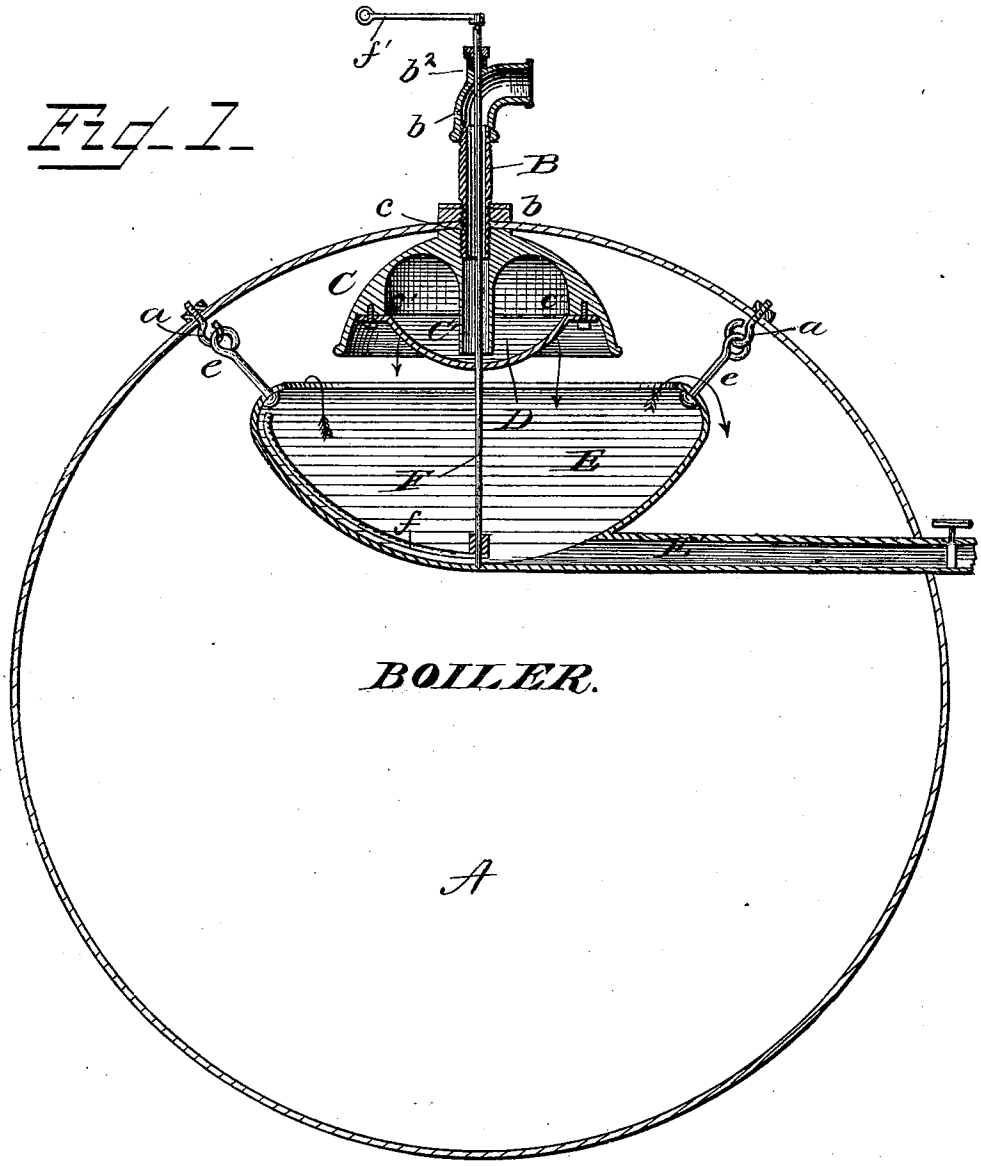
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C. REISER.

STEAM BOILER CLEANER.

No. 272,770. Patented Feb. 20, 1883.

Fig. 1.



WITNESSES

Frances L. Durand.

George Cowell

INVENTOR

Christ Reiser.

by L. Deane.

his Attorney

N. PETERS, Photo-Lithographer, Washington, D. C.

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Fig. 2.

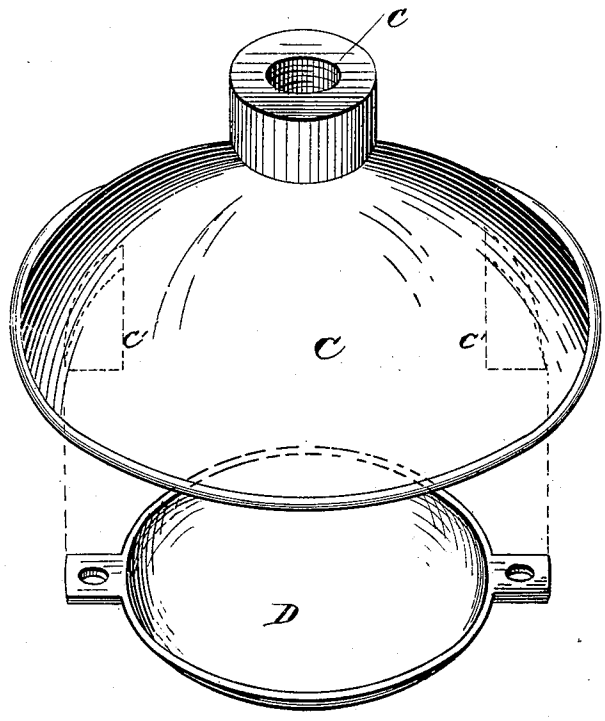
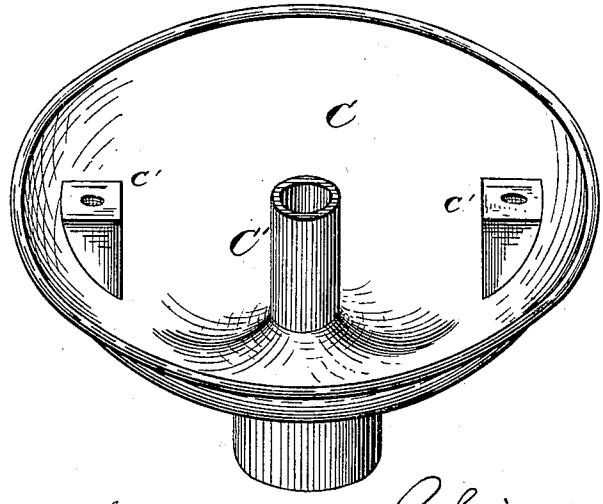


