No. 803,581. PATENTED NOV. 7, 1905.

E. G. GERMER.

FURNACE.

APPLICATION FILED FEB. 11, 1904.

Fig. 1.

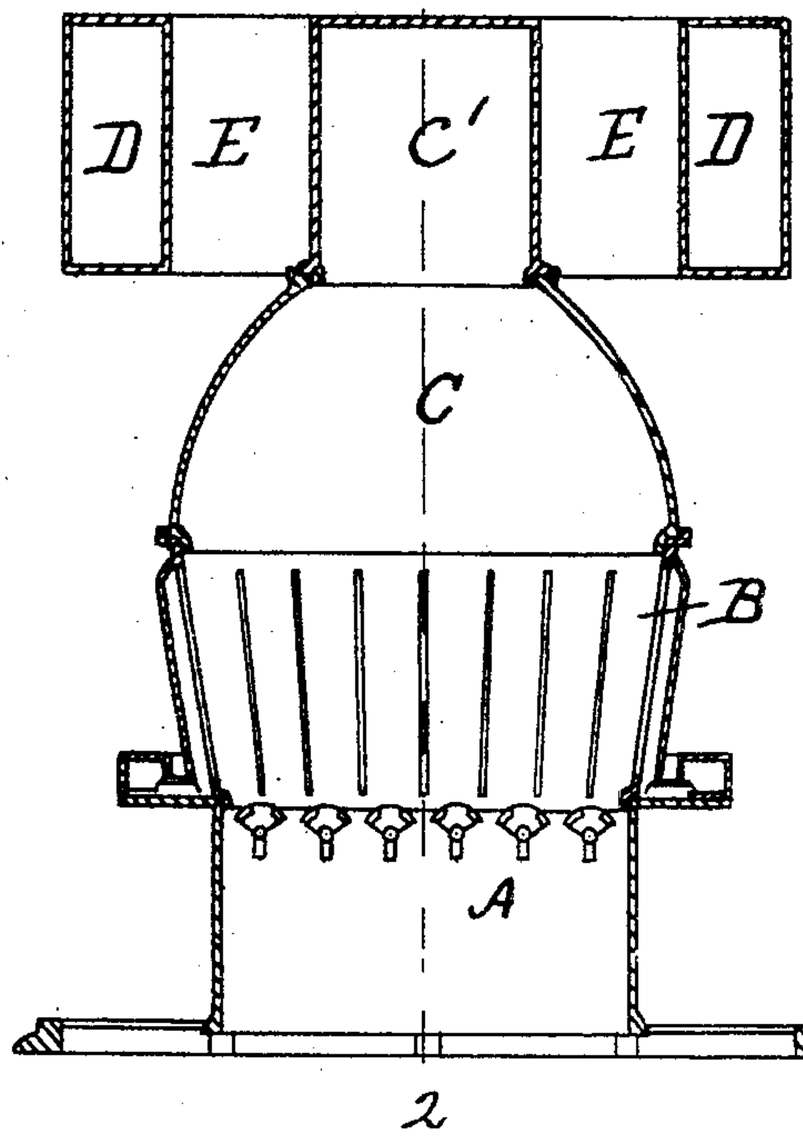


Fig. 2.

