(No Model.) 2 Sheets—Sheet 1.

J. BROWELL.

CHIMNEY.

No. 268,860. Patented Dec. 12, 1882.

Fig. 1

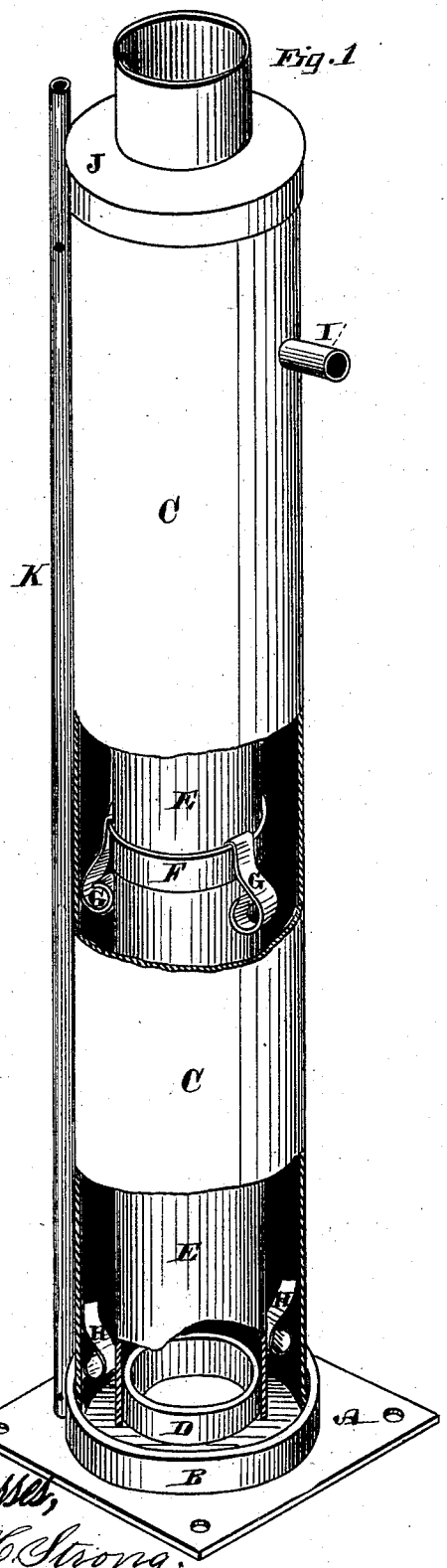


Fig. 2

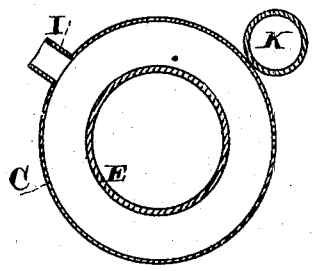
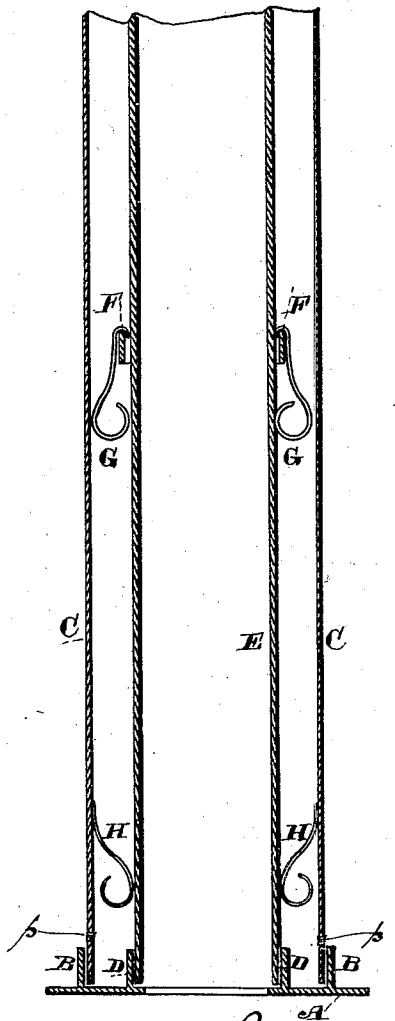


Fig. 3



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N. PETERS. Photo-Lithographer. Washington, D. C.

