(No Model.)

A. BAY.

STOVEPIPE VENTILATING ATTACHMENT.

No. 528,711. Patented Nov. 6, 1894.

Fig. 1

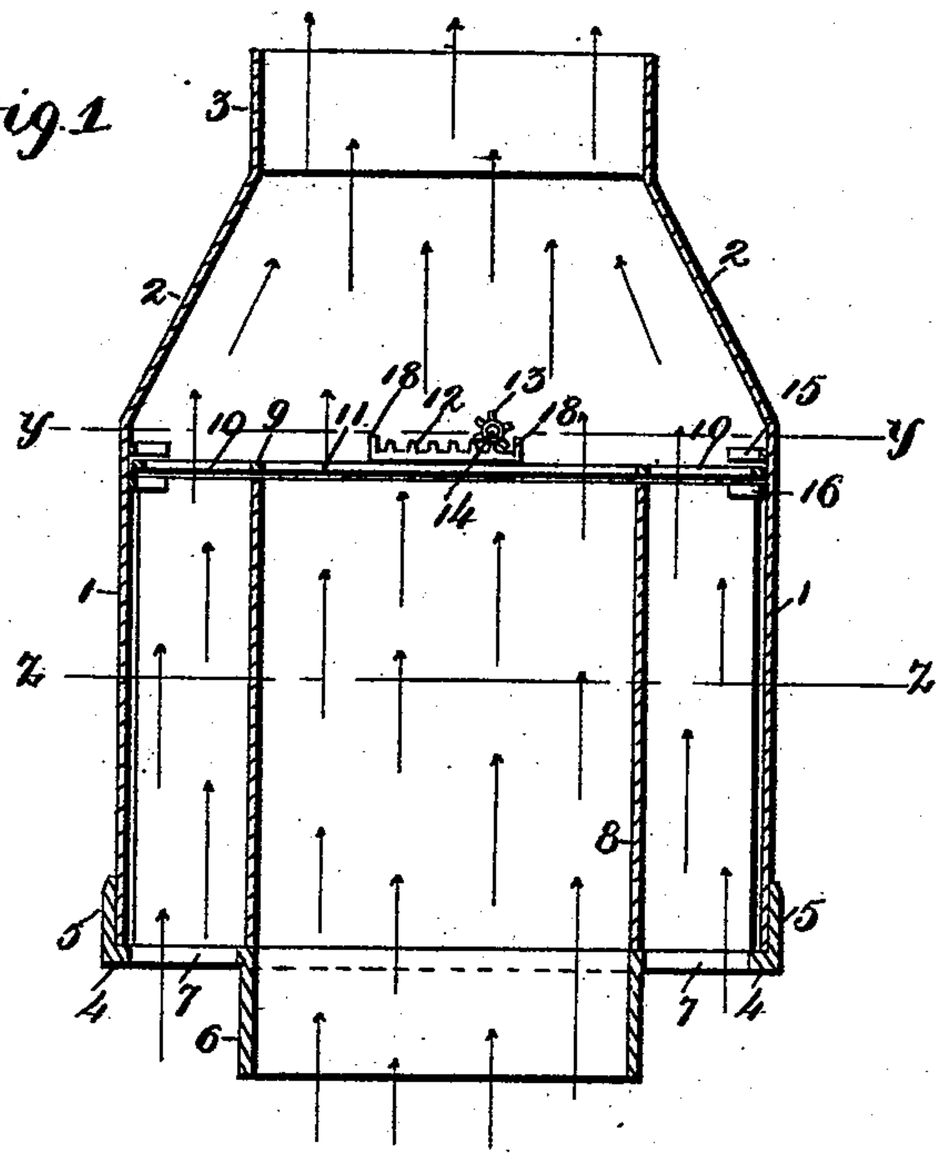


Fig. 2.

