

(No Model.)

H. HEISEL.
CHIMNEY COWL.

No. 387,682.

Patented Aug. 14, 1888.

Fig. 1.

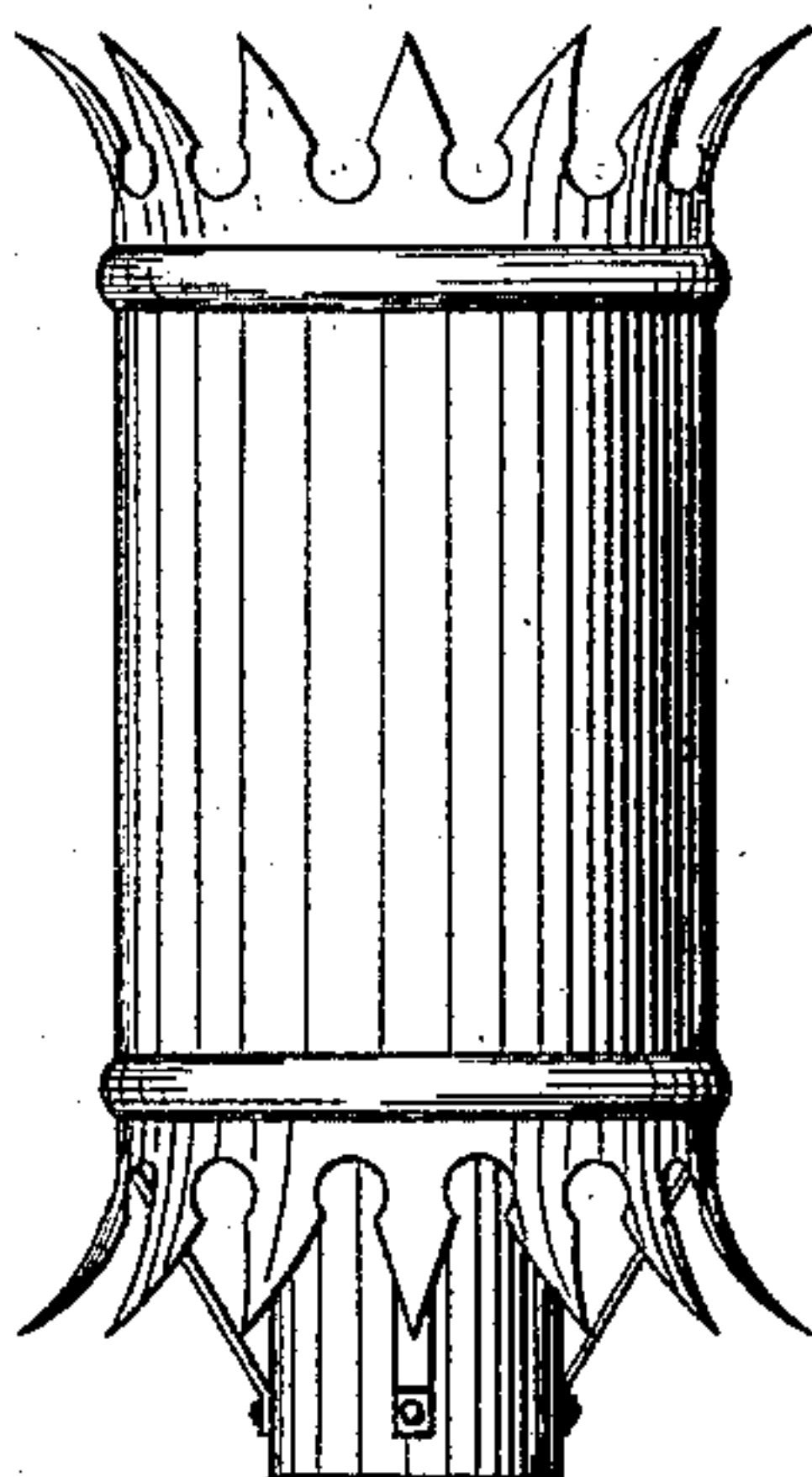


Fig. 3.

