P. A. DUGAN.
Chimney Cowl.

No. 204,804. Patented June 11, 1878.

Fig. 1.

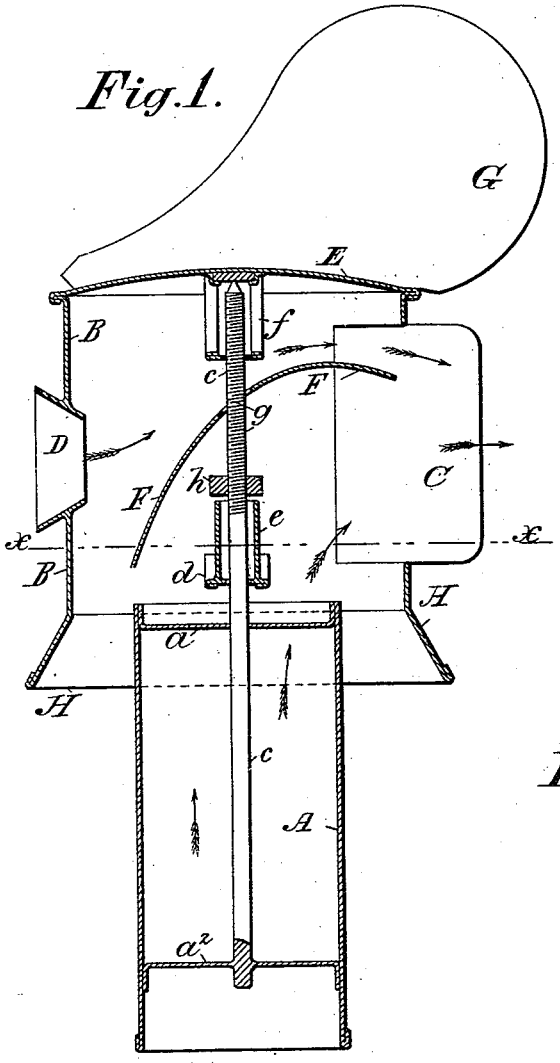


Fig. 2.

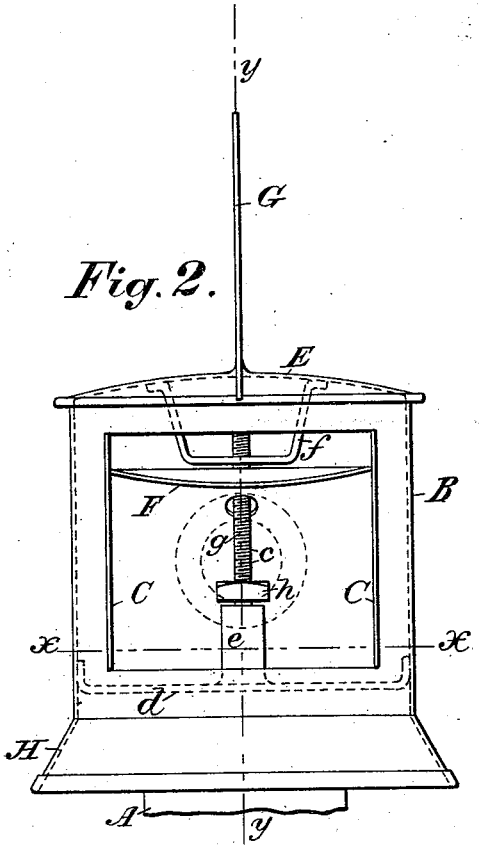
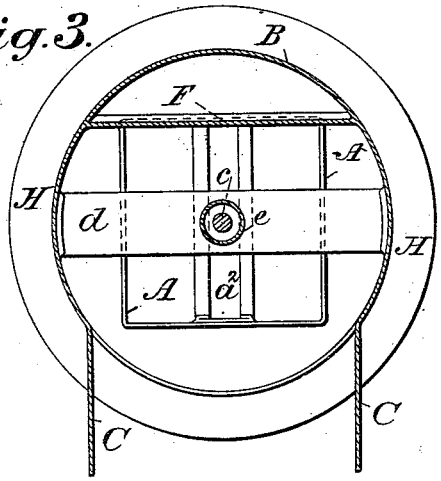


Fig. 3.



