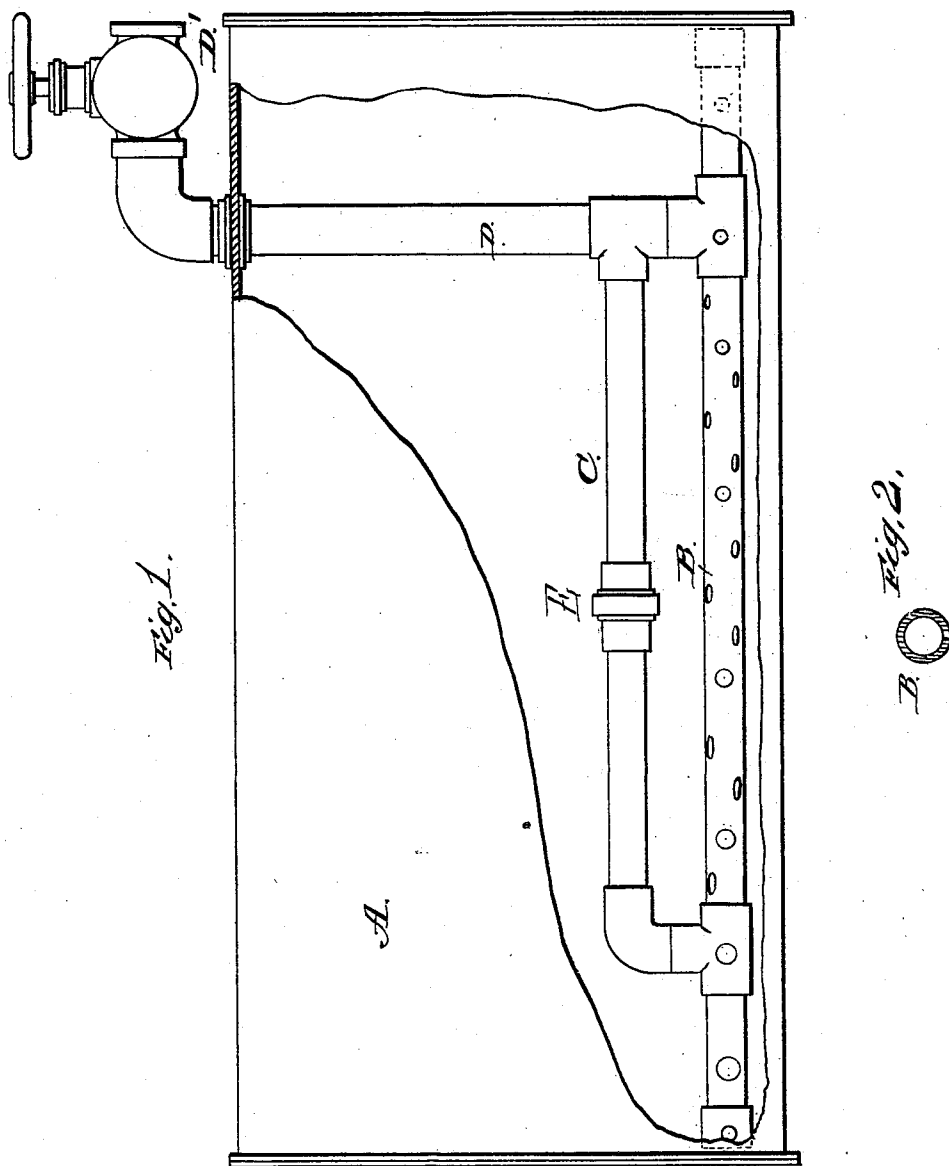


(No Model.)

J. B. WEEKS.
CLEANING STEAM BOILERS.

No. 253,453.

Patented Feb. 7, 1882.



WITNESSES
E. H. Bates
R. C. Massi.

INVENTOR
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UNITED STATES PATENT OFFICE.

JOSEPH B. WEEKS, OF BARNESVILLE, OHIO, ASSIGNOR OF ONE-HALF TO
MATHEW C. McKEOWN, OF SAME PLACE.

CLEANING STEAM-BOILERS.

SPECIFICATION forming part of Letters Patent No. 253,453, dated February 7, 1882.

Application filed August 27, 1881. (No model.)

To all whom it may concern :

Be it known that I, JOSEPH B. WEEKS, a citizen of the United States, resident of Barnesville, in the county of Belmont and State of Ohio, have invented a new and valuable Improvement in Cleaning Steam-Boilers; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a side view, partly in section; and Fig. 2 is a cross-section of one of the pipes.

This invention has relation to steam-boilers; and it consists in the novel construction and arrangement of parts, as will be hereinafter fully described, and pointed out in the claim.

Referring by letter to the accompanying drawings, A designates the boiler.

B designates a wrought or cast iron pipe, perforated in three rows, the perforations being about twelve inches apart and so arranged as not to be opposite to each other. These perforations vary in size.

C designates a pipe for permitting the distribution of the pressure, and thereby causing the boiler to be cleaned throughout its entire length. This pipe C does not extend the entire length of the boiler, but is connected at its front end to the pipe B by an L-joint and at its rear end by a T-joint, which latter connects with the outlet-pipe D. The outlet proper, D', is about one-half inch larger in diameter than the pipes B and C, for the purpose of effecting a ready escape for the sediment, and is attached to the boiler by lock-nuts, with copper or lead washers; and is passed through the boiler either above or below the water-line. The pipe C is located about six inches above the pipe B. The pipe B may be suspended in the boiler, or may rest on the bottom of the same. The pipe C has a coupling or union joint, E.

By turning the valve, before starting on with a small weight of steam, it will thoroughly clean the boiler of mud, and by thus keeping the boiler clean will prevent foaming.

A graduated double canal, increasing in size from the rear to the front of the boiler, the lower portions of the sections of which it is formed being perforated, and the upper portions of the sections being connected by vertical pipes to cisterns having closing slides, has been located near the bottom of the boiler and connected to a tap at the lower front end of the boiler. A mud receiver or collector applied to the outside of the shell of the boiler and to the bottom side thereof, with a series of perforations made in the shell of the boiler to communicate with said receiver, has been connected with a perforated tube arranged at about the water-surface of the boiler and leading outside of the same. A conduit gradually increasing in size and leading out of the boiler is also old; and neither of these constructions is claimed broadly. Protection is asked only for the construction hereinafter specifically claimed.

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

In a device for cleaning steam-boilers, the combination, with the boiler A, of the perforated pipe B, having perforations of unequal size arranged so that no two are opposed, and the pipe C, having the union-joint E, and being connected to the pipes B and D by L and T joints, and the pipe D, having the valved outlet D', substantially as and for the purposes specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JOSEPH B. WEEKS.

Witnesses:

JOHN B. BULGER,
WILLIAM F. SMITH.