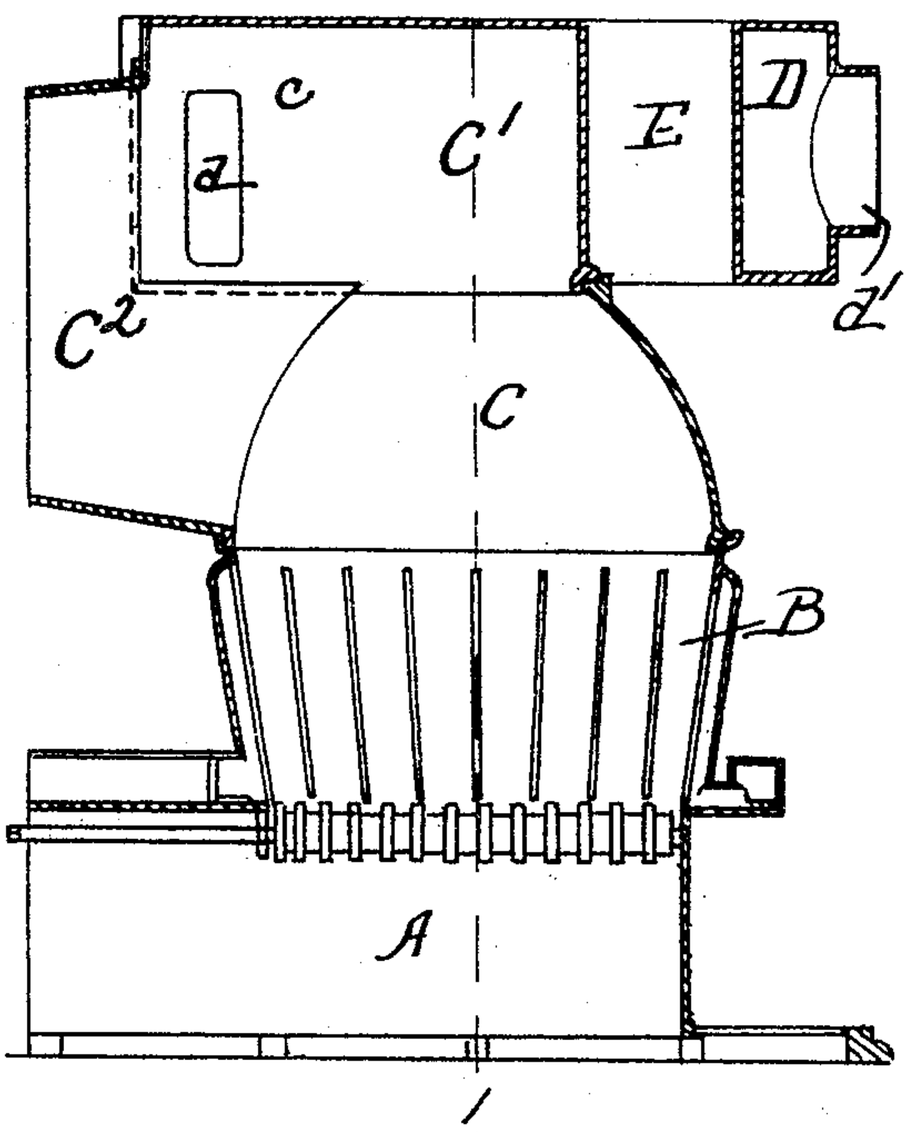


Fig. 3.

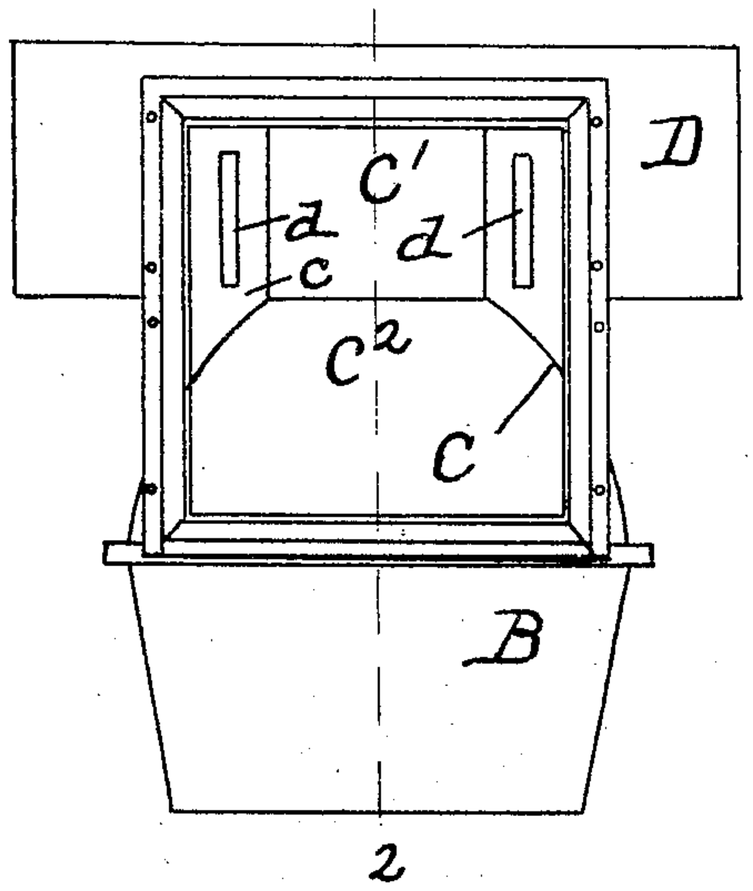
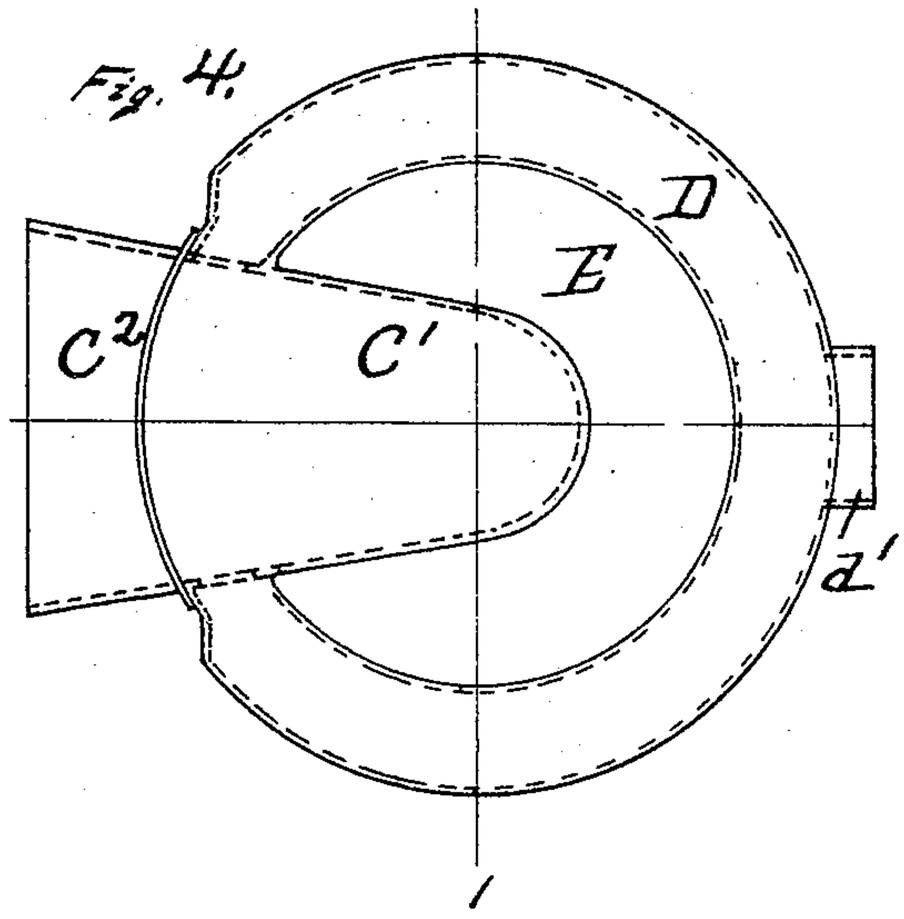


