

(No Model.)

J. BARTLE.

DOOR OF GAS RETORTS.

No. 314,780.

Patented Mar. 31, 1885.

Fig. 1.

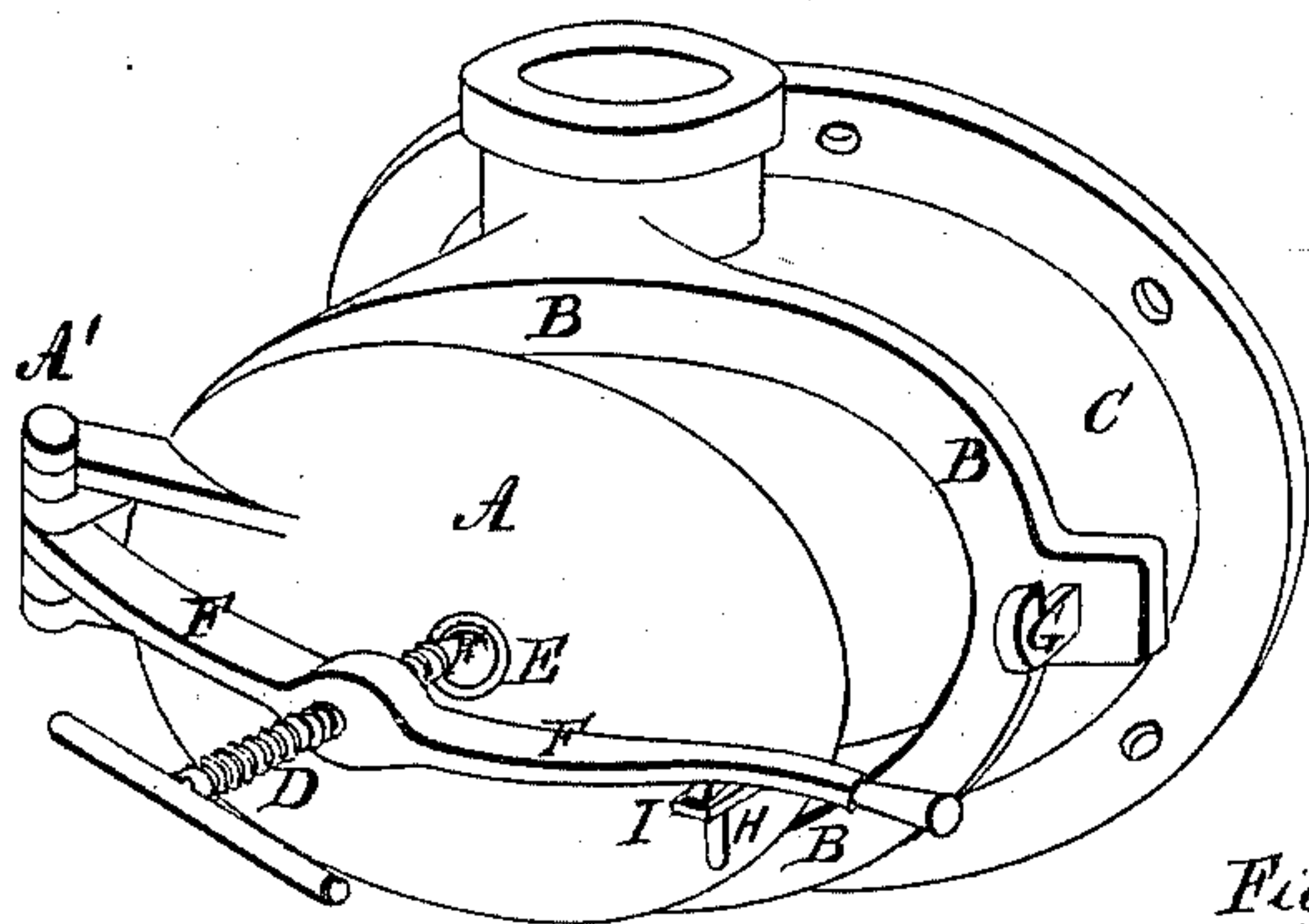


Fig. 3.

