

(No Model.)

J. DELL.

DEVICE FOR FASTENING MOUTH PIECES TO GAS RETORTS.

No. 275,162.

Patented Apr. 3, 1883.

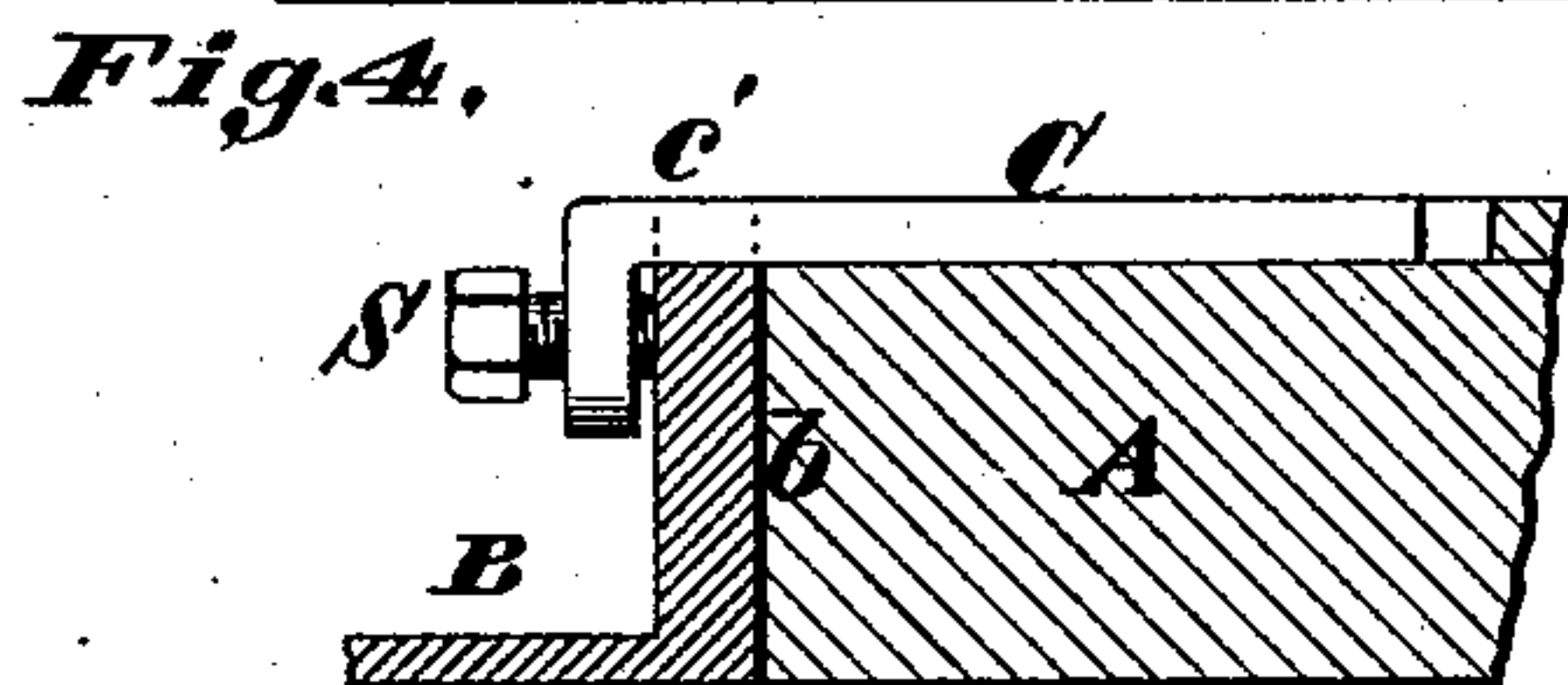
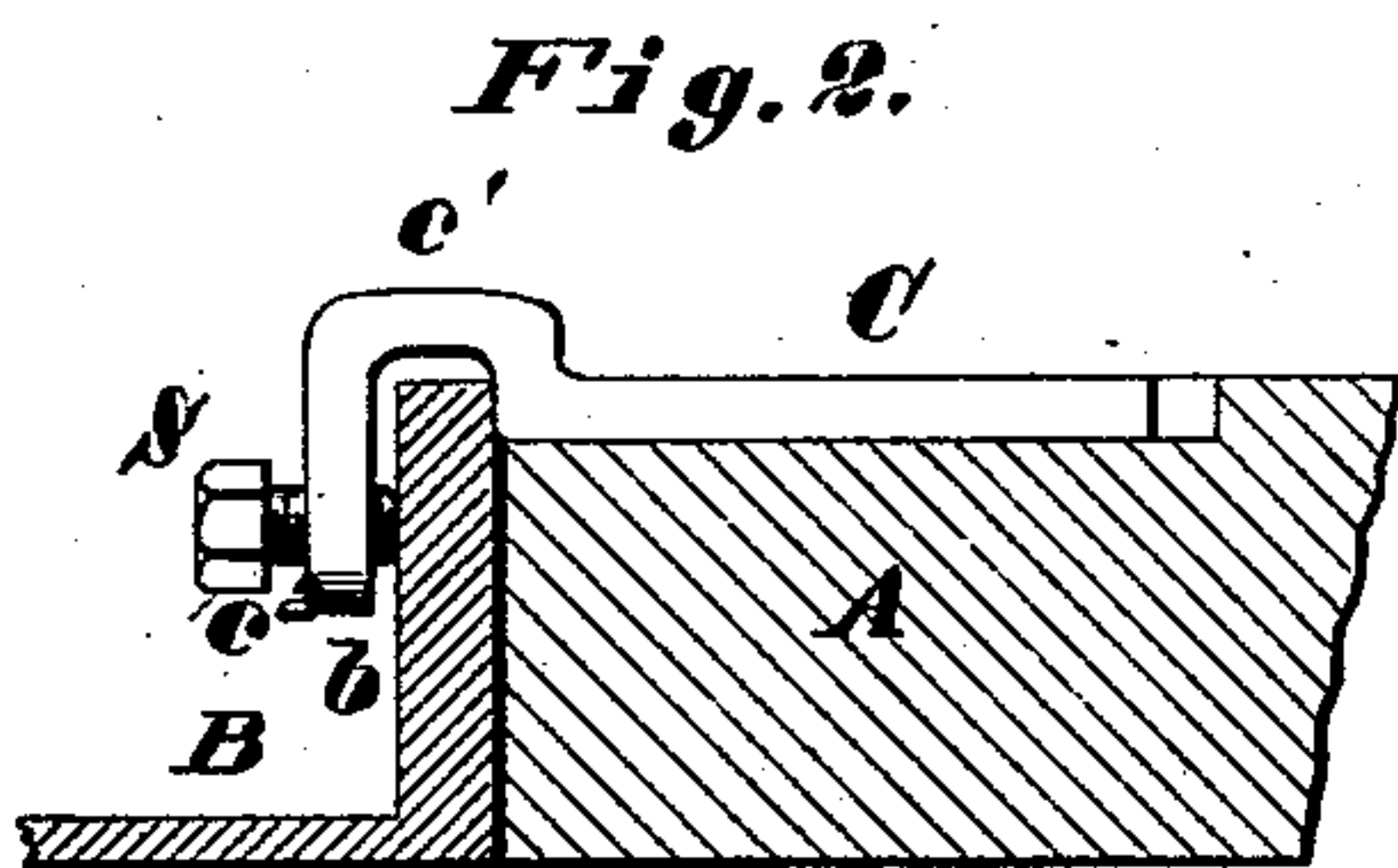
