A concentrated solution of sugar and molasses is very liable to burn, and should, therefore, be carefully watched, and exposed to a *more and more moderate fire* as the evaporation advances.

The use of a saccharometer is to indicate the relative weight or density of a liquid as compared with water. This density depends upon the amount of sugar, or other heavy substances held in solution. Consequently, the degree of density indicated by the saccharometer is an index of the proportion of sugar, &c., contained in the juice.

It is simply a hollow tube terminating in a bulb, loaded with shot, to to keep the bulb down and the tube upright. Floating in pure water, the tube, at the point where it appears above the surface, marks 0. But in proportion as the liquid is heavier, the bulb does not sink so deep, and more of the tube appears above the surface. The density of the Sorgho juice, cold, is about 10° Beaume, so called from Beaume, the inventer.

If your kettles or moulds are of iron, give them two good coats of white paint *inside*, drying each coat thoroughly. This prevents the sugar from being made dark by contact with iron, which will be the case if the slightest acid be present. Before using them, scald them thoroughly *twice*, letting boiling water stand in them until cold, to remove the taste of the paint.

NECESSARY UTENSILS, &c.

1. A thermomether *marking* (250°) *Fanrenheit* One without a case, or which can be removed from the case.

2. A saccharomer, or Pese Sirop, scale of Beaume.

You had better get *two of both the above,* to provide against accident.

3. A few sheets of litmus paper.

4. Two kettles of copper, brass or iron, holding twenty-five gallons each; one of these may be smaller than the other, but if so, should be as large a diameter, only shallower.

5. Three, or more, large iron sugar moulds, holding twelve gallons each. If you cannot get the sugar moulds, three *long*, *narrow* twelve gallon kegs will answer.

6. Three five gallon pots of glazed earthen or stone ware, with *mouths* somewhat smaller than the caps of the sugar moulds. If you use kegs instead of moulds you can use pails instead of pots.

7. A barrel of granulated (not pulverized) bone black, such as is used by sugar refiners.

8. Four ten gallon tubs. (Two water-tight whiskey or cider barrels, sawed across the centre, will answer.)

9. A yard of thick heavy bed ticking.

10. A circular piece of coarser wire gauze, to fit the inside of the sugar mould or keg, three inches above the lower end.

11. A circular piece of half inch board, full of gimlet holes, to fit the inside of the sugar mould or keg, three inches above the lower end.

12. A shallow perforated iron or tin skimmer.

13. A large iron or tin dipper, or ladle.

14. Two simple furnaces, or fire places of brick, upon which to place the two kettles. One larger furnace, with two holes, and one fire place under both kettles, will do, if the kettles are *moveable.* But as the labor