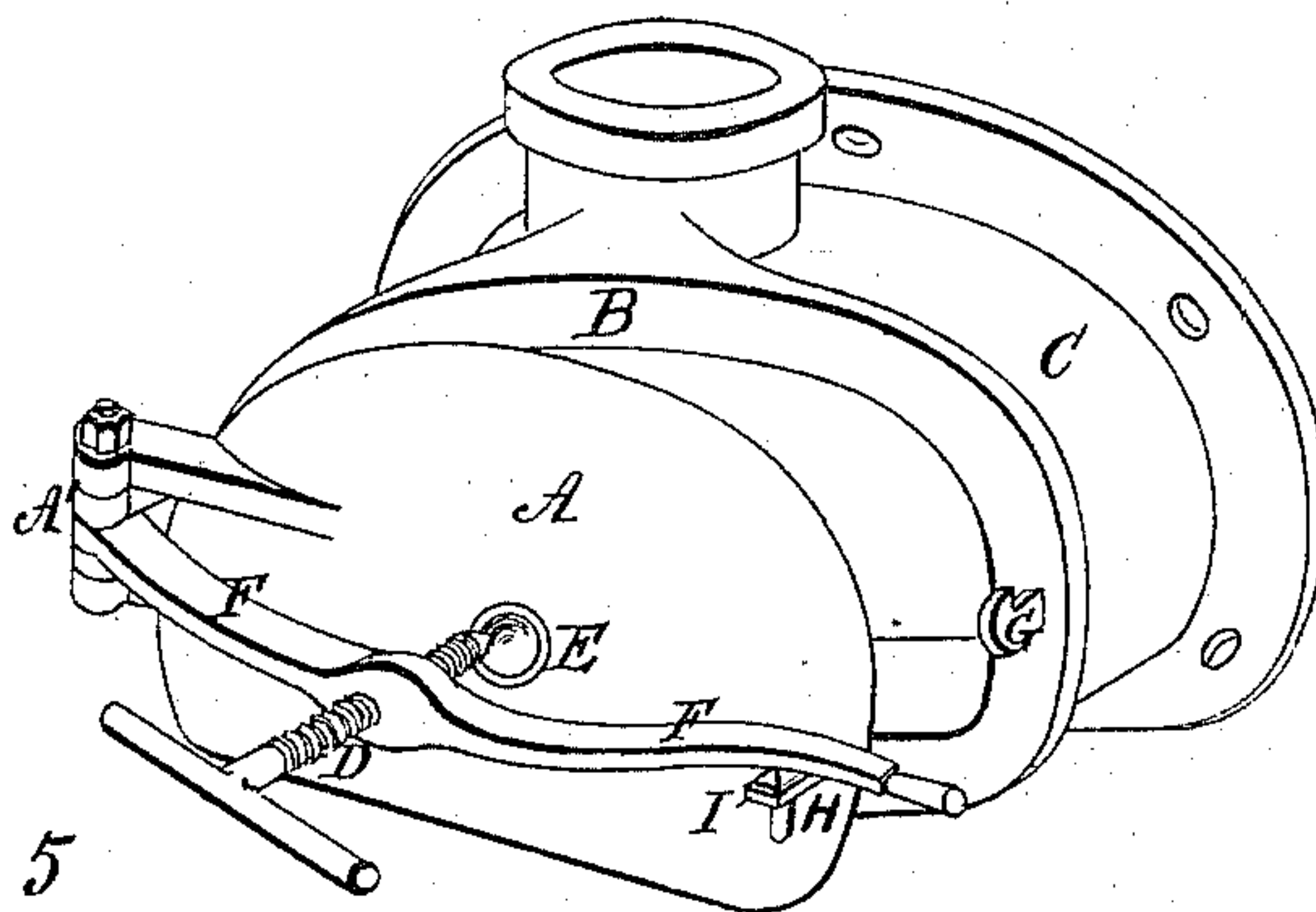


Fig. 5.