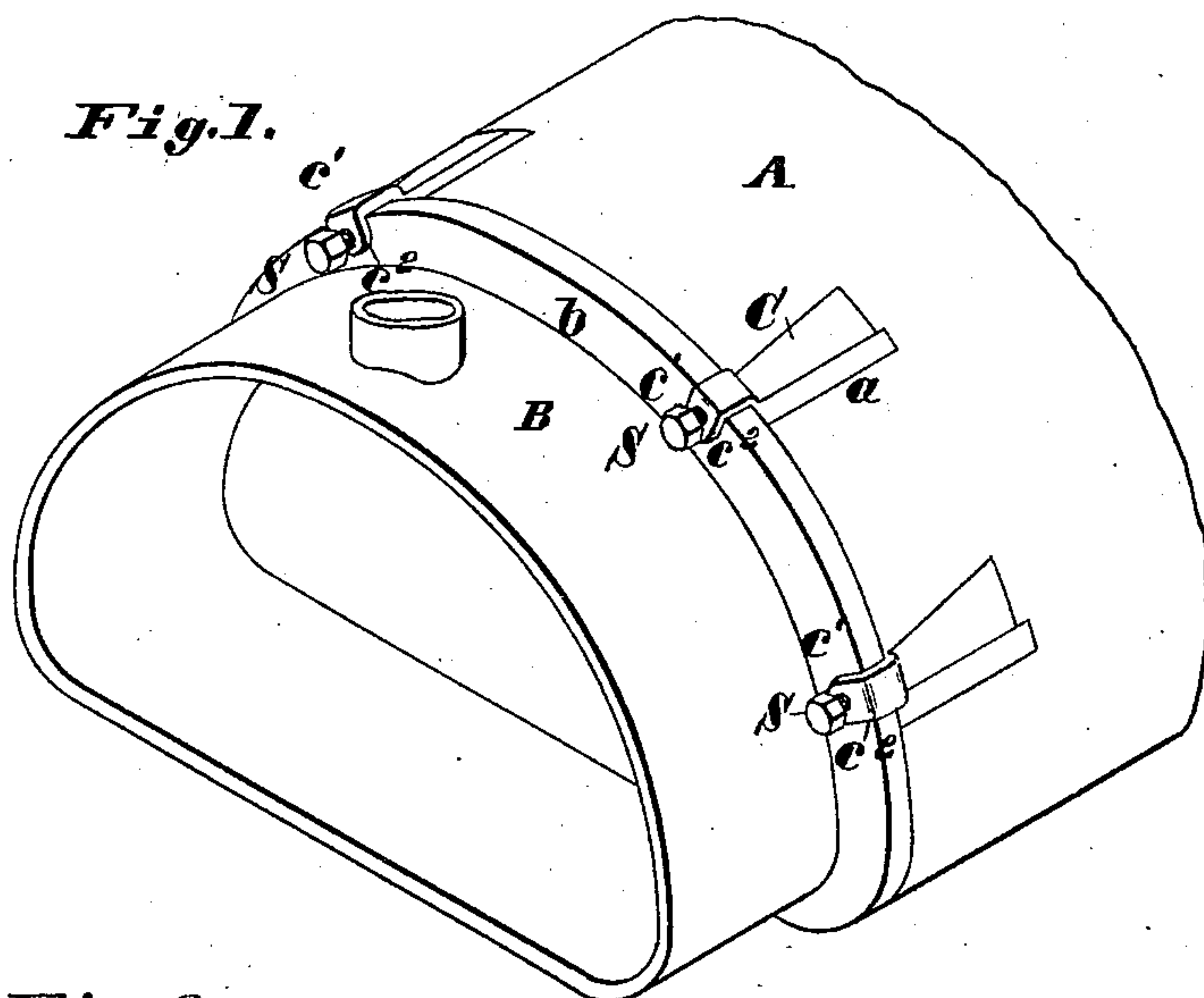
