

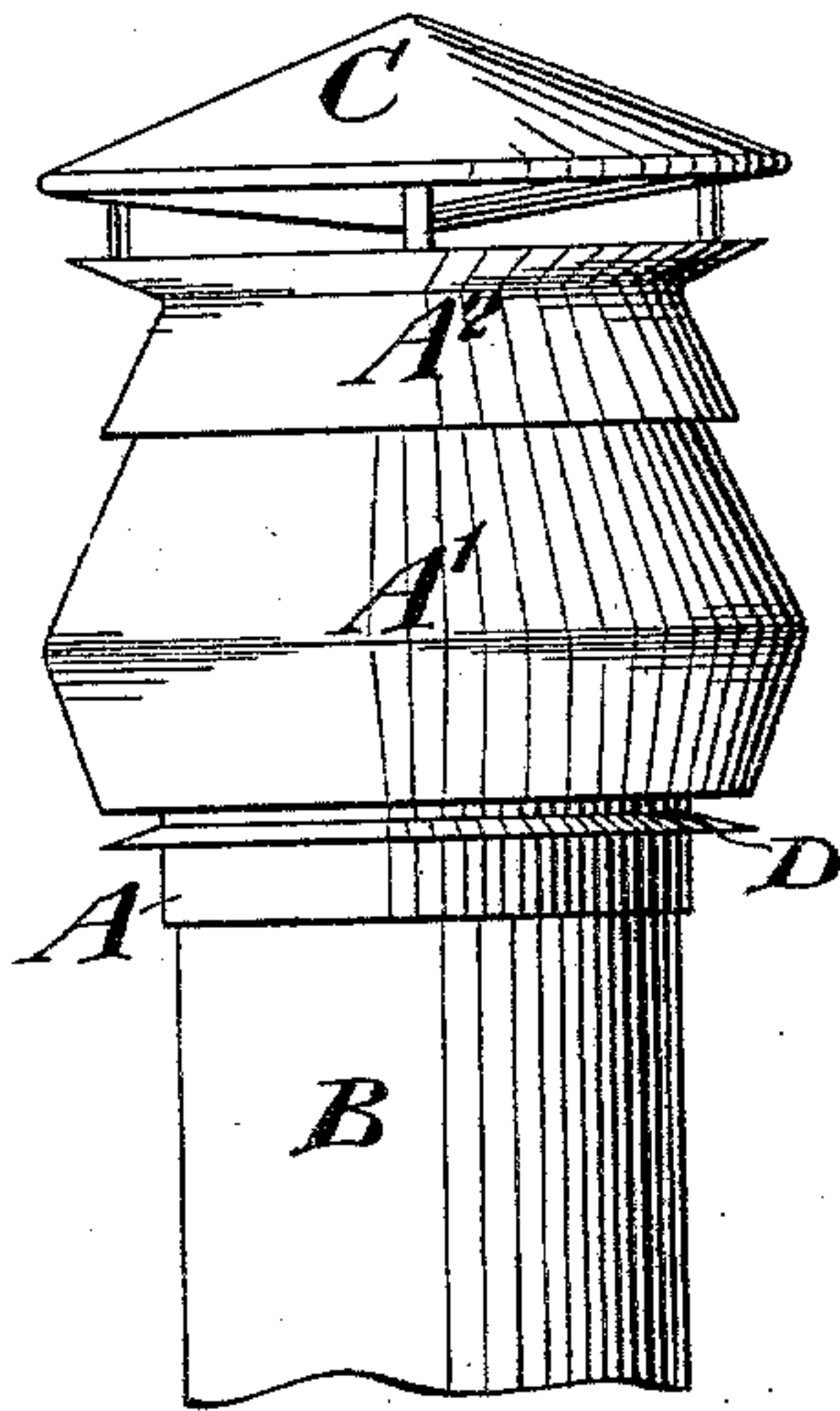
(No Model.)

