

(No Model.)

G. PLAYFORD.
BOILER FURNACE.

No. 542,493.

Patented July 9, 1895.

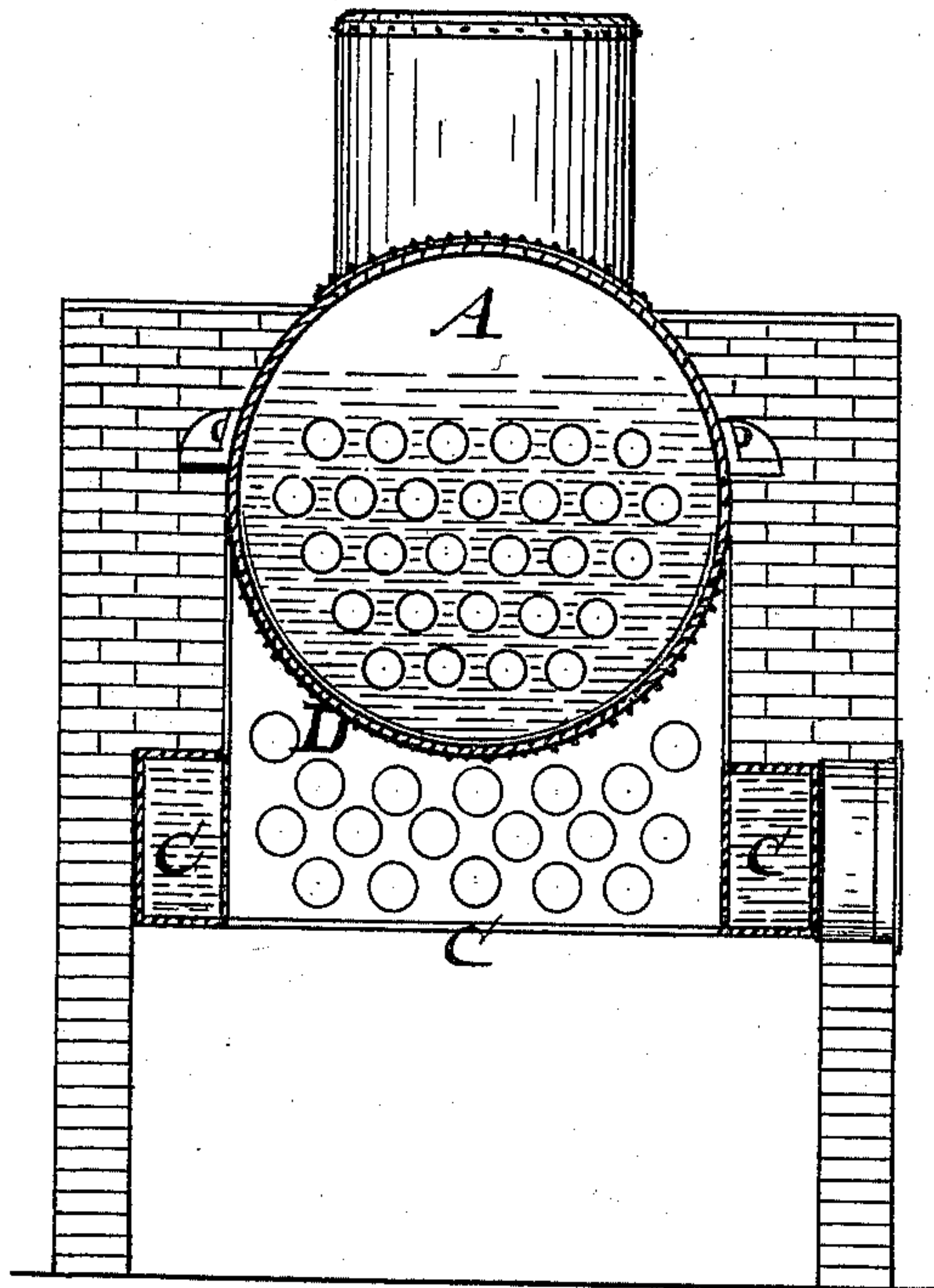


Fig. 2.