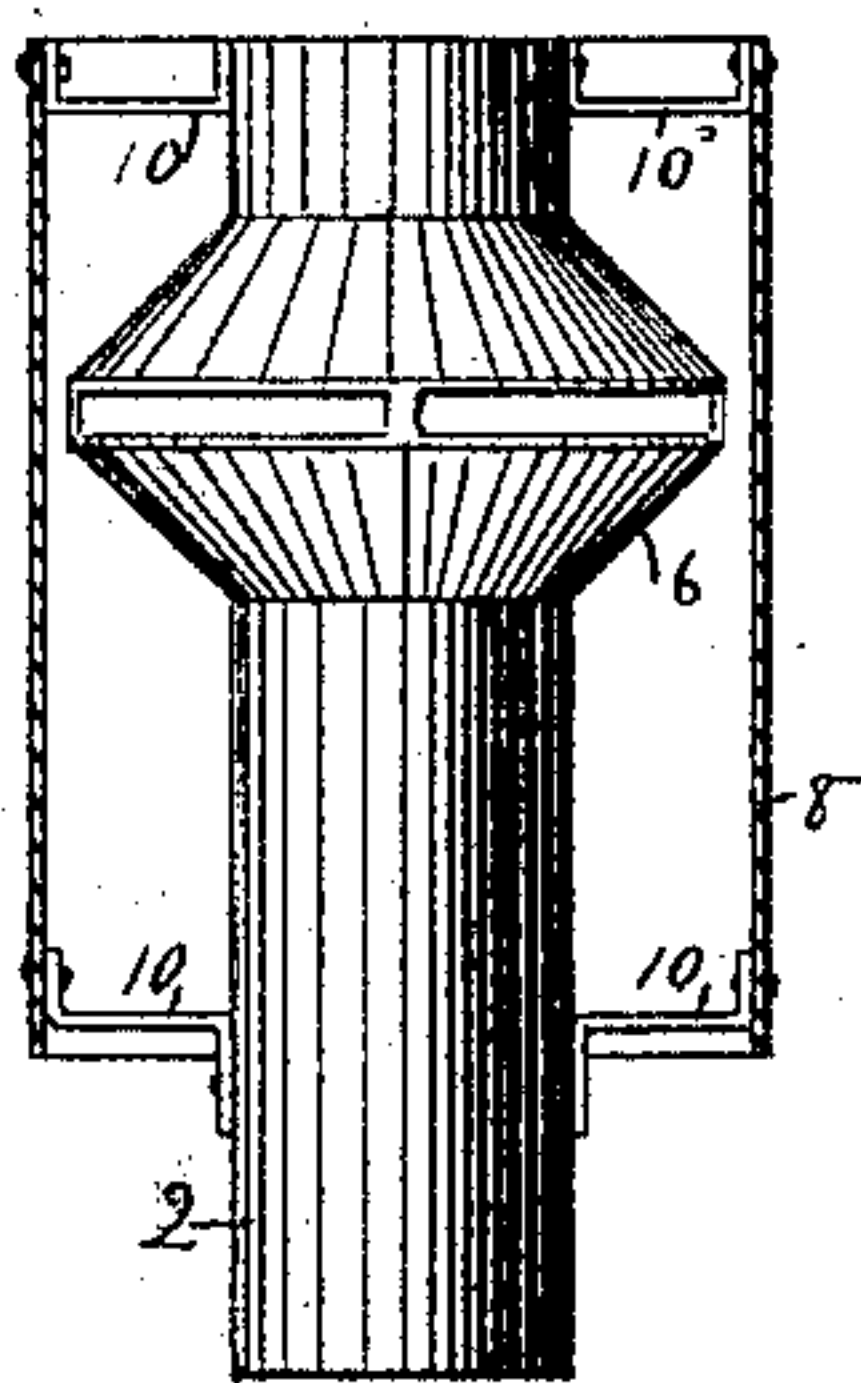


Fig. 2.

