

(No Model.)

Z. T. HALL.  
FLUE STOPPER.

No. 463,043.

Patented Nov. 10, 1891.

FIG. 2.

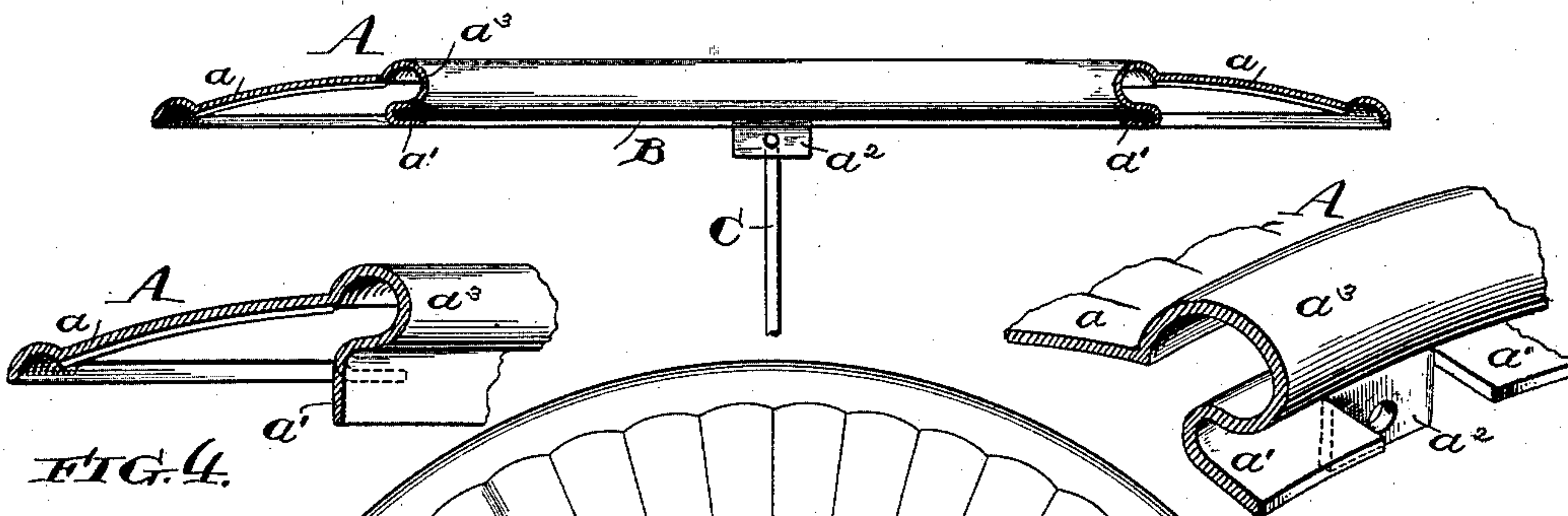


FIG. 4.

FIG. 5.