D. SCOTT.  
CHIMNEY COWL.

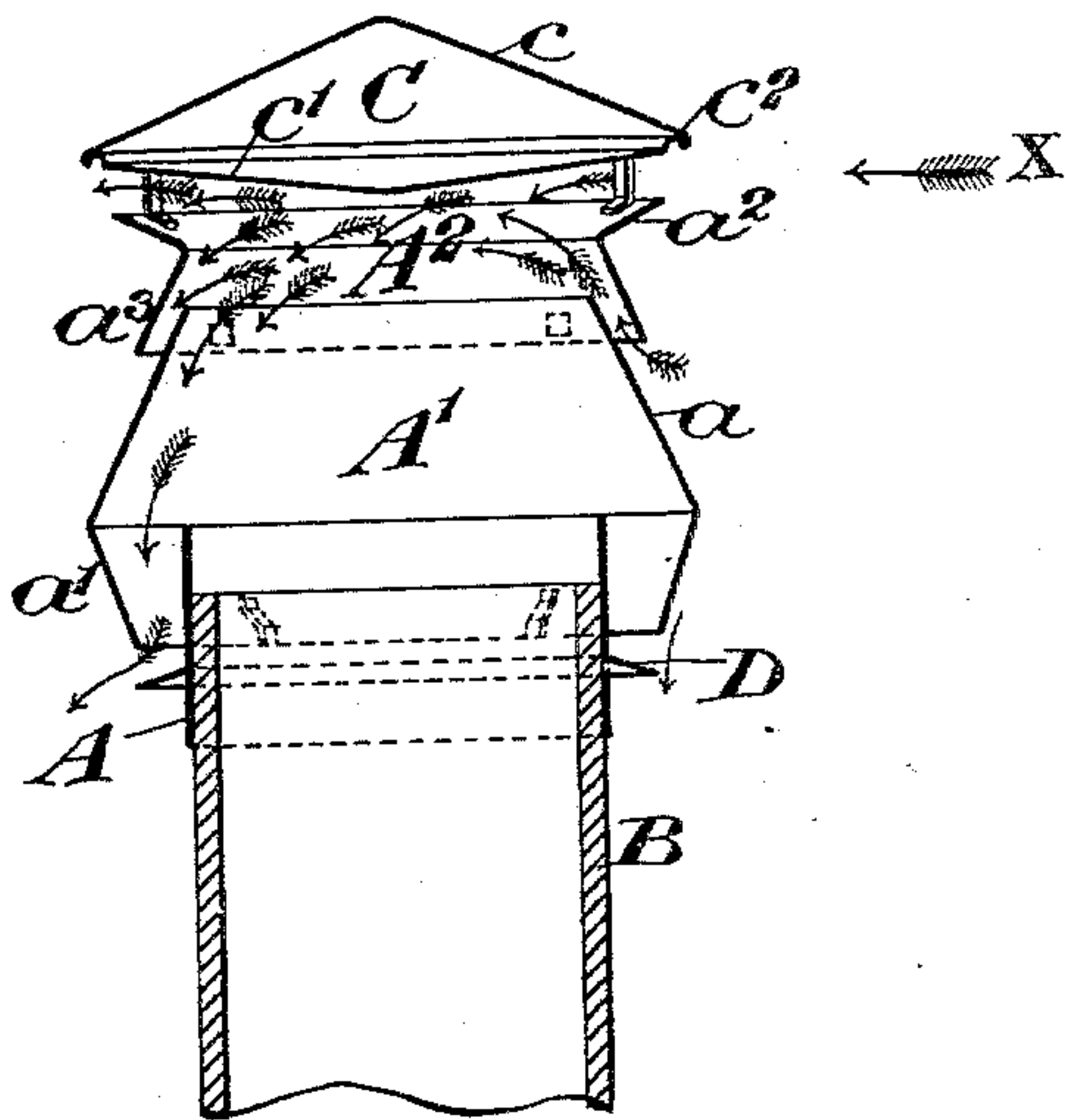
No. 563,890.

Patented July 14, 1896.

*Fig. 1.*



*Fig. 2.*



*Witnesses:-*  
*George Barry Jr.,*  
*John B. Letcher.*

*Inventor:-*  
*Daniel Scott*  
*by attorneys*  
*Brown & Seawall*



# UNITED STATES PATENT OFFICE.

DANIEL SCOTT, OF BROOKLYN, NEW YORK, ASSIGNOR OF ONE-HALF TO  
HENRY C. BECKER, OF NEW YORK, N. Y.

## CHIMNEY-COWL.

SPECIFICATION forming part of Letters Patent No. 563,890, dated July 14, 1896.