Fig. 3.



WITNESSES

Franck L. Durand.

George Connell

INVENTOR

Christ Reiser.

by L. Deane.

his Attorney

N. PETERS. Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

CHRIST REISER, OF PRAIRIE DU CHIEN, WIS., ASSIGNOR TO THE REISER STEAM BOILER CLEANER COMPANY, (LIMITED,) OF SAME PLACE.

STEAM-BOILER CLEANER.

SPECIFICATION forming part of Letters Patent No. 272,770, dated February 20, 1883.

Application filed July 12, 1882. (No model.)

To all whom it may concern:

Be it known that I, CHRIST REISER, a citizen of the United States, residing at Prairie du Chien, in the county of Crawford and State of Wisconsin, have invented certain new and useful Improvements in Steam-Boiler Cleaners; 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 to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 is a cross-section of a boiler having the present invention in all its parts in position for use; Fig. 2, a detail in perspective of some of the internal parts; Fig. 3, a detail in perspective of the cup-shaped part C inverted.

This invention belongs to that class of devices known as "steam-boiler cleaners;" and the novelty consists in the construction of each of the several parts which make up the present invention, and also in their combination together, all as will now be more fully set out and explained.

In the accompanying drawings, A denotes any ordinary steam-boiler, and B the feed-pipe, which passes through the crown of the boiler, having outside the boiler, on this part of it, which is screw-threaded, a lock-nut, *b*. On its lower end, and inside the boiler, is the inverted-cup-shaped piece C, fitted tightly thereon by the screw-threaded hole *c* in its crown.

Inside the lower edge of C are the offsets *c'*—one on each side—and upon these are secured the lugs *d*—one on each side of the cup-shaped receiver D—and there is thus left a space all round between its edges and the inside of C, excepting at the said points of contact.

From the crown and immediately in line with the feed-pipe descends the pipe C', which is preferably an integral part of the cup-shaped piece C; but it is evident it may be made of a separate piece and removable. This pipe descends almost to the receiver D.

Immediately under the parts of the device above explained is the bowl E, hung to the inside of the boiler by means of bolts *e*, which pass at convenient points through its edges, and are caught by the eyes on their ends on the hooks *a*, attached to the boiler-shell inside.

Passing down through elbow *b'*, with the packing-box b^2 and the feed-pipe and induct and the receiver below it, is the stirrer-rod F, having attached to its lower end the arm *f*, (one or more,) which comes sufficiently close to the inside bottom of the bowl E so as, when actuated by the turning of the rod, which can be done by handle *f'* above the elbow *b'* of the feed-pipe, to cut up or agitate the scale or mud on the bottom of the bowl.

The bowl E may be provided with a clean-out pipe, E', which is extended out through the boiler-shell at any convenient point.

The inflowing water passes through the feed and the pipe with which it connects to the bottom of the saucer-shaped receiver, and thence, when it rises high enough, flows out over its edges upon the bowl below, and thence in turn overflows the edge of that receptacle and falls into the boiler proper. The end of pipe C' will thus always be sealed by the water in the receiver or receptacle D, preventing the steam from rushing into the feed-pipe after the stroke of the pump.

The sediment or scale stirred up by the use of rod F and its arm can be blown out under steam-pressure, or flooded out by water when the boiler is cold, thereby saving trouble of going into the boiler to clean it out.

The bowl E can be made in sections, so as to be easily introduced through the man-hole of the boiler. By means of the lock-nut *b* on the feed-pipe and outside the boiler the cup-piece C can be locked firm and tight in position.

It may sometimes not be convenient to use this entire structure, above described, in a boiler. In that case I may use the feed-pipe and its connections and the inverted cup and saucer-shaped receiver. I may also find it of advantage to use so much of my present device in connection with the whole or part of the cleaner described in my Patents Nos. 244 668 and 247,948.

The stirrer above described may be dispensed with when such arrangement is considered best.

Having thus described my invention, what I

consider new, and desire to secure by Letters Patent, is—

1. In a steam-boiler cleaner, the feed-pipe B, inverted-cup-shaped piece C, having pipe C′, and receiver D, said pipe C′ extending down nearly to D, all constructed and combined substantially as described.

2. In combination with the feed-pipe B, cup-shaped piece C, pipe C′, and receiver D, the bowl E, substantially as and for the purposes set forth.

3. In a steam-boiler cleaner, the pipe C′ and receiver D, combined so that the end of C′ shall be sealed when in use, substantially as set forth.

4. In combination with a water-feed, the bowl E, having clean-out pipe E′, suspended from the boiler in manner described, substantially as described.

5. In combination with the bowl E, the cup-shaped piece C, pipe C′, and feed-pipe B, the stirrer F *f*, constructed and operated substantially as set forth.

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

CHRIST REISER.

Witnesses:
J. N. BOOTH,
A. TILMONT.