

No. 791,351.

PATENTED MAY 30, 1905.

P. J. MALLOY.
FLUE PLUG.

APPLICATION FILED MAR. 11, 1905.

Fig. 1.

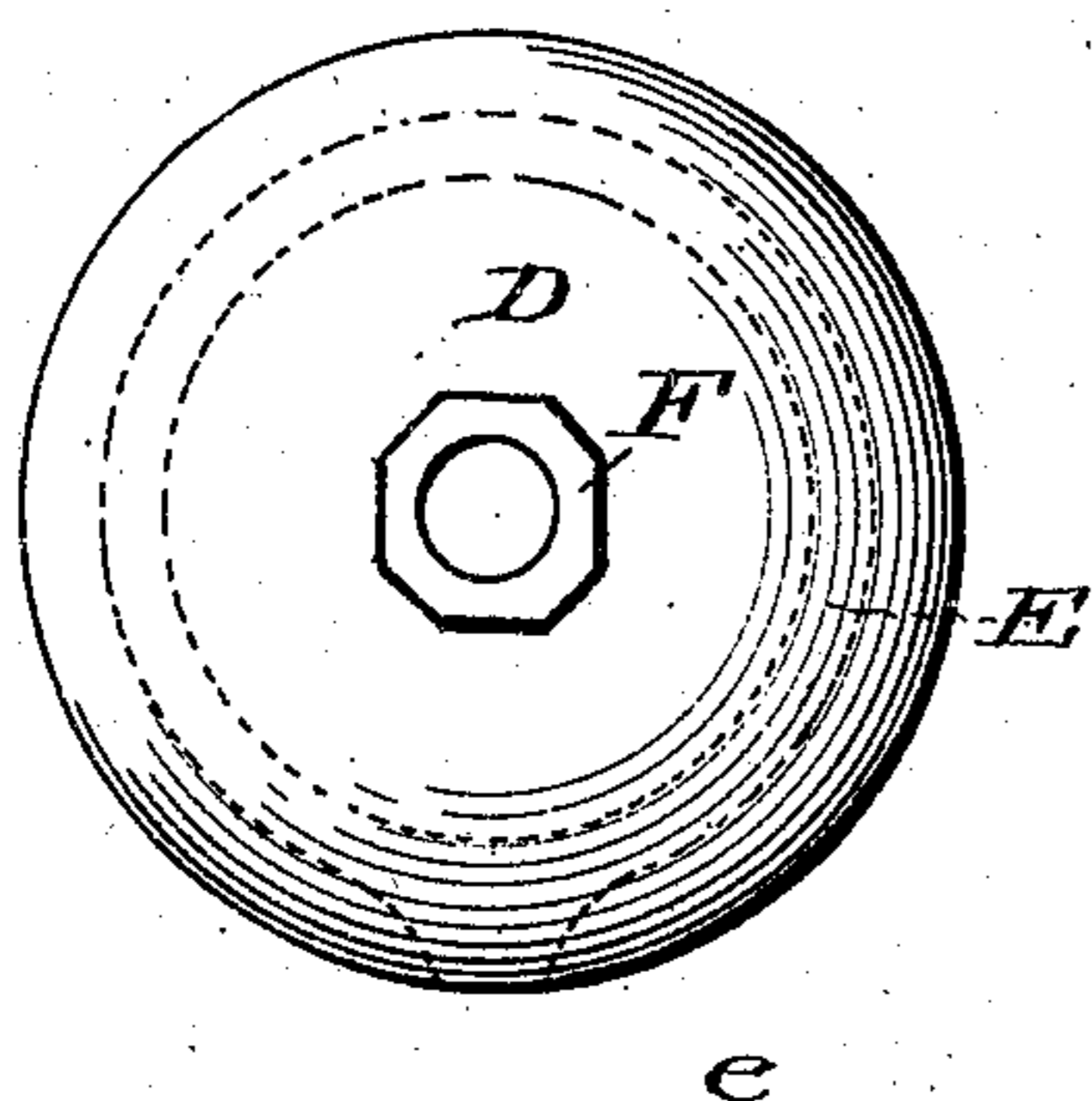


Fig. 2.

