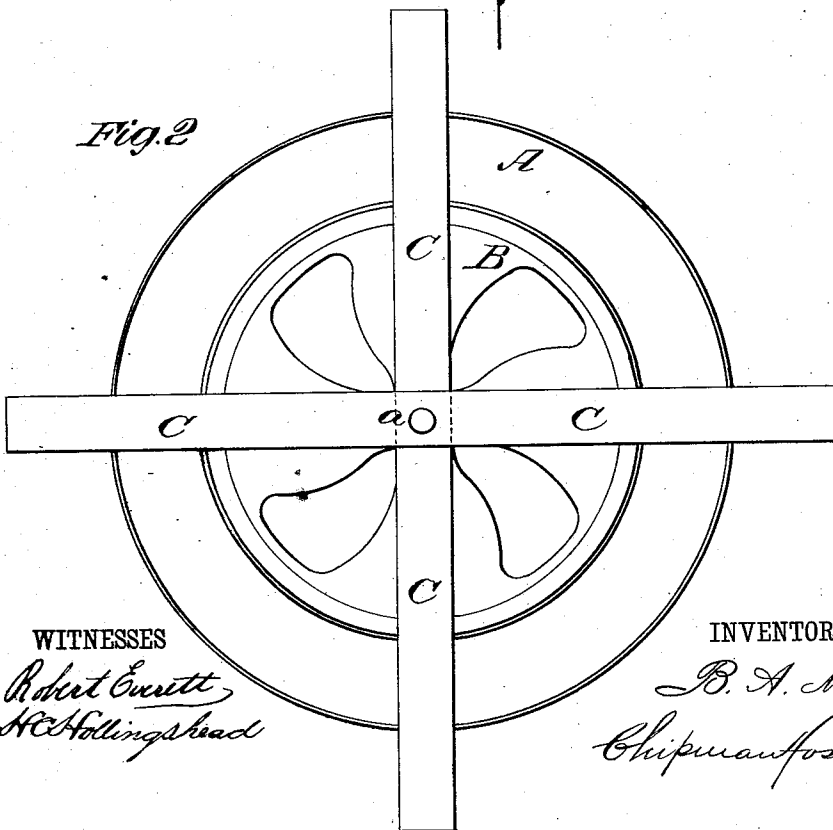
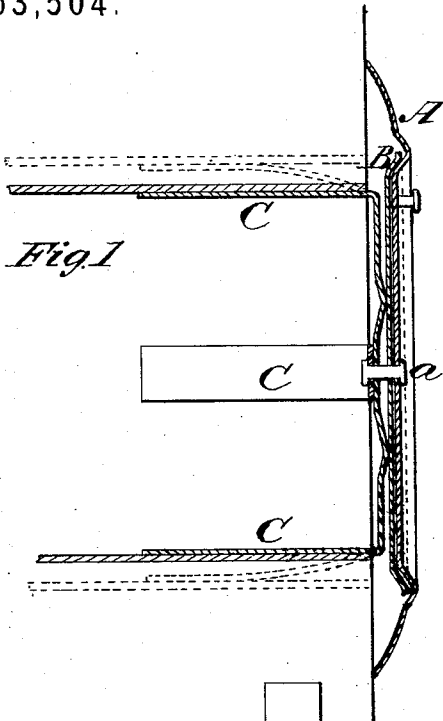


B. A. MEADE.
Ventilating Flue-Stopper.

No. 163,504.

Patented May 18, 1875.



WITNESSES

Robert Everett
H. C. Hollingshead

INVENTOR

B. A. Meade,
Chipman & Co.

Attorneys

UNITED STATES PATENT OFFICE.

BARON A. MEADE, OF NEWARK, NEW YORK.

IMPROVEMENT IN VENTILATING-FLUE STOPPERS.

Specification forming part of Letters Patent No. **163,504**, dated May 18, 1875; application filed August 25, 1874.

To all whom it may concern:

Be it known that I, BARON A. MEADE, of Newark, in the county of Wayne and State of New York, have invented a new and valuable Improvement in Ventilating-Flue Stoppers; 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 sectional view of my ventilating-flue stopper. Fig. 2 is a plan view of the same.

This invention has relation to stoppers which are designed for chimney-flues and ceilings for purposes of ventilation; and it consists in combining spring holding-arms with such stoppers, which arms are straight, or nearly straight, pieces of metal, crossed at right angles to each other and secured to the central pivot of the movable register-plate, and designed, when properly bent, to secure the stopper into a flue of any diameter. My object is to render the stoppers compact for transportation, and at the same time adapt their fastenings for flues of various diameters, as will be fully understood from the following description.

The following is a specification of my improvement:

In the annexed drawings, A designates a circular plate of sheet metal, which is dished, as shown in Fig. 1, so as to present a concave back, and which has four openings through it, arranged at equal distances apart. B designates a circular register-plate, also of sheet metal, and smaller in diameter than the plate A. This plate B is perforated like the plate A, and secured to the latter by means of a central pivot, *a*, which allows plate B to be

turned for closing or regulating the size of the passages through the stopper.

I take two narrow strips of spring metal of equal length, and of a length greater than the diameter of the plate A, and, after crimping them, I cross them at the middle of their length and permanently secure them to the pivot *a*. By crimping the strips they will operate to keep the two plates A B together, and they will conform, in a measure, to the concave shape of the plate A on the back thereof. The strips form four arms, C, radiating from the pivot *a*, which arms will allow the stoppers to be packed flatly together, and thus give compactness in transportation.

To apply the stoppers it is only necessary to bend the arms C so that they will enter the flue-holes, and then press the stoppers against the wall, when the spring arms will, by their expansion, hold the stoppers in place.

I am aware that a flue-plate having separate and independent springs attached thereto by clamping, as shown in Letters Patent No. 94,474, are not new, and do not claim such invention, broadly.

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

In a flue-stopper, the combination of the metallic spring-strips C C, crimped and crossed at right angles to each other, and fastened to the pivot that secures the movable register-plate B and the flue-plate A, substantially as shown and described.

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

BARON A. MEADE.

Witnesses:

ELIAB T. GRANT,
B. E. TAYLOR.