R. N. HARLAN.

Flue-Caps.

No. 150,032. Patented April 21, 1874.

Fig. 1

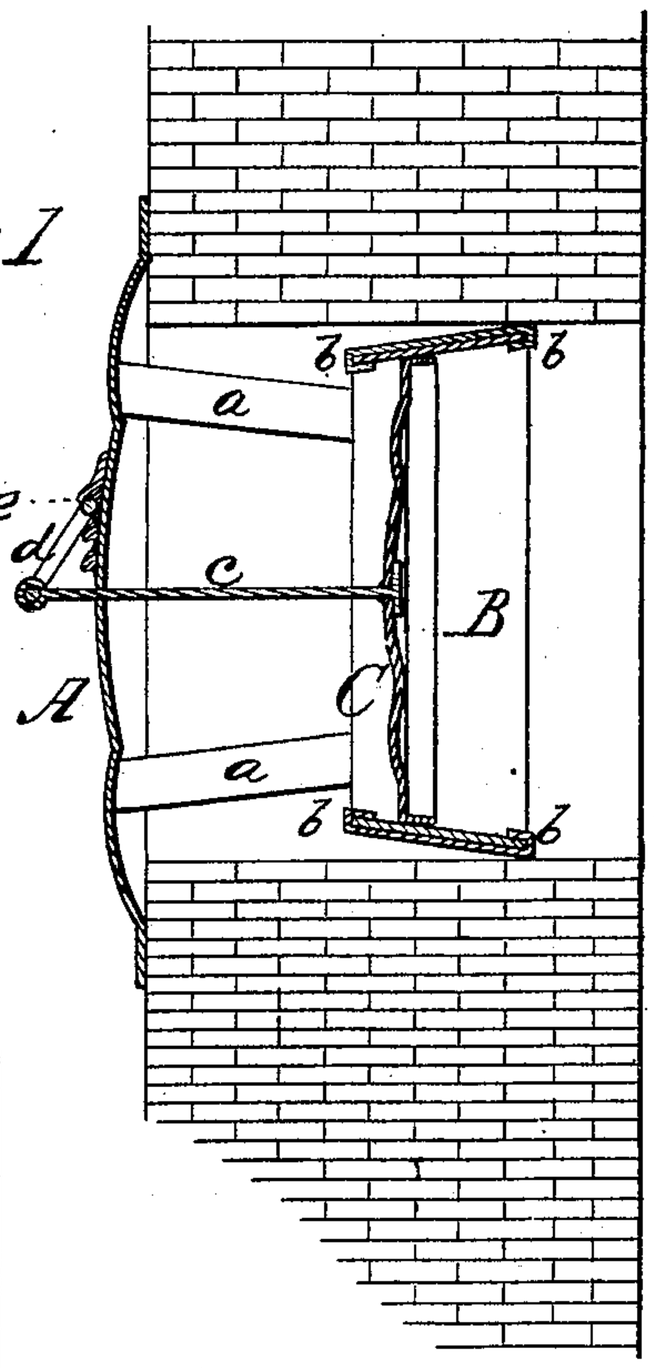
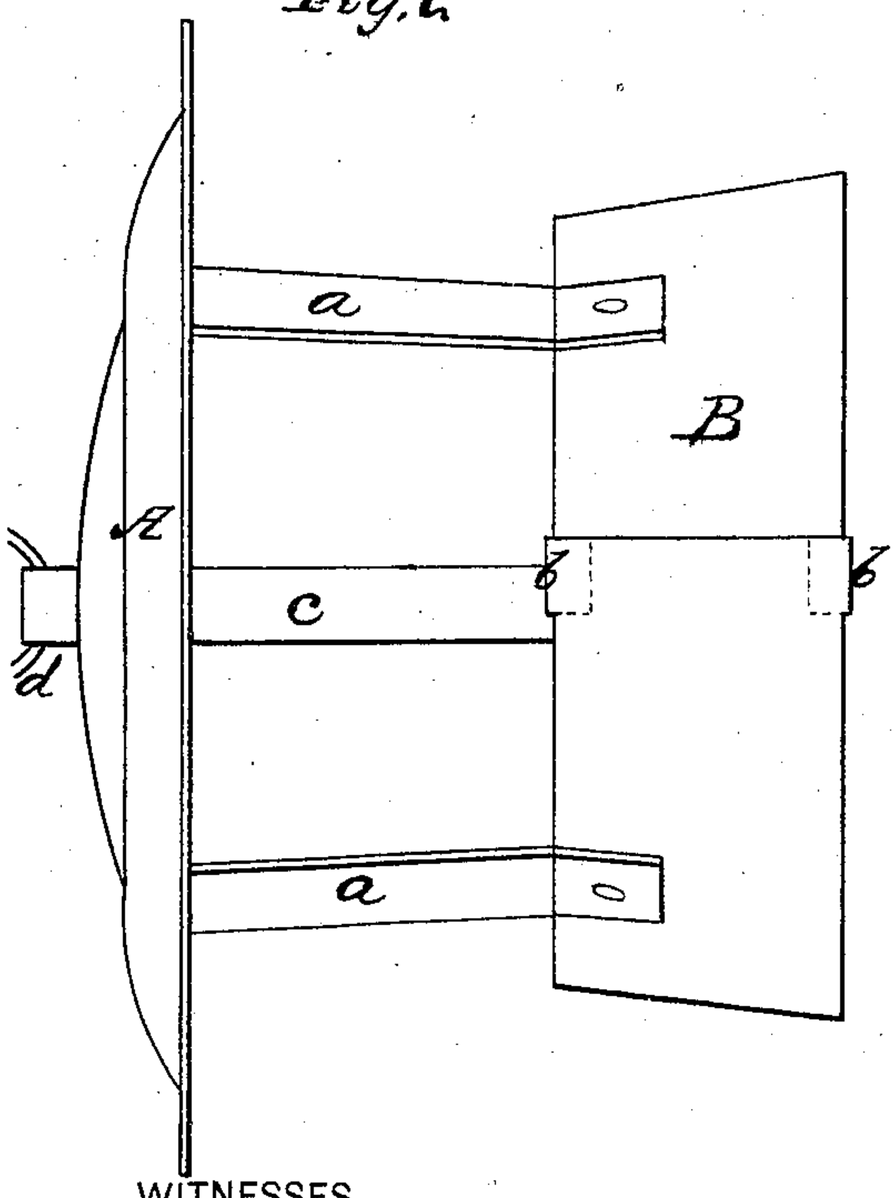


