

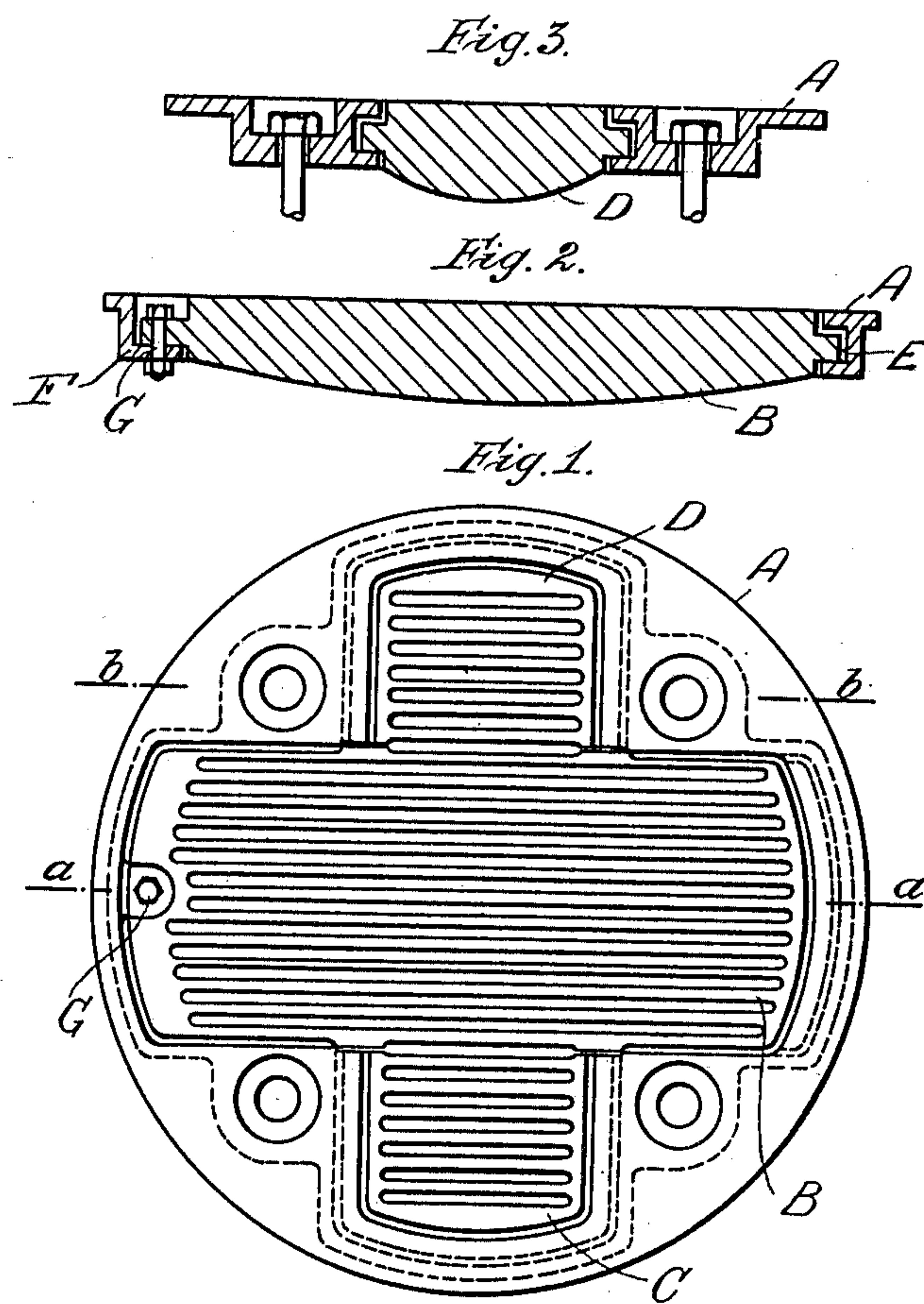
E. HALL-BROWN.

FIRE GRATE.

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980,247.

Patented Jan. 3, 1911.



Witnesses:
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UNITED STATES PATENT OFFICE.

EBENEZER HALL-BROWN, OF KELVINSIDE, GLASGOW, SCOTLAND.

FIRE-GRATE.

980,247.

Specification of Letters Patent.

Patented Jan. 3, 1911.

Application filed November 12, 1910. Serial No. 591,968.

To all whom it may concern:

Be it known that I, EBENEZER HALL-BROWN, a subject of the King of the United Kingdom of Great Britain and Ireland, and
5 residing at Kelvinside, Glasgow, Scotland, have invented a certain new and useful Improvement in Fire-Grates, of which the following is a specification.

The invention has for its object to provide a simple construction of removable
10 grate particularly applicable to gas producers of the rising-grate type. When coal bituminous in any degree is used in producers of this type, the grate members, if
15 arranged loosely in the grate casing, are apt during the descent of the same to become dislodged owing to the clinkering of the fuel and the adherence of the clinker to the grate members. This drawback is avoided
20 by the invention which is illustrated in the accompanying drawings in which—

Figure 1 is a plan of the grate and Figs. 2 and 3 are sections on the lines *a—*a**, and *b—*b**, respectively, Fig. 1.

25 Referring to the drawings, the fire grate comprises a casing A having a central cruciform aperture within which are fitted the three grate members proper B, C, and D. The central member B extends longitudinally across the casing A while the members C and D extend laterally thereof. Each
30 of the members C and D is of a length not exceeding the width of the central member B. The members C and D and the parts of the casing which they fit are formed with counterpart grooves and tongues. These members C and D are slid laterally into position
35 and withdrawn in a similar manner when required. When in position, they are held

there by the central member B the sides of which abut their ends. 40

The central member B engages at one end a recess E in the grate casing A, or may be recessed to be engaged by a tongue on the casing, and at the other end rests upon a
45 projection or sill F on the casing A upon which projection it is secured by a bolt G or other suitable means. Thus, upon removal of the bolt G, the central member B may be raised at one end, withdrawn from
50 its recess E at the other end and removed, after which the side members C and D may be slid laterally toward the center of the grate casing and also removed.

A fire grate constructed as above described
55 permits the several parts to be readily removed for renewal or repair and to be properly secured in position.

Having now described my invention what I claim and desire to secure by Letters Patent
60 of the United States is:—

The combination with a grate casing having a cruciform aperture, of grate members proper adapted to be fitted in the said aperture, said members including a central member
65 removably secured to the casing, and side members held in place by the said central member, said side members being slidable laterally, for removal, on removal of the said central member, substantially as
70 described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

EBENEZER HALL-BROWN.

Witnesses:

WALLACE CRANSTON FAIRWEATHER,
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