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F. E. ALBINI

CHIMNEY CONSTRUCTION

Filed Jan. 25, 1923

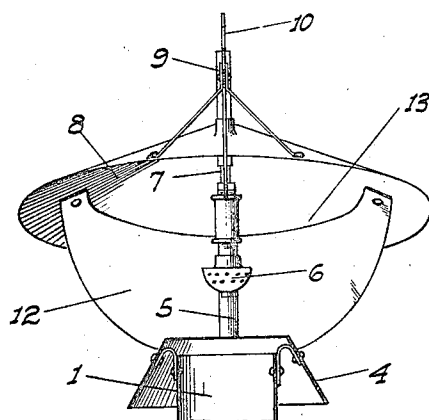
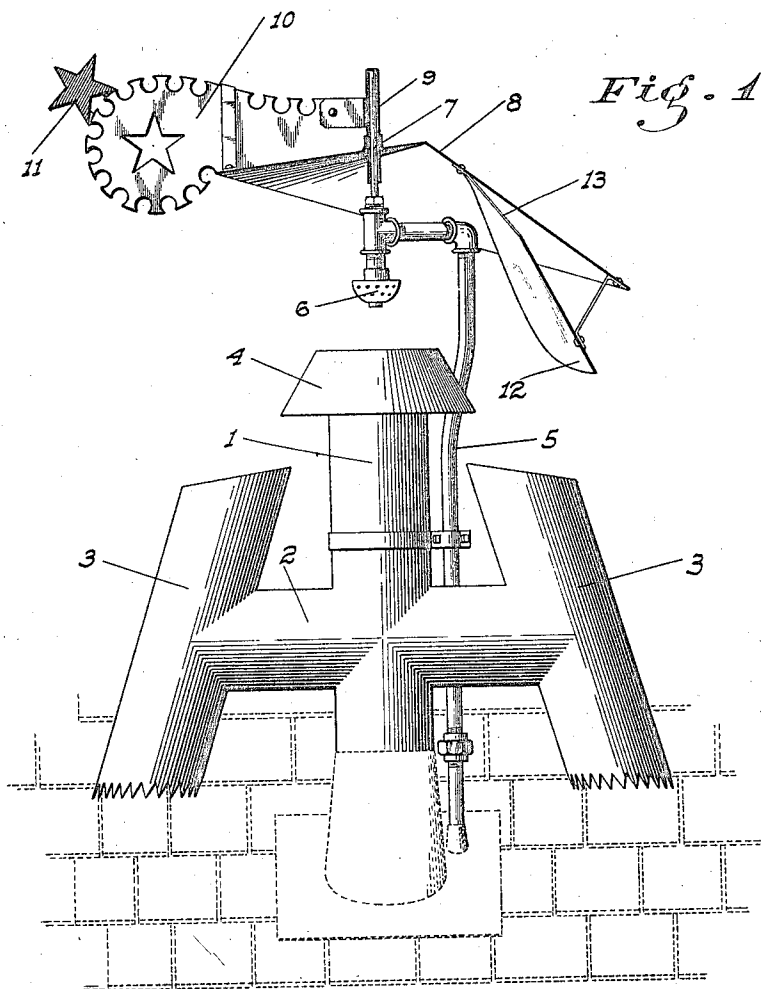


Fig. 2

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CHIMNEY CONSTRUCTION.

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To all whom it may concern:

Be it known that I, FRANCK E. ALBINI, a citizen of the Republic of Switzerland, residing at Stockton, county of San Joaquin, State of California, have invented certain new and useful Improvements in Chimney Construction; and I do declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings and to the characters of reference marked thereon, which form a part of this application.

This invention relates to improvements in the construction of chimneys and particularly to that portion thereof above the building and exposed to the wind, the principal object of my invention is to provide a device for exterior attachment to any chimney flue by means of which the draft through the flue is greatly increased, particularly when a wind is blowing, and regardless of the direction thereof, and the common tendency of gusty winds to cause a back draft in the flue is eliminated.

The device also prevents rain from blowing down the chimney.

Another object of the invention is to provide a means for spraying water both down the chimney and on the roof adjacent the same in the event that accumulated soot in the chimney should catch fire, as frequently occurs.

A further object of the invention is to produce a simple and inexpensive device and yet one which will be exceedingly effective for the purposes for which it is designed.

These objects I accomplish by means of such structure and relative arrangement of parts as will fully appear by a perusal of the following specification and claims.

In the drawings similar characters of reference indicate corresponding parts in the several views.

Fig. 1 is a side elevation of the assembled structure, partly in section.

Fig. 2 is an end view of the same.

