

The extraction of the juice, the filtering and purifying of the sugar are in the first place the same and the only difference is in the defecation, evaporation and boiling down.

The new system excels the old one, in that it is really more simple in practice, that it is more economical and that it gives better and finer results.

For *defecation* a copper boiler with a *double bottom* is used, in which the steam circulates. After each operation this boiler is carefully cleaned. For evaporating and boiling down, copper basins, with covers surmounted by chimneys for the escape of the steam generated in the boiling, are used. These basins are heated by steam in coils rolled at the bottom in spirals.

The *press-filters* are replaced by an ordinary screw or lever press.

As after defecation there always remains too much lime in the juice, the quantity of *animal charcoal* is increased to 15 and 20 per 100 of the weight of the juice to drive off this excess of lime.

Defecation.

The juice being brought to the boiler, it is rapidly heated up to 180°. Steam is then shut off and 2 gallons and a half of milk of lime at 20° Beaumé is put into 100 gallons of the juice ; it is well mixed with a *stirrer* and then slowly heated.

Under the influence of the heat and the lime, the organic substances contained in the juice are decom