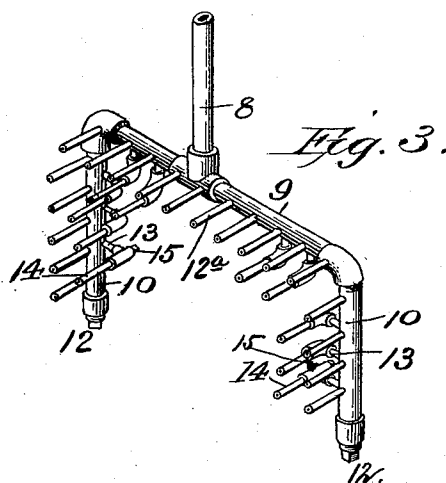
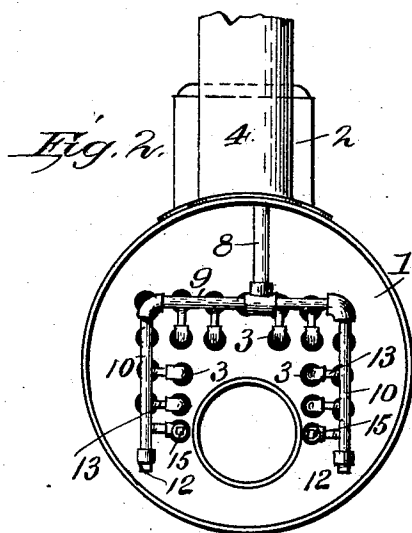
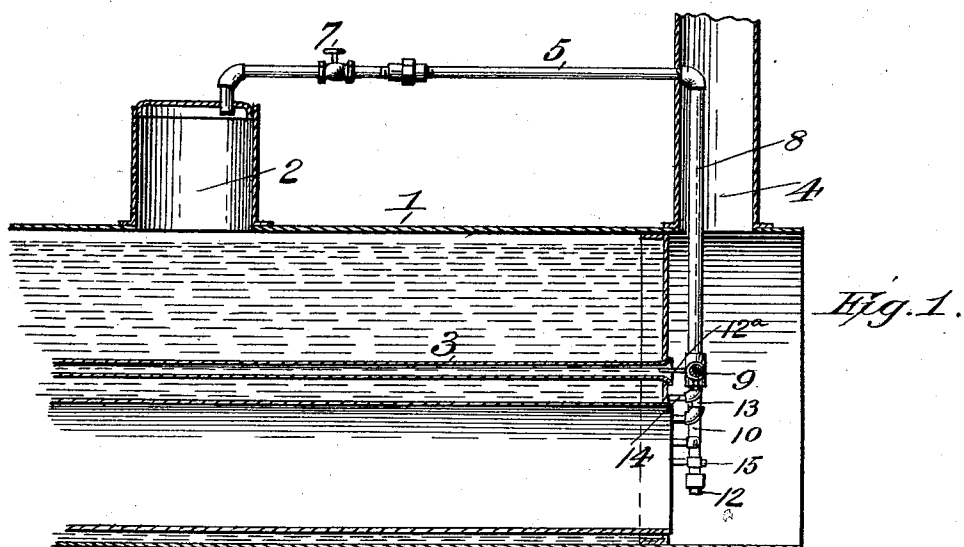


(No Model.)

J. T. THOMPSON.
STEAM BOILER FLUE CLEANER.

No. 541,027.

Patented June 11, 1895.



WITNESSES:
F. L. Curand.
J. L. Leombs

INVENTOR:
Joseph T. Thompson,
By Saml. Packer & Co.
Attorneys.

UNITED STATES PATENT OFFICE.

JOSEPH T. THOMPSON, OF HATTON, NORTH DAKOTA.

STEAM-BOILER-FLUE CLEANER.

SPECIFICATION forming part of Letters Patent No. 541,027, dated June 11, 1895.

Application filed January 24, 1895. Serial No. 536,087. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH T. THOMPSON, a citizen of the United States, and a resident of Hatton, in the county of Traill and State of North Dakota, have invented certain new and useful Improvements in Steam-Boiler-Flue Cleaners; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to improvements in steam boiler flue cleaners, in which all the flues of a boiler can be simultaneously cleaned by steam from the boiler.

The invention consists in the novel construction and combination of parts hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 represents a horizontal sectional view of so much of an ordinary steam-boiler provided with my improvement as is necessary to illustrate the invention. Fig. 2 is an end view of the same. Fig. 3 is a perspective view of the cleaner detached.

In the said drawings, the reference numeral 1 designates an ordinary steam boiler; 2, the dome thereof; 3, the flues, and 4 the smoke stack. Connected with the dome at the upper part thereof is a horizontal pipe 5 having a stop cock 7. This pipe extends into the smoke stack and is connected with a vertical pipe 8 provided with lateral branch pipes 9, which are connected with vertical pipes 10, the lower ends of which are closed by removable screw plugs 12. These lateral and vertical pipes 9 and 10 are provided with a series of nozzles 12^a and also with nipples 13, with which are connected similar nozzles 14. These nozzles and the pipes with which they are connected, are so arranged that the ends of the nozzles lie just in front of the flues, there being one nozzle for each flue.

The operation will be readily understood.

Dry steam from the top of the steam dome is admitted to pipes 7, 8, 9, and 10 by opening cock 7. A whirling motion is given to the steam and it will issue from the nozzles into the flues and effectually clean out the latter. As the cleaner is located in the front of the boiler, ashes and dirt are liable to get into the pipes 9 and 10. This can readily be blown out by removing the screw-plugs 12. It will be noticed that the lowermost nipples 13 are also provided with removable screw-plugs 15, for a similar purpose.

It will of course be understood that the number of nozzles and their arrangement can be varied to suit different constructions of boilers.

By the means and construction above described, the flues will be thoroughly and effectually cleaned in a rapid manner, and dry steam being employed it will not injure the flues.

Having thus described my invention, what I claim is—

The combination with a steam boiler, the dome and the smoke stack, of the horizontal pipe connected with the top of the dome, provided with a stop cock and extending into the smoke stack, the downwardly extending pipe connected therewith, the lateral branch pipes, the vertical pipes having removable screw plugs in their lower ends, the inwardly extending nozzle connected with said lateral and vertical pipes, the nipples extending inwardly at right angles to said nozzles, the nozzles connected therewith, the removable screw plugs connected with the lowermost nipples, and the nozzles connected with said plugs, substantially as described.

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

JOSEPH T. THOMPSON.

Witnesses:

T. R. TOBIASON,
W. O. BOUGHTON.