

UNITED STATES PATENT OFFICE.

J. F. SHELDEN, OF VIOLA, ILLINOIS.

IMPROVED PROCESS OF REFINING SORGHUM-SIRUP.

Specification forming part of Letters Patent No. **40,953**, dated December 15, 1863.

To all whom it may concern:

Be it known that I, J. F. SHELDEN, of Viola, in the county of Mercer and State of Illinois, have invented a new and useful Improvement in Processes for Defecating and Refining Sorghum and Cane Sirups; and I do hereby declare that the following is a full, clear, and exact description thereof.

The nature of my invention consists in a peculiar mode of treating cane-sirup or acidulated sorghum-sirup with saleratus or some equivalent alkaline preparation without the application of heat, thereby producing sirup of much better quality than has been obtained heretofore by any other process.

To enable those skilled in the art to fully understand and practice my invention, I will now proceed to describe the same with particularity.

In the first place, however, I would remark that unless it is desired to convert the sorghum-sirup into sugar care must be taken not to subject the same to the treatment hereinafter described, unless it has become soured or has been thoroughly acidulated, as my process applied to sorghum-sirup which is not soured will convert the same into sugar. The sirup is put into suitable open vessels in a cool airy place, and I then add to it one pound of De Land's chemical saleratus for every twenty gallons of the sirup. Other kinds of saleratus may be employed; but I consider the above-named brand to be the best. The saleratus must be added to the sirup when perfectly cold, and no heat must be applied during the treatment, as the virtue of this treatment consists in keeping the sirup cold during the entire process. The whole mass is then stirred thoroughly for

about fifteen minutes, so as to diffuse the saleratus equally throughout the sirup. After the effervescence caused by the saleratus has subsided the sirup should then be stirred three times per day, or oftener, for from ten to fifteen days, when the chemical change in the sirup will have been completed, and the result of this treatment is the production of sirup much superior to any rectified or refined by any other process.

Besides the superiority of the sirups which are produced by this method, there is a great advantage over others in the saving of fuel and apparatus for heating, as the entire process is carried on and completed without the application of any heat whatever, and not only may it be done without heat, but the application of heat would destroy all the beneficial effects of the saleratus.

It is essential in my process that the sirup should be kept perfectly cool, otherwise the sirup assumes a dark color and possesses an acrid unpleasant flavor, whereas by my process in treating the cold sirup I produce a clear light-colored sirup, which is entirely free from the greenish or sourish taste which forms so strong an objection to sorghum-sirups.

Having described my improved process for refining sirups, I will state what I claim and desire to secure by Letters Patent:

The process herein described of treating cold sirups with saleratus, in the manner and for the purposes set forth.

J. F. SHELDEN.

Witnesses:

W. E. MARRS,
L. L. COBURN.