

UNITED STATES PATENT OFFICE.

JOHN M. ALLISON, OF NEW ALBANY, INDIANA.

IMPROVEMENT IN COMPOSITIONS FOR COVERING STEAM-BOILERS.

Specification forming part of Letters Patent No. **138,358**, dated April 29, 1873; application filed February 27, 1873.

To all whom it may concern:

Be it known that I, JOHN M. ALLISON, of New Albany, in the county of Floyd and in the State of Indiana, have invented certain new and useful Improvements in Composition for Coating Steam-Boilers, Drums, Pipes, &c.; and do hereby declare that the following is a full, clear, and exact description thereof.

My compound or composition is intended to be used to cover steam-boilers, drums, pipes, &c., in order to prevent the steam from condensing, and thereby prolonging its power to such extent as to save a large per cent. of fuel.

The composition consists of the following materials: Fire-clay, 30 per cent.; wood ashes, 45 per cent.; pulverized charcoal, 15 per cent.; coarse salt, 10 per cent.; with hair and water mixed sufficient to make good mortar.

The charcoal, wood ashes, and coarse salt are non-conductors, and by mixing the same together form a partial cement, but do not make a sufficient body to hold on the iron. By adding the fire-clay the body is sufficiently formed to adhere to steam-drums, steam-pipes, &c., and the hair assists in holding the composition together while being applied.

This composition is to be applied from half

an inch to an inch in thickness to that part of the steam-boiler that does not come in contact with the fire, and all around the steam-drum, steam-pipe, &c., while they are hot. The heat of the boiler, drum, pipe, &c., causes the composition to adhere to them closely for a time, until it forms a compact body of its own, which will not be cracked or injured by the contraction of the boiler, drum, or pipe, in cooling off, and thereby forms a durable non-conductor.

I do not confine myself to the precise proportions herein mentioned of the ingredients, as they may, perhaps, be varied under different circumstances.

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

The within-specified materials, compounded substantially as and for the purpose set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 1st day of February, 1873.

JOHN M. ALLISON.

Witnesses:

Prof. JAMES BROWN,
W. L. SMITH.