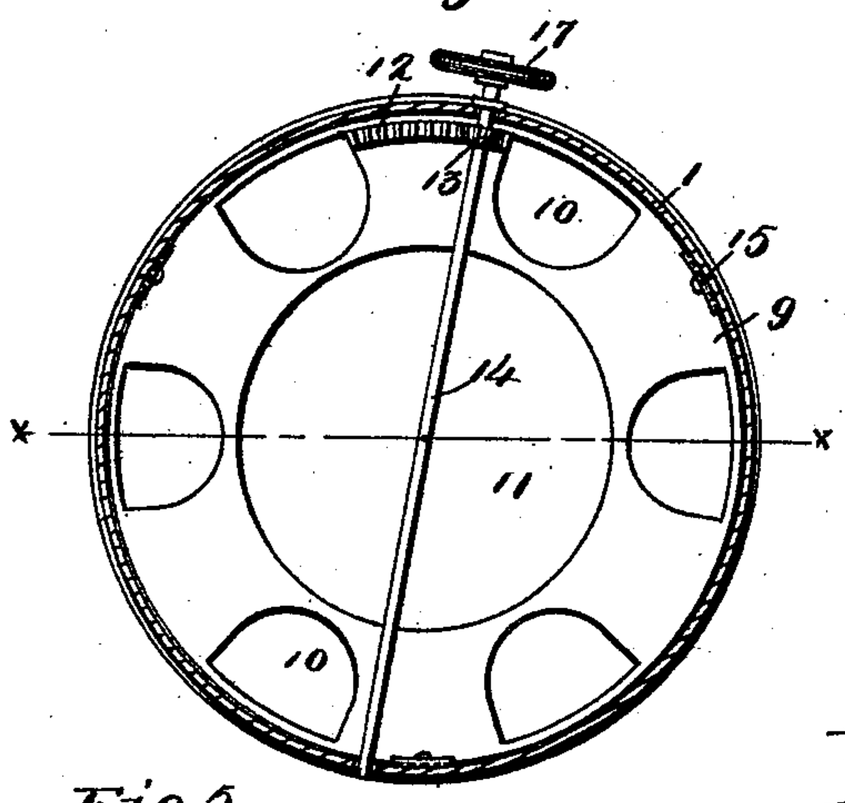


Fig. 3.

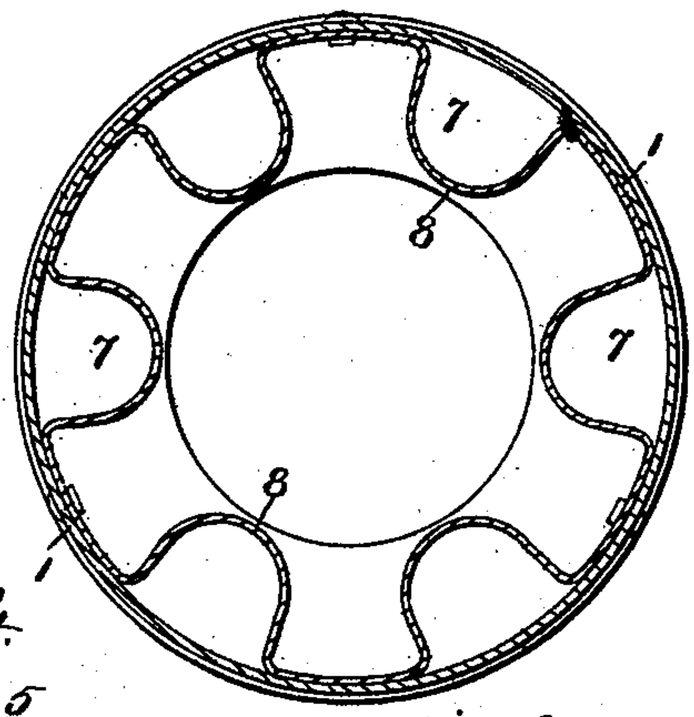


Fig. 4.