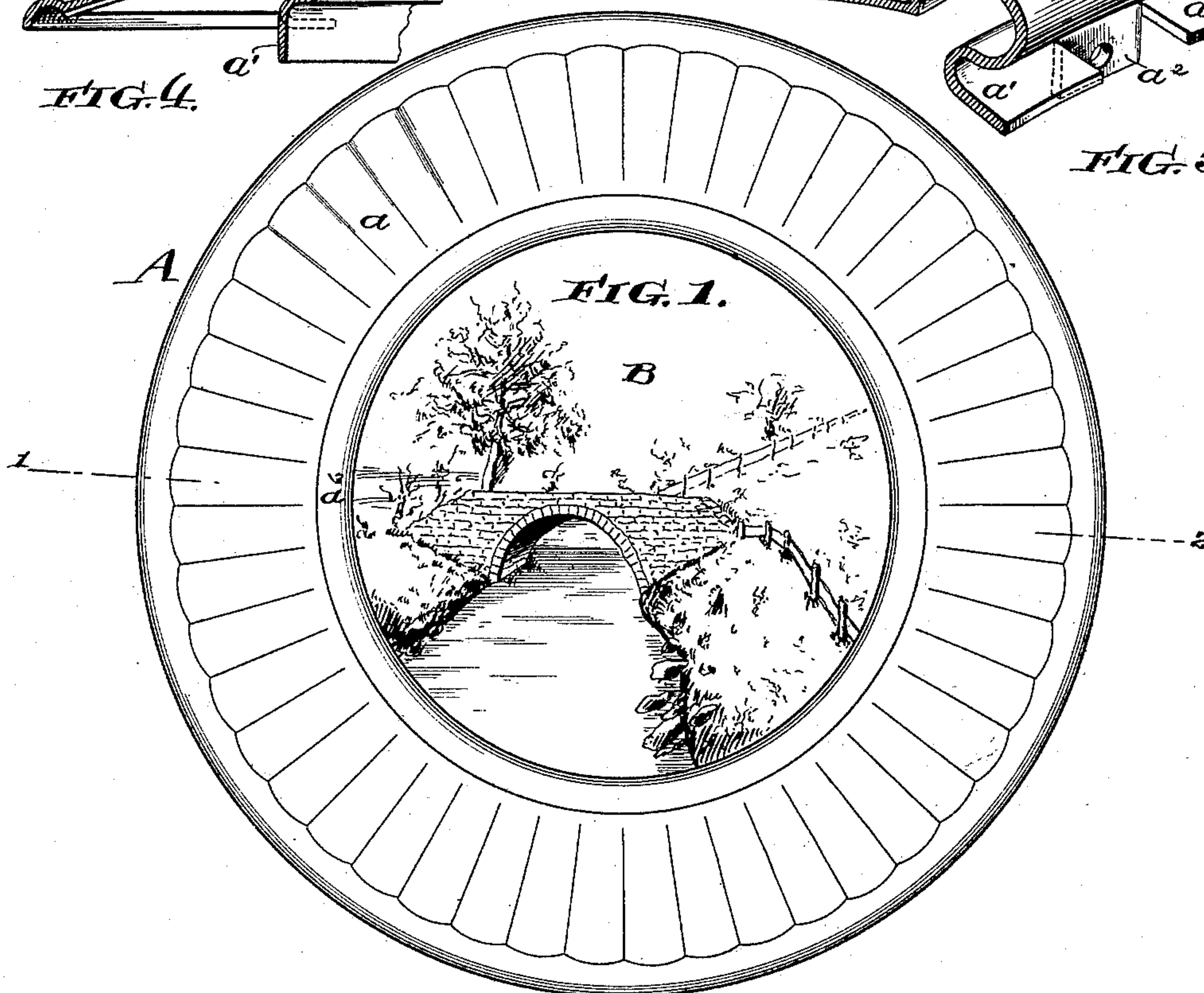
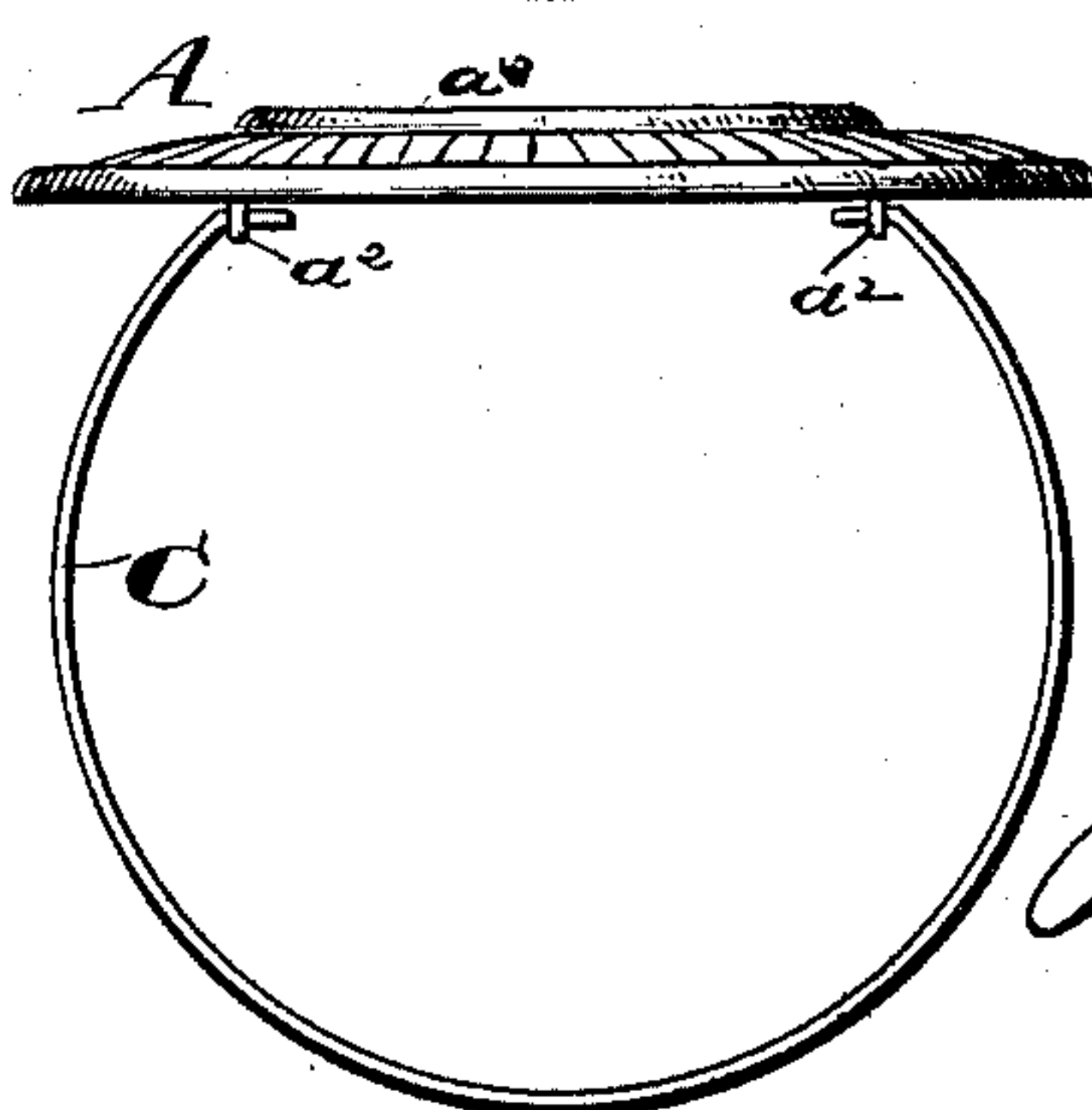