Referring now more particularly to the characters of reference on the drawings, the numeral 1 denotes a straight vertical chimney or flue portion, adapted to be mounted on the fixed building flue just above the roof of the building in which the flue is located.

Horizontal laterals 2 extend from opposite sides of said flue intermediate its ends, at the outer ends of which laterals are short

open ended ventilating flues 3, parallel to the main flue in the common plane thereof, but sloping theretoward from their lower to their upper ends, which are below the upper end of the main flue.

The main flue, laterals and ventilating flues all freely communicate with each other, and are secured together to form a rigid unit.

Surrounding the top of the flue 1, and spaced therefrom all around, is a frusto-conical collar 4, projecting outwardly at its lower end far enough to receive some of the draft of air passing up through the side flues 3, and extending above said main flue for a certain distance.

Projecting upwardly alongside the flue 1 is a water pipe, leading from the exterior of the building and connected to any controlled source of supply.

The upper end of said pipe overhangs the flue 1 a certain distance thereabove, and terminates in a vertically disposed spray nozzle 6 facing downwardly into the flue and located centrally thereof. This nozzle is arranged to direct a stream of water, when the latter is turned on, not only down the chimney, but outside and around the same over a certain area.

Mounted on the pipe 5 above the nozzle and in alinement with the axis of the flue is a vertical stem 7, forming a support for a flat cone-shaped hood 8, set at a slight angle from a horizontal plane, and having, on its high side and at a point removed from or eccentric to the apex of the hood, a sleeve 9 in which the stem 7 seats, said sleeve being turnable on the stem.

Fixed on the cone and projecting from the sleeve to a point a certain distance beyond the adjacent side-edge thereof and positioned in the plane of a radial line drawn through the cone-apex and sleeve 9 is a vane 10, having a counterweight member 11 thereon to balance the offset weight of the cone relative to its point of support.

Secured to and under the cone on the side thereof opposite to the vane and positioned substantially in a transverse plane at right angles to the latter is a baffle plate or deflector 12, sloping away from the chimney from top to bottom, and having a horizontal curvature from side to side, the center of which is on the inner side thereof.

The lower periphery of this plate is also preferably curved so as to be substantially

semi-circular in shape, projecting below the top of the flue 1, while the upper edge thereof is spaced intermediate its ends from the hood 8, as shown at 13.

5 From the above description it will be evident that with a blowing of the wind, the hood 8 will be rotated so as to bring the vane 10 in line with the wind and with the baffle 12 on the windward side of the chimney. 10 The wind is thus prevented from passing directly over the chimney, but must pass around the deflector, which is wider than the chimney, or it may pass, as some of it does, between the deflector and hood.

15 A substantially horizontal draft is therefore created a certain distance above the flue, which of course increases the draft through the latter.

At the same time, an upward draft is also 20 created by the passage of air between the collar 4 and flue 1, and up through the side flues 3, which in turn creates a draft in the laterals 2 and flue 1, the whole combination providing a very efficient draft through the 25 main flue, eliminating the possibility of any wind blowing down the chimney and causing a back-draft.

The pipe 5, as will be seen, not only provides an insurance against chimney fires and 30 roof fires caused by overheated flues, but serves as the means by which the hood and its attached parts are supported.

From the foregoing description it will be readily seen that I have produced such a device as substantially fulfills the objects of 35 the invention as set forth herein.

While this specification sets forth in detail the present and preferred construction

of the device, still in practice such deviations from such detail may be resorted to as do not form a departure from the spirit of the invention, as defined by the appended claims. 40

Having thus described my invention, what I claim as new and useful and desire to secure by Letters Patent is: 45

1. An exterior chimney structure comprising a vertical flue portion, laterals leading from the flue intermediate its ends, and open-ended ventilating flues connected intermediate their ends with the laterals, said 50 ventilating flues sloping toward the main flue from bottom to top and terminating short of the top of said main flue, and a collar flaring outwardly from top to bottom fixed on top of the main flue, said collar 55 being positioned to receive some of the air-draft rising through the ventilating flues.

2. An exterior chimney structure comprising a vertical flue, a hood over the flue, said hood being formed as a flat cone and being 60 disposed relative to the flue so that the apex of the hood is to one side of the center of the flue and the hood has then a substantially horizontal portion on one side of its apex extending centrally over the flue, while the 65 hood on the opposite side of its apex projects at a downward angle beyond the flue and a deflector plate projecting downwardly from said other side of the hood to a point below the top of the flue, said plate being arranged to cause a current of air striking the 70 same to impinge against the substantially horizontal face of the hood.

In testimony whereof I affix my signature.

FRANCK E. ALBINI.