verbal precepts will furnish any degree of skill in a matter depending wholly on constant practice.

The juice being thus purified by passing through the clarifier and four coppers, it is poured into coolers, which are usually six in number. The removal from the teache to the cooler is called *striking.* The cooler is a shallow wooden vessel, seven feet long, from five to six wide, about eleven inches deep, and capable of containing a hogshead of sugar. As the liquor cools, the sugar grains, that is, collects into an irregular mass of imperfect crystals, sepa­rating itself from the molasses. It is then removed from the cooler and conveyed to the curing house, where the molasses drain from it- For receiving them there is a large cistern, the sloping sides of which are lined with boards. Directly above the cistern a frame of joist-work without boarding is placed, on which empty hogsheads without heads arc ranged. The bottoms of these hogs­heads are pierced with eight or ten holes, in each of which the stalk of a plantain leaf is fixed, so as to project six or eight inches below the joists, and rise a little above the top of the hogshead. The hogshead being filled with the contents of the cooler, consisting of sugar and molasses, the molasses being liquid, drain through the spongy stalk, and drop into the cistern. After the molasses are drained off, the sugar becomes pretty dry and fair, and is then called *muscovado* or *raw sugar.*

We have described the process for extracting sugar, which is generally adopted in the British West India islands, according to the latest improvements ; and have been anxious to present it to our readers in the simplest and most perspicuous form, that it might be intelligible to every person ; and have therefore avoided to mention the observations and proposed amendments of those who have written on this subject. Had we done so, we should have swelled the present article to too great a size, without ac­complishing the purpose which we have in view ; for our intention is not to instruct the planters, but to give a dis­tinct account of the most approved methods which the planters have generally adopted. But though we judge it useless to trouble our readers with all the little varieties in the process which different persons employ, we flatter ourselves it will not be disagreeable to learn by what me­thods the French make their sugar purer and whiter than ours. A quantity of sugar from the cooler is put into conical pans or earthen pots, called by the French *formes,* having a small perforation at the apex, which is kept closed. Each cone, reversed on its apex, is supported in another earthen vessel. The syrup is stirred together, and then left to crystallize. At the end of fifteen or sixteen hours, the hole in the point of each cone is opened, that the impure syrup may run out. The base of the sugar- loaves is then taken out, and white pulverized sugar sub­stituted in its stead ; which being well pressed down, the whole is covered with clay moistened with water. This water filters through the mass, carrying with it the syrup which was mixed with the sugar, but which by this manage­ment flows into a pot substituted in the place of the first. This second fluid is called *fine syrup.* Care is taken to moisten and keep the clay to a proper degree of softness as it becomes dry. The sugar-loaves are afterwards taken out, and dried in a stove for eight or ten days ; after which they are pulverized, packed, and exported to Europe, where they are still further purified. The reason assigned why this process is not universally adopted in the British sugar islands is this, that the water which dilutes and carries away the molasses dissolves and carries with it so much of the sugar, that the difference in quality docs not pay for the difference in quantity. The French planters probably thought otherwise, upwards of 400 of the plantations of St Domingo having had the necessary apparatus for claying and actually carrying on the system.

The art of refining sugar was first made known to the Europeans by a Venetian, who is said to have received 100,000 crowns for the invention. This discovery was made before the new world was explored ; but whether it was an invention of the person who first communicated it, or whether it was conveyed from China, where it had been known for a considerable time before, cannot now perhaps be accurately ascertained. We find no mention made of the refining of sugar in Britain till the year 1659, though it pro­bably was practised several years before ; for in the Portu­guese island of St Thomas in 1642 there were seventy-four sugar ingenios, each having upwards of two hundred slaves.

The sugar which undergoes the operation of refining in Europe is either raw sugar, sometimes called *muscovado,* or *cassοnado,* which is raw sugar in a purer state. The raw sugar generally contains a certain quantity of molasses as well as earthy and feculent substances. The cassonado, by the operation of earthing, is freed from its molasses. As the intention of refining these sugars is to give them a higher degree of whiteness and solidity, it is necessary for them to undergo other processes. The first of these is called *clarification.* It consists in dissolving the sugar in a certain proportion of lime-water, adding a proper quantity of bullock’s blood, and exposing it to heat in order to re­move the impurities which still remain. the heat is in­creased very gradually till it approach that of boiling water. By the assistance of the heat, the animal matter which was thrown in coagulates, at the same time that it attracts all the solid feculent and earthy matter, and raises it to the surface in the appearance of a thick foam of a brownish colour. As the feculencies are never entirely removed by a first process, a second is necessary. The solution is therefore cooled to a certain degree by adding some water ; then a fresh quantity of blood, but less considerable than at first, is poured in. The fire is renewed, and care is taken to increase the heat gently as before. The animal sub­stance seizes on the impurities which remain, collects them on the surface, and they are then skimmed off. The same operation is repeated a third and even a fourth time, but no addition, except water, is made to the liquor. If the different processes have been properly conducted, the solution will be freed from every impurity, and appear transparent. It is then conveyed by a gutter into an oblong basket about sixteen inches deep, lined with a woollen cloth ; and after filtering through this cloth, it is received in a cistern or copper which is placed below.

The solution being thus clarified, it undergoes a second general operation, called *evaporation.* Fire is applied to the copper into which the solution was received, and the liquid is boiled till it has acquired the proper degree of consistency. A judgment is formed of this by taking up a small portion of the liquid and drawing it into a thread. When, after this trial, it is found sufficiently viscous, the fire is extin­guished, and the liquid is poured into coolers. It is then stirred violently by an instrument called an *oar,* from the resemblance it bears to the oar of a boat. This is done in order to diminish the viscosity, and promote what is called the *granulation,* that is, the forming of it into grains or im­perfect crystals. When the liquid is properly mixed and cooled, it is then poured into moulds of the form of a sugar- loaf. These moulds are ranged in rows. The small ends, which are lowest, are placed in pots ; and they have each of them apertures stopped up with linen for filtering the syrup, which runs from the moιdds into the pots. The li­quor is then taken out slowly in ladlefuls from the coolers, and poured into the moulds. When the moulds are filled, and the contents still in a fluid state, it is necessary to stir them, that no part may adhere to the moulds, and that the small crystals which are just formed may be equally diffused through the whole mass. When sugar is completely crys­tallized, the linen is taken away from the apertures in the