(No Model.)

E. BLACKMAN.

CAP FOR CHIMNEY FLUES.

No. 256,194. Patented Apr. 11, 1882.

Fig. 1

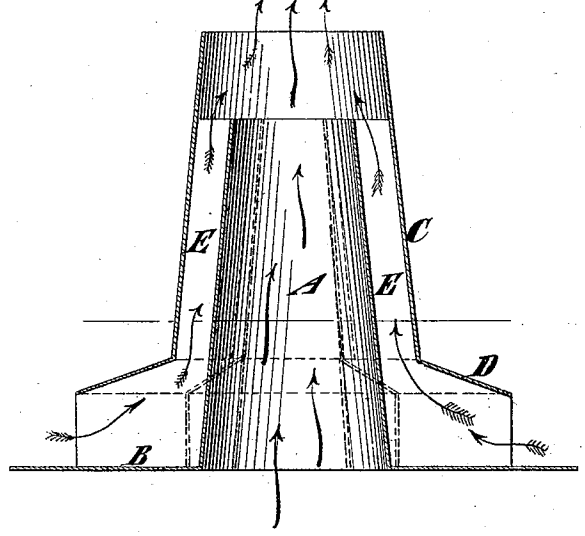
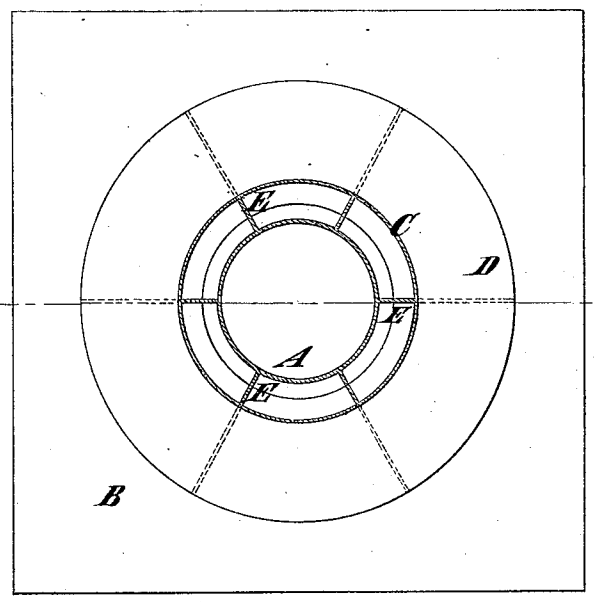


Fig. 2.



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EBENEZER BLACKMAN, OF BROOKLYN, NEW YORK.

CAP FOR CHIMNEY-FLUES.

SPECIFICATION forming part of Letters Patent No. 256,194, dated April 11, 1882.

Application filed December 28, 1881. (No model.)

To all whom it may concern:

Be it known that I, EBENEZER BLACKMAN, of Brooklyn, in Kings county, and the State of New York, have invented certain new and useful Improvements in Caps for Chimneys, Flues, and like Devices, of which the following is a specification.

The object of my improvements is not only to prevent the wind from interfering with the proper operation of chimneys, flues, stacks, and like devices, but to utilize it for stimulating their action.

To this end my improvements consist in the combination, with a chimney, flue, or like device, or a pipe forming a continuation thereof, of a pipe surrounding it, flanges or ledges extending laterally one from the chimney, flue, or like device and the other from the surrounding pipe, and affording provision for the entrance of air between them around their entire circumference, partitions dividing the entire space between the chimney, flue, or like device and the surrounding pipe, and also between the flanges or ledges, into a number of uninterrupted passages having funnel-shaped mouths extending laterally beyond the surrounding pipe and including the whole space between the flanges or ledges at their periphery, whereby wind entering one of the passages is concentrated and made to pass up the same and above the top of the chimney, flue, or like device with such velocity that it will induce a powerful draft. The chimney, flue, or like device may be made to taper externally, and the surrounding pipe will then preferably be made to correspond. One of the said flanges or ledges may consist of or be approximately coincident with the top of an ordinary chimney, flue, or like device, and the other, which extends from the surrounding pipe, will preferably incline downwardly toward the outer edge, so as to readily shed water and snow.