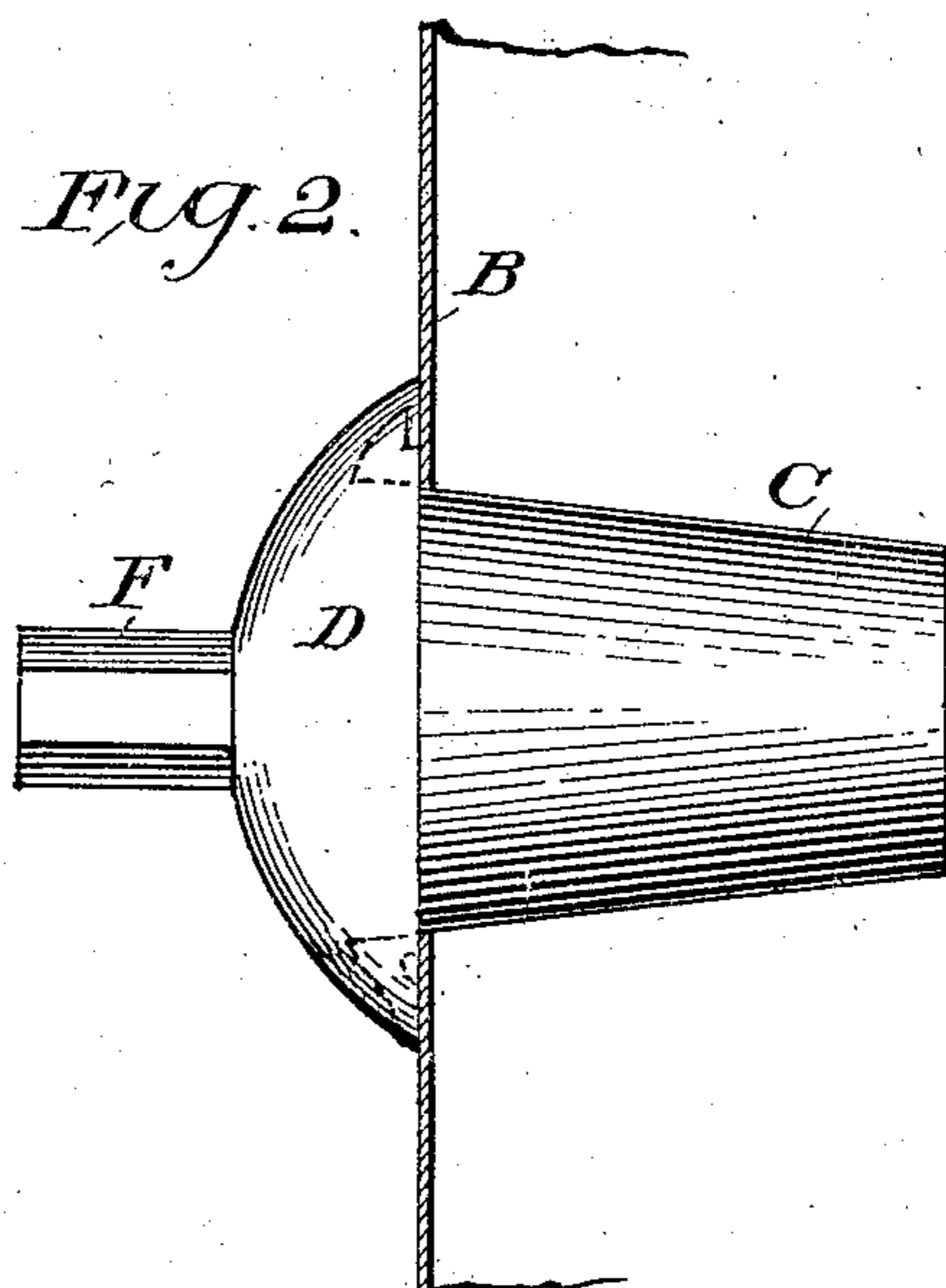


Fig. 3.

