

No. 766,063.

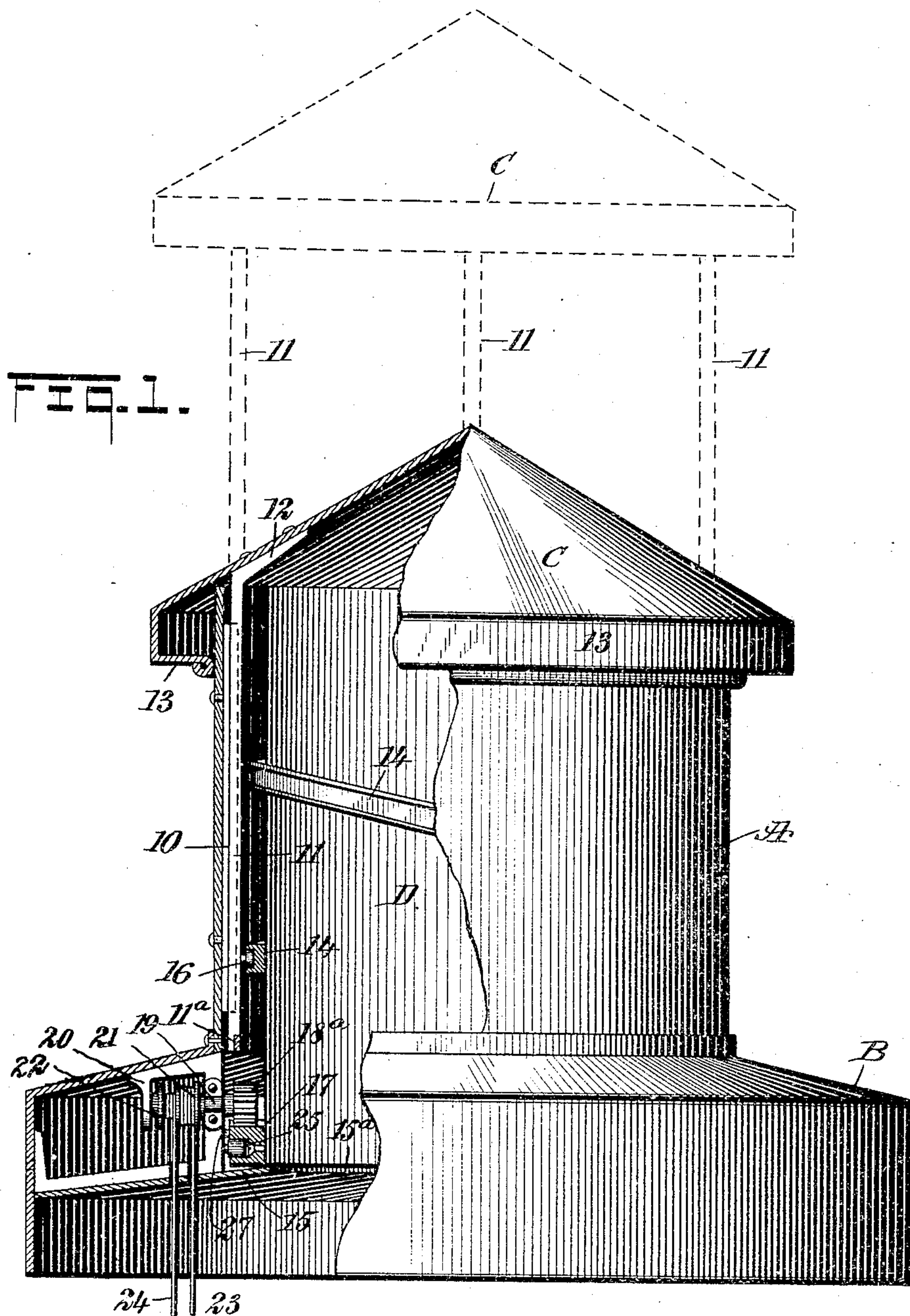
PATENTED JULY 26, 1904.

F. J. PROCHASKA.
VENTILATOR.

APPLIOATION FILED MAR. 22, 1904.

NO MODEL.

2 SHEETS—SHEET 1.



WITNESSES:

W.B. Anglin
J. H. Decker

INVENTOR

Frank J. Prochaska

BY

Mumms

ATTORNEYS

UNITED STATES PATENT OFFICE.

FRANK JOHN PROCHASKA, OF PARK RIVER, NORTH DAKOTA.

VENTILATOR.

SPECIFICATION forming part of Letters Patent No. 766,063, dated July 26, 1904.

Application filed March 22, 1904. Serial No. 199,376. (No model.)

To all whom it may concern:

Be it known that I, FRANK JOHN PROCHASKA, a citizen of the United States, and a resident of Park River, in the county of Walsh and State of North Dakota, have invented a new and Improved Ventilator, of which the following is a full, clear, and exact description.

The object of my invention is to provide an improvement in ventilators whereby the top of the ventilator may be raised to any desired distance from the body, so as to increase the efficiency of the ventilator, and, further, to so construct the ventilator that no matter how high it may be placed the said top may be raised and lowered as far as desirable within the limit of its movement by any person within the room or apartment over which the ventilator may be placed.

A further purpose of the invention is to construct a ventilator having the characteristics above described in such manner that it will be simple, durable, and readily operated.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a sectional side elevation of the improved ventilator, the top or cover being shown elevated in dotted lines. Fig. 2 is a horizontal section through the ventilator, taken at a point near the base and a portion of the hood of the base being broken away; and Fig. 3 is a vertical detail sectional view of that portion of the ventilator at which actuating mechanism is located.

