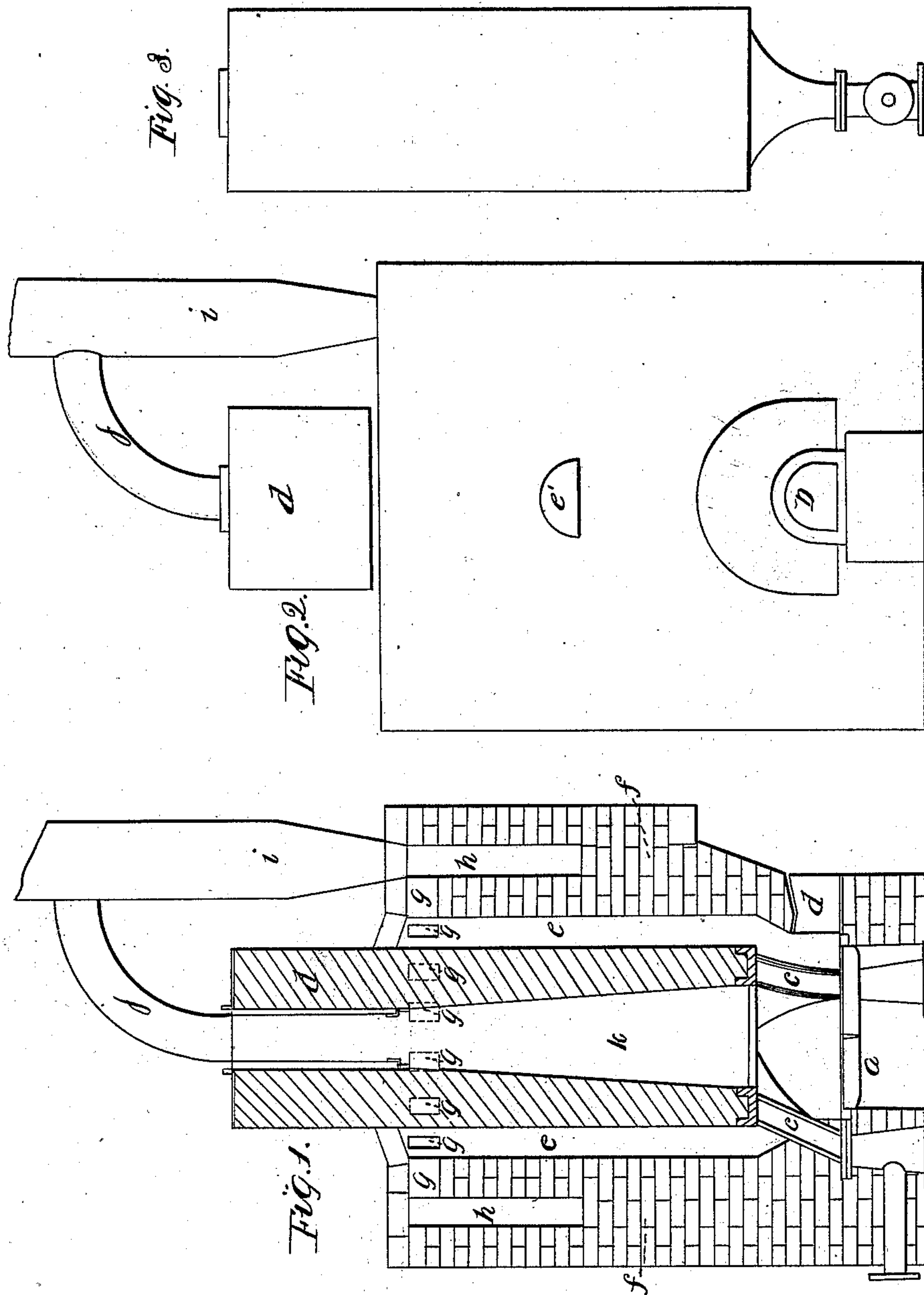


*D. H. Fowler,*  
*Steam-Boiler Furnace,*  
*No. 15803,* *Patented Sep. 30, 1856.*



# UNITED STATES PATENT OFFICE.

DAVID H. FOWLER, OF NEW ORLEANS, LOUISIANA.

## STEAM-BOILER.

Specification of Letters Patent No. 15,803, dated September 30, 1856.

*To all whom it may concern:*

Be it known that I, DAVID H. FOWLER, of the city of New Orleans, parish of Orleans, State of Louisiana, have made certain new and useful Improvements in the Construction and Setting of Vertical Steam-Boilers; and I hereby declare the following is a full and exact description thereof, references being had to the accompanying drawings and the letters of references marked thereon, making a part of this specification, the same letters used in designating the same parts in the respective views.

Figure 1 sectional side elevation showing the interior and exterior view of the boiler also the mode of constructing the brick work required in the setting the boiler; showing the furnace situated below the lower head of the boiler, and to said lower head, branches are connected, making the support for the boiler, to stand on said branches made tubular to admit the supply of water to the boiler, and also the sediment to be discharged therefrom; from the use of valves or cocks, arranged and attached to said legs, or tubes as usually made use of for this purpose; the brick work that incloses the boiler arranged to have an open space between said brickwork and the boiler as far as the water level within the boiler, or as much below that level as the heat may be desired to act on the surface of the boiler; the distance the brickwork should be placed from the boiler depending on the other circumstances, draft of the chimney, &c., but from four to six inches, for a boiler having a chimney of medium power, there being a flue constructed, also in said brick work, connecting with the chimney this flue extending the full circumference of the boiler and openings constructed between said flue, and the open space, made between the boiler, and the brickwork, to admit the heated gas that has ascended, and acted on the outer shell of the boiler, to pass to the chimney. These open spaces made numerous, to secure a

uniform action of the heat on said outside shell of the boiler; the internal flue admitting a portion of the heat to pass through the interior of the boiler, and connecting with the chimney by a tube, as seen by Fig. 2, within said interior flue, there is a circular flange making a seat for the tube to set below the water level in the boiler, to shield the flue, and the steam from becoming overheated. The top head of the boiler made to receive a flue similar to ordinary flued boilers.

In Fig. 1 (a) the grate bars of the furnace—(b) the furnace mouth—(c, c)—legs attached to the lower head of the boiler—(l) open space between the boiler and the brickwork—(h, h) the circular flue attached to the chimney—(i)—(g, g) open spaces, connecting the open space (e) to the flue (h, h). The boiler (d) having the flue, with tube (j) seated on ring—(f f) the general view of the brickwork.

Fig. 2 showing the general arrangement of the boiler as when set—(d) the boiler—(i) the chimney—(j) the tube connecting the chimney (i) to the flue of the boiler (d)—(l') open spaces to cleanse the ashes from out of the flue (h, h)—(b) the furnace mouth.

Fig. 3 side elevation of boiler showing only one leg, giving the form of said leg with the connection to the boiler head. I make use of three legs for the boiler to stand on but do not confine myself to any definite number.

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

The arrangement of the central and exterior flues, with the open space e e, and apertures g g, substantially as and for the purposes hereinbefore set forth.

DAVID H. FOWLER.

Signed in the presence of—

FRANCIS ARMSTRONG,  
NATHL. W. FOWLER.