

(No Model.)

J. HENDERSON.
RETORT LID.

No. 543,866.

Patented Aug. 6, 1895.

FIG. 3.

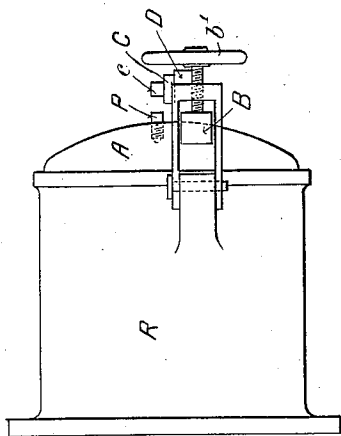


FIG. 4.

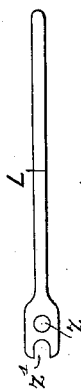


FIG. 2.

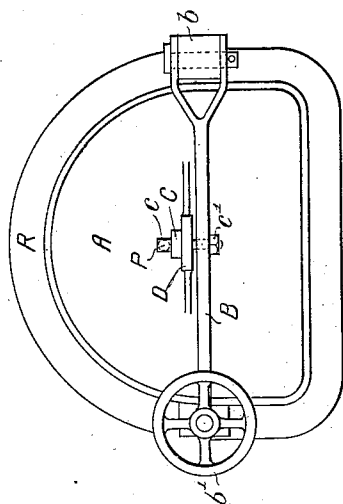
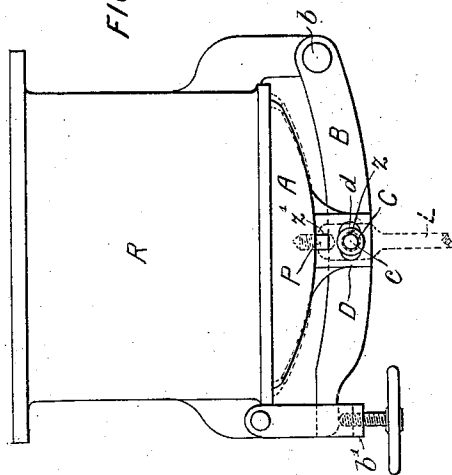


FIG. 1.



Witnesses.

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per

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UNITED STATES PATENT OFFICE.

JAMES HENDERSON, OF OSMASTON, ENGLAND.

RETORT-LID.

SPECIFICATION forming part of Letters Patent No. 543,866, dated August 6, 1895.

Application filed May 14, 1895. Serial No. 549,336. (No model.) Patented in England December 5, 1894, No. 23,362.

To all whom it may concern:

Be it known that I, JAMES HENDERSON, a subject of the Queen of Great Britain, residing at 2 Wilmot Terrace, Osmaston, in the county of Derby, England, have invented certain Improved Means for Insuring Tight Jointing of the Lids or Covers of Gas-Retorts and such Like Apparatus, (for which I have applied for a patent in Great Britain, No. 23,662, bearing date December 5, 1894,) of which the following is a specification.

My invention relates to gas-retorts and similar apparatus or vessels, and has for its object to provide means of insuring tight jointing for same while in use under pressure or otherwise and without interfering with their operation. This I effect by arranging the lid or cover in such manner as to be capable when securely fixed of a parallel rubbing motion in horizontal, vertical, or angular directions upon the mouthpiece or bearing-surface, whereby any foreign substance intervening between the two can be removed by attrition and a true and complete face-surface on both parts and hence a tight joint secured.

I will describe my invention in reference to the accompanying drawings, which illustrate its application to a gas-retort.

Figure 1 is a plan of the retort-mouthpiece and lid with my invention applied thereto. Fig. 2 is a front elevation of same. Fig. 3 is a side elevation of Fig. 2, and Fig. 4 a plan of the operating-tool.

R is the retort-mouthpiece, and A is the lid or cover thereto, which is opened, closed, and fixed by a cross-bar B, hinged at one end *b* and provided with a screw-fastening device, such as *b'*, or other suitable contrivance at the other end.

About the center of the cross-bar B a bolt C with projection *c* on head is transversely inserted—in this case vertically—which bolt

passes also through a slotted hole *d* in a bracket D, formed or fixed upon the lid A adjacent to same and is there fixed by a nut *c'*. Immediately behind the said bolt C a pin or projection P is formed or fixed on the lid, and a hand-operating lever L, Fig. 4, is provided, having a hole *z* and an end box or jaws *z'*, as illustrated in Fig. 4, the hole being adapted to fit upon the head of the said bolt C and the jaws upon the fixed projection P upon the lid or cover A, respectively.

By applying said lever and suitably operating same—that is to say, in this instance by moving it from side to side in horizontal planes—the lid A will be moved accordingly to and fro as required upon the face of the mouthpiece or bearing-surface to about the extent indicated by the dotted lines in Fig. 1, and this motion effects the required attrition of any intervening dust, grit, or material and secures a tight joint.

The appliance, though above described in reference to a gas-retort, is applicable to lids of all kinds when applied to their object with metal to metal or face-joints, and the parts may obviously be arranged so that the rubbing motion may take place in most convenient or required directions.

What I claim as my invention, and desire to secure by Letters Patent, is—

In combination, vessel R, its lid or cover A, having fixed bracket D with slotted bolt hole *d*, and fixed projection P, the bar B, with bolt C, all arranged substantially as shown and adapted to be operated by the lever L for the purpose set forth.

In witness whereof I have hereunto set my hand in presence of two witnesses.

JAMES HENDERSON.

Witnesses:

C. K. EDDOWES,
B. G. OLD.