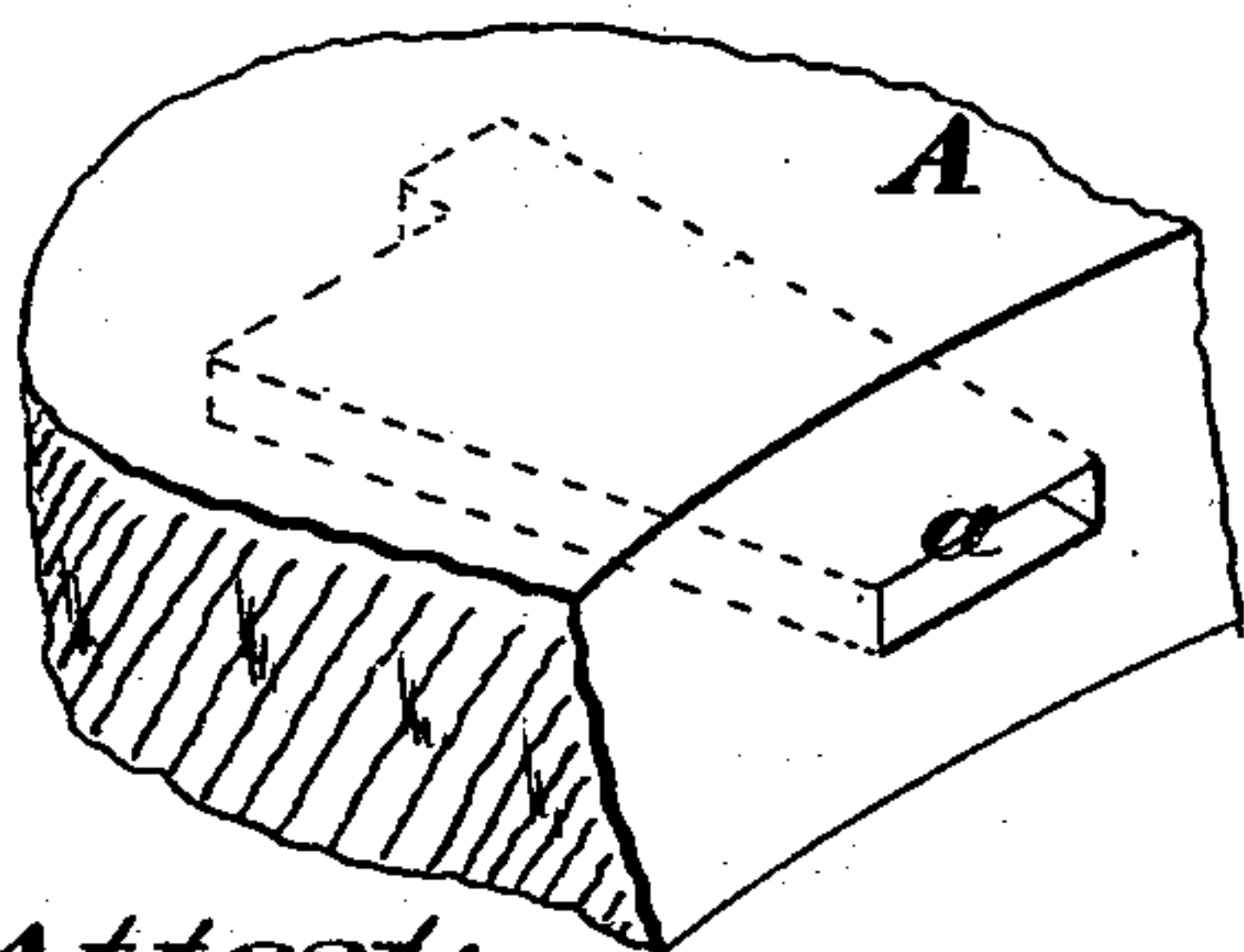
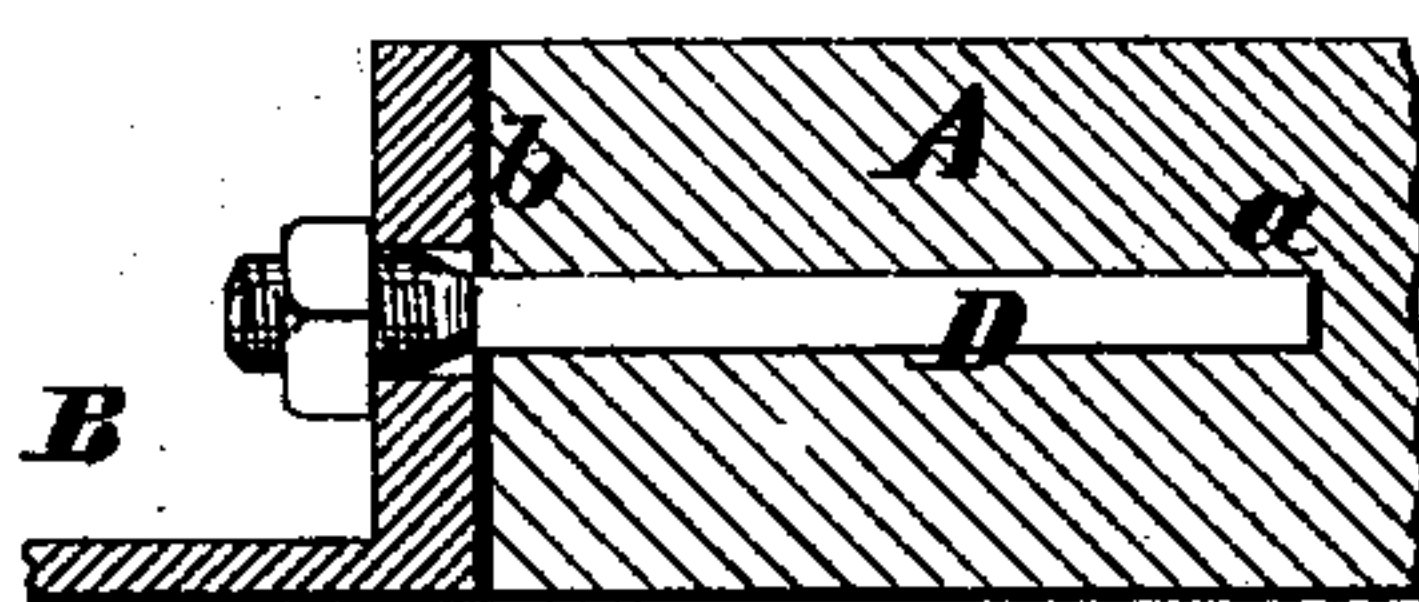
