

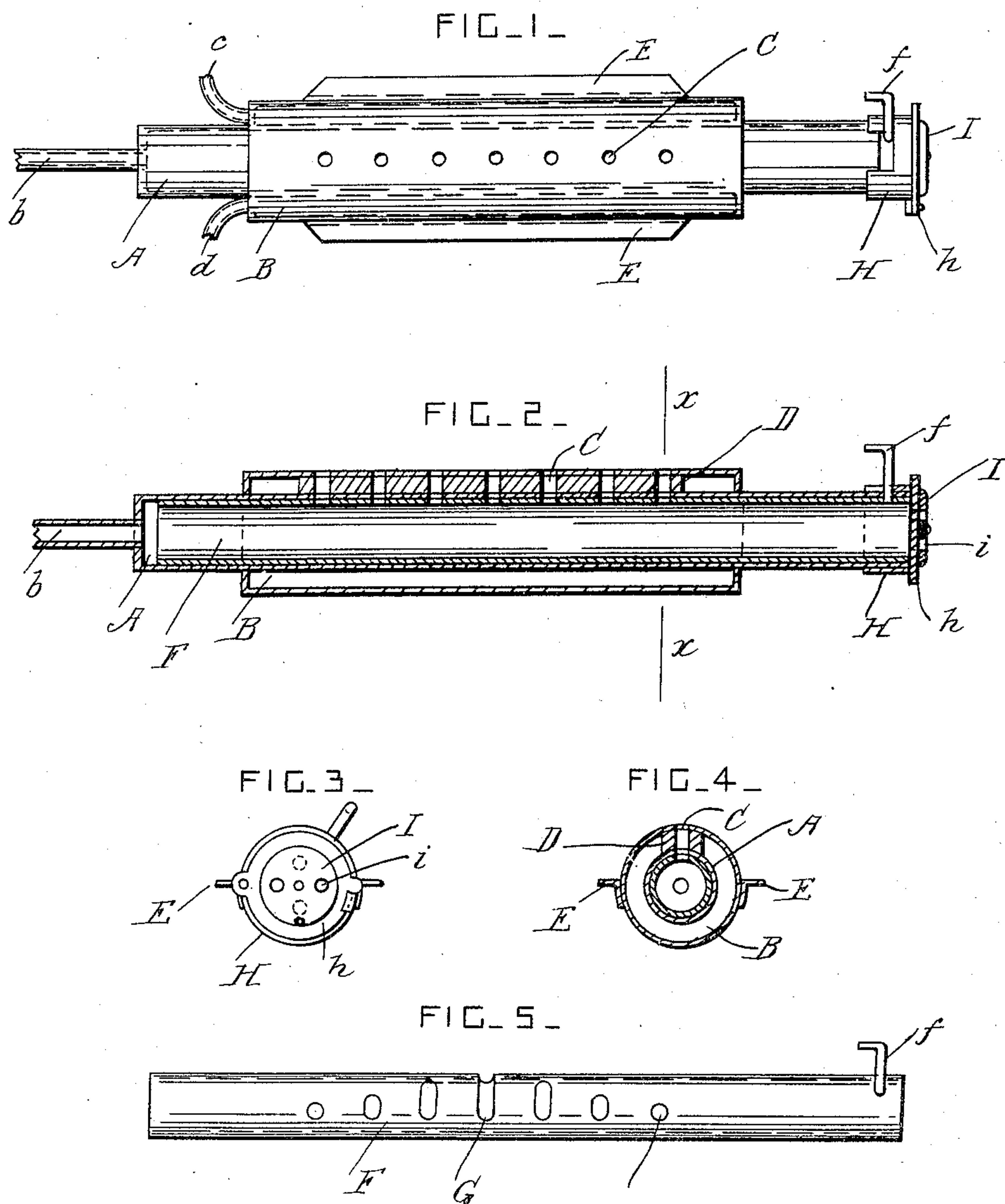
No. 793,467.

PATENTED JUNE 27, 1905.

S. P. PETERSEN & W. TOUPS.

TWYER IRON.

