

(No Model.)

T. R. WINGROVE.
Boiler Flue Cleaner.

No. 239,210.

Patented March 22, 1881.

Fig. 1.

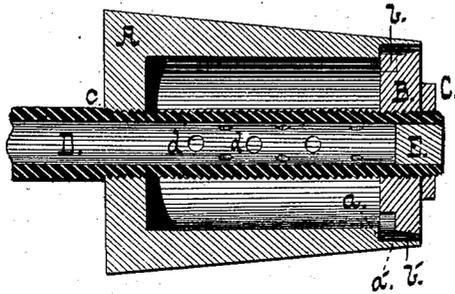
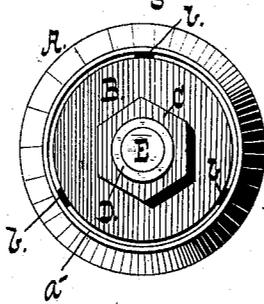


Fig. 2.



WITNESSES.

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BOILER-FLUE CLEANER.

SPECIFICATION forming part of Letters Patent No. 239,210, dated March 22, 1881.

Application filed February 14, 1881. (No model.)

To all whom it may concern:

Be it known that I, THOMAS R. WINGROVE, of Baltimore city, State of Maryland, have invented certain new and useful Improvements in Boiler-Flue Cleaners; and I hereby declare the same to be fully, clearly, and exactly described as follows, reference being had to the accompanying drawings, in which—

Figure 1 is a central sectional view, and Fig. 2 an end elevation, of the device.

My invention relates, in general, to devices for cleaning the flues of tubular boilers, and, in particular, to that class of said devices adapted to deliver a blast of steam from the boiler through its flues, whereby the soot and dirt are blown out at the ends of the flues; and my said invention consists in a flue-cleaner constructed and operating as hereinafter set forth, and possessing points of novelty which are made the subject of the claim.

In the drawings, A is a metallic shell, tapered externally from the rear to front, as shown, and turned true and smooth.

D is a tube, which is screwed through the base of the shell A, and has a shoulder, c, which abuts against the shell. The tube D has a number of perforations, d d, and its front end is closed by means of a plug, E, welded therein.

B is a disk having on its outer face a polygonal boss, C, axially perforated and threaded. The disk is somewhat smaller than the internal diameter of the shell A at the open end, and is beveled on its periphery, as shown at b', whereby a tapering annular space is left between the lip a' of the shell and the edge of the disk. Lugs b b, on the inner face of the disk B, abut against a shoulder, a, of the shell when the disk is screwed home.

The tube D has a lateral nipple for the attachment of a hose or pipe connected with the steam-drum of the boiler.

In operation the shell A is inserted in the end of the flue, and a blast of steam is led through the hose from the boiler. The steam passes through the perforations d into the shell and escapes through the annular space between the disk B and lip a' into the flue. This annular space is smallest at the face of the disk, so that the steam escapes in a powerful blast under its maximum tension and thoroughly cleanses the flue, blowing the dirt and soot out at the opposite end.

The device is simple in construction and thoroughly efficient and satisfactory in operation.

What I claim is—

1. In combination with the laterally perforated and threaded pipe D, the tapering shell, and disk B, having lugs b, as set forth.

2. In combination with the shell A and threaded tube D, the disk B, having a beveled periphery and lugs b, the parts being constructed and operating as set forth.

3. In combination with the shell A the laterally perforated and threaded tube D, plug E, and disk B, provided with a polygonal boss, C, and lugs b, and having a beveled periphery, whereby the steam is delivered at maximum tension at the point of efflux, as set forth.

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Witnesses:

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