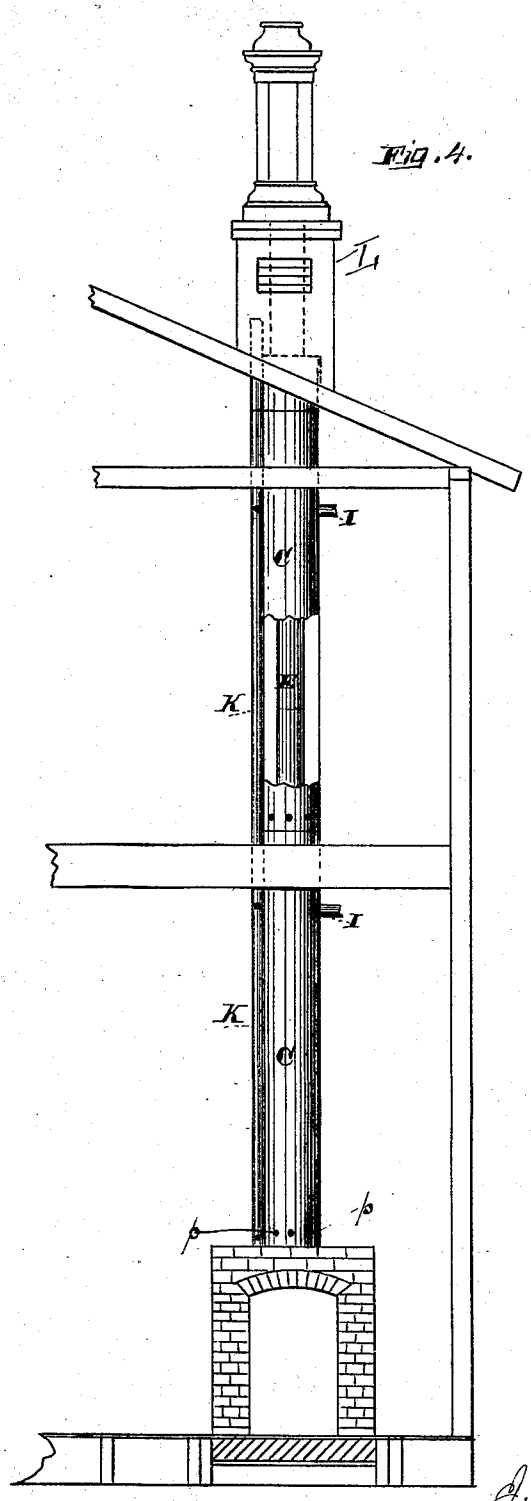
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Fig. 4.



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UNITED STATES PATENT OFFICE.

JEREMIAH BROWELL, OF SAN FRANCISCO, CALIFORNIA.

CHIMNEY.

SPECIFICATION forming part of Letters Patent No. 268,860, dated December 12, 1882.

Application filed March 7, 1882. (No model.)

To all whom it may concern:

Be it known that I, JEREMIAH BROWELL, of San Francisco, county of San Francisco, State of California, have invented an Improved Chimney; and I hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to certain improvements in the construction of chimneys, and is especially applicable to double or sectional chimneys.

My invention consists of a certain combination and arrangement of devices, as hereinafter fully described and specifically claimed.

Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is a view of my chimney, showing the outer and inner sections enlarged, with parts broken away to show the elastic braces, also the supplemental draft-flue. Fig. 2 is a transverse section. Fig. 3 is a vertical section. Fig. 4, Sheet 2, is a view showing the relative position of the chimney to the walls, floors, fireplace, and parts below the roof.

A is a base-plate, having a short cylindrical flange, B, within which the outer casing, C, of the chimney stands, and a second smaller flange, D, outside of and around which the inner section or chimney proper stands.

The outer sections may be formed of lengths of sheet-metal cylinders, which are properly secured together at the joints, and the inner chimney, E, is formed of sections of earthenware or other pipe, which are of such lengths as to break joints with the outer pipe. Bands F fit loosely around the joints of the sections E, and curved elastic strips G are hooked into these bands, so as to project downward and outward, the outer ends pressing against the inside of the outer sections, so as to support the inner section centrally, and at the same time allow it to expand or contract. Similar curved elastic strips, H, are fixed to the outer sections to steady and keep them in the center.

The bands F and elastic braces G may be applied at each joint to the top of the chimney.

The air between the two sections becomes heated, and may be diverted through suitable tubes or passages, I, into rooms adjacent to or distant from the chimney; but in order to do this the space between the outer and inner sections must be interrupted at some point above the outlet I; otherwise the air would all escape at the top instead of passing into the rooms. This is effected by a cap, J, which may be fitted at or near the top of the outer section, or at any intermediate point or points. The heated air will then be forced out into the apartments as desired.

In order to provide for a draft to remove foul air and ventilate the rooms, I employ a secondary flue, K, which extends upward by the side of and in contact with the chimney, as shown, and is heated by contact with it. The heat produces an upward flow of air through this secondary flue, and it may be used for ventilating purposes, leading into a ventilating-tower L at the top of the house, as shown.

The condensation of the warm air and gases within the chimney-flue causes a deposit of moisture within, and this causes the soot to stick and clog and fill up the flue. I prevent this by coating the interior of the flue or chimney with black lead, or a mixture thereof, which presents a smooth surface to which the carbon will not adhere, and this keeps the chimney always clear and in good order.

This chimney is easily put up by any one, and is useful for cars, vessels, &c., as well as for permanent buildings.

I am aware that double-wall chimneys with an intervening air-space are old. I am also aware that spring sustaining or centering devices are not broadly new.

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

In a double chimney having the inner smoke-flue composed of sections E, as shown, the joint-bands F, surrounding said sections, and having the curved elastic stays G connected with them and pressing against the interior of the outer section, substantially as and for the purpose herein described.

In witness whereof I have hereunto set my hand.

JEREMIAH BROWELL.

Witnesses:
S. H. NOURSE,
G. W. EMERSON.