

United States Patent Office.

WILLIAM MOLLER, OF IRVINGTON, NEW YORK.

Letters Patent No. 110,488, dated December 27, 1870.

IMPROVEMENT IN FILTER-TANKS AND OTHER VESSELS USED IN REFINING SIRUPS, SUGARS, &c.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, WILLIAM MOLLER, of Irvington, in the county of Westchester and State of New York, have invented a new and useful Improvement in Filters and Tanks and other Vessels for Sugar and Sirups; and I do hereby declare that the following is a full, clear, and exact description of the same.

The discoloration of sugar and sirups by the oxidation of the interior surfaces of the iron filters and tanks used in sugar refineries is very detrimental to the refining process, and tends to deteriorate the value of the refined product, and the desirability of preventing such oxidation has been long recognized, yet no suitable means of prevention has heretofore been discovered.

In experimenting with a view to obtain some protection for the surfaces which should at the same time be durable and not injurious to the sugar or sirups, I have found that a lining of hydraulic cement and sand

meets every requirement; and my invention consists in iron tanks and filters having such a lining.

The proportions of sand and hydraulic cement which I have found best in practice is two-thirds ($\frac{2}{3}$) by weight of sand and one-third ($\frac{1}{3}$) hydraulic cement. To these proportions, when mixed, I add as much water as is necessary to make a plaster, with which I cover the interior surfaces of the iron vessels by means of such tools as are commonly used by plasterers.

What I claim as my invention, and desire to secure by Letters Patent, is—

Tanks, filters, and other vessels for sugar and sirups, constructed of iron, with a lining of cement and sand, substantially as and for the purpose herein shown.

Witnesses:

WILLIAM MOLLER.

HENRY T. BROWN,
FRED. HAYNES.