

United States Patent Office.

CLAUS SPRECKELS, OF SAN FRANCISCO, CALIFORNIA.

Letters Patent No. 75,656, dated March 17, 1868.

IMPROVEMENT IN THE MANUFACTURE OF CRUSHED SUGAR.

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, CLAUS SPRECKELS, of the city and county of San Francisco, State of California, have invented an Improved Process for the Manufacture of Crushed Sugar; and I do hereby declare that the best mode which I have discovered for performing the said process, is described in the following specification, with the best apparatus which I have found or devised for performing the same.

The object of my invention or process is to manufacture crushed sugar directly from the centrifugal machine, without the tedious delay in the method now employed, to wit, that of turning the melted sugar into moulds and allowing it to refine and drain, before it can be crushed into the sufficient-sized lumps or pieces of commerce, this process requiring from ten to fourteen days, while, by my improved process, only about three days' time is required, and a sugar furnished of a quality equally as good, and at an expense of at least one cent per pound less.

In order to accomplish this object, I take the crude or raw sugar and dissolve and boil it in the usual manner. From the boiler it is pumped into tanks, from thence through the usual process, into the vacuum-pan, in which it is boiled down and granulated to a proper state of crystallization. From this state it is passed through a mixer and well incorporated, after which it is carried to the usual centrifugal machine, which extracts all of the water and sirup from the grains or crystals.

After this part of the process has been performed, the sugar is taken directly from the centrifugal machine, and placed in moulds of suitable size and passed to a press, where it is subjected to a sufficient pressure to make the sugar adhere together in any desired form. The form of mould which I prefer to use, is about twenty-four (24) inches long, ten (10) inches wide, and from two to three inches in thickness. From the press the cakes so formed are removed to a room having suitable shelves, where they are subjected to a mild heat for about ten (10) hours, after which it is removed from the shelves, and placed in an oven with an increased temperature, where it is kept for a short time.

The process being now finished, the products, consisting of the cakes of sugar, are removed to a crushing-mill of the usual construction, with points, and there reduced to a marketable crushed sugar, the firm parts being passed through a grinding-mill, and sold as powdered sugar.

The kind of press employed is immaterial; any good press will answer, having suitable power, with the necessary appliances.

Having thus described my process, so as to enable any person skilled in the art or science to which it most nearly appertains to perform the same without further invention or experiment, what I claim, and desire to secure by Letters Patent, is—

The manufacture of the crushed sugar of commerce directly from the centrifugal machine, in the manner substantially as herein described.

In witness whereof, I have hereunto set my hand and seal.

CLAUS SPRECKELS. [L. S.]

Witnesses:

JNO. L. BOONE,

GEO. H. STRONG.