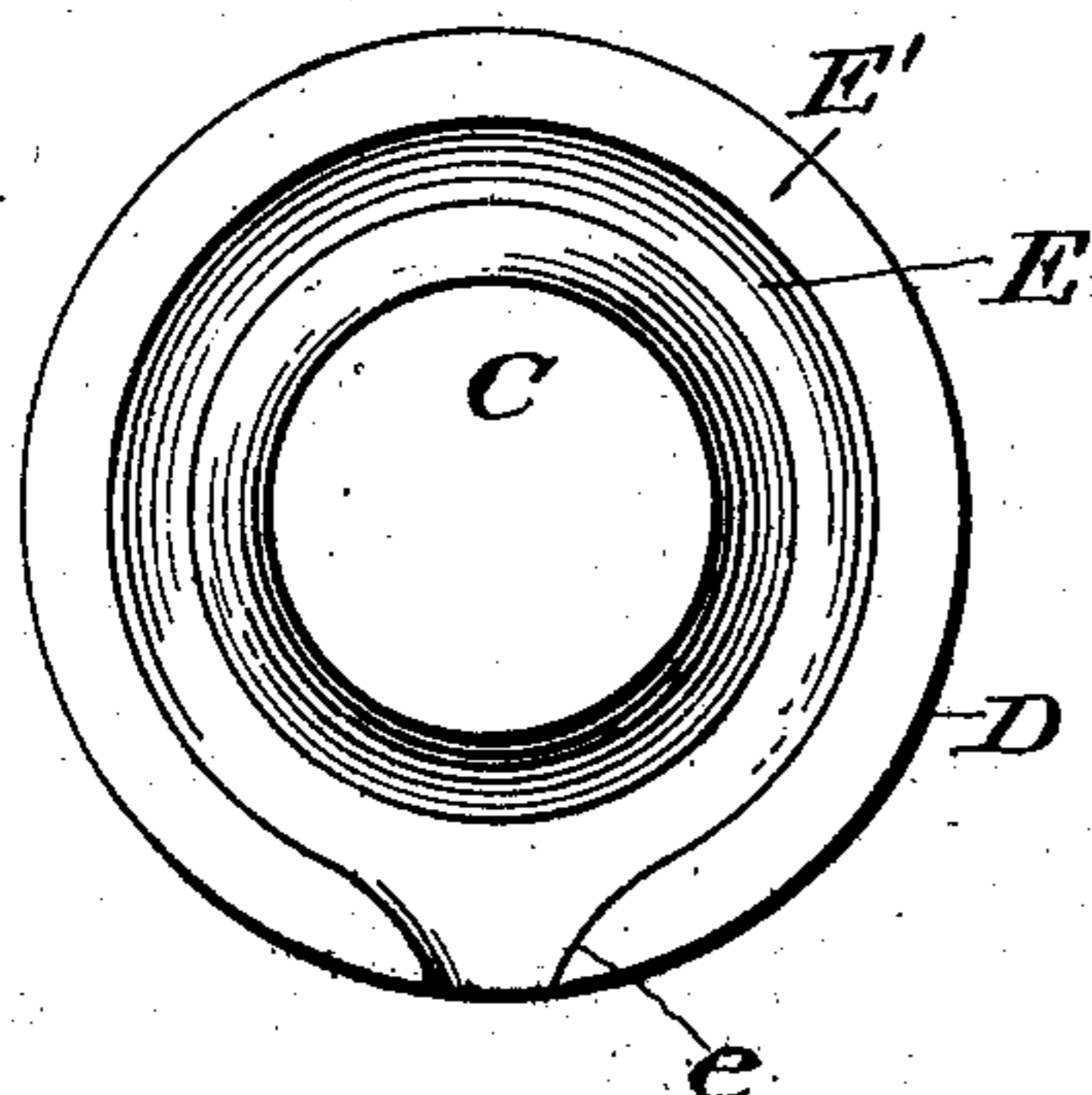