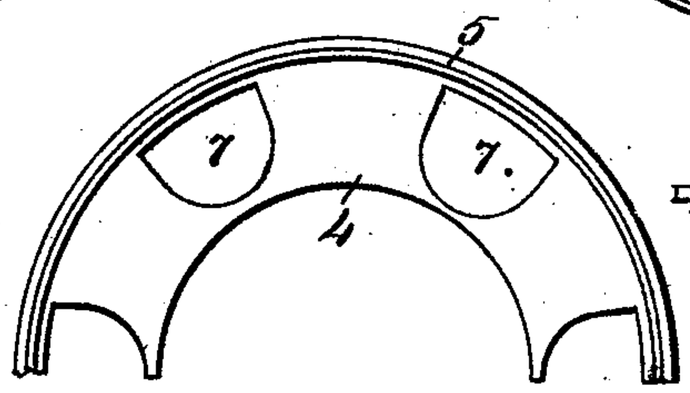


Fig. 5.

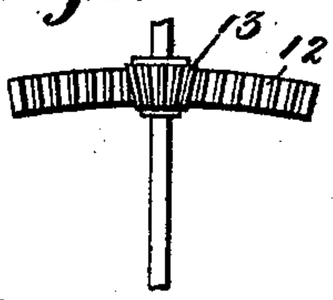
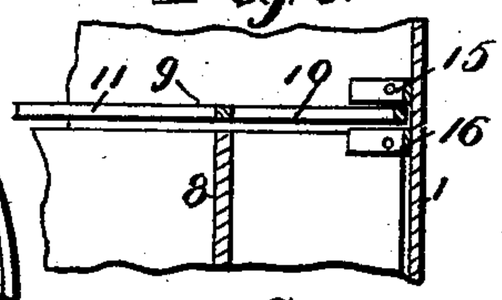


Fig. 6.



Witnesses
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UNITED STATES PATENT OFFICE.

ALPHONSE BAY, OF ST. CHARLES, MISSOURI.

STOVEPIPE VENTILATING ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 528,711, dated November 6, 1894.

Application filed June 23, 1894. Serial No. 515,530. (No model.)

To all whom it may concern:

Be it known that I, ALPHONSE BAY, of St. Charles, county of St. Charles, State of Missouri, have invented certain new and useful Improvements in Stovepipe Ventilating Attachments, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention has relation to improvements in stovepipe ventilating attachments and consists in the novel arrangement and combination of parts more fully set forth in the specification and pointed out in the claims.

In the drawings, Figure 1 is a vertical section taken on the line *x—x* of Fig. 2. Fig. 2 is a horizontal section taken on line *y—y* of Fig. 1. Fig. 3 is a similar section taken on line *z—z* of Fig. 1. Fig. 4 is a plan view of a portion of the detachable base of the main casing. Fig. 5 is an enlarged detail of the rack and pinion for operating the damper; and Fig. 6 is an enlarged detail vertical section showing the guides for the damper.

The object of my invention is to construct a ventilating attachment for stove pipes which can be readily attached to such pipes, one which will be simple in its make-up, be thoroughly effective, and one which shall be cheap and durable. To this end I have devised a ventilator as follows:

Referring to the drawings, 1 represents a casing having a conical top 2 terminating in a rim 3 which is adapted to pass over the open lower end of an upper stove pipe section. The lower end of the casing 1 is closed by a flanged annular base 4, the flange 5 thereof being adapted to fit snugly over the lower portion of said casing. The base 4 has a depending rim 6 of the same diameter as the rim 3, it being correspondingly adapted to pass over the upper open end of a lower section of stove pipe, so that by this arrangement the casing 1 forms a continuation of the stove pipe sections between which it is inserted. The base 4 has a series of openings 7, and resting upon said base and following the general contour of the openings is a corrugated or fluted sheet or pipe 8, denominated as the air pipe. The depth of the corrugations is such as to make the diameter of the general cylinder tangent to the inner surfaces of the several corrugations, equal to the diameters of the rims 3 and 6, as best seen in Fig. 1.

