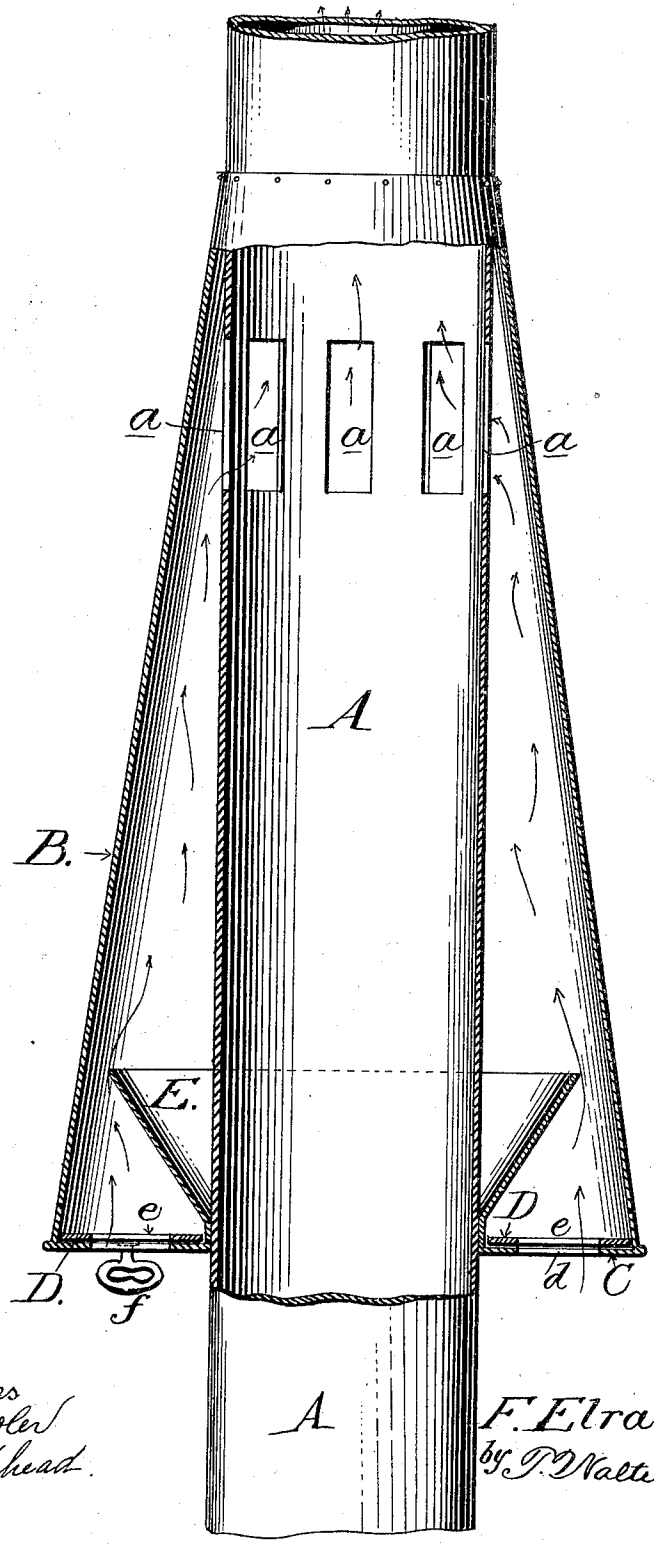
No. 709,525. Patented Sept. 23, 1902.

F. E. TAFT.

STOVEPIPE VENTILATOR.

(Application filed July 3, 1902.)

(No Model.)



Witnesses
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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

FRANK ELRA TAFT, OF JAMESTOWN, NEW YORK.

STOVEPIPE-VENTILATOR.

SPECIFICATION forming part of Letters Patent No. 709,525, dated September 23, 1902.

Application filed July 3, 1902. Serial No. 114,218. (No model)

To all whom it may concern:

Be it known that I, FRANK ELRA TAFT, a citizen of the United States, residing at Jamestown, in the county of Chautauqua and State of New York, have invented new and useful Improvements in Stovepipe-Ventilators, of which the following is a specification.

