

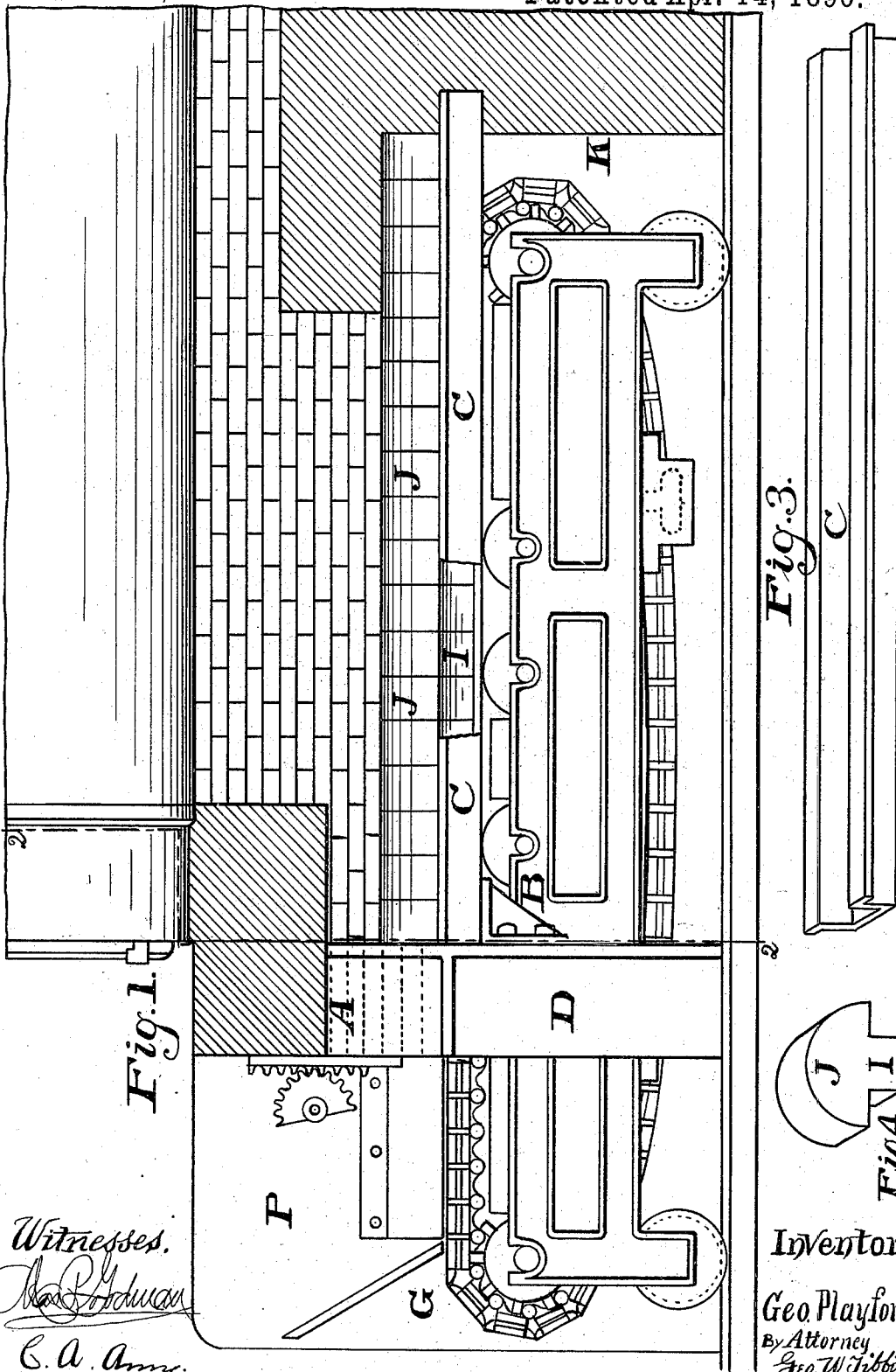
(No Model.)

