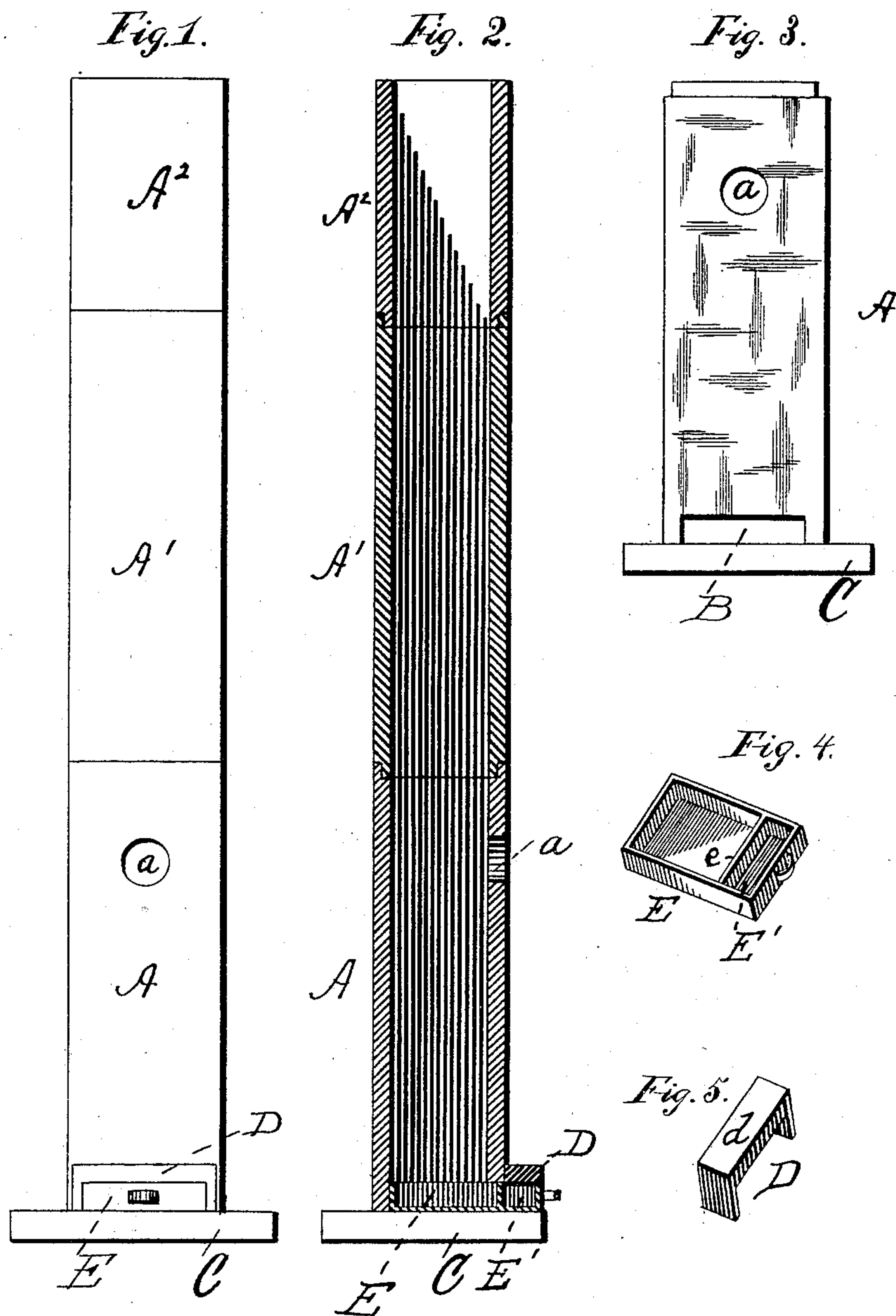


(No Model.)

S. W. SCHNABEL.  
SAFETY FLUE FOR CHIMNEYS.

No. 318,301.

Patented May 19, 1885.



Witnesses.  
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# UNITED STATES PATENT OFFICE.

