

UNITED STATES PATENT OFFICE.

FRIEDRICK M. COLLET, OF DUBUQUE, IOWA.

INCrustATION-PREVENTIVE.

SPECIFICATION forming part of Letters Patent No. 260,003, dated June 27, 1882.

Application filed January 27, 1882. (No specimens.)

To all whom it may concern:

Be it known that I, FRIEDRICK M. COLLET, of Dubuque, Dubuque county, Iowa, have invented a process for removing the deposits of boiling water from the bottoms of steam-boilers and for stopping the leakages in the same boilers, of which the following is a specification.

Heretofore unmalted barley has been put into steam-boilers to prevent the accumulation of lime deposit or scales; but I have discovered that far greater prevention is secured by using solely the sprouts of barley, which are separated from the barley in the process of malting, as in the manufacture of beer, of which sprouts I take about two and one-half gallons and put them into the boiler of "ten-horse" power and increase said quantity in proportion to the capacity or power of the boiler in which the sprouts are used.

I have discovered that the sprouts, when boiled in the water in the act of producing steam, prevent the incrustation of the boiler with the deposits usually termed "scale," and that this prevention extends wherever the steam goes, so that exit steam-pipes are also

prevented from becoming clogged by the deposits of the condensed vapors therein, and that when used in a boiler already incrustated the sprouts, when boiled, will loosen, dissolve, and remove the same from the boiler.

The advantages of my discovery are apparent, and need not be specifically mentioned, except that in the use of whole unmalted barley greater bulk of coarser material is necessarily introduced into the boiler to the detriment of its operation, and that unmalted barley does not possess the preventive action that malted barley-sprouts have by reason of the process of malting the barley.

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

The method of preventing incrustation in steam-boilers herein set forth, which consists in mixing with the steam-producing water within the boiler malted barley-sprouts, substantially as and for the purpose set forth.

FRIEDRICK M. COLLET.

Witnesses:

E. W. NAGLE,
WM. SCHULLER.