

(No Model.)

A. C. BRAGONIER.

DEVICE FOR PREVENTING INCRUSTATION OF BOILERS.

No. 537,141.

Patented Apr. 9, 1895.

Fig. 1.

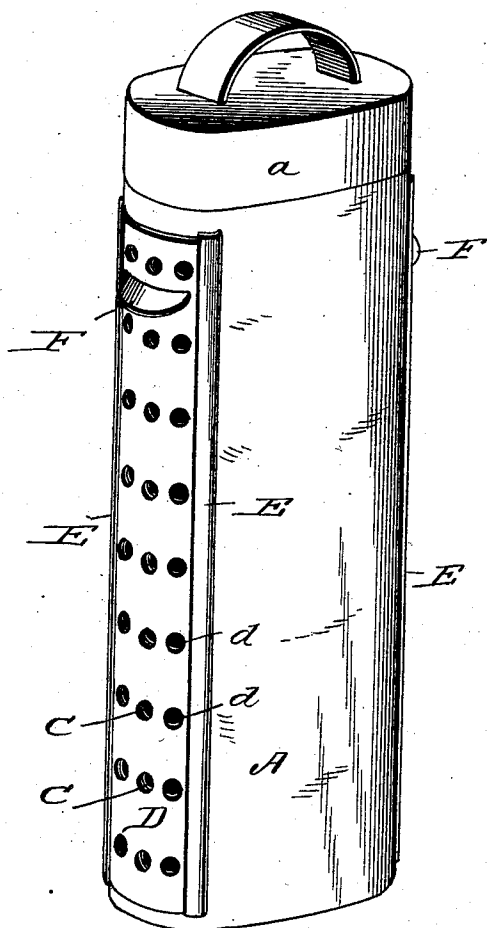


Fig. 2.

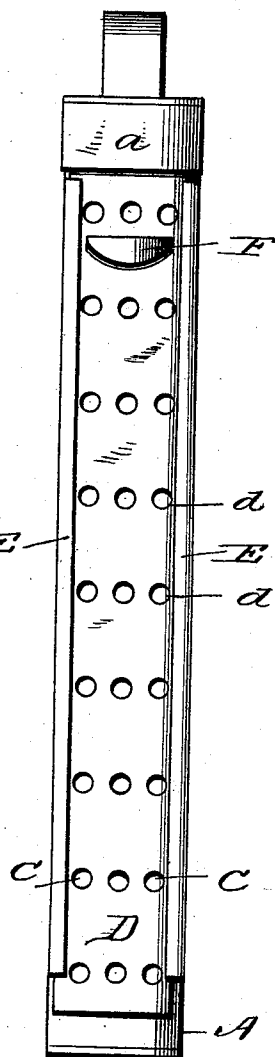


Fig. 3.

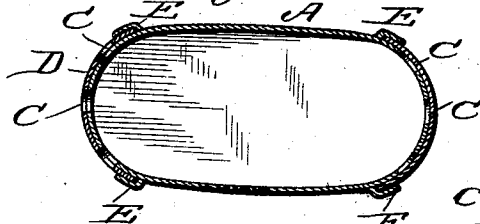
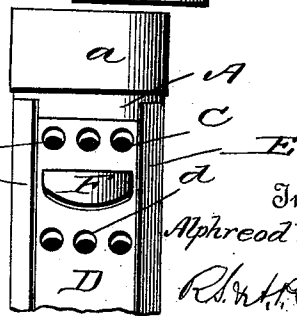


Fig. 4.



Witnesses

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DEVICE FOR PREVENTING INCRUSTATION OF BOILERS.

SPECIFICATION forming part of Letters Patent No. 537,141, dated April 9, 1895.

Application filed May 22, 1894. Serial No. 512,068. (No model.)

To all whom it may concern:

Be it known that I, ALPHREOD C. BRAGONIER, a citizen of the United States, residing at Baltimore city, State of Maryland, have
5 invented certain new and useful Improvements in Devices for Preventing Incrustation of Boilers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains
10 to make and use the same.

This invention is an improved device for preventing incrustation or scales forming in steam boilers and feed water heaters.

15 Heretofore chemical compounds have been introduced into a boiler or heater to prevent incrustation but as a boiler or feeder changes its water entirely once every six hours it is clear that a compound to be efficient must be
20 introduced once every six hours. To obviate this difficulty certain contrivances have been devised for holding the compound within the boiler but in these there is no way of regulating the amount dissolved and the waste of
25 the compound forms considerable of an item. To avoid this waste and regulate the amount of compound dissolved by the water, I have devised an improved holding receptacle, which consists broadly in a metallic case hav-
30 ing its sides perforated and a regulating slide to partially or totally close said openings whereby the dissolution of the compound contained within the case can be regulated to
take place rapidly or slowly as desired.

35 My invention consists also in certain details of construction hereinafter described and pointed out in the claim.

In the drawings forming a part of this specification; Figure 1 is a perspective view of my
40 improved incrustation preventer. Fig. 2 is a side view of the same. Fig. 3 is a transverse section. Fig. 4 is a detail view showing the guide ways.

45 In constructing a device in accordance with my invention for holding incrustation preventing compounds I employ a metallic box or case A which may be of any desired shape, closed at the bottom and provided with a removable top or cap *a* so that the compound
50 B for preventing incrustation can be readily

introduced into the said box or case. In the drawings I have shown two sides of the box curved outward but this is not necessary as they can be made flat, or the entire box or case can be made cylindrical if desired. A series
55 of perforations C C are made in the sides of the box or case and preferably extend from the top to the bottom of same, as shown, said perforations being preferably arranged in rows or in definite positions. Sliding upon
60 the outside of the box or case is a regulating slide D for the purpose of closing said perforations to prevent dissolution or regulating the amount of compound dissolved, said slide, having a series of perforations *d* produced
65 therein which are adapted to register with the perforations C, so that the water of the boiler or heater can have access to the interior of the case and dissolve the compound held therein. This slide D works in guide-
70 ways E E arranged upon the sides of the box or case A and the slides are also provided with handles F, by means of which they can be easily manipulated to open or close the per-
75 forations in the box or case. The perforations in the slide are arranged in the same order as the perforations in the side of the box or case in order that all may register at one time thus opening or closing all of them simulta-
80 neously or partially closing all of them an equal amount.

In operation the compound is placed in my improved box or case, the top secured and the slide manipulated to expose a large or small
85 portion of the holes *a*. The water entering these holes acts upon and dissolves a certain amount of the compound and this dissolution is rapid or slow according to the amount of area exposed. One side can be opened at
90 one time while the other is closed, thus acting only upon the compound at that side. In this way the compound is made to last much longer and constant attention to the boiler or heater is not necessary.

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

As an improved article of manufacture a metallic case for holding incrustation prevent-
100 ing compounds which consists of a metallic

box, A, having rows of perforations C, made
in its opposite sides, said perforations extend-
ing from the top to the bottom of the same,
a regulating slide D, adapted to close said
5 perforations, said slide having a series of per-
forations d, placed therein, which are adapted
to register with the perforations C, the guides
E, adapted to the case and in which the slides
work, said slides being provided with handles

F, by means of which the slides are worked ro
up or down, and the cap for closing the said
case substantially as shown and described.

In testimony whereof I affix my signature
in presence of two witnesses.

ALPHREOD C. BRAGONIER.

Witnesses:

R. LEE SLADE,

JAS. W. CLAYTON.