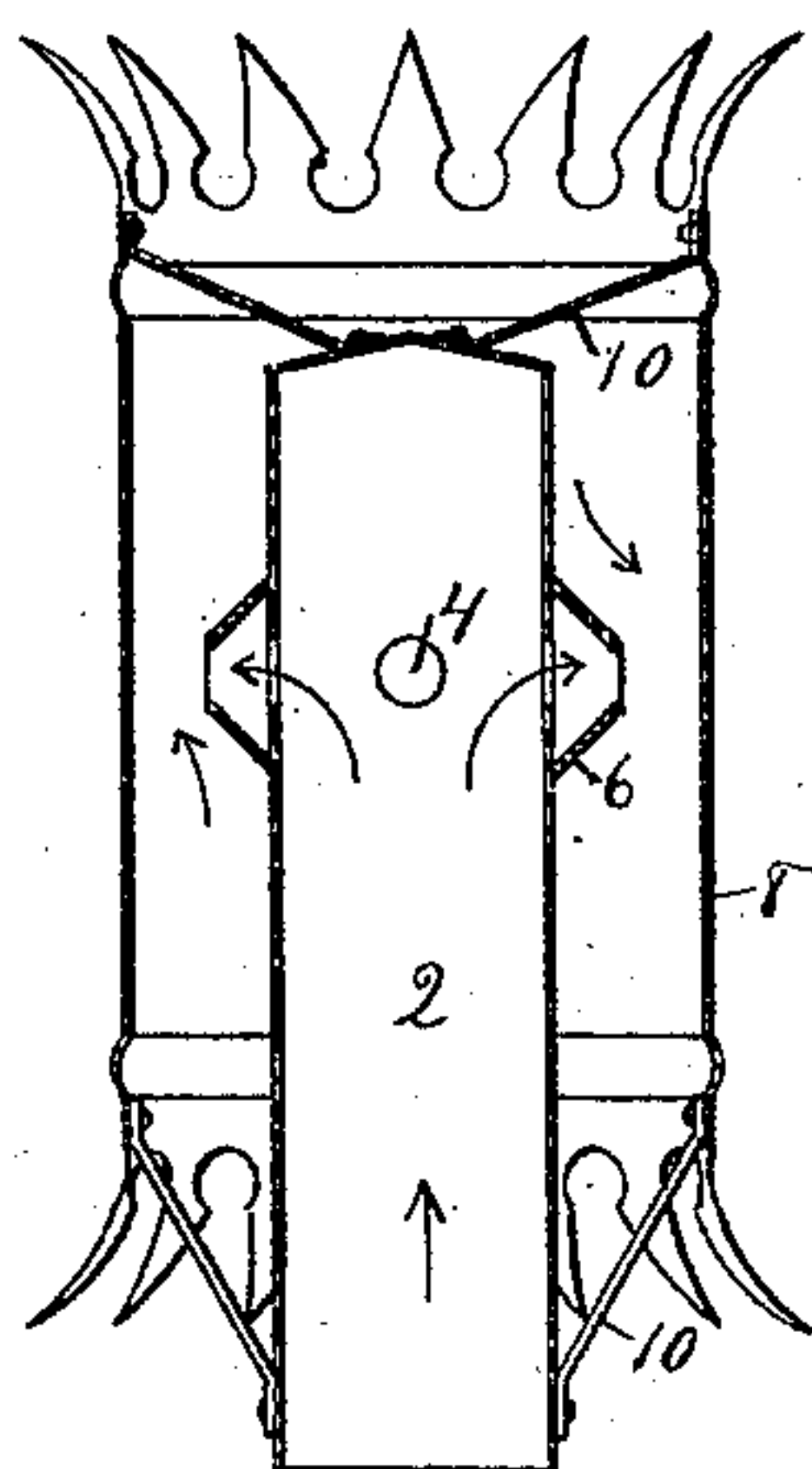
