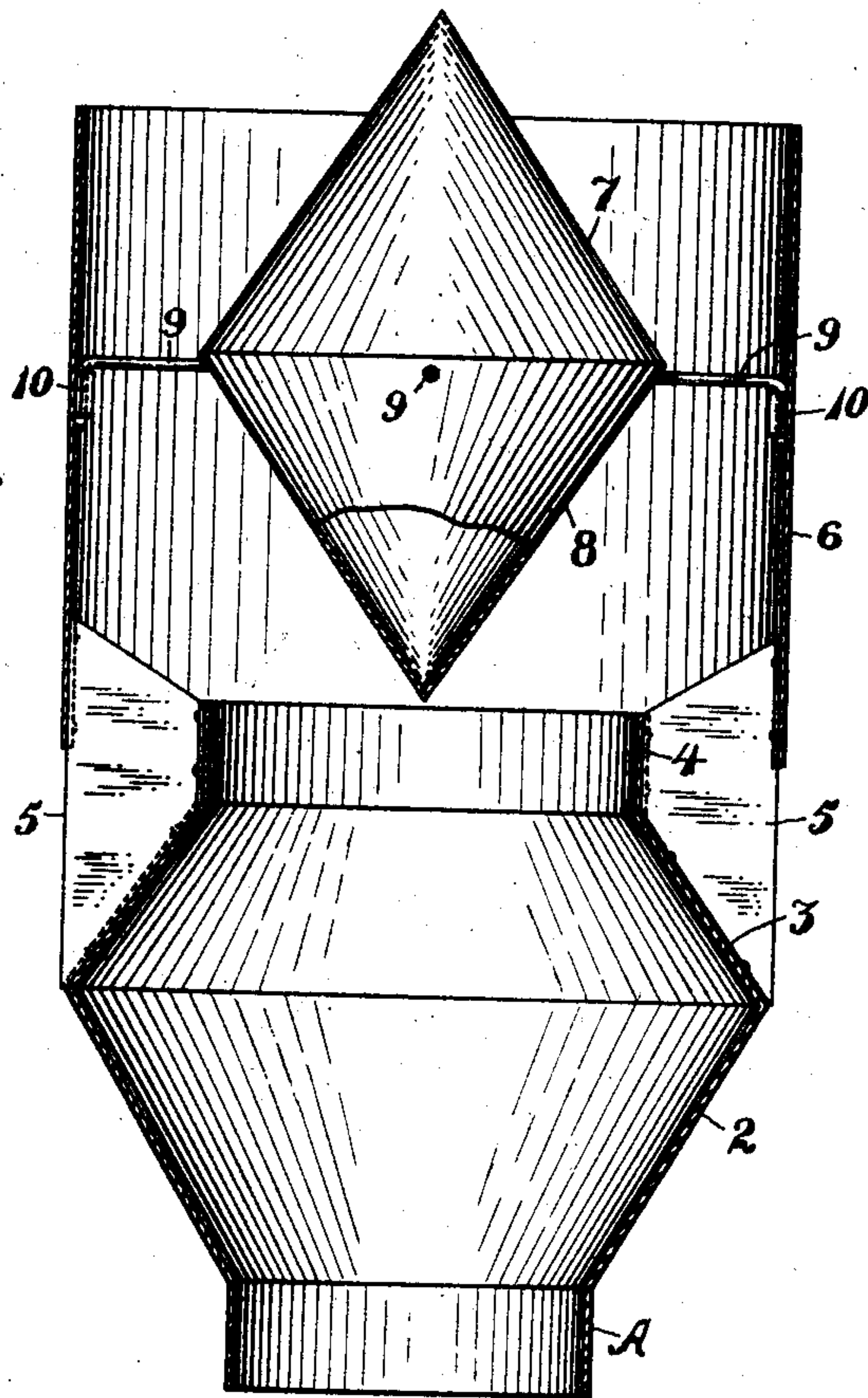


O. H. ROTERMUNDT.  
CHIMNEY COWL.  
APPLICATION FILED JULY 24, 1908.

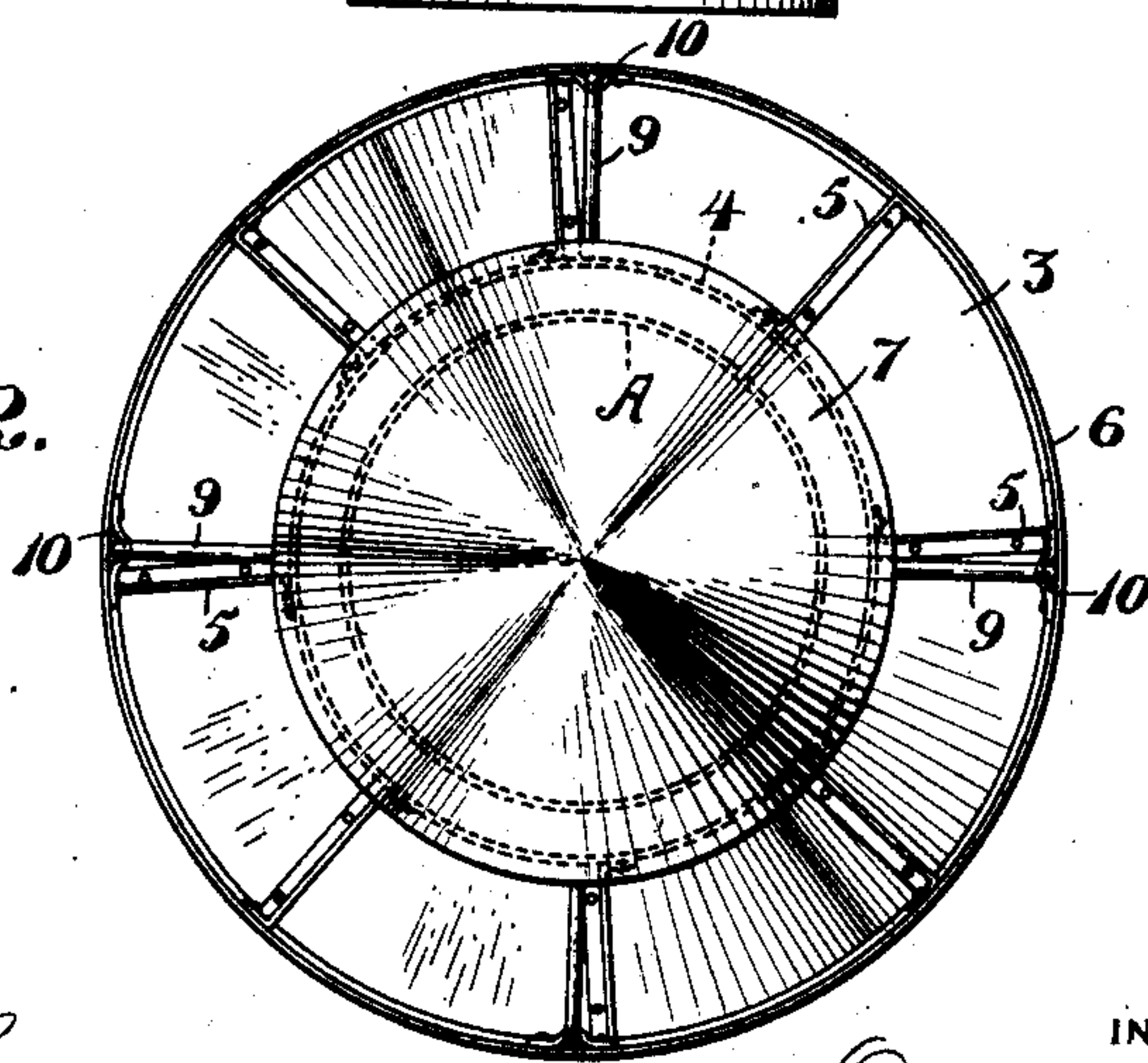
906,822.

Patented Dec. 15, 1908.

*Fig. 1.*



*Fig. 2.*



WITNESSES

*J. C. Fiedner*  
*Baringfield*

INVENTOR

*Otto H. Rotermundt*  
BY *Geo. H. Strong*  
ATTORNEY



# UNITED STATES PATENT OFFICE.

OTTO H. ROTERMUNDT, OF SAN FRANCISCO, CALIFORNIA.

## CHIMNEY-COWL.

No. 906,822.

Specification of Letters Patent.

Patented Dec. 15, 1908.

Application filed July 24, 1908. Serial No. 445,185.

*To all whom it may concern:*

Be it known that I, OTTO H. ROTERMUNDT, a citizen of the United States, residing in the city and county of San Francisco and State of California, have invented new and useful Improvements in Chimney-Cowls, of which the following is a specification.