2 Sheets—Sheet 1.

G. PLAYFORD.
FURNACE.

No. 558,206.

Patented Apr. 14, 1896.



Witnesses.
Geo. H. Adams
C. A. Amy.

Inventor,
Geo. Playford
By Attorney,
Geo. W. Tibbitts

(No Model.)

G. PLAYFORD.
FURNACE.

2 Sheets—Sheet 2.

No. 558,206.

Patented Apr. 14, 1896.

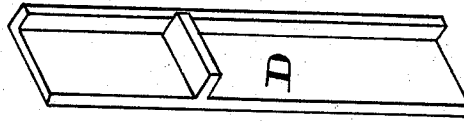


Fig. 5.

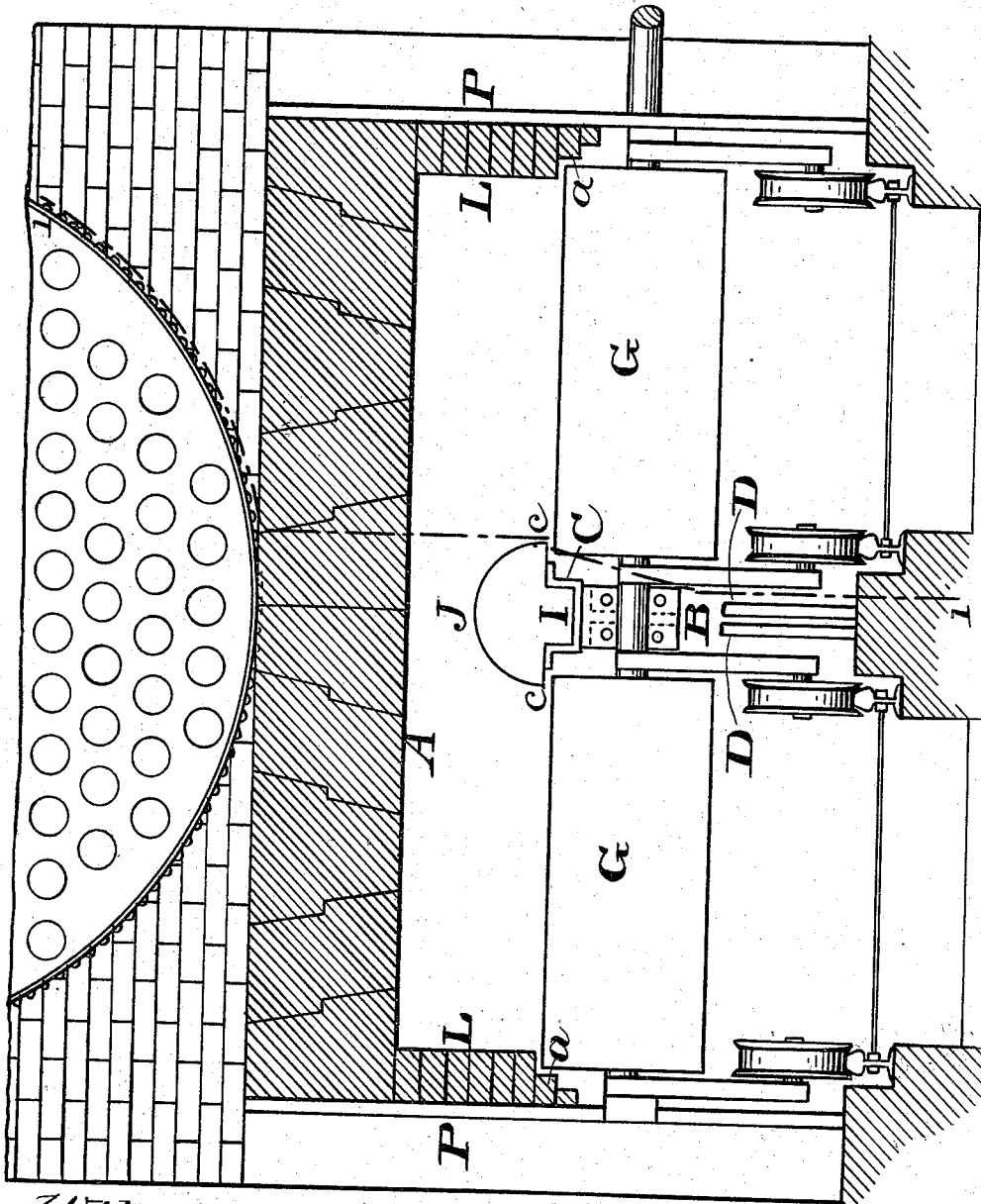


Fig. 2.

Witnesses,

N. S. Woodward
C. A. Amey

Inventor,

Geo. Playford
By Attorney *Geo. W. Fisk*

UNITED STATES PATENT OFFICE.

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

FURNACE.

SPECIFICATION forming part of Letters Patent No. 558,206, dated April 14, 1896.

Application filed September 7, 1895. Serial No. 561,796. (No model.)

To all whom it may concern:

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

This invention relates to furnaces for steam-boilers in which traveling grates are used; and the invention has for its object to provide protection at the intermediate point where two or more traveling grates are arranged side by side under boilers; and the invention consists in the combination, with the boiler-setting, of low horizontal bridge-partitions of fire-brick overlapping the ends of the grate-bars of two or more traveling grates, substantially as hereinafter described, and pointed out in the claim.

In the accompanying drawings, Figure 1 is a longitudinal section of a boiler-furnace on line 1 1 on Fig. 2, showing side of furnace and the traveling grate removed to show my improvement in place and its application to the purpose required. Fig. 2 is a vertical section of the furnace on line 2 2 on Fig. 1, showing front of furnace removed to show the position, location, and adaptation of my improvement. Fig. 3 is a detached view of a channel-iron (seen at I in place in Figs. 1 and 2) which supports curved-top fire-brick H. Fig. 4 is a detached view of one of the said fire-brick. Fig. 5 is a detached view of one of the intermediate posts which supports the front end of the said channel-iron.