Application filed January 14, 1896. Serial No. 575,507. (No model.)

*To all whom it may concern:*

Be it known that I, DANIEL SCOTT, of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Chimney-Cowls, of which the following is a specification.

My invention relates to an improvement in chimney-cowls with the object in view of preventing down or back draft, whatever be the direction or force of the wind, and for causing the currents of air which strike or pass through the cowl to assist the upward draft in the chimney or pipe to which the cowl is attached.

In the accompanying drawings, Figure 1 represents the cowl in side elevation seated upon the top of a chimney or pipe as in use, and Fig. 2 represents a vertical central section through the same.

At the bottom of the cowl there is a socket-piece A, which is made of such size and shape as to closely fit the top of the pipe or chimney B, to which the cowl is to be applied. It is here shown as of cylindrical form to fit a cylindrical pipe or chimney; but it may be made square or curved or polygonal shape in transverse section, as may be required.

To the supporting socket-piece A the lower section A' of the body of the cowl is secured. The section A' consists of a frustum of a cone  $\alpha$ , with its sides diverging as they extend downwardly to a point at or about the horizontal plane of the top of the socket-piece A, and a shorter frustum of a cone  $\alpha'$ , having its base coincident with the base of the frustum  $\alpha$  and having its sides converging as they extend downwardly around the upper portion of the socket-piece A. The section A' is preferably made with its top about the diameter of the top of the socket-piece A, and as its sides extend downwardly they diverge, leaving a considerable space between them and the wall of the section A at the largest portion, and the sides then gradually converge, but not sufficiently to prevent a free open space between the lower end of the section A' and the exterior of the socket-piece A for the discharge of the air-currents.

The upper section A<sup>2</sup> of the body of the cowl is supported upon the lower section A' and is made up of frustums of cones, the up-

per portion  $\alpha^2$  consisting of an inverted frustum and the lower section  $\alpha^3$  having its top coincident with the smaller end of the upper portion  $\alpha^2$  and its bottom overlapping and spaced from the top of the section A'.

The upper section A<sup>2</sup> of the body of the cowl is surmounted by a top C of double conical form, the two cones  $c$  and  $c'$ , which form it, having their bases coincident, and the whole being spaced from and fixed a short distance above the top of the section A<sup>2</sup>.

To prevent the water which passes down the sides of the cone  $c$  from being directed down underneath the cone  $c'$  and finally dripping from its apex through the cowl into the pipe or chimney, I provide at or near the periphery of the top C an annular recess  $c^2$  on the under side of the top, which causes the water to be carried from the extreme margin of the top.

To prevent a current of air, which may from any cause be directed up along the pipe or chimney B, from entering the bottom of the lower section A' and thereby interfering with the discharge of the air-currents, I provide the socket-piece A with an annular flange or shield D, located at a short distance below the bottom of the section A'.

In use the currents of air which strike the cowl from any direction in a horizontal plane are discharged therefrom, after passing through the cowl, in such a direction as to prevent any back draft in the chimney or pipe B and in such a direction as to tend to produce a vacuum in said pipe, and hence increase the upward draft. For instance, suppose the air to enter beneath the top C, coming from a direction denoted by the arrow X. After entering the interior of the cowl the air will be subdivided, a greater portion of it passing out of the cowl between the sections A<sup>2</sup> and A' and the remainder passing out at the bottom of the section A', as indicated by the arrows.

I prefer to make the flange or shield D somewhat downwardly inclined, in order that the current of air passing down the exterior of the frustum  $\alpha'$  may not have a tendency to be drawn into the lower end of the section A'.

What I claim is—

A chimney-cowl, consisting of an upper and lower section each section having the general

form of two frustums of a cone, the frustums  
of the upper section having their smaller ends  
coincident and the frustums of the lower sec-  
tion having their larger ends coincident, the  
5 upper section having its lower end spaced  
from and arranged to overlap the upper end  
of the lower section, a top spaced from and  
fixed in position above the upper of said sec-  
tions and a socket-piece having its periphery

spaced from the lower end of the lower frus- 10  
tum and having its upper end at or near the  
horizontal plane of the meeting ends of the  
frustums comprising the lower section, sub-  
stantially as set forth.

DANIEL SCOTT.

Witnesses:

FREDK. HAYNES,  
IRENE B. DECKER.