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WITNESSES:

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UNITED STATES PATENT OFFICE.

SOREN P. PETERSEN AND WILSON TOUPS, OF PATTERSON, LOUISIANA.

TWYER-IRON.

SPECIFICATION forming part of Letters Patent No. 793,467, dated June 27, 1905.

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To all whom it may concern:

Be it known that we, SOREN P. PETERSEN and WILSON TOUPS, residing at Patterson, in the parish of St. Mary and State of Louisiana, have invented certain new and useful Improvements in Twyer-Irons; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it ap-
 10 pertains to make and use the same.

This invention relates to twyer-irons for use in the hearths of blacksmiths; and it consists in the novel construction and combination of the parts hereinafter fully described and
 15 claimed.

In the drawings, Figure 1 is a plan view of the twyer-iron. Fig. 2 is a longitudinal section through the twyer-iron. Fig. 3 is an end view. Fig. 4 is a cross-section taken on the
 20 line *x x* in Fig. 2. Fig. 5 is a detail plan view of the blast-tube.

A is a cylindrical blast-chamber provided with a pipe *b* at one end for the entrance of
 25 air.

B is a water-jacket which surrounds the greater part of the length of the blast-chamber and which is provided at one end with pipe connections *c* and *d* for circulating water
 30 through it.

C is a series of holes for the blast, arranged along the upper side of the blast-chamber and its water-jacket, and D is a distance-piece of non-heat-conducting material in the upper part of the water-jacket which has the said
 35 holes C formed through it. E represents lugs or supporting-brackets on the sides of the water-jacket for supporting it in position. F is the blast-regulating pipe or tube, which is arranged inside the blast-chamber A, and *f* is
 40 a handle which projects from the regulating-tube through a slot in one end portion of the blast-chamber and which affords a means for oscillating the blast-regulating tube. A se-

ries of cross slots or holes G is formed in the regulating-tube, and these holes register with
 45 the said holes C.

The regulating-tube can be turned so that the blast will pass through all the holes C or through only certain of them, as is found re-
 50 quisite.

H is a cap at the outer end of the blast-chamber A. This cap closes the end of the blast-chamber, and it is provided with a piv-
 55 oted door *h*.

I is a damper-plate pivoted on the door *h* and provided with holes *i*, so that a portion
 60 of the blast can be let out, if desired.

This twyer-iron can be made of any desired length and can be used for a long fire or a short fire, according to the length of weld re-
 65 quired. It does not become burned, and there is no danger of it becoming broken.

What we claim is—

1. In a twyer, the combination, with a cy-
 70 lindrical blast-chamber provided at one end with a blast-inlet pipe and having a series of blast-outlet holes along its top side, of a blast-regulating tube arranged in the said chamber and provided with an open end adjacent to the
 75 said inlet-pipe and having lateral openings for registering with the said outlet-holes, and means for adjusting the position of the said tube so as to regulate the blast.

2. In a twyer, the combination, with a cy-
 80 lindrical blast-chamber provided at one end with a blast-inlet pipe and having a series of blast-outlet holes along its top side, of a blast-regulating tube arranged in the said chamber and provided with an open end adjacent to the
 85 said inlet-pipe and having lateral openings for registering with the said outlet-holes, a water-jacket encircling the said chamber and provided with outlet-passages for the blast, and means for adjusting the position of the said tube so as to regulate the blast.

3. In a twyer, the combination, with a cy-

lindrical blast-chamber provided at one end
with a blast-inlet pipe and having a series of
blast-outlet holes along its top side, of a blast-
regulating tube arranged in the said chamber
5 and provided with an open end adjacent to the
said inlet-pipe and having lateral openings for
registering with the said outlet-holes, an ad-
justable damper provided with openings and
arranged at the other end of the said blast-
10 chamber from the said inlet-pipe, and means

for adjusting the position of the said tube to
regulate the blast.

In testimony whereof we affix our signatures
in presence of two witnesses.

SOREN P. PETERSEN.
WILSON TOUPS.

Witnesses:

G. A. ROUSSEL,
GEO. H. O'NIELL.