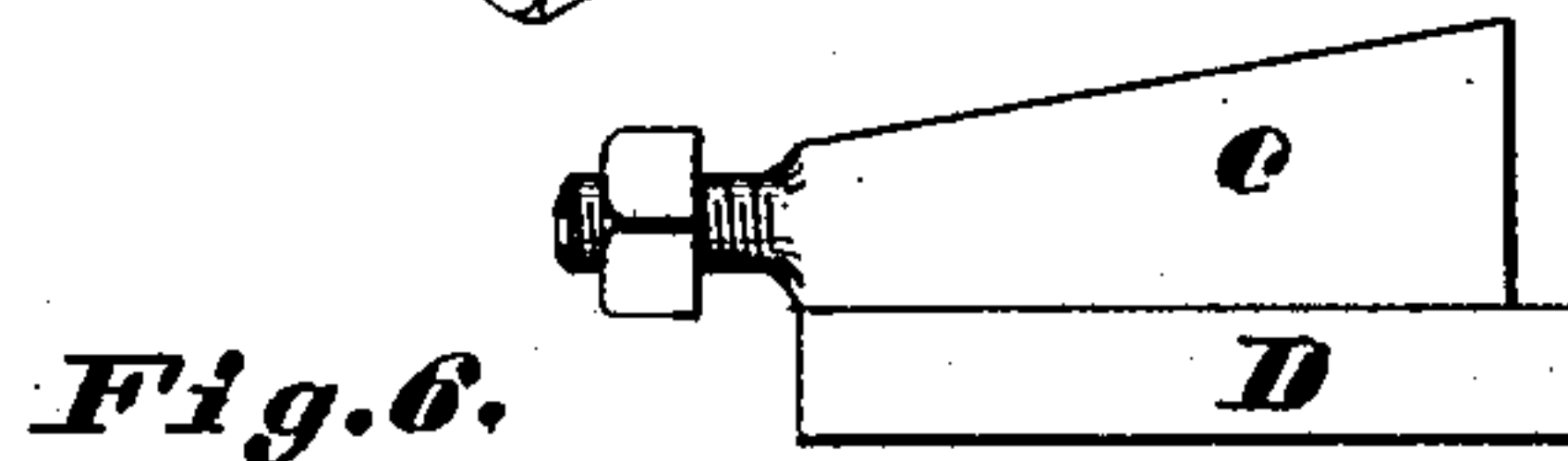
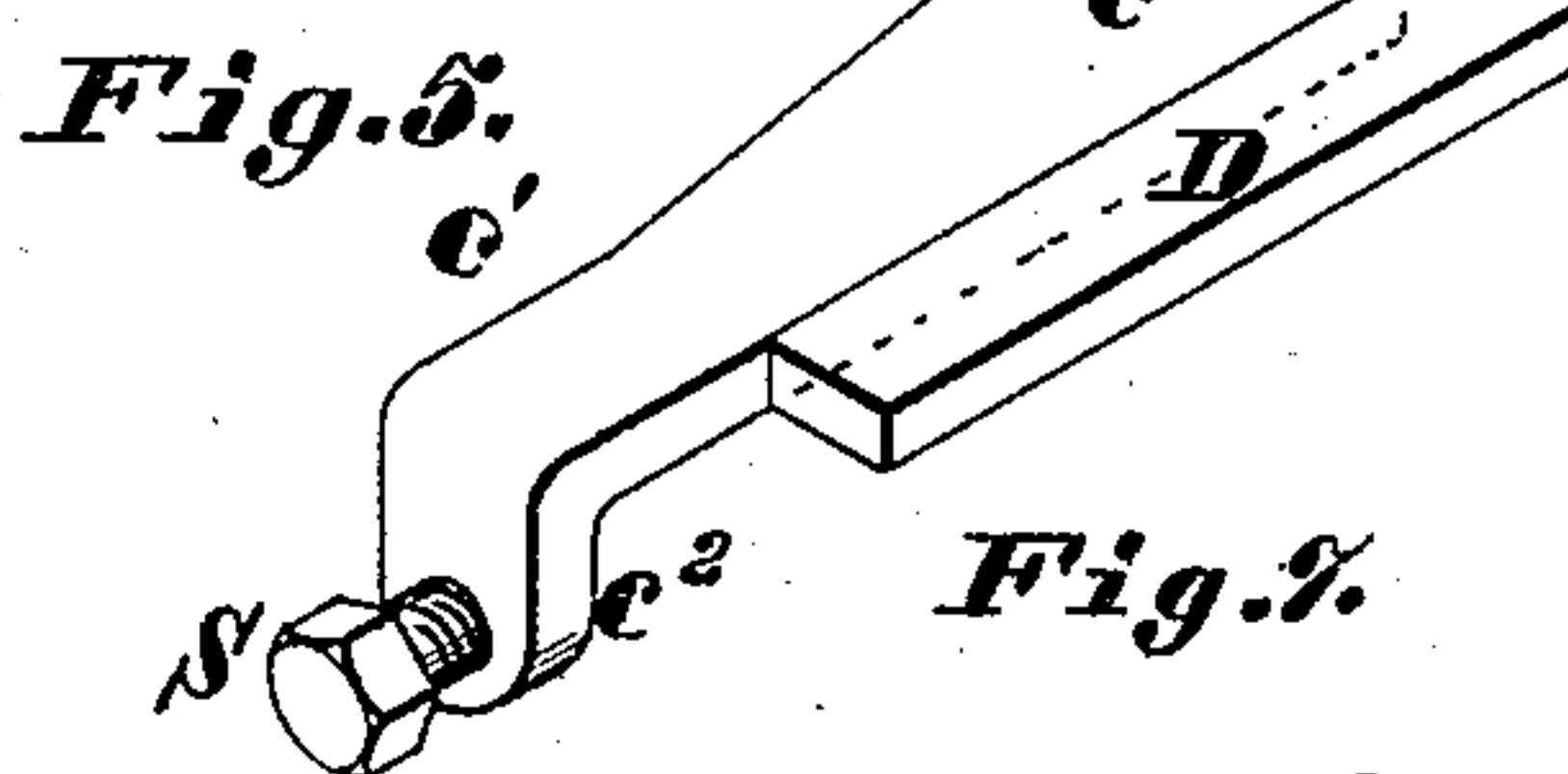