A represents the outer shell of the ventilator, which shell is cylindrical, and this shell is provided with a hood-like outwardly-flaring base B, adapted to be fitted over any suitable support. At the inner face of the shell A preferably four uprights 10 are secured, serving as tongues, and the said tongues are preferably angular in cross-section. Each tongue 10 is adapted to receive a guide-shoe 11, the guide-shoes being of greater length than the length of the tongues, and these guide-shoes,

as is shown in Fig. 1, are connected at their lower ends by a band or ring 11^a and at their upper ends are provided with extensions 12 at an angle to their body portion, the said upper extensions 12 of the guide-shoes being attached to the inner face of a cover or cap C, which is preferably conical in shape and is provided with a box-flange 13 at its lower edge, which flange extends along the outer upper portion of the body-shield A.

The guide-shoes 11 are shaped to conform to the tongues or vertical ribs 10, so that the said cover or cap C may be raised and lowered, being guided in its movement by the shoes 11, fitting and sliding on the tongues or ribs 10.

An inner shell D is fitted loosely within the outer shell A, and the said inner shell D is open at its top and at its bottom, and this inner shell D rests at its lower portion on a platform 15, formed in the base-hood B of the outer shell, as is shown in Fig. 1, the said platform having an opening 15^a therein corresponding in diameter to the diameter of the inner shell D. This inner shell D is furthermore provided with a spiral exteriorly-grooved track 14, extending along the outer face of the inner shell D, commencing at the top and terminating at or near the bottom, and the groove of the said track 14 is adapted to receive friction-rollers 16, which are carried by and are mounted to turn on the guide-shoes 11, so that as the inner shell D is turned in one direction the guide-shoes are caused to travel upward, and thus elevate the cap C, due to the friction-rollers 16 being located in the grooves of the aforesaid spiral tracks 14, and when the inner shell D is turned in the opposite direction the cap C is lowered.

A band 17 is secured to the outer face of the inner shell D at its lower portion, and this band 17 is provided with rack-teeth 18 in its upper face. These teeth 18 are engaged by the teeth of a pinion 18^a, and this pinion is secured on a spindle 19, mounted to turn in a bracket 20 in the base B, and on this spindle two drums 21 and 22 are formed, the drum 21 having a cord or cable 23 wound thereon, and the drum 22 is provided with a second cord or cable 24, also wound thereon, but in a contrary direction to the winding of

the cord or cable 23. These cords or cables extend down through the base B of the body within convenient reach of the operator, and by drawing downward on one cord—the cord 5 23, for example—the inner shell D is revolved in a direction to cause the cap or cover C to be carried upward to the position, for example, shown by the dotted lines in Fig. 1, and by drawing down on the cord 24 the said cap 10 or cover C is brought downward as far as may be desired until it reaches the closing position at the upper portion of the body.

In order that the inner shell D shall turn freely and shall not be actually in frictional 15 engagement with the platform or partition 15, friction-rollers 25 are made to travel in a groove 26, produced in the band 17, as is shown in Figs. 1 and 3, and it will be understood that the brackets 20 are duplicated and placed 20 at suitable points within the base-hood B and that a roller 25 is carried by each bracket. Each bracket is furthermore provided with a horizontally-pivoted friction-roller 27, (shown also in Figs. 1 and 3,) and these latter friction-rollers engage with the outer face of the 25 band 17 above the groove 26.

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

1. In a ventilator, an outer and an inner 30 shell, one of said shells being stationary and the other revoluble, both shells being open at their tops and bottoms, a cap for the two shells and connected with the stationary shell, means carried by the revoluble shell for raising and 35 lowering said cap as said revoluble shell is rotated, and means for turning said latter shell.

2. In a ventilator, an outer shell having a tubular and outwardly-flaring base, an inner shell supported to turn within the outer shell, 40 a cap for the two shells, a sliding and guided connection between the cap and the outer shell, means carried by the inner shell for raising and lowering the supports for the cap as said inner shell is revolved, and an actuating device 45 for revolving the inner shell, substantially as described.

3. In a ventilator, an outer fixed shell having a flaring hollow base, an inner shell mounted to turn within the outer shell, the inner

shell being open at the top and at the bottom, 50 the outer shell likewise, a cover for the two shells movable to and from them, guides on the outer shell, and supports carried by the cover movable on the said guides, a spiral 55 grooved track exteriorly located on the inner shell, friction-rollers carried by the supports for the cover and mounted to travel in the grooves of the said track, a rack formed at the lower portion of the inner shell, a pinion 60 engaging with the rack, drums connected with the said pinion, and cables wound upon the said drums in opposite directions, as described.

4. In a ventilator, an outer fixed shell having a flaring hollow base, an inner shell mounted to turn within the outer shell, the inner 65 shell being open at the top and at the bottom, and the outer shell likewise, a cover for the two shells movable to and from them, guides on the outer shell, and supports carried by the cover, movable on the said guides, a spiral 70 grooved track exteriorly located on the inner shell, friction-rollers carried by the supports for the cover and mounted to travel in the grooves of the said track, a rack formed at the lower portion of the inner shell, a pinion 75 engaging with the rack, drums connected with the said pinion, cables wound upon said drums in opposite directions, brackets located within the base of the outer shell, and guide-rollers 80 carried by the said brackets, engaging with the lower portion of the inner shell to guide the same in a frictionless manner, as described.

5. In a ventilator, an outer and an inner shell, one of said shells being stationary and the other revoluble, a cap for the shells, supports for the cap, a spiral track and a friction-roller cooperating therewith, the two 85 forming a connection between the revolving shell and the cap-supports, whereby to elevate the cap when said shell is rotated, and means 90 for rotating the shell.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FRANK JOHN PROCHASKA.

Witnesses:

H. D. WHITEFIELD,
FRANK C. LORD.