P P represent two side plates at the front of the boiler-setting, each having a shelf or ledge *aa*. A is an arch of fire-brick reaching across from said side plates and forming the top of the opening to the furnace. The front part of the arch is located between said side plates P P, the rear part supporting an inverted

arch of brick, in which the front end of the boiler is supported.

L L are linings of fire-brick extending to the rear of the furnace and arranged to overlie the ends of the grate-bars to protect them from the heat and prevent the fall of fuel or fire over the sides of the grates.

Two endless traveling grates G G are shown in Fig. 2, and between them is provided a middle partition, as follows: D D are T-shaped posts standing midway between the side plates P P and the two grate-carriages G G. B is a bracket bolted to the rear side of the posts D D. K is a bridge-wall at the rear of the fireplace. C is a channel-beam supported on the bracket B and in the bridge-wall K. J J are fire-brick made in the form of a half-disk with a square projection I on the middle of the straight side. These brick are supported by the channel-beam C by inserting the said square projections in the channel, the points *c c* of the brick forming overhanging margins extending beyond the flanges of the channel-beam and overlying the ends of the grate-bars, thus forming a protection to the adjacent sides of the two traveling grates, yet allowing the flames from the two grates to intermingle over and above them.

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

The combination in a boiler-furnace of two or more endless traveling grates, of the posts D D, channel-beam C, supported by said posts and the bridge-wall K, and the round-top bricks J J supported in said channel-beam, as a protection for the adjacent grates, substantially as described.

GEORGE PLAYFORD.

Witnesses:

GEO. W. TIBBITTS,
W. W. MADISON.