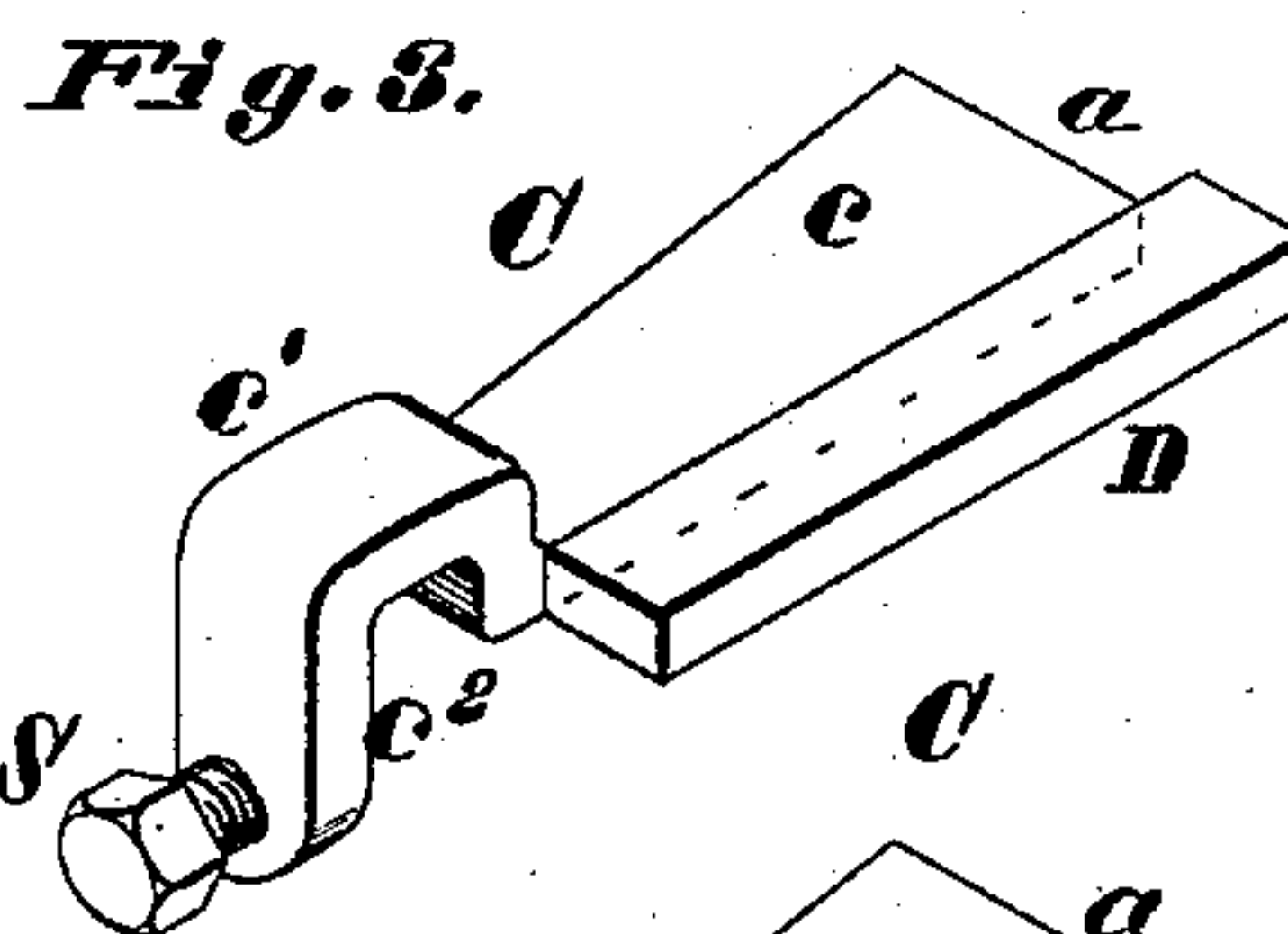


