J. H. HYNSON.

Sugar-Cooling and Draining-Apparatus.

No. 166,778. Patented Aug. 17, 1875

Fig. 1

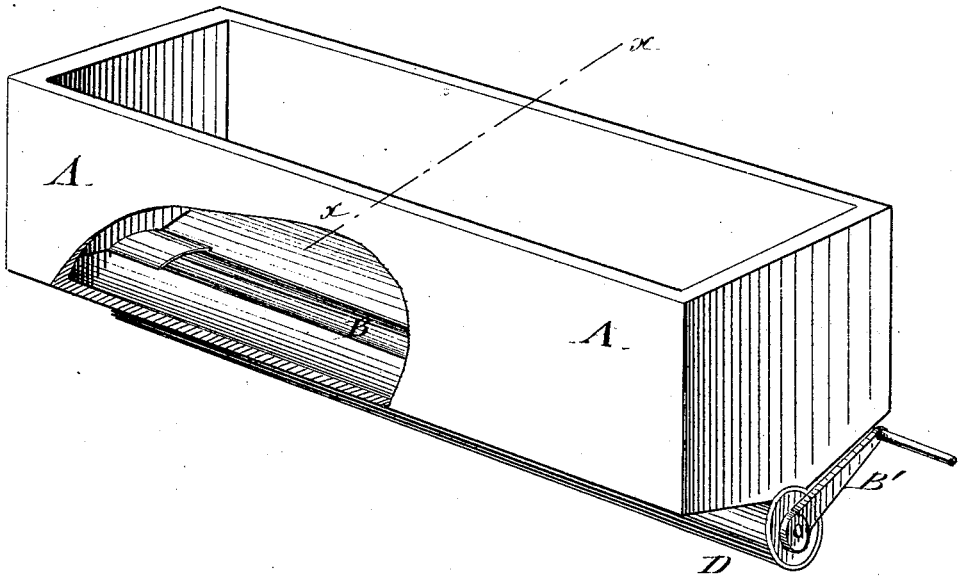
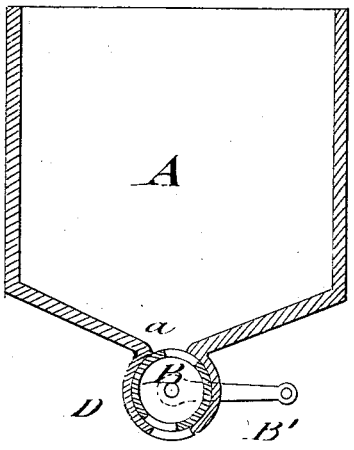


Fig. 2



WITNESSES:

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JOSEPH H. HYNSON, OF ALEXANDRIA, LOUISIANA.

IMPROVEMENT IN SUGAR COOLING AND DRAINING APPARATUS.

Specification forming part of Letters Patent No. **166,778**, dated August 17, 1875; application filed June 5, 1875.

To all whom it may concern:

Be it known that I, JOSEPH H. HYNSON, of Alexandria, in the parish of Rapides and State of Louisiana, have invented a new and useful Improvement in Sugar Cooler and Drainer, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a perspective view of my improved cooler and drainer, with part broken out to show interior; and Fig. 2 is a vertical transverse section of the same on the line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts.

My invention relates to an improved sugar cooling and draining apparatus, by which the cooling and granulating of the sugar and the draining off of the molasses are accomplished in superior manner, and by simple and inexpensive means.

The invention consists of an oblong cooling-vessel, with bottom inclined from both sides toward the center, where a longitudinal slot connects with a slotted revolving draining-tube, fitting tightly to the under side of the central bottom part of the vessel.

In the drawing, A represents an oblong vessel for cooling sugar, which corresponds in size with the kettles from which it is charged. The vessel is preferably made of wood, and filled gradually by the "strikes" from the kettles, a certain time being allowed to elapse between each strike for the granulating and cooling of the sugar before another strike is emptied on the same, and so on until the cooler is full. The bottom of the cooler is inclined from the sides toward the longitudinal center, for the purposes of allowing the molasses to drain to the lowest part of the center. A longitudinal slot, *a*, runs through the center of the vessel, and connects with a draining-tube, B, closed at both ends and slotted at diametrically opposite points throughout its full length. The draining-tube B turns by a crank, B′, at one or both ends in a sleeve-shaped attachment, D, which is also slotted at the lowest point in longitudinal direction, or in other suitable bearings, but so that a perfectly tight contact of the slotted bottom part of the cooler and revolving tube is formed. When, after the striking is finished, the sugar in the cooler has sufficiently granulated, the process of drainage is commenced by turning the crank until the slotted part of the tube opens gradually toward the bottom slot of the cooler. If the sugar is still warm the molasses drains rapidly through the narrow crevice without allowing any of the grains of sugar to pass; but if the sugar has cooled and become firmer the opening between tube and bottom slot may be opened wider for the readier draining of the molasses which has collected by granulation at the central bottom part of the cooler. The molasses may in this manner be drained off more or less rapidly, according to the degree of heat in the sugar. The most advantageous moment for draining may thus be readily determined, so that a better quality of sugar than with the common modes of draining may be obtained.

Having thus described my invention, I claim and desire to secure by Letters Patent—

A sugar cooler and drainer composed of a cooling-vessel having bottom inclined from the sides to the central longitudinal slot, in connection with a tight-fitting revolving draining-tube, provided with corresponding slots at diametrically-opposite points, substantially as and for the purpose set forth.

JOSEPH H. HYNSON.

Witnesses:
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