These improvements are adapted not only to the chimneys and flues of houses, but to ventilators, cowls for lamps used out-of-doors, smoke-stacks of locomotives and steamboats, and various other like articles.

In the accompanying drawings, Figure 1 is a central vertical section of a cap for a chimney or other like article embodying my improvements, and Fig. 2 is a horizontal section taken through the lower portion of the same.

Similar letters of reference designate corresponding parts in both figures.

A designates a pipe, which is designed to form a continuation of a chimney, flue, or like device, and may be considered as a part thereof. Preferably it tapers externally toward the upper end. As shown, it also tapers internally; but that is not of so much importance. At the lower end a flange or ledge, B, extends outwardly from it, so as to afford convenience for attaching the said pipe to the top of a chimney, flue, or like device.

C designates a pipe, which surrounds the upper portion of the pipe A, and extends considerably beyond the same. It is to be observed that quite a space is left between the lower end of this pipe C and the flange or ledge B. This pipe C preferably tapers upward, like the exterior of the pipe B.

D designates a flange extending laterally from the lower end of the pipe C and preferably inclining downward, so as to shed snow and rain.

E designates partitions extending radially between the pipes A and C, and also extending in the same direction between the flange or ledge B and the flange D. Thus I divide the space between the pipes and flanges into a number of uninterrupted passages. The portions of these passages which are between the flanges form funnel-shaped lateral openings or mouths, which are located wholly beyond the pipes, and which include the whole space between the flanges or ledges B D at their periphery, so that air may enter all around their circumference. Owing to the upward contraction of the passages, due to the taper of the pipes, the passages decrease in size from the lower to the upper ends. Wind blowing from any direction will be sure to enter one of these passages, and passing upward will be concentrated, so as to escape with great velocity at the top of the pipe A. The tapering of the two pipes causes the escaping wind to blow upward over the upper end of the pipe A, and hence a strong upward draft will be induced therein. It is of cardinal importance that the partitions E should be continuous, so as to pre-

vent the wind, after entering one of the passages, from passing around the pipe A, and thus losing its force.

This cap may be made of sheet metal, as shown; or it may be made of pottery or in any other suitable manner.

I intend to use my invention not only for chimneys and flues, but for locomotive, steamboat, and other smoke-stacks, for lamp-chimney caps, for ventilating apparatus, and for various other articles. I may, perhaps, modify the construction of the passages and alter the shape of their funnel-mouths to adapt them for any particular use, but shall not depart from the principle described. Of course the partitions E need extend only sufficiently far upward to direct the wind properly toward the upper end of the pipe A.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination, with a chimney, flue, or like device, of a pipe surrounding the same, flanges or ledges extending laterally one from the chimney, flue, or like device and the other from the surrounding pipe, and affording provision for the entrance of air between them around their entire circumference, partitions dividing the space between the chimney, flue, or like device and the surrounding pipe, and also between the flanges or ledges, into a number of uninterrupted passages having funnel-shaped mouths which include the whole space between said flanges or ledges around their circumference, substantially as herein specified.

2. A pipe adapted to form the continuation of a chimney, flue, or like device, a pipe surrounding the same, flanges or ledges extending laterally from adjacent portions of said pipes and affording provision for the entrance of air between them around their entire circumference, and partitions dividing the spaces between said pipes and flanges or ledges into a number of uninterrupted passages having funnel-shaped mouths which include the entire space between the flanges or ledges at their circumference, all being so combined as to form one structure, which may be applied to an existing chimney, flue, or like device, substantially as herein specified.

E. BLACKMAN.

Witnesses:
T. J. KEANE,
JAMES R. BOWEN.