## UNITED STATES PATENT OFFICE.

JOSEPH MAST, OF PHILADELPHIA, PENNSYLVANIA.

## COMPOUND FOR CLEANING BOILERS.

SPECIFICATION forming part of Letters Patent No. 371,775, dated October 18, 1887.

Application filed July 13, 1887. Serial No. 244,129. (No specimens.)

To all whom it may concern:

Be it known that I, JOSEPH MAST, a citizen of the United States, and a resident of Philadelphia, Pennsylvania, have invented an Improved Boiler-Cleaning Compound, of which the following is a specification.

The object of my invention is to provide a compound which will readily remove incrustations from steam-boilers without injuriously offecting the iron or the gum-joints around man-hole plates, &c., and this object I attain as fully described hereinafter.

My improved compound consists of an infusion in water of the following ingredients, namely: turmeric, hypernic, sumac-leaves, and potato-parings, the action of the compound being to disintegrate the scale or reduce it to fine particles, which can be readily blown from the boiler through the usual blow off valve.

20 I prefer to use in making the compound one-half pound of turmeric, one-half pound of hypernic, two pounds of sumac-leaves, one-half peck of potato-parings, and two gallons of water, the compound being boiled until its bulk is reduced to one gallon, and then strained.

The infusion is added to the water in the boiler, the quantity used being about one-half gallon for every ten horse-power of the boiler, and this amount is added about every three

days for four weeks, after which time the quantity can be reduced to one-half to prevent the further formation of scale.

The proportions referred to above may be slightly changed without departing from my invention.

Practical tests have demonstrated that an infusion such as that described will thoroughly remove and prevent the formation of scale irrespective of the quality of water that may be used, while the iron and the gum-joints are uninjured and foaming of the water is effectually prevented. I have found, also, by experiment that my compound will within four weeks show the most satisfactory results on boilers heavily coated with scale.

I claim—
A compound for cleaning steam-boilers, said compound consisting of an infusion of turmeric, hypernic, sumac-leaves, and potatoparings, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOSEPH MAST.

Witnesses:

LOUIS KANNEGIESER, GEO. C. RITZEL.