

P. S. SMOUT.
METALLIC CHIMNEY.

No. 180,386.

Patented July 25, 1876.

Fig. 1

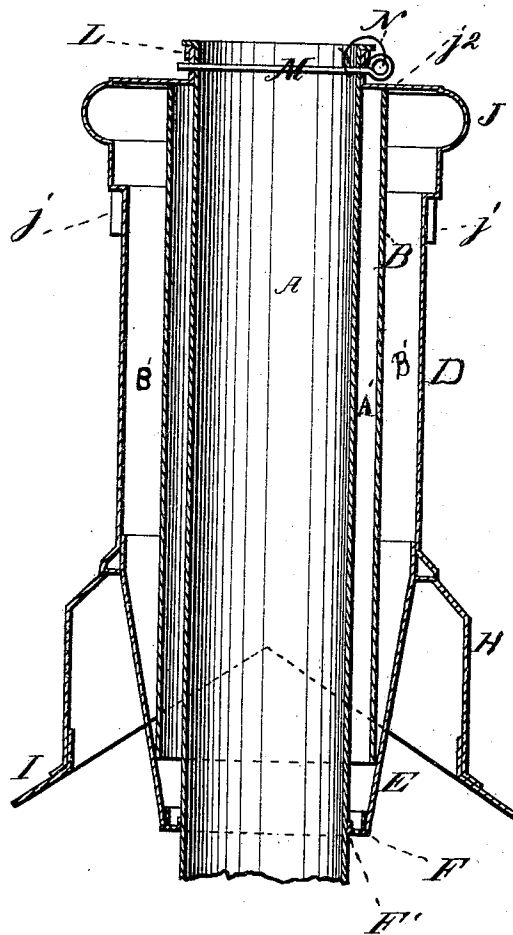
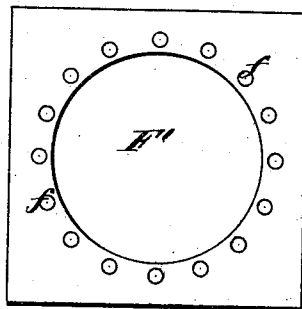


Fig. 2.



WITNESSES

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UNITED STATES PATENT OFFICE.

PETER S. SMOUT, OF DECORAH, IOWA.

IMPROVEMENT IN METALLIC CHIMNEYS.

Specification forming part of Letters Patent No. 180,386, dated July 25, 1876; application filed June 3, 1876.

To all whom it may concern:

Be it known that I, PETER S. SMOUT, of Decorah, in the county of Winneshiek and State of Iowa, have invented a new and valuable Improvement in Metallic Chimneys; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a central vertical section of my metallic chimney, and Fig. 2 is a bottom view of the same.

This invention relates to metallic chimneys; and the nature of my invention consists in certain improvements in metallic chimneys, as will be hereinafter particularly set forth.

In the accompanying drawings, A designates a smoke pipe or flue, through which the products of combustion pass. B is a sleeve or cylindrical partition, of considerably greater diameter than smoke-pipe A, and surrounding the same, so as to leave an air-space or cylindrical chamber, A', between them. Outside of sleeve or partition B is another air-chamber, B', which is inclosed within the body D of the chimney. Body D may be either prismatic or cylindrical in form, and is provided with converging bottom-extension E, that confines the lower end of sleeve B. To the end of extension E is secured a flanged plate, F, which closes the bottom of air-chambers A' and B', but may be perforated at *ff*, to allow a slight degree of communication therewith. Plate F has also a larger central perforation, F', to allow the passage of pipe A. H designates a chimney-base, somewhat larger in section than the body D, and secured thereto at the line where said body begins to taper into extension E. Base H is provided with inverted V-shaped recesses at the sides, to receive and conform to the ridge of the roof, and with bottom flange I all along its lower edges.

To the top of body D is secured a top-piece, J, of ornamental construction, pro-

vided with vertical side flanges *j j*. The top piece J is also provided with a horizontal top plate, *j*², which is centrally perforated, to allow the passage of smoke pipe or flue A. Sleeve B may also pass through this perforation; but I prefer to secure it to the under side of top plate *j*², and to rigidly attach an annular vertical flange, L, to the upper side of said plate, around said perforation. Flange L and smoke pipe or flue A are detachably connected by a rod, M, which passes transversely through them, as shown, and which is locked in position by a wire, N, that is secured to a loop on the end of said rod outside of flange L, and is wound about said rod inside of pipe or flue A.

In case sleeve B is carried above plate *j*², the same fastening is applied to connect pipe or flue A therewith.

The air-chambers A' and B' will, when once heated, retain the heat for a long time, and thereby prevent the condensation of any moisture which may remain in the products of combustion that pass up the flue or smoke-pipe A.

The fastening-rod M and wire N securely attach the chimney to the pipe A, but allow ready detachment.

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination of flue or smoke pipe A, sleeve or partition B, and fastening-rod M, provided with wire N, substantially as set forth.
2. The combination of chimney-body D, converging bottom-extension E, flanged bottom plate F, and base H, substantially as set forth.
3. In a metal chimney, the fastening-bolt M, provided with wire N, substantially as and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

PETER S. SMOUT.

Witnesses:

E. E. COOLEY,
WILLIS WHEELOCK.