Fig. 2



WITNESSES

E. H. Bates

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By

INVENTOR

Robert N. Harlan.

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ATTORNEYS.

UNITED STATES PATENT OFFICE.

ROBERT N. HARLAN, OF OTTUMWA, IOWA.

IMPROVEMENT IN FLUE-CAPS.

Specification forming part of Letters Patent No. **150,032,** dated April 21, 1874; application filed March 14, 1874.

To all whom it may concern:

Be it known that I, ROBERT N. HARLAN, of Ottumwa, in the county of Wapello and State of Iowa, have invented a new and valuable Improvement in Flue-Caps; 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 drawing is a representation of a sectional view of my flue-cap. Fig. 2 is a side view of the same.

This invention has relation to caps for tightly closing stove-pipe holes leading into chimneys or flues, and effectually preventing soot, smoke, or fire from entering a room through the said holes.

The nature of my invention consists in combining with a cap an expansible ring and a spreading-plate, whereby a stove-pipe hole can be very tightly closed, as will be hereinafter explained.

In the annexed drawings, A designates the cap or outside plate, which covers the stove-pipe hole, as shown in Fig. 1, and which is connected by rods *a* to an expansion-ring B. This ring B is composed of two pieces, which are connected together by means of clasping-lips *b*, so that the two parts are free to slide, and to be expanded or contracted. This ring B is made tapering—that is to say, it is the frustum of a cone, the smallest end being nearest the cap A. Inside of the ring B is a circular and dished spreader, C, which has a strap, *c*, secured centrally to it, which strap passes freely through the center of the cap A and has a draw-ring *d* pivoted to its outer end. When the ring and spreader are inserted into a pipe-hole, one hand is pressed against the cap A to hold it firmly, and with the other hand grasping the ring *d*, the spreader is drawn forcibly into the ring B, which will expand this ring and cause it to fit snugly in the pipe-hole. The ring *d* is then turned down and adjusted into one of several notches, *e*, in a strip of metal, which is secured on the cap A, thus holding the spreader firmly in place.

It will be seen from the above description that the device will prevent the escape of smoke, soot, or fire into the room, and that it cannot be blown out of the pipe-hole by the pressure of accumulated gases in the chimney, for the reason that any pressure against the spreader from within outward will tend to tighten it within its expansible ring.

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

The expansible ring B, and its spreader C, and the draw-strap *c*, in combination with the cap A, substantially in the manner and for the purposes described.

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

ROBERT N. HARLAN.

Witnesses:

JNO. PALLISTER,

CHRISTOPH MILLER.