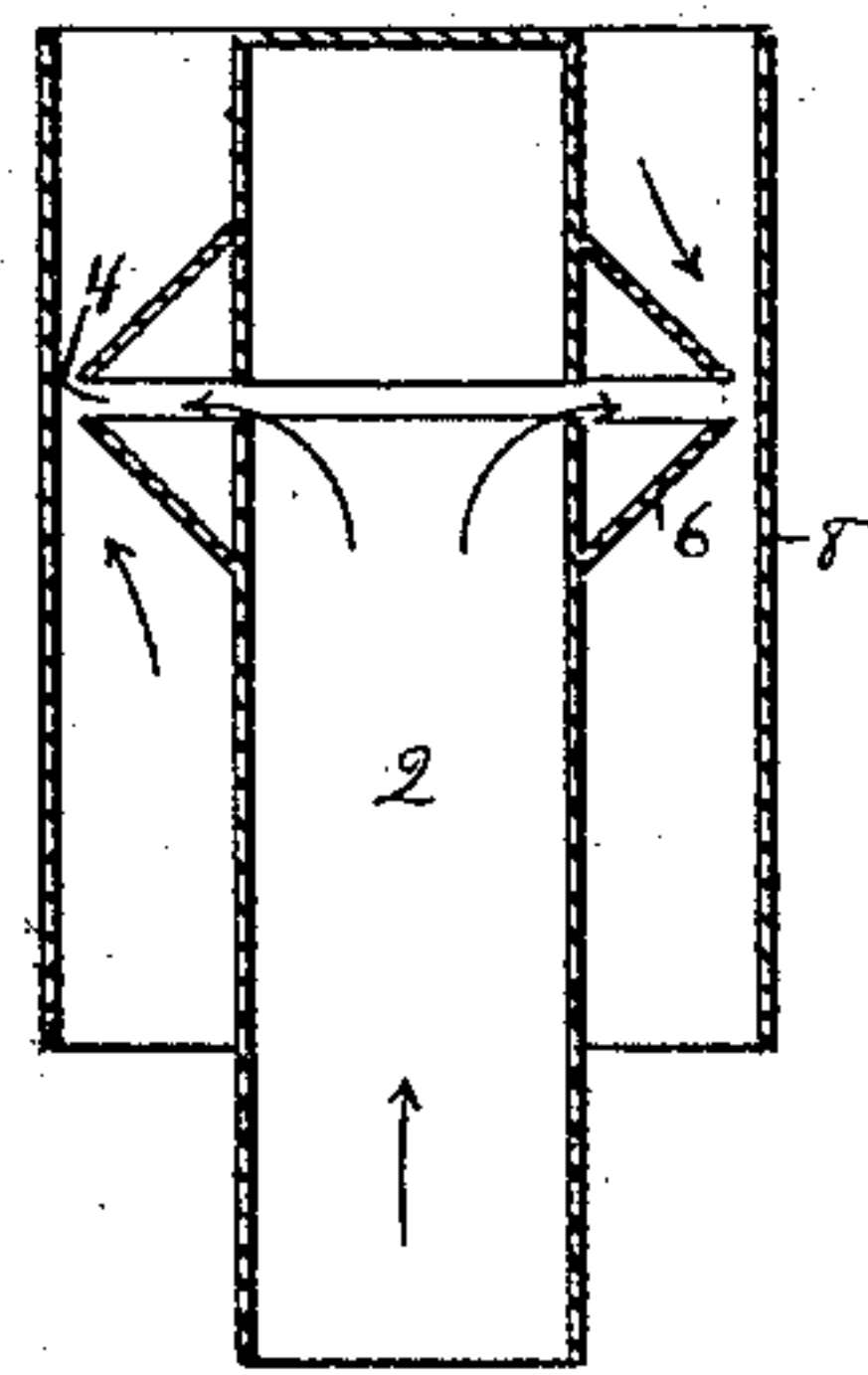