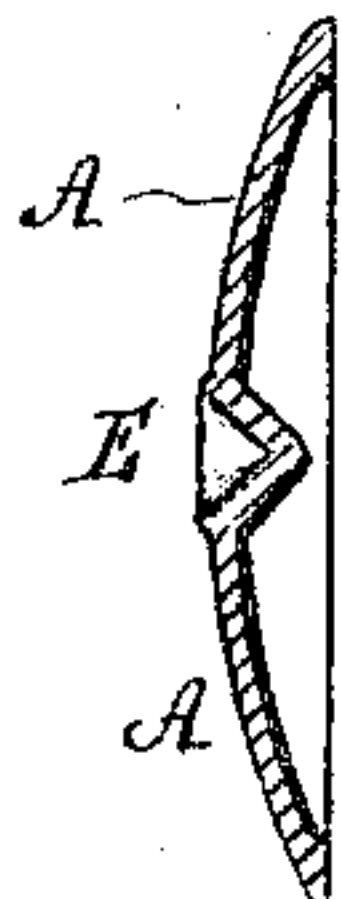


Fig. 2.

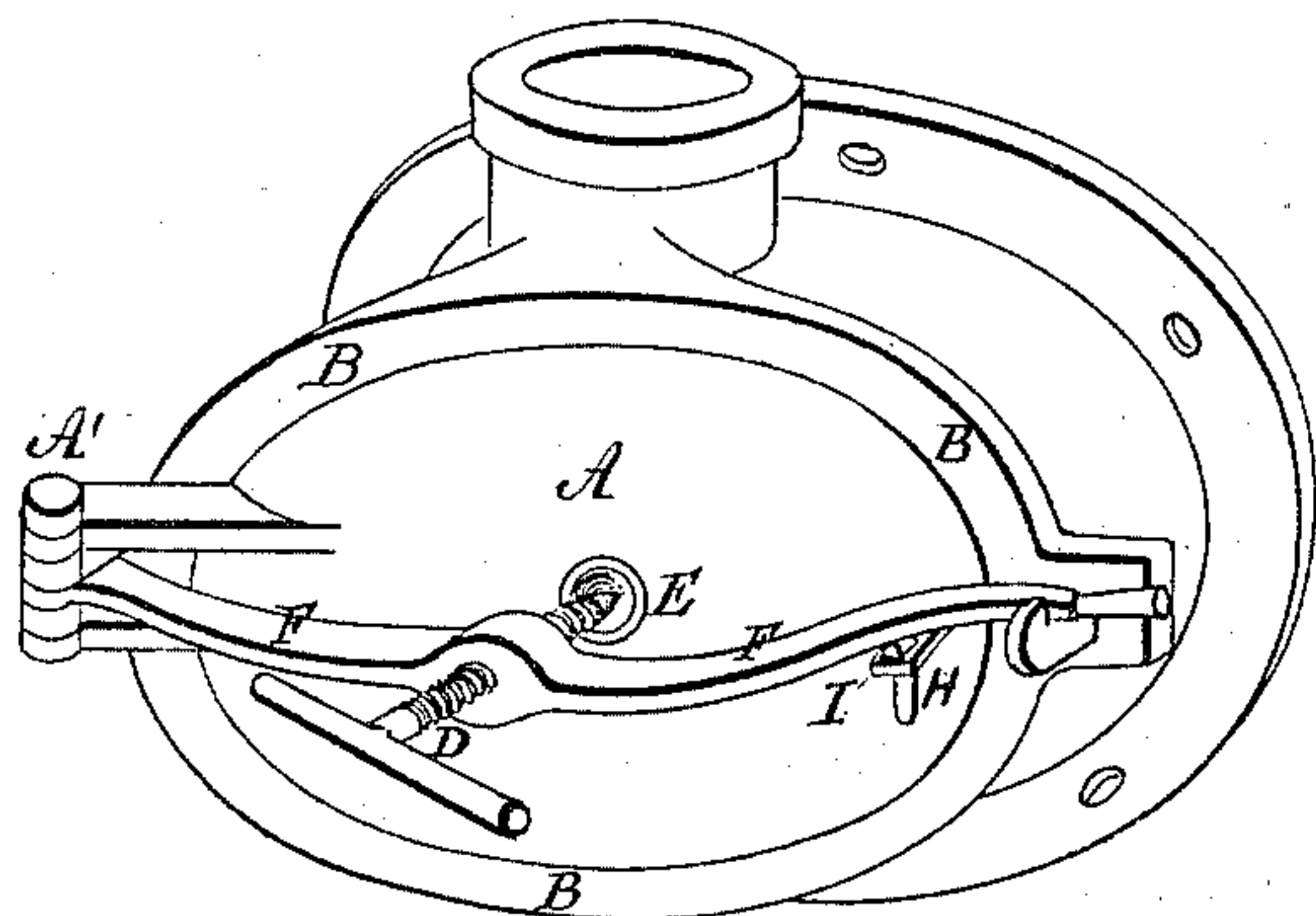
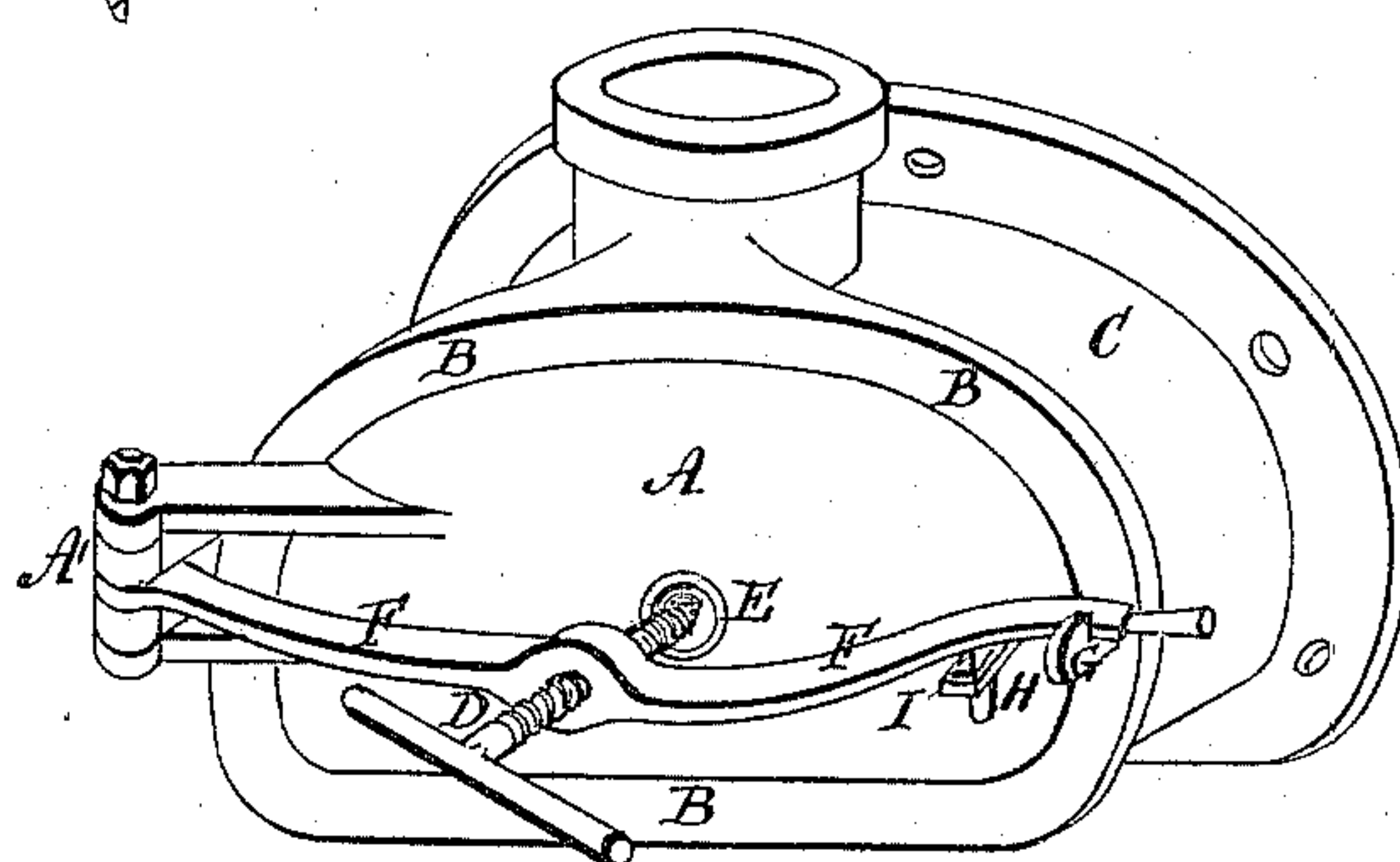


