

M is a circular flat ring, similar to the fifth-wheel of a carriage, the same being mounted on top of the cross-bar G in the upper part of the stationary ring.

N is a friction-roller, mounted in a bearing, *n*, on the under side of the cross-bar H of the upper ring, said roller resting directly above the circular track, but not coming in contact with it except when the ventilator is sprung or bent over under heavy wind. Under ordinary circumstances the upper ring will turn without any contact of the roller with the track; but under heavy strain it will touch and roll upon the track, thereby preventing bending and twisting of the spindle and the consequent disarrangement of the parts.

In applying the ventilator, a hole is cut or formed in the roof or other support which holds the ventilator, and the lower ring or cylinder, A, is set into the hole and packed in place to make the joint water-tight. This is a simple and effective way of attaching the ventilator, and it can be done in the peak of a roof with great facility and ease.

The device is useful on chimneys, but is specially applicable on fruit-evaporators and dry-houses, where moisture is to be passed off

and where it is necessary to shield the flue from wind and storm. It is well known that the true principle in evaporating is to pass a current of pure air through the drier, carrying off the moisture as fast as it is evolved. By the use of this device no wind can blow down the flue, and no rain or snow can enter. By its use fruit will dry almost as rapidly in damp as in dry weather, as no dampness can enter from the top. It obviates any necessity of watching the wind and opening and closing dampers and valves. Being made of galvanized iron, the device is fire-proof and constitutes an ornamental attachment to a building.

15 Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a ventilator, the combination, with the rings A B and hood D, of the cross-bars G H, 20 the elbow-shaped bearings I I', the cross-

braces K K', at right angles to the bearings, the spindle L, the circular track M, and the friction-roller N, arranged to operate in the manner and for the purpose specified.

2. In a ventilator, the combination, with the 25 two rings A B, of the circular track M in the top of the lower stationary ring, and the friction-roller N in the bottom of the upper movable ring, the roller resting free of the track, but so near that under heavy strain on the 30 ventilator it will come in contact with and roll on the track, as described.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

D. G. ROBBINS.

Witnesses:

R. F. OSGOOD,  
JACOB SPAHN.