Fig. 4.



Witnesses.

S. J. Beardslee.

J. Jessen

Inventor.

Henry Heisel.

By A. C. Paul, att'y.

UNITED STATES PATENT OFFICE.

HENRY HEISEL, OF STILLWATER, MINNESOTA, ASSIGNOR OF ONE-HALF TO
CHARLES P. GREGORY, OF SAME PLACE.

CHIMNEY-COWL.

SPECIFICATION forming part of Letters Patent No. 387,682, dated August 14, 1888.

Application filed July 18, 1887. Serial No. 244,574. (No model.)

To all whom it may concern:

Be it known that I, HENRY HEISEL, of Stillwater, in the county of Washington and State of Minnesota, have invented certain Improvements in Chimney-Cowls, of which the following is a specification.

My invention relates to certain improvements in caps or cowls to be placed upon chimneys for the purpose of increasing or improving the draft; and the invention consists, generally, in providing a cowl with an outer case and inner pipe or tube extending into the outer case and an annular space between the two for the free admission of air in either an upward or downward current through said space, and conical hoods surrounding openings in the circumference of the inner pipe, whereby a downward draft in the said inner pipe is prevented and an upward draft is created by the circulation of air in either direction through the outer case and across the open ends of the hoods.

My invention further consists in the construction and arrangement hereinafter described, and particularly pointed out in the claims.

In the drawings, which form a part of this specification, Figure 1 is an exterior view of my improved chimney-cowl. Fig. 2 is a central vertical section showing the interior construction. Figs. 3 and 4 are views illustrating a modified construction.

In the drawings, 2 represents an inner pipe or tube of any suitable size or form, which may be placed upon a stack or connected with a draft-flue of an ordinary chimney. This flue is closed at its upper end, but is provided with a series of openings, 4, in its outer circumference of suitable size and number to allow the free passage of the air and gases from the flue.

6 represents a cone-shaped hood, which surrounds each of the openings and is secured to and extends outward from the surface of the pipe 2. The holes in the pipes are smaller than the bases of the hoods, but of substantially the same size as the openings in the smaller ends of the hoods.

8 represents an outer case, which surrounds the upper end of the inner pipe, preferably

secured to the said pipe by braces 10 at the top and bottom. This case is open at both ends and an annular space is formed between it and the inner tube or pipe, through which the air is free to circulate in either direction, and into this space the open ends of the hoods 6 are arranged to project.

It will be seen that the air in passing through the outer case in either direction will be deflected by the conical hoods and thrown outward, as denoted by the arrows. As there is a greater space at the base of the hood than at the orifice, the circulation of air across the mouths of the hoods will cause a partial vacuum in them and draw the air from the pipe 2 through the openings 4 and cause an upward draft at all times in said pipe.

In Figs. 3 and 4 I have shown the draft-pipe provided with an annular opening near its top. An annular hood, 6, formed of two conical rings surrounding the draft-flue and arranged with a narrow space between their bases, takes the place of the series of hoods in the other instance. The opening between the rings is substantially equal to the annular opening in the pipe, while a larger space is inclosed by the bases of the rings. As the air-current circulates past the open mouth of the hood, a vacuum is created in the hood and thereby an upward draft is created in the pipe.

The cowl may be used on ventilating-flues, or whenever it is desired to create an upward air-current in a flue, as well as an open chimney.

It is obvious that this device can be applied and used for ventilating purposes as well as for a chimney-cowl.

I claim as my invention—

1. In a chimney, the combination, with the inner draft or smoke pipe closed at the upper end and open at the lower end and provided with a series of openings in its circumference, of an outer cylindrical case or shield surrounding said inner pipe and open for the free admission of air at both ends, and a cone-shaped hood with its base next to the side of the pipe surrounding said openings in the inner pipe and extending laterally and opening

into the annular space formed between the outer case or shield and the inner pipe, substantially as and for the purposes described.

2. In a chimney-cowl, the combination of
5 the draft-pipe closed at its upper ends and provided with a series of openings in its circumference, laterally-projecting conical hoods secured to said pipe over said openings, hav-
10 ing bases next to the side of the pipe and larger than said openings, and having openings in their outer ends that are of substan-

tially the same size as the openings in the wall of the pipe, and a single outer cylindrical case or shield surrounding said pipe and all of said hoods and open at its top and bottom for the admission of air, substantially as described. 15

In testimony whereof I have hereunto set my hand this 12th day of July, 1887.

HENRY HEISEL. [L. S.]

In presence of—

A. FREDERICK,
MOLLIE BURNS.