H. SCHREIER.

Fire-Proof Chimney.

No. 219,120. Patented Sept. 2, 1879.

Fig. I.

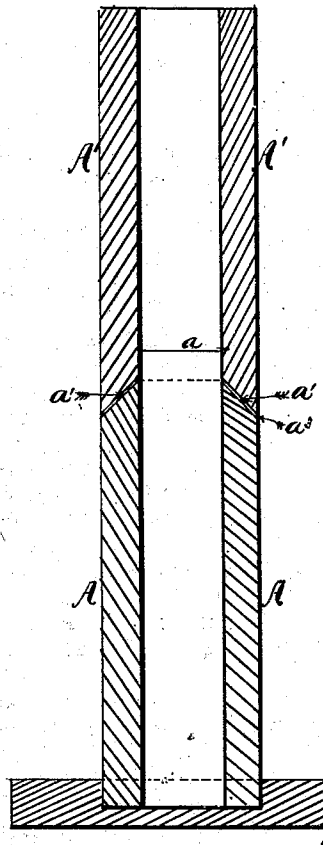


Fig. II.

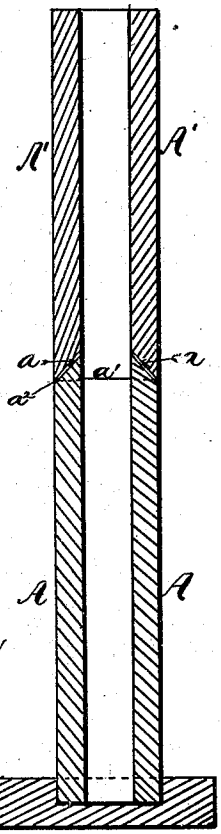
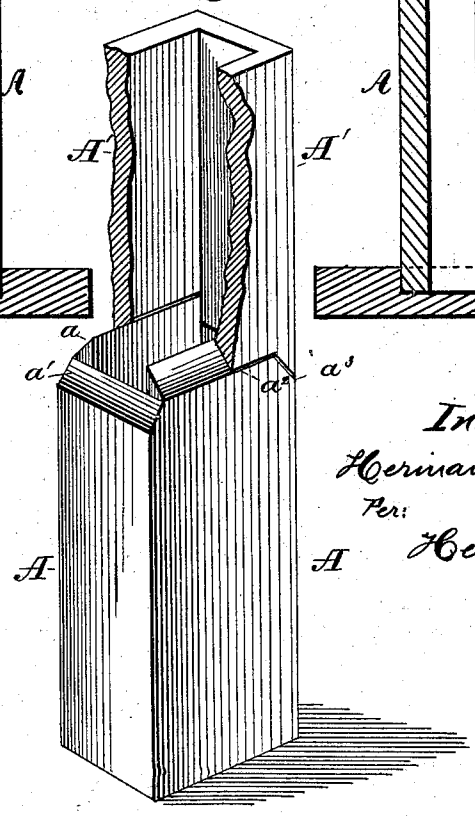


Fig. 3.



Witnesses:

F. Bartlett

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Per:

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UNITED STATES PATENT OFFICE.

HERMAN SCHREIER, OF SHEBOYGAN, WISCONSIN.

IMPROVEMENT IN FIRE-PROOF CHIMNEYS.

Specification forming part of Letters Patent No. **219,120**, dated September 2, 1879; application filed March 15, 1878.

To all whom it may concern:

Be it known that I, HERMAN SCHREIER, of Sheboygan, in the county of Sheboygan and State of Wisconsin, have invented a new and useful Improvement in Fire-Proof Chimneys, of which the following is the specification.

This invention has for its object the construction of a chimney for buildings, formed in whole or in part of earthen or stone ware pipes, so constructed and jointed together as to form a perfect fire-proof joint between the different sections of the pipe. These pipes or flues may, in the case of small and cheap buildings, constitute the entire chimney, or they may, in the case of more expensive or high chimneys, be surrounded and supported by masonry.

The invention will be readily understood by reference to the accompanying drawings, in which—

Figure 1 is a sectional elevation of a part of a chimney constructed of the improved flue-pipes. Fig. 2 is also a sectional elevation of a similar chimney, but taken in a vertical plane at right angles to the view shown in Fig. 1, so as to show the beveling of the miter-point on the other sides of the pipe or flue. Fig. 3 is a perspective view with the top section broken away, showing the sloping joints.

These flues will be formed of as many rectangular pipes A A′ as will be required to build the chimney the requisite height, and they will be made of earthen or stone ware properly burned, so as to stand fire or heat, and will, preferably, be glazed, at least on the inside, so as to prevent soot from adhering to their sides. Of course suitable apertures will be made in their sides whenever required for the insertion of stove-pipes, or to receive branch flues to fire-places.

The bottom end of the lower pipe and the top end of the upper pipe will be formed straight and in lines perpendicular to the vertical axis of the chimney, and the exterior of the upper section may be ornamented with appropriate work to form the exterior terminus of the chimney.

The lower section will rest on a suitable foundation or support, preferably of masonry. At the junction of any two sections of the pipe the top end of the lower section will have its sides formed of sloping faces a a^1, as shown in the drawings, the highest point on each of the joints being on the inside of the pipe or flue, and the joint sloping thence outwardly and downwardly at an angle of about forty-five degrees, (more or less,) so as to cause any sparks or fire that may be going up the flue to freely pass the joint without any tendency to enter it.

The joints a will be made about one-half an inch (more or less) higher than the joints a^1, and the lower end of the pipe A′ will be jointed at a^2 and a^3, respectively, to fit the joints a and a^1.

When these flue-pipes are set up, some cement-mortar should be put into the joints between the flues.

If these flues are to be used in a building without any surrounding masonry, they should be suitably stayed to the building, preferably by iron rods. If, however, the pipe-flues are to be surrounded by masonry, it would be best to leave a space of about one inch intervening between the flue-pipe and the masonry, so as to avoid breakage of the pipe by the subsidence of the masonry.

I do not claim a chimney whose joints are on a plane, for such do not have the power to resist the wind when exposed; but

What I do claim is—

The herein-described chimney, consisting of the rectangular pipes A A′, having sloping joints at the sides a a and sloping joints at the ends a^1 a^1 on a lower plane than the side joints, as and for the purpose set forth.

HERMAN SCHREIER.

Witnesses:

ADOLPH BOCK,

HENRY JOS. WEIGAND.