Fig. 4.



Witnesses.

Jo. L. Coombs
Robert Everett

Inventor.

James Bartle.

By James L. Norris.
Atty.

UNITED STATES PATENT OFFICE.

JAMES BARTLE, OF NOTTING-HILL, COUNTY OF MIDDLESEX, ENGLAND.

DOOR OF GAS-RETORTS.

SPECIFICATION forming part of Letters Patent No. 314,780, dated March 31, 1885.

Application filed August 30, 1884. (No model.) Patented in England July 30, 1883, No. 3,723.

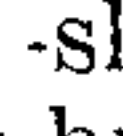
To all whom it may concern:

Be it known that I, JAMES BARTLE, a subject of the Queen of Great Britain, residing in Notting-Hill, Middlesex, England, have invented a certain new and useful Improvement Connected with Doors of Gas-Retorts, of which the following is a specification.

The object of this invention is to so fit or arrange a door of a gas-retort that a sliding rising action be given to it while being tightened up by the screw, and also that a sliding falling action be given to it to release it from contact with the face of the barrel, whereby the door is dislodged from the tar in an easy manner when being released for opening, and insures a close fit without the usual luting.

For the purpose of my invention (which I show on two ordinary-shaped mouths of retorts at Figs. 1, 2, 3, and 4 of the annexed drawings) I arrange the door A with the hinge-bolt hole of somewhat an oval shape, to give freedom for the door A to drop while being released from actual contact with the face B of the barrel or mouth C when the back action of the screw D takes place. I make the central aperture or recess, E, in which the point of the tightening-screw D works, of conical shape, as clearly shown by the section, Fig. 5, the apex of the conical hole being the true center of the door A, and when the door is closed to by the cross-bar F and held in that position the point of the tightening-screw is caused to enter the aperture or recess E, and as the screw D is turned the door A gradually rises by reason of the conical shape of the aperture E, while at the same time it—i. e., the door—is being put gradually into closer

contact by a sliding lifting action until the opening of the barrel C is completely sealed. The same action, in the reverse order, takes place to free the door A for opening purpose—that is to say, as the tightening-screw D is being turned back, the door A drops by its own weight from its hinge joint A', and so dislodges itself from the tar, which permits of a free opening by the hand-lever F after said lever is lifted over the catch G, the door A being then swung open by the pin H of the lever F riding in the slot of the lip-piece I, which is attached to or formed with the door A.

I have only shown an oval and a -shaped mouth of a gas-retort in the drawings; but my method of sealing the mouth by a sliding surface contact action, as before explained, can be adopted or arranged for all other shapes.

The novel feature in this invention, and what I claim, is—

In combination with the retort C, the door A, loosely hinged thereto, and having a central conical recess, E, and the lever F, also hinged to the retort and provided with a hand-screw, D, arranged to enter the said conical recess at or near its upper periphery, whereby the door will be given a sliding rising action when pressure is applied thereto by means of the hand-screw, substantially as described.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

JAMES BARTLE.

Witnesses:

RICHARD COXE GARDNER,
JAMES GEORGE NEWMAN,
Both of 166 Fleet Street, London, England.