Witnesses:
William H. Hicks
Henry A. Browne

Inventor:
Philip A. Dugan by Whitney Brown attys

UNITED STATES PATENT OFFICE.

PHILIP A. DUGAN, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN CHIMNEY-COWLS.

Specification forming part of Letters Patent No. **204,804**, dated June 11, 1878; application filed May 15, 1878.

To all whom it may concern:

Be it known that I, PHILIP A. DUGAN, of Brooklyn, Kings county, New York, have invented, made, and applied to use Improvements in the Construction of Chimney-Cowls; and that the following is a full, clear, and correct description of the same, reference being had to the accompanying drawing, making part of this specification, and to the letters of reference marked thereon, in which—

Figure 1 is a section through the line *y y* of Fig. 2. Fig. 2 is a front elevation of my chimney-cowl. Fig. 3 is a section through the line *x x* of Figs. 1 and 2.

In the drawing like parts of the invention are designated by the same letters of reference.

The nature of the present invention consists in improvements in the construction of chimney-cowls, as more fully hereinafter set forth, the object of the invention being the production of a chimney-cowl simple in construction and effective in operation.

To enable those skilled in the arts to make and use my invention, I will describe the same.

A shows a square base, formed of metal, made of the proper height, and intended to support the revolving cowl B. The base A has placed within its interior the cross-braces *a* a^2, positioned relatively at or near its base and upper portion, through which passes a spindle, *c*, the upper portion of which is pointed, and forms a pivot, on which the cowl revolves. B shows the cowl, formed of a section of a cylinder, having the metal of which it is composed upon one side serrated and bent or thrown out to form the wings C, while in its opposite side is an opening, provided with the mouth-piece D, for the entrance of the wind. *d* is a cross-brace, placed upon the interior of the cowl B, and provided with a neck, *e*, through which passes the spindle *c;* and *f* is a cap-piece, secured upon the under side of the cover E of the cowl, within which the pivoted end of the spindle *c* is received.

The spindle *c* has a screw-thread, *g*, cut upon it above the neck *e*, and on this is passed a nut, *h*, by turning which the position of the upper portion of the cowl B may be regulated as the same is drawn closer to or removed from the pointed end of the spindle *c*. Within the cowl, extending entirely across the same, and having its upper portion curved or bent forward, is placed a shield or deflecting-plate, F. Through an opening in this shield or deflecting-plate the spindle *c* passes.

E shows the cover of the cowl B, and G is a vane, placed about centrally upon and projecting above the same.

The cowl B is, at its base, provided with the circular and outwardly-projecting collar or flange H, projecting below the top of the square base A.

Such being the construction, the operation is as follows: The square base A, having had placed upon it the revolving cowl B, is positioned properly upon the chimney of the house or building and secured in position upon the same. As the cowl B revolves, the air enters it through the mouth-piece D and passes over the curved upper portion of the shield or deflecting-plate E and to the opposite side of the cowl. The smoke from the chimney rises through the same, enters the square base A, passes through it, is deflected in its course by the deflecting-plate or shield F, and, being met by the current of air which has entered the cowl through the mouth-piece D, is expelled through and from the enlarged opening in the same, the wings C, as it passes them, tending to direct it after it leaves the square base.

The projecting collar or flange H, projecting, as it does, below the top of the square base, serves also, to a certain extent, to direct any currents of air which may enter the cowl at this point upward and directly into the interior of the cowl, whence they are properly deflected and directed by the deflecting-plate or shield.

By the use of a cowl constructed as shown, the chimney to which the cowl is applied will be kept free and relieved of the smoke expeditiously, and an excellent draft in the same be created.

Having now set forth my invention, what I claim as new is—

1. The combination, in a chimney-cowl, of the following elements: a square base, A, and a revolving cowl, B, composed of a section of a cylinder, and provided with a deflecting-plate or shield, F, and supported by a spin-

dle, *c*, constructed and operating substantially as and for the purposes specified.

2. The combination, in a chimney-cowl, of the following elements: a square base, A, revolving cowl B, supported by a spindle, *c*, and provided with wings C, deflecting-plate or shield F, mouth-piece D, circular collar H, and vane G, constructed and operating substantially as and for the purposes set forth.

PHILIP A. DUGAN.

In presence of—
A. SIDNEY DOANE,
WILLIAM V. H. HICKS.