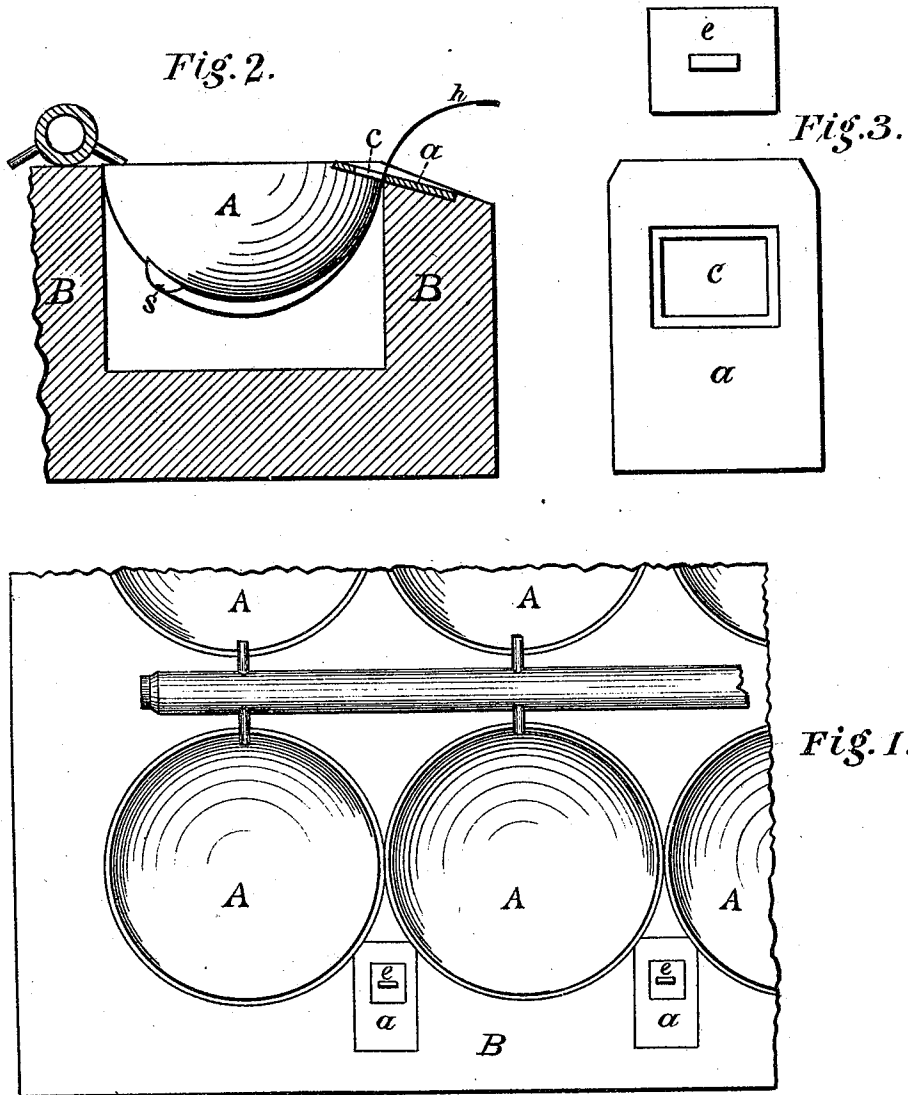


J. SALMON.

DEVICE FOR CLEANING THE UNDER SIDE OF KETTLES IN ARCHES.

No. 175,763.

Patented April 4, 1876.



WITNESSES

C. Holmstrup, Jr.
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INVENTOR

James Salmon
per E. Laass, Atty.

UNITED STATES PATENT OFFICE

JAMES SALMON, OF SYRACUSE, NEW YORK.

IMPROVEMENT IN DEVICES FOR CLEANING THE UNDER SIDES OF KETTLES IN ARCHES.

Specification forming part of Letters Patent No. **175,763**, dated April 4, 1876; application filed March 13, 1876.

To all whom it may concern:

Be it known that I, JAMES SALMON, of Syracuse, in the county of Onondaga, in the State of New York, have invented a new and useful Improvement in Devices for Cleaning the Under Side of Kettles in Fire-Arches, of which the following, taken in connection with the accompanying drawing, is a full, clear, and exact description:

This invention is intended for use in evaporating-works, such as the manfactories of fine salt, where series of kettles are arranged side by side in a fire-arch and flue, and where the kettles become coated with soot on the under side.

The object of the invention is to facilitate the cleaning of the under side of the kettles; and it consists in a metallic plate of proper dimensions and shape to rest at one end on the side wall of the fire-arch, and abut at the projecting end against two adjoining kettles, and provided in the projecting portion with an orifice of sufficient size to admit a scraper and a removable cover fitted to said orifice, all constructed and combined with the side walls and kettles substantially in the manner hereinafter described.

In the accompanying drawing, Figure 1 is a top view of a fire-arch with kettles, showing the shape and position of my invention; Fig. 2, a transverse section of a fire-arch, showing the application and utility of my invention; and Fig. 3 is an enlarged detail view of my invention detached.

Similar letters of reference indicate corresponding parts.

A A are the kettles, supported in the usual way on the side walls B B of the furnace or fire-arch. *a* is the metallic plate resting at one end on the side wall B, and shaped at the projecting end to rest against the two adjoining kettles A A. In the projecting portion it is provided with the orifice *c* of proper size to

admit of passing the hoe or scraper *s* through it, which latter is provided with a suitably-curved handle, *h*, to render the scraper applicable and operative upon the entire bottom of the kettle. *e* is the removable cover fitted to the orifice *c* and placed thereon to prevent the checking of the draft in the fire-flue when the furnace is in operation.

Whenever it becomes necessary to clean the under side of the kettles, the cover *e* is readily removed and the scraper *s* inserted through the orifice *c*, and readily operated through same, to bring the scraper to bear upon any portion of the under side of the kettles.

Heretofore the cleaning of the kettles necessitated the entering of a man into the fire-arch, or the raising of the kettles out of the arch, and since this could only be done when the works were cool, a large amount of soot was allowed to accumulate on the kettles and greatly retard evaporation of the liquid in the kettle. Besides this, it was a tedious, laborious, and smutty operation, all of which is prevented and obviated by my invention.

Having thus described my invention, what I claim is—

In combination with the kettles A A, arranged in a fire-arch as described, the metallic plate *a*, resting at one end on the side wall B, and shaped at the opposite end to rest against two adjoining kettles, and provided in the projecting portion with orifice *c* and removable cover *e*, substantially as and for the purpose specified.

In testimony whereof I have signed my name and affixed my seal in the presence of two attesting witnesses, at Syracuse, in the county of Onondaga and State of New York, this 1st day of March, 1876.

JAMES SALMON. [L. S.]

Witnesses:

I. C. LAASS,

O. HOLMSTRUP, Jr.