Fig. 8.



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UNITED STATES PATENT OFFICE.

JOHN DELL, OF ST. LOUIS, MISSOURI.

DEVICE FOR FASTENING MOUTH-PIECES TO GAS-RETORTS.

SPECIFICATION forming part of Letters Patent No. 275,162, dated April 3, 1883.

Application filed July 26, 1882. (No model.)

To all whom it may concern:

Be it known that I, JOHN DELL, of the city of St. Louis, in the State of Missouri, have invented an Improvement in Devices for Fastening Mouth-Pieces to Gas-Retorts, of which the following is a specification, reference being had to the accompanying drawings, forming part of the same.

My improvement consists of a clamp or bolt with a tang having the form of a half-wedge, (broader at the end,) that is inserted in a recess of the retort and held therein by a keeper. The clamp is made to engage the flange of the mouth-piece.

Figure 1 is a perspective view, showing the head of a fire-clay retort with a mouth-piece fastened thereto. Fig. 2 is a longitudinal section upon a larger scale, showing an edge view of one of the clamps. Fig. 3 is a perspective view of one of the clamps with the keeper. Fig. 4 is a longitudinal section showing a modification, and Fig. 5 is a perspective view of same. Fig. 6 is a longitudinal section showing another modification, Fig. 7 being a perspective view of same, and Fig. 8 being a detail perspective view, showing the recess in the end of the retort to receive the tang and keeper.

I will first describe the form shown in Figs. 1, 2, and 3, (which in some essentials applies equally to the other figures.)

A is a part of a fire-clay retort, and B is the mouth-piece. These may have the usual or any suitable form of construction. *b* is the flange of the mouth-piece, by which it is secured to the body of the retort.

In securing my clamp to the retort I form a recess, *a*, in the outer side of the same, said recess being wider as it recedes from the end, and as all the grooves and bearings are on the outside body of the retort they serve to strengthen the whole structure. In this recess I insert the half-wedge or wedge-formed tang *c* of the clamp C. The tang *c* does not fill the recess in width, but there is room left for the insertion of a keeper, D, that is forced into the recess beside the tang *c* and holds it firmly in

the recess. The outer end, *c'*, of the clamp is bent, as shown, to engage over the flange *b*, and in its outer lip, *c''*, turns a screw, S, whose inner end bears against the flange *b* and presses it against the end of the retort. (See Figs. 1, 2, and 3.)

In Figs. 4 and 5 the clamp is somewhat simplified in form as far as relates to the part outside the retort, the neck *c'* being straight with the tang, and the edge of the flange being made with notches in which the neck *c'* lies, so that the outer side of the neck is flush with the periphery of the flange and the outside of the retort. The tang and keeper are similar in these figures to those in Figs. 1, 2, and 3, and so require no special description.

In Figs. 6, 7, and 8 another modification is shown. In this modification the tang and keeper are similar to those before described; but the outer end, *c'*, is made in form of a screw stud or bolt fitted to pass through a bolt-hole in the flange *b*. In this modification the recess to receive the tang and keeper is not made in the outer side of the retort, but the recess is made in the body of the clay, as shown in Fig. 8, the narrowest end being open to the head of the retort.

I claim as my invention—

1. The combination of retort having half-wedge-shaped recesses *a*, the mouth-piece having a flange, *b*, clamp having half-wedge-shaped tang, and a keeper for retaining the tang in the recess, as set forth.

2. The fastening C, having tang *c* and hooked end *c''*, in combination with a retort having recess *a*, the mouth-piece having flange *b*, and a keeper, D, as set forth.

3. The combination of fastening C, formed with wedge-shaped tang *c*, neck *c'*, and lip *c''*, keeper D, screw S, retort having suitable recess, and mouth-piece having flange *b*, as set forth.

JNO. DELL.

Witnesses:

SAML. KNIGHT,
GEO. H. KNIGHT.