

E. J. JONES.

Device for Supplying Steam Blast to Furnaces.

No. 167,103.

Patented Aug. 24, 1875.

Fig. 1.

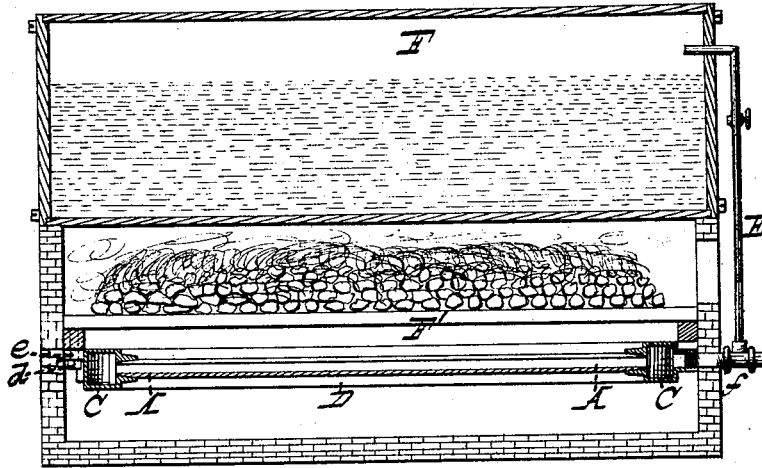


Fig. 2.

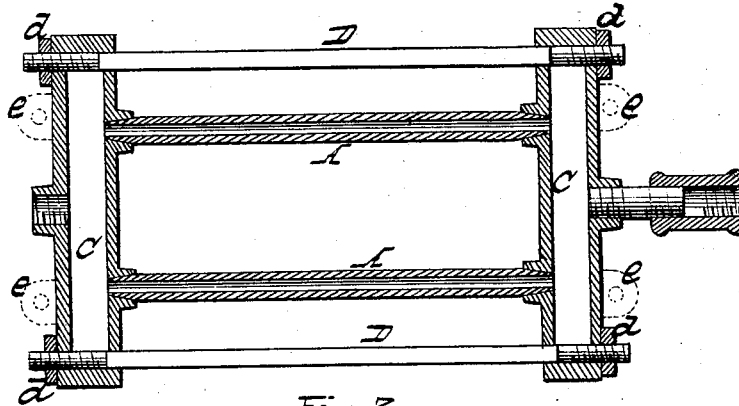
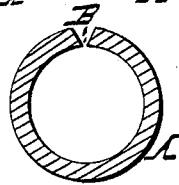
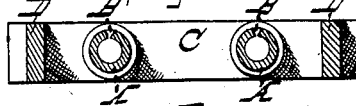


Fig. 3.



WITNESSES-

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UNITED STATES PATENT OFFICE

EVAN J. JONES, OF INDIANAPOLIS, INDIANA.

IMPROVEMENT IN DEVICES FOR SUPPLYING STEAM-BLAST TO FURNACES.

Specification forming part of Letters Patent No. **167,103**, dated August 24, 1875; application filed August 14, 1875.

To all whom it may concern:

Be it known that I, EVAN J. JONES, of Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Devices for Supplying Steam, &c., to the Fire-Grates of Furnaces; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawing, and to the letters of reference marked thereon, which form a part of this specification, in which—

Figure 1 is a longitudinal section of an ordinary boiler and its furnace with my invention applied thereto. Fig. 2 is a horizontal section of my invention; and Fig. 3 is a transverse section thereof, and a similar view of one of the pipes thereof.

Corresponding parts in the several figures are denoted by like letters.

This invention relates to a certain improvement in devices for supplying steam, &c., to the fire-grates of furnaces; and it consists of pipes having longitudinal V-shaped slots, and tapering at their ends, entering correspondingly-socketed transverse pipes or receptacles, united together by screw rods or plates and nuts, substantially as hereinafter more fully set forth.

In the annexed drawing, A A refer to pipes having longitudinal V-shaped slots B B for the escape of steam, &c., to the fire-grate.

By this construction the escaping steam will always retain the boiler-pressure without changing the globe-valve, promoting combustion in the furnace.

The ends of the pipes A A are made tapering, and enter corresponding sockets in the transverse pipes or receptacles C C, to permit of the opening and closing of the V-shaped slots B B in regulating the escape of the

steam. D D are plates or rods, by which the pipes or receptacles C C are held in place upon the pipes A A, and which are provided with screw threads and nuts *d d*, to permit of the adjustment of the said pipes A and C, with reference to each other, in opening and closing the V-shaped slots B B. *ee* are eyes or perforated projections (indicated in dotted lines in Fig. 2) attached to the pipes or receptacles C C to permit of the attachment of the device, by the aid of screw-bolts, to the fire-grate, as represented in Fig. 1. In lieu of this method of attaching the device to the fire-grate adjustable clamps may be used when necessary. E is a pipe having a globe-valve, and leading from the steam-space in the boiler F to the T-shaped pipe or joint *f* communicating with the device under the fire-grate F', for conducting steam to the said device, from which it escapes, through the slots B B, to the fire-grate, as before stated, to intensify the heat of the furnace, the escaping steam generating a blast under the grate. In generating the blast the ash-pits should be closed. Another way in applying the device to the furnace is by securing it to the "fire-front" below grate.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

The pipes A A, having the longitudinal V-shaped slots B B and the tapering ends, in combination with the pipes or receptacles C C, having sockets, screw rods or plates D D, and nuts *d d*, substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my own I hereunto affix my signature in presence of two witnesses.

EVAN J. JONES.

Witnesses:

E. C. MINICK,
CHAS. HERMANN.