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

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FURNACE.

No. 803,581. Specification of Letters Patent. Patented Nov. 7, 1905.

Application filed February 11, 1904. Serial No. 193,151.

To all whom it may concern:

Be it known that I, EDWARD G. GERMER, a citizen of the United States, residing at Erie, in the county of Erie and State of Pennsylvania, have invented new and useful Improvements in Furnaces, of which the following is a specification.

This invention relates to furnaces; and it consists in certain improvements in the construction thereof, as will be hereinafter fully described, and pointed out in the claim.

The invention is illustrated in the accompanying drawings, as follows:

Figure 1 shows a section on the line 1 1 in Figs. 2 and 4. Fig. 2 shows a section on the line 2 2 in Figs. 1 and 3. Fig. 3 shows a front elevation of the furnace, the ash-pit being removed; Fig. 4, a top view of the furnace.

A marks the ash-pit; B, the fire-pot; C, the dome. The upper part C′ of the dome is formed integrally with a radiator-ring D. The door-opening C^2 not only extends into the dome, but extends up into the gas-dome C′, which is formed with the radiator-ring, the dome C′ having the forward extension *c*, from which the openings *d* pass into the ring D. A space E is left between the ring D and gas-dome C′, through which the air circulates and is of course heated. By making the door-space C^2 extend up into the radiator the openings *d* into the radiator-ring are exposed at the door-space, so that the radiator may be formed without any additional doors, it being possible to clean the radiator through the opening *d* and pipe-opening *d*′. It also permits of the integral form of radiator with the gas-dome, thus reducing the joints, and the general construction increases the radiating-surface, so that great efficiency is attained.

What I claim as new is—

In a furnace, the combination of a fire-box B; a dome C arranged on the fire-box and forming the combustion-chamber, said dome contracting toward its upper end; the gas-dome C′ arranged on the dome C, said gas-dome being smaller than the combustion-dome C; a radiator arranged around the gas-dome C′ with an air-space between the gas-dome and the body of the radiator, the body of the radiator being above the combustion-dome C, a door-passage extending laterally from the dome C and extending up into the radiator; and a passage *c* connecting the gas-dome with said door-passage, said door-passage *c* being connected through openings *d* at the sides of the passage with the radiator.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

EDWARD G. GERMER.

Witnesses:
H. C. LORD,
M. C. SULLIVAN.