My invention relates to chimney cowls or chimney tops.

10 The object of the invention is to provide a cowl or top which shall be of simple construction, cheap to manufacture, and applicable to all sorts of chimneys, or soil pipes and the like, for the purpose of inducing a draft under all weather or wind conditions.

15 The invention consists of the parts, and the construction and combination of parts as hereinafter more fully described and claimed, having reference to the accompanying drawings, in which—

20 Figure 1 is a longitudinal, vertical section of the invention. Fig. 2 is a top plan view of the same.

25 A represents a base section adapted to be fitted into the flue or otherwise secured to the top of the chimney or pipe to which the invention is to be applied. Secured to section A is an inverted frusto conoidal section 2, and 3 is an upright frusto conoidal section having its base secured to the upturned base of the section 2.

30 4 is a section carried by the section 3, and in continuation of the flue passage through section A. Secured to the periphery of sections 3 and 4 at suitable intervals, and extending radially thereof, are a series of web plates 5, which are designed to support an outer open-ended cylindrical section 6. The lower end of the section 6 is adapted to project a little below the top of the flue section 4, and to provide suitable air ingress passages beneath section 6, and between it and the sections 3 and 4. The section 6 can extend to any desired height upward sufficient for creating the necessary draft. Within the section 6 is a double-ended deflector member consisting of two cones 7, 8, having their bases secured together, and suitably supported within the casing 6, so that the axis of the cones will be substantially coincident with the axis of the members A<sup>4</sup> and with the lower point of the cone 8 about in the plane of the top of the section 4. The deflector member 7—8 is preferably held removably in place so as to allow access to the chimney flue for the pur-

pose of cleaning and repair; and as here shown this deflector is supported in position by means of the radial arms 9 having bent ends fitting in corresponding straps or pockets 10 on the inside of the casing 6.

With this invention applied to a chimney, a powerful draft is induced through the flue as has been found in practice under various conditions, no matter whether the wind blows upward through the draft openings formed between the upwardly convergent surface 3, and the lower edge of the section 6, or whether the wind blew directly down on top of the conical section 7. When the wind sweeps underneath the section 6, the outwardly divergent conical surface 8 forms a draft passage which operates to create a powerful draft through the chimney and flue, and similarly the downwardly divergent conical surface 7 forms a contracted draft passage having its outlet between surface 3 and the lower end of section 6 also to cause a powerful draft through the chimney.

The purpose of a plurality of extended webs, or division plates as 5, is to create straight drafts up or down through the device, and to prevent a swirling action over or around the mouth of the flue section 4.

The draft action in either direction through the casing 6 is primarily due to the relative arrangement of the conical surfaces 7, 8 and 3; the surfaces 3 and 7 being approximately parallel, and the surface 8 being nearly at right angles to the surface 3. It seems also to be important that the top of the surface 7 should extend above the section 6.

It is manifest that this cowl can be made in any suitable size or shape, and of any appropriate material, as sheet metal, terra cotta, etc.

Having thus described my invention, what I claim and desire to secure by Letters Patent is—

1. A chimney cowl comprising a base portion which includes double-ended conoidal sections with their larger ends connected and their smaller ends provided with cylindrical sections; an outer casing concentric with the base section and of larger diameter, and separated therefrom; radial web-plates extending from the base section to the outer casing and serving as a support for the latter and as straight draft flues; a deflector within the casing, said deflector comprising a pair of cones united at their bases, the axis of the cones being supported substan-



tially coincident with the axis of the base member; and means whereby the deflector is removably secured to the casing.

2. A chimney cowl comprising a base portion which includes double-ended conoidal sections with their larger ends connected and their smaller ends provided with cylindrical sections; an outer casing concentric with the base section and of larger diameter, and separated therefrom, radial web-plates extending from the base section to the outer casing and serving as a support for the latter and as straight draft flues; a deflector within the casing, said deflector comprising a pair of cones united at their bases, the

axis of the cones being supported substantially coincident with the axis of the base member; and means whereby the deflector is removably secured to the casing, said means comprising radial arms carried by the deflector and having bent ends and pockets on the inside of the outer casing adapted to receive the ends of said arms.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

OTTO H. ROTERMUNDT.

Witnesses:

ROBT. F. ABEL,  
W. A. BRACE.