

J. E. AULD.
CHIMNEY-CAP.

No. 179,147.

Patented June 27, 1876.

Fig. 1.

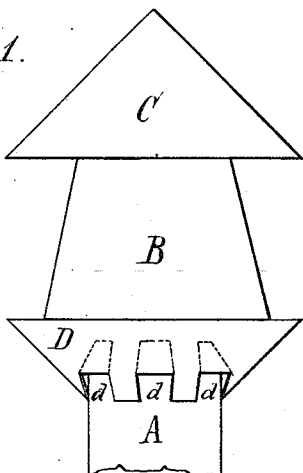


Fig. 2.

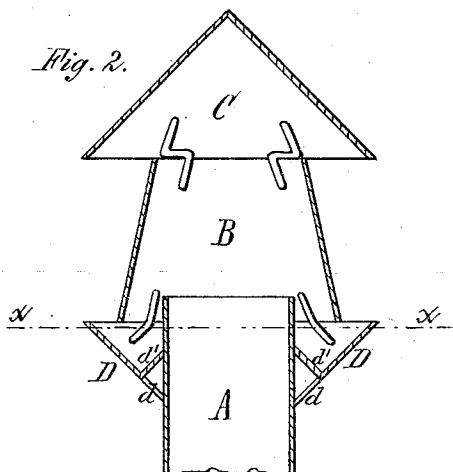
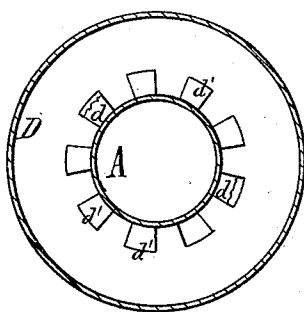


Fig. 3.



Chas. J. Buchheit
Chas. J. DeKert } Witnesses

James E. Auld Inventor
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UNITED STATES PATENT OFFICE.

JAMES E. AULD, OF BUFFALO, NEW YORK, ASSIGNOR OF ONE-HALF HIS
RIGHT TO WILLIAM F. MORGAN, OF SAME PLACE.

IMPROVEMENT IN CHIMNEY-CAPS.

Specification forming part of Letters Patent No. **179,147**, dated June 27, 1876; application filed
April 24, 1876.

To all whom it may concern:

Be it known that I, JAMES E. AULD, of the city of Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Chimney-Caps and Ventilators, which improvements are fully set forth in the following specification, reference being had to the accompanying drawing.

My invention relates to a chimney-cap and ventilator designed to produce a strong draft by the action of the wind, whether the direction of the latter be horizontal, upward, or downward.

In the accompanying drawing, Figure 1 is a side elevation, and Fig. 2 a vertical section, of my improved chimney-cap. Fig. 3 is a horizontal section in line *x x*, Fig. 2.

Like letters of reference refer to like parts in each of the figures.

A represents the upper portion of the flue or chimney, and B an enlarged tubular guard or sleeve arranged above the same, with its lower edge slightly below the top of the flue A, and preferably made slightly tapering upwardly, as clearly represented in the drawing. C represents a conical cap or deflector arranged above the sleeve B, so as to be with its lower edge about on a level with the top of the sleeve B, the diameter of the conical cap C at its bottom being somewhat larger than the top of the sleeve B. D represents an inverted conical deflector secured to the flue A below the sleeve B, so as to be with its upper edge about on a level with the bottom of the sleeve B, the diameter of the collar D at its top being somewhat larger than the sleeve B at its bottom, as clearly shown. The collar D is provided at its lower edge with openings *d* and upwardly-inclined guard-pieces *d'*, extending from the top of the openings *d* to the flue A, so that any water that may run down on the inner side of the collar D may escape through the openings *d*, while an upward air-current is prevented by the guards *d'* from as-

cending through the openings *d*. The guards *d'* are preferably formed in one piece with the collar D, the lower portion of the latter being slitted radially, and every second piece between two slits being turned up to form the guard-pieces *d'*. When the wind strikes my improved chimney-cap in a horizontal direction, the wind passes around the sleeve B, and the smoke escapes from the flue both above and below the sleeve in an obvious manner. A downward air-current is received by the upper deflector C, and in passing over the edge thereof forms a partial vacuum above the sleeve B, drawing the smoke out over the upper edge of the latter, while an upward air-current is deflected by the inverted collar D, whereby a partial vacuum is formed between the latter and the flue, thereby permitting the smoke to escape around the lower edge of the sleeve B.

It is obvious from the foregoing that my improved chimney-cap will produce a good draft, and permit the free escape of the smoke from the flue, whether the direction of the wind be horizontal or inclined.

My improved chimney-cap, although represented as constructed for a circular flue, is equally well adapted for use with flues of rectangular or other cross-sections.

I claim as my invention—

1. The combination, with a flue, A, of the enlarged sleeve B, conical cap C, and inverted deflector D, arranged and operating as and for the purpose hereinbefore set forth.

2. The combination, with the flue A, sleeve B, and cap C, of the inverted conical collar D, provided with openings *d* and guards *d'*, substantially as and for the purpose hereinbefore set forth.

JAS. E. AULD.

Witnesses:

EDWARD WILHELM,
CHAS. J. BUCHHEIT.