My invention relates to certain new and useful improvements in ventilators adapted to be attached to and used in connection with a stovepipe or similar uptake or conduit for carrying away the products of combustion of a range or other stove; and my invention consists of the parts and the constructions and combination of parts, which I will herein describe and claim.

In the accompanying drawing, forming part of this specification, the figure is an enlarged vertical sectional view of the ventilator, showing the dust collector or receiver.

In said drawing, A represents a pipe or flue, which may for the present purpose indicate the smoke-pipe of a range or stove, and B is the ventilator, which is preferably in the form of a cone-shaped drum and which surrounds the pipe A. The drum B has by preference a length approximating the length of a section of stovepipe, which increases the draft effect. The drum is riveted or otherwise firmly fixed to the pipe A, and said pipe has formed in it the usual openings *a*, which are inclosed by the smaller end of the drum. The bottom or base of the funnel or cone-shaped drum B is supplied with a plate or disk C of any appropriate form, in which openings *d* are made, through which openings the foul air or gases of the room and the odors arising from cooking will enter the drum and pass through the same and the openings *a* into the pipe A and finally into the chimney. The openings for the admission of the foul air and odors are controlled and their size regulated by means of a damper D in the form of a disk, slidably mounted in or upon the bottom of the hood and having openings *e*, adapted to register with those in said bottom, said disk or damper having a projecting finger-piece *f*, by which it may be turned to bring the openings *d e* in line to their full capacity or to move said damper so that the openings *d e* are partly or wholly out of register. By this means the smoke and odors from cooking or from other sources will by reason of the draft through the smoke-pipe readily pass through the openings *d e* into the drum and finally into the pipe A, and the cooler air of the room thus entering the smoke-pipe from the drum is warmed therein, and the commingled rarefied air, smoke, and gases or products of combustion passing up the pipe will condense the latter and cause substantially a vacuum, into which the products of combustion will rush, the result being to accelerate rather than retard the draft. When it is desired to purify the air of the room, the damper is operated to open in whole or part the openings *d e*, and the foul air or odors will speedily pass into and through the ventilator and out through the pipe A and chimney, and when the damper is operated to close the openings *d e* the ventilator is temporarily inoperative, and the products of combustion pass through the smoke-pipe and into the chimney in the usual well-known manner.

In connection with the ventilator as described or, in fact, with any like form of ventilator I employ a means for catching soot or dust which may be carried into the ventilator from the room or be blown down the chimney by a strong draft of wind. This device is shown at E as having the general form of a funnel or inverted cone reversed in relation to the cone-shaped drum B, having its larger end presented upwardly and its smaller end closely embracing the stovepipe at its junction with the bottom of the drum. The funnel E may consist of sheet metal, and it may be fixed to the hood in any appropriate manner. Its upper or larger end extends across the lower portion of the hood B for about two-thirds (more or less) of the total space, and the object of the funnel is to catch and retain any soot, dust, or foreign matter that may be drawn into the hood from the room or be blown down the chimney or pipe A by the wind or stronger draft. Any such particles will fall into the open large end of the funnel and will be retained therein and be prevented from being forced into the room. The funnel E does not materially detract from the draft function of the hood or impair the draft through the stovepipe, and its office to catch the particles of soot dislodged by a back

draft or otherwise carried into the hood is of importance in insuring such particles not being driven into the room.

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

1. The combination with a stovepipe and an exterior ventilating-drum, of an open-top receiver interposed between the drum and pipe and adapted to collect particles of soot and foreign matter carried into the drum.

2. The combination with a stovepipe or like flue, and a ventilating-drum surrounding the same, of a funnel-shaped receiver within the drum and surrounding the pipe or flue, and having its larger end presented upwardly and adapted to receive soot and particles of foreign matter which may enter the drum.

3. The combination with a stovepipe having openings, a drum of conical form surrounding the pipe and inclosing said openings, and damper-controlled inlets to said drum, of a funnel-shaped piece within the base of the drum and surrounding said pipe, and having its upper end open to receive particles of foreign matter which may be carried into the drum and prevent said particles being carried into the room.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

F. ELRA TAFT.

Witnesses:
CHAS. WIDHOLM,
GEO. G. ARMSTRONG.