

ALL THE DUNG AND OTHER PUTRESCIBLE MATTER

Because gunpowder was in short supply in Maryland and other colonies, and saltpeter—or nitre—was an essential ingredient, a search was initiated for saltpeter crystals. Dr. Charles Frederick Wiesenthal was named inspector of gunpowder, and the General Assembly in December 1775, offered a bonus of several pence per pound for locally produced nitre. Wiesenthal developed a formula or process for extracting saltpeter crystals which was published by order of the Maryland Convention in *Dunlap's Maryland Gazette*; or, the *Baltimore General Advertiser* on January 2, 1776:

"ANNAPOLIS, December 28

"The following process of the ingenious Dr. Wiesenthal, for making crude nitre, which he has successfully practised; is published by order of the Convention.

"RAKE from off the earthen floors of old stables, tobacco houses, cellars, especially wood cellars, sheds near barns where cattle resort, sheep stables, pidgeon and poultry houses, tan yards, slaughter houses and the like, where the rain hath not penetrated; all the dung and other putrescible matter which is not entirely rotten, and dig the earth up a foot deep, more or less, according as the spot hath been covered from the rain a longer or shorter time; form the earth thus dug up into small hills, and leave it so two weeks to the exposure of the air, if longer it is the better. Provide one or more tight hogsheads or tubs, the number according to the extent of your design; pierce their bottoms with holes, which fit with plugs; on the inside place sticks across the holes, and cover the sticks with a large handful of straw, setting your hogshead or tubs a little way from the ground, so that small tubs or pans may conveniently be placed under the tap-holes; fill your hogsheads or tubs with the before-mentioned earth, pouring warm water thereon till the earth is well soaked, and just covered therewith; let it remain twenty four hours, and then draw the ley gently off; but if it should appear a little muddy, it must be poured on again till it runs off quite clear; this ley is fit for boiling; but as the nitre will not be wholly extracted from the earth, again pour fresh water on the old earth and draw off a second ley, which afterwards pass through your hogsheads or tubs of fresh earth as directed before: the manner of fixing the hogsheads and drawing off the nitrous ley is the same as in making common ley. Boil the strong nitrous ley in a copper or iron vessel till two third parts or better are wasted, taking off the scum as it rises, and laying it in your hogsheads of fresh earth. When the two thirds are wasted by boiling, add about one half of the remaining third of the ley of wood ashes, which must be previously made and kept ready for the purpose, and the boiling must be continued till a drop of the liquor let fall and cooled on a cold iron discovers some signs of salt; then pour or lade the liquor into wooden tray or large earthen glazed dish, and set it in a cool place or cellar, and after ten or twelve hours standing, the liquor being poured off, the crystals will be formed at the bottom, which are crude saltpetre. If the remaining liquor is still in a sufficient quantity, boil it again till the above-mentioned token appears, and set it as before in the cellar for crystalization: but if the quantity is small, add it to the next boiling. Lime water will answer the same purpose as the ley of wood ashes.

"NOTE, Instead of adding the ley of wood ashes, we may with great propriety mix with the earth, when put into the hogshead, wood ashes and common lime in layers, five parts earth, one part wood ashes, and half a part of lime, and proceed as above without any further addition of ley. This last method is to be preferred.

G. DUVALL, clerk."