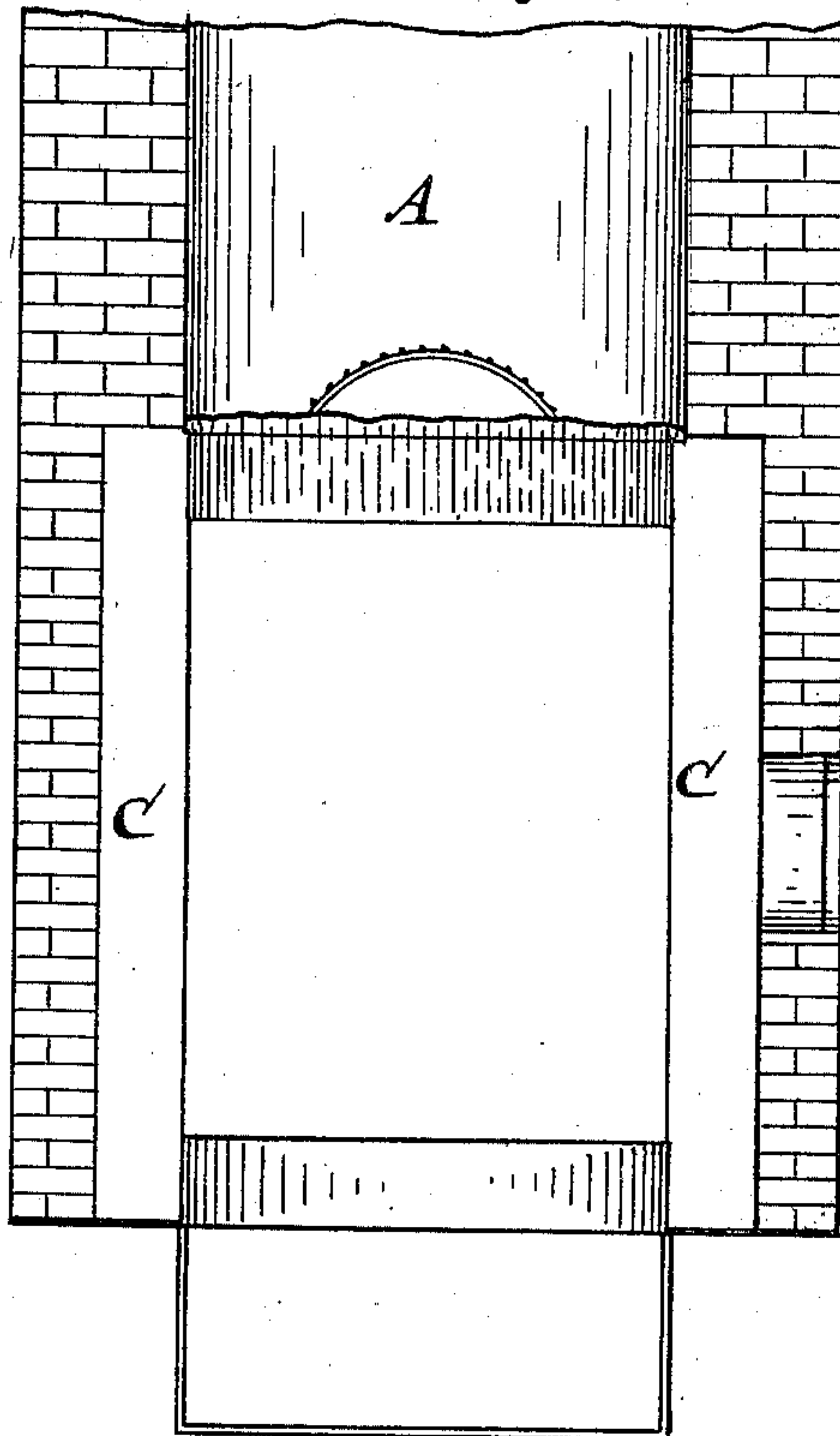


Fig. 3.