The top of the pipe 8 is made to reach a short distance below the line connecting the casing 1 with its conical end 2; and on the top of the said air pipe rests an annular damper plate 9 having openings 10 corresponding to the openings 7, and when in its normal or open position the two sets of openings are in communication. Of course the two sets of openings are connected by the fluted columns confined between the several corrugations of the pipe 8 and the inner wall of the casing 1. The diameter of the central opening 11 of the damper plate corresponds to the general diameter of the rims 3 and 6, and to the diameter of the cylindrical opening contained between the inner surfaces of the corrugations of the pipe 8, so that the products of combustion passing from the lower section of stove pipe to the upper section shall be uninterrupted in their passage through the ventilator.

Along the outer edge of one of the lobes of the damper plate is disposed a rack bar 12 with which co-operates a pinion 13 secured to a rod 14 mounted diametrically in the casing 1. The damper is guided in its rotation by being confined at suitable intervals by strips 15 and 16 riveted above and below the same, the rivets passing through the casing and also through the adjacent walls of the pipe 8, so that the said strips not only serve to guide the damper, but by reason of their location also serve to secure the air pipe 8 to the outer casing 1. The outer projecting end of the rod 14 carries an operating knob 17.

When it is desired to ventilate the room the knob 17 is turned so as to leave the passage between the openings 7 and 10 uninterrupted, the products of combustion as they pass through the ventilator serving under these circumstances to draw the air currents after them as indicated by the arrows in Fig. 1. Upon turning the knob 17 so as to cause the lobes of the damper plate to close the openings 10, the air will be shut off. The rack 12 has terminal lugs 18 (see Fig. 1) so as

to limit the oscillations of the damper and prevent the pinion 13 from working off the rack.

The fluted or corrugated air pipe 8 is the most convenient construction by which the openings 7 and 10 are brought into communication, although it is obvious that any equivalent of this form comes within the scope of my invention.

Having described my invention, what I claim is—

1. A stove pipe ventilating attachment comprising a casing, means for securing the same in the path of a pipe, a suitable fluted air pipe or sheet secured within the casing, the said casing having openings in communication with the corrugated passages formed between the inner wall of the casing and the several corrugations of the fluted pipe, and suitable openings for leading the products of combustion and air through the stove pipe, substantially as set forth.

2. A stove pipe ventilating attachment comprising an open casing adapted to be secured in the path of a pipe, a bottom for the same, openings in said bottom, a fluted or corrugated pipe or sheet secured within the casing following the contour of said openings adapted to rest on the bottom and forming air passages between the inner wall of the casing and the several corrugations of the sheet, and a damper co-operating with the upper end of the fluted sheet, substantially as set forth.

3. In a stove pipe ventilating attachment, a suitable casing, a fluted sheet or air pipe secured within the same and forming air passages between the inner wall of the casing and the several corrugations of the sheet, a damper adapted to rest on the upper end of said sheet having a number of solid lobes and openings between said lobes adapted to communicate with the fluted passages, and suitable means for operating the damper plate, substantially as set forth.

4. A stove pipe ventilating attachment comprising an outer casing, a flanged bottom for the same having suitable openings, a depending rim on said bottom, a fluted sheet or air pipe resting on said bottom, following the contour of the openings therein, and forming air passages between the inner wall of the casing and the several corrugations of the sheet, an upper end for said casing, a rim at the end of the same, the said rims and the cylindrical opening formed by the base of the corrugations being all of substantially the same diameter, a lobed damper plate, having a central opening, resting on said fluted sheet, a series of openings between the lobes of the damper, guide strips below and above the damper plate adapted at the same time to secure the sheet to the walls of the casing, and suitable means for operating the damper, substantially as set forth.

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

ALPHONSE BAY.

Witnesses:
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EMIL STAREK.