SAMUEL W. SCHNABEL, OF MAYVIEW, MISSOURI.

## SAFETY-FLUE FOR CHIMNEYS.

SPECIFICATION forming part of Letters Patent No. 318,301, dated May 19, 1885.

\* Application filed June 23, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, SAMUEL W. SCHNABEL, a citizen of the United States, residing at Mayview, in the county of Lafayette and State of Missouri, have invented certain new and useful Improvements in Safety-Flues for Chimneys; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to chimneys, and has for its object efficient means whereby to overcome the difficulty of defective or cracked flues, and also to provide simple devices whereby the products of combustion which pass into a flue and fall into the bottom thereof may be conveniently removed when desirable, all of which will be described.

In the drawings, Figure 1 is a front view, and Fig. 2 a vertical section, of a chimney-casing constructed according to my invention. Fig. 3 is a detail front view of the lower section. Fig. 4 is a detail view of the drawer. Fig. 5 is a detail perspective view of the arch.

My improved flue or casing is designed to form the inner walls of the ordinary brick or stone chimney, so as to protect same from contact with the flames and the hot smoke, and thereby prevent the breaking or cracking thereof, and prevent the fire from burning through. This flue I make in sections, as A A', which may be of any desired length to suit the maker or builder, and constructed of cast-iron or other safe material, with their joints tenoned or otherwise suitably formed, as will be understood from the drawings. I find it desirable to employ several short sections, as A', so that the proper height may be easily secured. The lower section, A, may have the stove-pipe hole *a*, or section A' may have the same, and is provided in its front lower edge with an opening, B, to permit the insertion and removal of the soot-drawer.

In building a chimney according to my invention a plate, C, is used as a base or foundation for the chimney, and has an area sufficient to provide the lateral projections on opposite sides of the flues to receive the brick or

other chimney-walls. The lower section, A, of the ceiling or inner casing is placed on this plate, so that the edges of same will project laterally on all sides, and an arch-plate, D, is supported on the front of the plate and extends over the opening B, the under side of the top plate, *d*, of such arch being flush with the top of opening B, and of a width equal to the portion of the base-plate which extends laterally beyond the tube or casing, and this plate *d* serves to support the courses of brick above it on the front of the chimney.

The sides and back of the chimney are built upon the base-plate, as will be understood from Fig. 2, and each section is added as the bricks or body of the chimney is built up to the top of the lower ones until the desired height is reached.

The soot-drawer E is adapted to be inserted through opening B and cover the bottom of the protecting-flue or inner casing. It will be seen that all soot or other products of combustion passing into the inner casing will fall into the soot-drawer, and the latter may be removed and emptied at such short intervals as to keep the inner flue at all times clean. In order to prevent the heat of these deposits from affecting the outer end of the drawer and thus produce combustion of external objects, I prefer to provide the drawer with a transverse partition, *e*, which is so arranged as to come about flush with the front wall of the protecting flue or casing, and the drawer is extended in advance of this partition to provide the protecting air-chamber E', as clearly shown in Figs. 2 and 4.

Where desired, the arch D may be formed integral with the section A, though ordinarily it is preferred to form it separate therefrom.

It is manifest that stove-pipe holes could be formed in any of the sections at the point where it is desired to insert the stove-pipe in the lower or any of the upper stories of the house.

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

The improved lining or flue for chimneys, consisting of the main body A, having an opening, B, at its lower front sides, the base C, placed below the said body and extended outward



therefrom on all sides and adapted to support  
the wall of the chimney around the flue, the  
wall-support or arched plate D, placed against  
the outer side of the body and over the open-  
5 ing B, and provided with a drawer-opening  
coincident with the said opening B, and a soot-  
drawer having its outer end extended outward  
under and approximately flush with the outer  
edge of the arched plate, and having in its  
10 outer end a separate compartment, E, which,

together with the arched plate D, forms a dead-  
air space, substantially as and for the pur-  
poses set forth.

In testimony whereof I affix my signature in  
presence of two witnesses.

SAMUEL W. SCHNABEL.

Witnesses:

WM. C. ATKINS,

EDWIN F. PARKER.