

A. ZIPSER.

Improvement in Steam Boiler Sediment Collectors.

No. 121,445.

Patented Nov. 28, 1871.

Fig: 1.

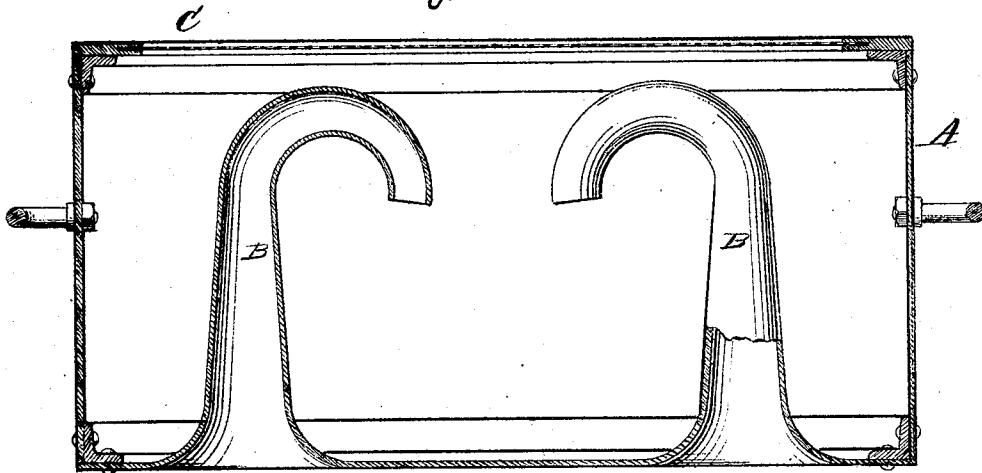
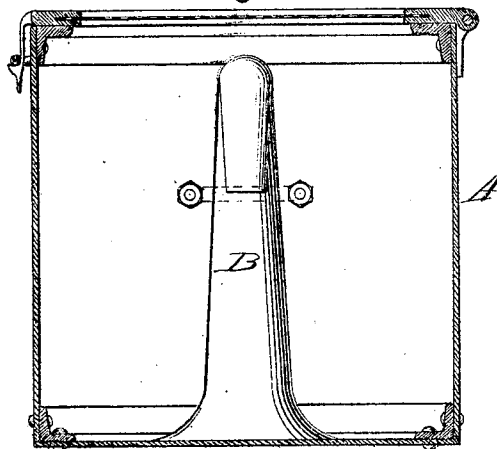


Fig 2.



Witnesses.

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ALBERT ZIPSER, OF BIALA, AUSTRIA.

IMPROVEMENT IN STEAM-BOILER SEDIMENT-COLLECTORS.

Specification forming part of Letters Patent No. 121,445, dated November 28, 1871.

To all whom it may concern:

Be it known that I, ALBERT ZIPSER, of Biala, in the Empire of Austria, have invented a new and useful Improvement in Anti-Incrustators for Steam-Boilers; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which drawing—

Figure 1 is a vertical longitudinal section of this invention. Fig. 2 is a vertical cross-section of the same.

Similar letters indicate corresponding parts.

My invention relates to improvements in anti-incrustators for steam-boilers. Observing that, first, the foreign substances in water generally separate during the boiling of the water; secondly, that nearly all these foreign substances, as long as the water is not fully saturated by them, follow the currents of the water; thirdly, nearly all these foreign substances form sediments as soon as the ebullition of the water caused by the boiling ceases; fourthly, the incrustation only then increases very much when the water is saturated by these foreign substances—I have taken advantage thereof to devise and construct an apparatus for collecting sediment quite independent of the feeding apparatus, to prevent deposits of mud and incrustations in steam-boilers; consisting mainly in introducing the water therein by means of its own natural movement as long as the boiling of the water in the boiler is going on, protecting the water introduced in this manner as much as possible from the outer water in ebullition so that it can form deposits in the apparatus, and then let this water into other water in the boiler. I do this so that, according to the quality of the feeding-water, it must pass several times.

The annexed drawing shows an apparatus made according to my invention.

The apparatus consists in a vessel having a solid bottom and sides, suspended within a boiler from the man-hole or cleaning-hole, or from any other convenient place. From the bottom of vessel A rise pipes B, which open through the bottom of the vessel and rise nearly to the top thereof, when they are bent over, forming nozzles, so that their ends, which are open, will

discharge downward. The lid C of the vessel is a close or fine-wire sieve fitted in a frame, and is arranged so as to be easily taken off to empty the vessel of the sediment or deposit collected therein. The number of the bent nozzle-shaped pipes depends upon the size of the boiler, while the fineness of the wire-sieve is dependent on the quality of the feed-water.

The apparatus is either suspended in the water-space or put on a tripod, and, if possible, in that part of the boiler where the incrustation or sediments are mostly formed. The boiler-water, by means of its own natural movement, enters into the apparatus through the nozzle-shaped pipes from below, and, not being agitated there, can settle, and from thence it is driven through the wire sieve into the other water by the continuous stream or current of water established through the apparatus.

The foreign matter in the water is retained in the vessel A, and the incrustation of the boiler and the formation of blisters therein are consequently prevented. The perforated lid permits the passage of the water out of the vessel, but tends to arrest foreign matter. I desire to use my improvement with or without such perforated lid or cover.

When it is desired to remove the sediment collected in the vessel the vessel is removed from the boiler, and, the cover being removed, free access can be had to the interior of the vessel to remove the sediment; and the vessel is then replaced in the boiler.

What I claim as new, and desire to secure by Letters Patent, is—

1. A vessel, A, open at top, having pipes B opening through its bottom and discharging downward in said vessel, combined with a steam-boiler by suspending or supporting the same therein, substantially as described.

2. The vessel A, constructed and applied as described, in combination with a perforated lid, substantially as described.

ALBERT ZIPSER.

Witnesses:

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