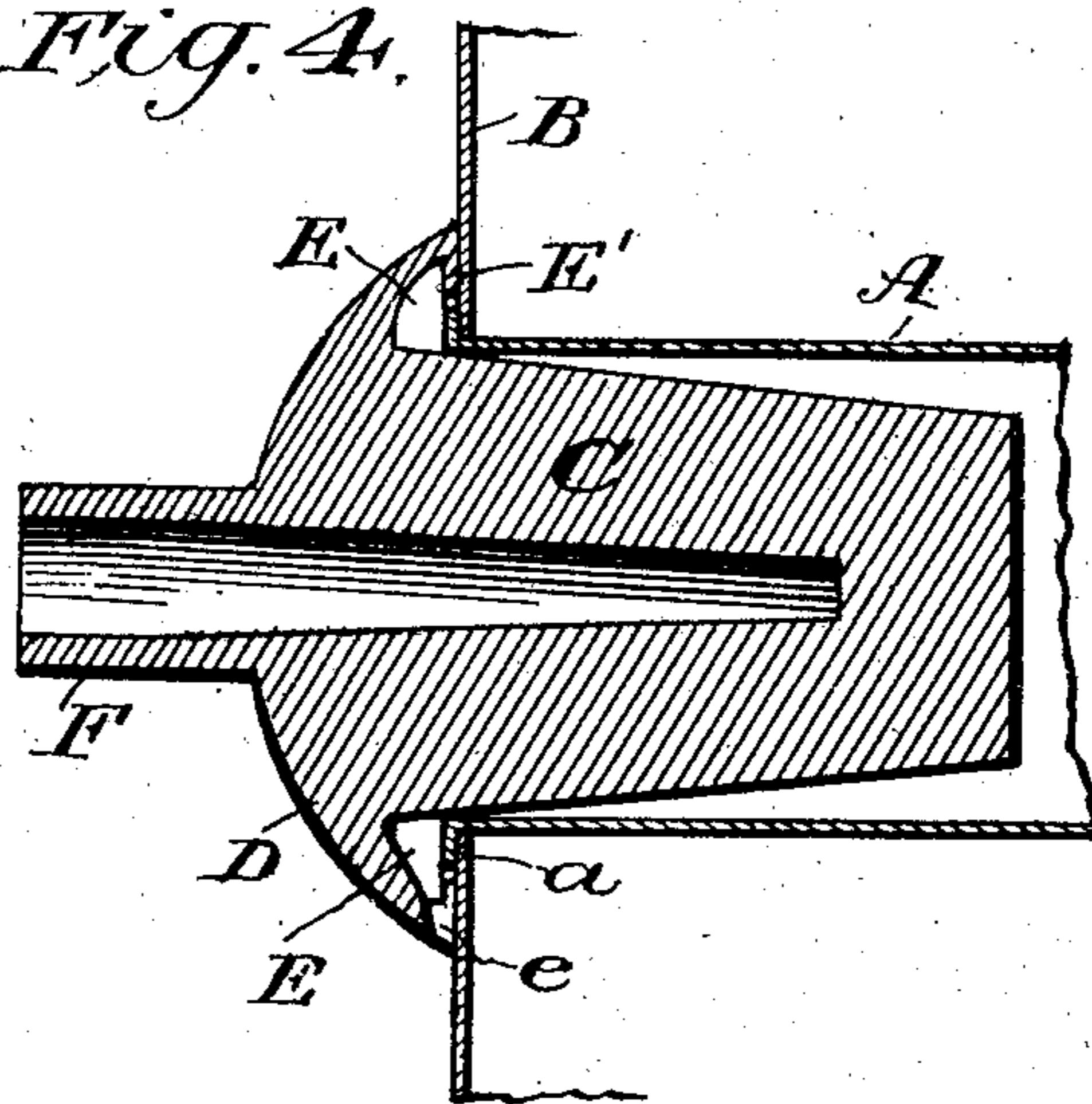


