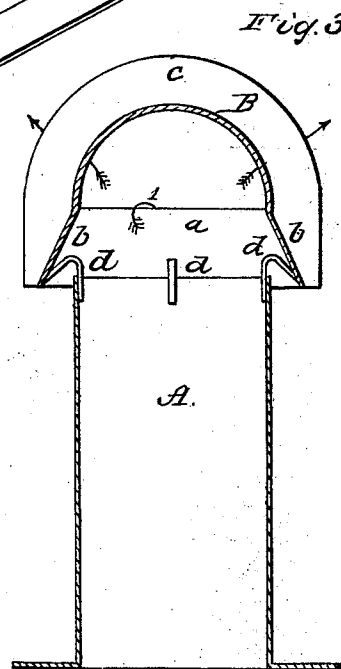
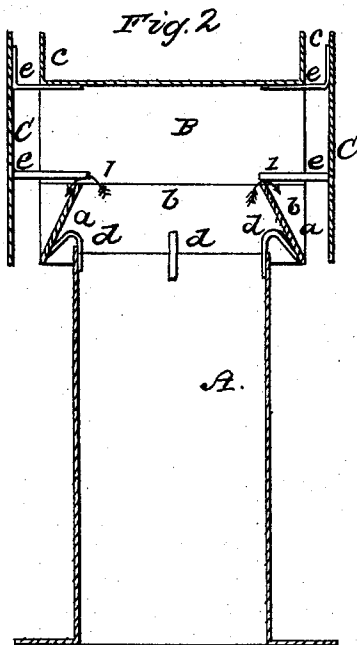
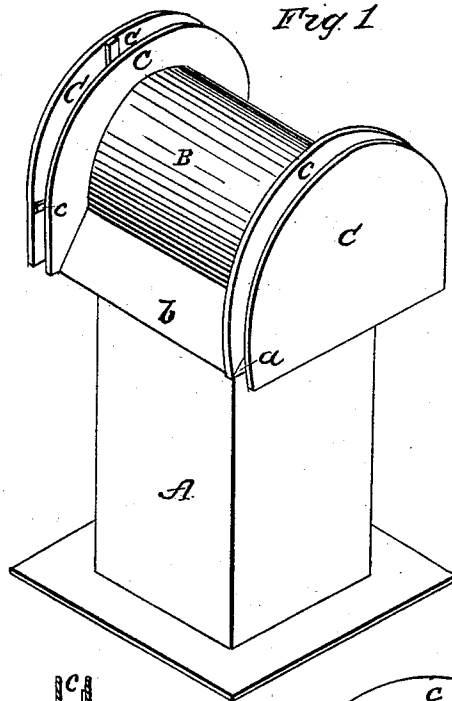


C. W. RUSSELL.

Chimney Cap.

No. 8,595.

Patented Dec. 16, 1851.



UNITED STATES PATENT OFFICE.

CHARLES W. RUSSELL, OF WASHINGTON, DISTRICT OF COLUMBIA.

CHIMNEY-CAP.

Specification of Letters Patent No. 8,595, dated December 16, 1851.

To all whom it may concern:

Be it known that I, CHARLES W. RUSSELL, of the city of Washington, District of Columbia, have invented certain new and useful Improvements in Chimney-Caps; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1, is an isometrical view of one of the caps. Figs. 2, and 3, are vertical sections of the same, taken nearly through the center in planes at right angles to each other.

Similar letters of reference indicate corresponding parts in each of the several figures.

A, is a square pipe forming the continuation of the chimney or flue.

B, is an arch of sheet metal of about the same width as the pipe A, but long enough to allow its ends to extend over it (see Fig. 2); attached to each side of this arch is an inclined metal plate *b*, running the whole length of it; and between the two inclined plates at right angles to them, are two other plates *a*, *a*, having a similar inclination, the space included between the four plates being of the form of the frustum of a quadrangular pyramid, the arch and the plates *b*, *b*, are of such length that their ends which stand vertical are just even with the lower edges of the plates *a*, *a*; a flange *c* extends over and down the sides of the arch B, and down the outsides of the ends of the plates *b*, *b*; the arch with the plates forming the frustum are secured to the top of the pipe A, by small strips of metal *d*, *d*, the pipe entering a short distance into the frustum.

C, C, are two plates covering and protecting the openings in the ends of the arch, being of the same form as the outside of the flange, their lower edges hanging even with the lower edges of the plates *a* *a* and *b*, *b*. They are secured to the arch, at such a distance as to leave a suitable amount of opening between them and the flanges for the draft, by metal strips or arms *e*, *e*; the depth of the flanges *c*, *c*, should exceed the width of this opening.

The object of the cap is to protect the chimney or flue whatever may be its position, or however it may be placed with regard to surrounding objects against any downward currents of wind or air and to make any current of air or gust of wind entering it produce a draft or vacuum. The arch B, protects it from any direct downward current and the open ends of the arch are so protected by the end plates C, that no wind can enter the flange *c* protecting it against any current striking the back of the end plates and returning into it. Any current entering between the plate and the flange must pass in a direction nearly parallel to them and then produces a vacuum in the chimney and carries off the smoke with it, any downward current having a tendency to enter the chimney or flue is met by the inclined plates *a* of the frustum, by which it is turned off and made to create an upward draft in the chimney and carry off the smoke and air from within in the direction of the arrows 1, 1, shown in Figs. 2 and 3. The space between the top of the pipe A, and the frustum, is intended to produce an upward current of air into the cap from without and thus create a draft within; the draft in all cases passing off and carrying off the smoke or air from the chimney or flue between the end plates C, C, and the flanges *c*, *c*, of the arch.

I do not claim either the arch B, or the end plates *c*, *c*, or the end plates *a*, *a*, and *b*, *b*, irrespective of the devices in connection with them, but

What I claim as my invention and desire to secure by Letters Patent is—

1. The flanges *c*, *c*, applied to the arch B, in combination with the end plates *c*, *c*, substantially in the manner and for the purpose herein set forth.

2. The inclined plates *a*, *a*, and *b*, *b*, applied to the arch B, substantially as and for the purposes specified.

CHAS. W. RUSSELL.

Witnesses:

S. H. WALES,
K. M. FENWICK.