

# UNITED STATES PATENT OFFICE.

WILLIAM YOUNG, OF SHELBYVILLE, AND WILLIAM BOSSON, OF MURFREESBOROUGH, TENNESSEE.

## IMPROVEMENT IN PROCESSES OF GRANULATING SUGAR.

Specification forming part of Letters Patent No. 132,511, dated October 22, 1872.

*To all whom it may concern:*

Be it known that we, WILLIAM YOUNG, of Shelbyville, in the county of Bedford and State of Tennessee, and WILLIAM BOSSON, of Murfreesborough, in the county of Rutherford and State of Tennessee, have invented a new and Improved Process for Granulating Sugar, of which the following is a full, clear, and exact description:

The said process is as follows: We run the juice from the mill through white clay or fine white sand, whereby all the fibers or particles of cane are caught. It is then conveyed in pipes to the settling-box, from which it is let onto the first section and front end of the evaporator, where it is heated to boiling and skimmed off. It is then passed to the second section and boiled to about 25° density, or sweet; thence to the third and finishing section. When this is reached we add about one pint of tannin (made preferably from white oak, the liber or inner bark being taken off) to each gallon of sirup. As the tannin is added the glutinous and feculent matters are separated from the saccharine, brought to the surface, and thrown off, leaving the sirup a clear

golden yellow color. The boiling is continued until 36° density, or sweet, is attained, when one-half pint of cold water to each gallon of sirup is added to render the granulation more perfect. The sirup is then carried off a distance, say, thirty feet or more, for the purpose of cooling it before throwing it into a body. It is then transferred into a large cooler where it granulates in five or six days. At the expiration of this time the "mush" sugar is carried through a sugar-separator or centrifugal machine, which separates and dries it at the same time, and a continued practical test has demonstrated that about five pounds of sugar to each gallon of sirup can be realized with a residuum of six pounds of good sirup.

Having described our invention, we claim—

The process herein described for granulating sugar.

In testimony whereof we have hereunto signed our names.

WILLIAM YOUNG.  
WILLIAM BOSSON.

Witnesses:

W. B. LILLARD,  
JNO. C. SPENCE.