UNITED STATES PATENT OFFICE.

SAMUEL W. MERRYMAN, OF BALTIMORE, MARYLAND.

INCRUSTATION PREVENTIVE.

SPECIFICATION forming part of Letters Patent No. 356,776, dated February 1, 1887.

Application filed April 8, 1885. Renewed December 30, 1885. Again renewed July 7, 1886. Serial No. 207,364. (No specimens.)

To all whom it may concern:

Be it known that I, SAMUEL W. MERRYMAN, a citizen of the United States, residing at Baltimore, Maryland, have invented new and useful Improvements in Boiler-Cleaning Compounds, of which the following is a specification.

My invention relates to certain new and useful improvements in boiler-cleaning compounds.

The object of the invention is to produce a compound which may be easily applied to a boiler without requiring any particular appliance to effect its introduction, and which shall effectually remove the scale from the metal without injuring the latter in any way.

With this object in view my invention consists of a compound consisting of the ingredients now to be described, used in about the proportions specified.

The compound consists, essentially, of the following ingredients, viz: tannin, terra-japonica, West Virginia oil, and soda-ash. The quantity of each which as a compound I have found to produce the best results are one-half pound (½ lb.) of tannin, one pound (1 lb.) terra-japonica, one gallon (1 gal.) West Virginia oil, and ninety pounds (90 lbs.) soda-ash.

The oil employed is a thick petroleum, filtered and purified, which contains no acid whatever and is possessed of a large percentage of paraffine.

In compounding the material I first take the terra-japonica and dissolve the same in water and mix it with the West Virginia oil. This mixture is poured over the soda-ash, and the tannin is finally added.

In case it should be impossible to obtain the terra-japonica, or it should be too expensive to render it practicable to use it, I may substitute therefor one-half pound (½ lb.) each of kino and gallic acid.

The action of this compound upon any incrustation which may be formed upon the interior of the boiler is to loosen it therefrom and allow it to fall by its own weight if it be upon the top or sides, and to allow it to be easily removed if it be on the lower portion of the boiler.

As shown from practical experiments, the tendency of the compound is to work in between the incrustation and metal and effect the loosening of the former.

The compound may be applied by dissolving it and introducing it directly into the boiler; or it may be put into feed-water and introduced after being dissolved therein.

I am aware of British patent to Davies, No. 3,051 of 1867, and United States Patent to Gillespie; but neither one of these mention the total particular ingredients employed by me, or specify approximately the same proportions of ingredients which are common to their compounds and mine.

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

1. The boiler-cleaning compound herein described, the same consisting of tannin, terra-japonica, West Virginia oil, and soda-ash, in about the proportions specified.

2. The boiler-cleaning compound consisting of one-half pound (½ lb.) tannin, one pound (1 lb.) terra-japonica, one gallon (1 gal.) West Virginia oil, and ninety pounds (90 lbs.) of soda-ash.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

SAMUEL W. MERRYMAN.

Witnesses:
CURTIS LAMMOND,
A. B. BROWNE.