Fig. 4.



WITNESSES:

Jos. A. Ryan.
Perry B. Furber.

INVENTOR

Patrick J. Malloy.

BY *Munn & Co.*

ATTORNEYS

UNITED STATES PATENT OFFICE.

PATRICK J. MALLOY, OF SHREVEPORT, LOUISIANA, ASSIGNOR OF ONE-FOURTH TO JOHN McWILLIAMS FORD, OF SHREVEPORT, LOUISIANA.

FLUE-PLUG.

SPECIFICATION forming part of Letters Patent No. 791,351, dated May 30, 1905.

Application filed March 11, 1905. Serial No. 249,664.

To all whom it may concern:

Be it known that I, PATRICK J. MALLOY, a citizen of the United States, and a resident of Shreveport, in the parish of Caddo and State of Louisiana, have invented a new and useful Improvement in Flue-Plugs, of which the following is a specification.

My invention is an improvement in flue-plugs, and has for an object to provide a plug for closing a flue when desired and having means for covering the end of the flue so in case of bad leaks it will cover the entire bead of the flue and if the plug leaks the water will be turned downward along the flue-sheet instead of spraying out over the fire; and the invention consists in certain novel constructions and combinations of parts, as will be hereinafter described and claimed.

In the drawings, Figure 1 is an end elevation of my improved plug. Fig. 2 is a side view thereof in place in a flue-sheet. Fig. 3 is a view of the opposite end of the plug from that shown in Fig. 1, and Fig. 4 is a sectional view of the plug in place in a flue.

The flue A is applied to the sheet B with a flanged end or bead *a* upon the outer side of the flue-sheet. The plug has the tapered body portion C to fit in the flue and which may be driven firmly into place, the face-plate D to fit against the flue and provided in its inner face with a groove E, receiving the bead *a*, and having at its lower side an outlet or nozzle *e*, opening alongside the flue-sheet B at the bottom of the plug, and at its outer end the plug has a socket F to receive the end of an extension-rod or plugging-bar by which the plug may be inserted in the end of a leaky flue through the furnace-door. The body of the plug is tapered or bell-shaped, so it can be forced firmly into position and will fit different-sized flues within a reasonable range. It will also be noticed that the outlet or nozzle at *e* from the annular groove E discharges close to the flue-sheet instead of spraying over the fire.

In practice the tapered body of the plug is driven tightly into the end of the flue, the flange or face-plate D coming firmly into contact with the flue-sheet over the bead and

forming a joint against the flue-sheet, the plug being so placed that the outlet or nozzle *e* is at the bottom, so that any leakage not stopped by the action of the tapered plug will pass into the groove E and be discharged against the flue-sheet.

The plug when applied to one flue will not interfere with any of the other flues, can be easily inserted with a flue-bar, presents but little metal outside of the flue-sheet to get red-hot and burn off or to cause much expansion of the flue-sheet, and can be used in any kind of boilers without danger to the boiler.

As best shown in Fig. 4, the groove E is undercut, forming an inwardly-projecting flange E', which overhangs the groove E and forms a gutter or trough leading to the outlet *e*, as will be understood from the drawings.

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

1. The combination with a flue-sheet and a flue therein and flanged or beaded outside the flue-sheet, of a flue-plug having a tapered body portion driven into the end of the flue, a face-plate or flange overlapping the flue-sheet surrounding the beaded end of the flue and grooved in its inner face to fit over the bead and to form a channel for leakage and having a discharge outlet or nozzle, the plug being provided in its outer end with a socket for a flue-bar in applying the plug substantially as set forth.

2. A flue-plug comprising the body adapted to be driven in a flue and a face-plate or flange at the outer end of the body portion and having an undercut groove in its inner face to form a channel for leakage, substantially as set forth.

3. A flue-plug having a face-plate or flange provided in its inner face with a channel for leakage and having a discharge outlet or nozzle leading therefrom, substantially as set forth.

4. A flue-plug socketed in its outer end for a flue-bar, having a tapered body to be driven into a flue and provided with a face-plate or flange grooved in its inner face to form a channel for leakage and having an outlet or

nozzle leading from said channel, substantially as set forth.

- 5 5. A flue-plug having a body portion to be driven into a flue and provided with a face-plate grooved in its inner face and having said groove undercut providing an inwardly-projecting flange forming a gutter or trough ex-

tending around the face-plate and an outlet to which said gutter discharges, substantially as set forth.

PATRICK J. MALLOY.

Witnesses:

J. C. PUGH,

J. K. WALKER.