T. C. NATIVEL.

Chimney-Stack.

No. 168,520. Patented Oct. 5, 1875.

Fig. 1.

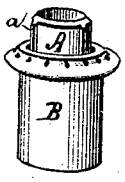


Fig. 2.

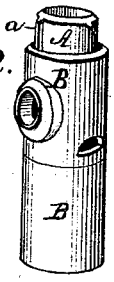


Fig. 3.

Fig. 4.

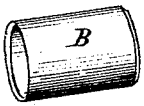
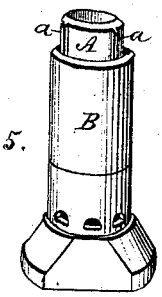


Fig. 5.



Witnesses;

Geo. Capt

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UNITED STATES PATENT OFFICE.

THEODORE C. NATIVEL, OF SAN JOSÉ, CALIFORNIA.

IMPROVEMENT IN CHIMNEY-STACKS.

Specification forming part of Letters Patent No. **168,520**, dated October 5, 1875; application filed May 8, 1875.

To all whom it may concern:

Be it known that I, THEODORE CONSTANT NATIVEL, of the city of San José, county of Santa Clara and State of California, have invented an Improved Chimney-Stack with Base and Cap; that I do hereby declare the accompanying drawing and following description are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use my said invention or improvement without further invention or experiment.

The invention is an improvement in the class of flues and chimney-cowls having air-passages between the inner and outer walls. The invention relates to the construction and arrangement of the joints of the inner and outer flue, and the provision of ribs on the former, as and for the purpose hereinafter set forth.

In the drawing, A, Fig. 3, indicates one of the sections composing the inner or smoke flue, the same having vertical parallel ribs *a*, extending its entire length. The outer flue-sections B, Fig. 4, are cylindrical in form, and adapted to inclose and accurately fit the inner flue-section A, so that a conduit is formed between each two ribs *a a*, for passage of air, as herein described.

Figure 1 shows the ribbed smoke-flue A, combined with a section, B, which is designed to rest on a floor or roof when the body of the section B is inserted in a hole therein. Fig. 2 shows the respective inner and outer flue-sections combined to form the base of a chimney to be set upon a bracket, shelf, or floor, the same being provided with a stove-pipe hole, also ventilating-openings, as shown. Fig. 5 shows a chimney top or cowl, the lower section B having ventilating-openings, and combined with a base suitable to be set over a brick-chimney.

The openings in the sections B allow air to pass up in passages formed between it and the inner flue A, thus not only ventilating an apartment or dwelling, but carrying off most of the heat radiated through the inner flue.

It will be seen that the arrangement of the sections of the respective flues is such as to "break joints," so that the ribs *a* afford a better support for the outer sections and render the whole structure more rigid and secure.

The upper end of each inner flue-section A is beveled exteriorly and the lower end interiorly, as shown, to form a tight joint when the sections are fitted together, and to enable the flue to be self-supporting so far as practicable. These results are attained by reason of the fact that the bevel increases the surface of contact, and also the amount of friction, between the flue-sections, while the downward pressure of one section upon another causes a wedging action of the one bevel on the other, which tends to render the joint yet more close, firm, and rigid.

The function of the ribs *a* of the inner flue-sections, which is supplemental to the support they afford the outer flue, is to brace or act as buttresses for the inner flue, strengthening and tending to maintain it rigidly in a vertical position.

I do not claim, broadly, the employment of vertical ribs in connection with the double walls of a flue or chimney cowl; but

I claim—

The inner flue-sections A, beveled at their ends, and provided with vertical ribs, aligned as shown, in combination with the outer flue, formed of sections B, the joints of the sections of the one series alternating with those of the other, as and for the purposes set forth.

THEODORE CONSTANT NATIVEL.

Witnesses:

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