FIG. 3.



Witnesses:  
Henry D. King  
H. B. Hall

Inventor:

Zachary T. Hall

# UNITED STATES PATENT OFFICE.

ZACHARY T. HALL, OF PHILADELPHIA, PENNSYLVANIA.

## FLUE-STOPPER.

SPECIFICATION forming part of Letters Patent No. 463,043, dated November 10, 1891.

Application filed April 30, 1891. Serial No. 391,154. (No model.)

*To all whom it may concern:*

Be it known that I, ZACHARY TAYLOR HALL, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and useful Improvement in Flue-Stop-  
5 pers, of which the following is a specification.

The object of my invention is to provide an artistic flue-stopper by combining a stamped  
10 sheet-metal rim with a thick paper or card-board printed or lithographed center, thus furnishing a highly-finished composite stopper and at a less cost than I can manufacture them wholly of sheet metal. Heretofore artistic stamped stoppers have been made whole  
15 of sheet metal, and printed or lithographed pictures on thin paper have been pasted over the central part of their face side and no metal has been saved by the artistic center.

20 By my invention the metal center is made needless or is saved. This will be clearly seen in the drawings.

Figure 1 is a plan or face view of a flue-stopper with my improvements. Fig. 2 is a  
25 cross-section taken on the line 1 2 of Fig. 1. Fig. 3 is a side view and shows the means provided for holding the stopper in place when in use. Fig. 4 is drawn on a larger scale and shows the form of the inner edge of the metal  
30 rim before the center is inserted in it and before the metal and paper are joined and the paper clamped in as a finish. Fig. 5 is drawn on a still larger scale and shows the same inner edge of the rim when bent so as to clamp  
35 the center, also a small perforated hanger fitted to receive the wire which holds the stopper to its place over the flue.

Similar letters indicate similar parts in all the views.

40 A is the stamped sheet-metal rim;  $a$ , stamped formations for ornamental effects;  $a'$ , inner

edge of the rim clasping the paper center;  $a^2$ , and  $a^2$ , narrow portions of the edge perforated so as to receive the holder C;  $a^3$ , an ornamental bead, the under side of which fur-  
45 nishes a seat for the card-board center.

B is the printed or lithographed card-board center clasped by the inner edge of the rim.

C is a wire, by which the stopper is held in place over the flue. Its elasticity makes it  
50 self-adjusting to varying sizes.

In the manufacture of these stoppers the stamped sheet-metal rim A is made of any desired width and ornamental form or forms, and a little back of its inner edge is given a  
55 graceful form or bead, as seen in the drawings, the under side of which affords a seat for the edge of the card-board center, which being in place the curved flap is bent back upon it and clamps it down firmly and smoothly  
60 in a workmanlike manner. Any variety of prints or designs may be used for the center.

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

1. In the composite flue-stopper herein described, the stamped sheet-metal rim A, with  
65 its inner edge  $a'$  rolled outward and then in part looped back again, by which an annular groove is obtained for seating the applied center B, substantially as and for the  
70 purpose herein set forth.

2. In the composite flue-stopper herein described, the stamped sheet-metal rim A, with its inner edge rolled outward and looped back again, from which hangers  $a^2$   $a^2$  are perfo-  
75 rated and turned down to receive the holding device C, substantially as and for the purpose herein set forth.

ZACHARY T. HALL,

Witnesses:

H. B. HALL,

THOS. B. HARPER.