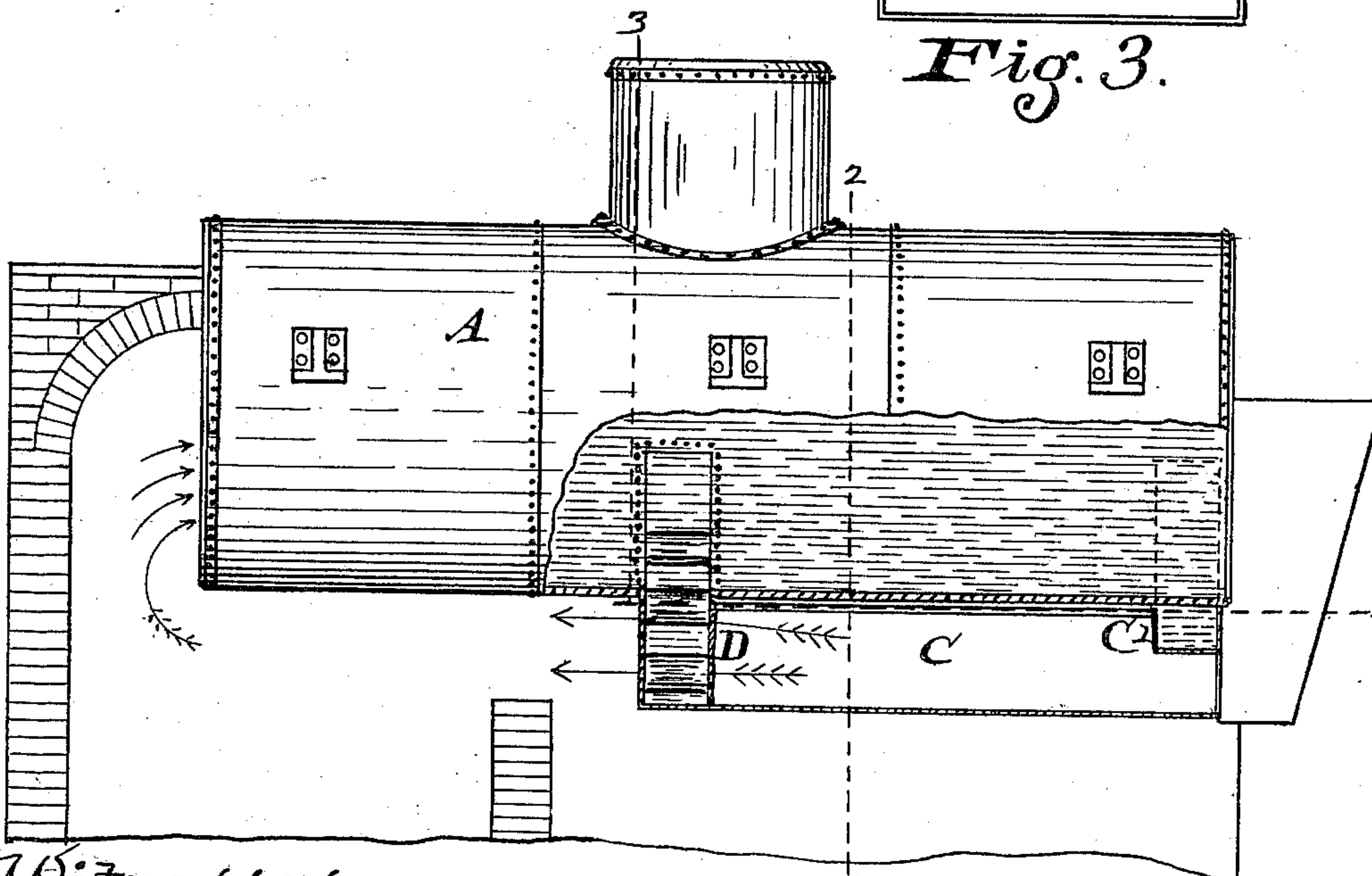


Fig. 1.

Witnesses,

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UNITED STATES PATENT OFFICE.

GEORGE PLAYFORD, OF CLEVELAND, OHIO, ASSIGNOR, BY MESNE ASSIGNMENTS, TO THE PLAYFORD STOKER COMPANY, OF SAME PLACE.

BOILER-FURNACE.

SPECIFICATION forming part of Letters Patent No. 542,493, dated July 9, 1895.

Application filed October 1, 1894. Serial No. 524,697. (No model.)

To all whom it may concern:

Be it known that I, GEORGE PLAYFORD, a citizen of the United States, and a resident of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Boiler-Furnaces, of which the following is a specification.

This invention relates to furnaces of steam-boilers; and it consists in certain new features of construction and combinations, substantially as hereinafter described, and pointed out in the claim.

In the accompanying drawings, Figure 1 is a side elevation of a boiler and furnace embodying my improvements. Fig. 2 is a cross-section of the boiler and furnace on line 2 2 of Fig. 1. Fig. 3 is a horizontal section of the furnace on line 3 3 of Fig. 1.

A is a steam-boiler, which may be of any of the well-known patterns and supported in the usual manner.

B is a bridge-wall at the back of the fire-place.

C is a double-wall fire-box, the space between the walls being used as a water-space, and this water-space is only in communication with the interior of the boiler at the rear end of said box, as shown in section, Fig. 1. The tops of the sheets forming the rear end wall of said box are curved to fit the bottom of the boiler at the front and rear sides of a hole cut in the bottom of the boiler, of the same dimensions as the said space between the rear end walls of the box. Said sheets are firmly riveted to the boiler.

The double end wall of the front end of the

fire-box is not in open communication with the boiler interior, although its upper edge is curved to fit the bottom of the boiler.

The sides of the fire-box are low, their highest point or top line being only on a level with the bottom of the boiler, as clearly shown in Figs. 1 and 2. The front ends of the side walls are connected with the front wall for a short distance from their top, (seen at C', Fig. 1,) sufficient for a circulation of water therein. The space thus made below the front end wall and between the ends of the side walls is designed for the passage of fuel into the fire-box, as this fire-box is specially intended to be used in connection with a traveling grate, and the fire-box is made bottomless for that purpose. In the rear end wall are also provided flues D, through which the products of combustion pass toward the rear end of the boiler.

Having described my invention, what I claim is—

The combination with a steam boiler of the double wall fire-box C consisting of the double rear end wall, curved in its upper side to fit the bottom of the boiler, the sheets forming said wall riveted to the boiler on each side of an opening in the bottom of the boiler, the low side walls connecting the said end wall with the front end wall, and flues D through the rear end walls, constructed and operating as specified.

GEORGE PLAYFORD.

Witnesses:

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