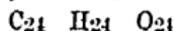


know, produces a blue coloration as long as any starch is present, you will find that the intensity of the colour is rapidly diminished, and that soon a point is reached when the perfect cessation of coloration indicates the total transformation of the starch into dextrin. The passage of the latter into glucose is not perfectly accomplished before the lapse of several hours.

In order to complete the description of the several sugars which I have enumerated, it remains to say a few words regarding the saccharine compound found in the milk of the mammalia, and which is generally called milk-sugar, lactin, or lactose. A few words, however, may suffice. Milk-sugar is always obtained from the milk after the butter and cheese has been separated. One or two re-crystallizations renders it perfectly pure. The milk-sugar which we meet in commerce is nearly all prepared in Switzerland.

Milk-sugar has the same per centage composition as uncrystallizable sugar. Chemists are, however, in the habit of representing it by the formula



because it is capable of exchanging 5 equivalents of hydrogen for an equivalent amount of lead,—a quantity which would lead to fractions if the simpler formula



were assumed.

Milk-sugar is readily distinguished from cane-sugar and glucose by its being far less soluble in water—1 part of milk-sugar requiring as much as 5 or 6 parts of cold water. In alcohol it is perfectly insoluble, and the aqueous solution is slowly precipitated by alcohol. The most characteristic difference, however, is observed if milk-sugar be treated with concentrated nitric acid. In this reaction, milk-sugar is converted into a peculiar crystalline acid (*mucic acid*), which is difficultly soluble in water, and which, both by its composition and properties, essentially differs from oxalic acid, which, as you know, is the product of oxidation of the other sugars.—*Medical Times and Gazette*.

#### ON THE LOCAL APPLICATION OF THE VAPOR OF CHLOROFORM.

In an article in the *Dublin Quarterly Journal*, Dr. Hardy gives several examples of the application of the vapor of chloroform to the vagina and neck of the uterus, in painful affections of these parts, by means of an instrument which he has invented for that purpose. The following are his conclusions:—

“In observing the effects of chloroform as applied locally in the form of vapor in the above cases, I have endeavoured to obtain as correct a notion of it as possible, in order that a true estimate might be arrived at of its value as a remedy. Besides the cases here recorded, I have applied the vapor locally to various other forms of irritation. One of these in particular I was anxious to know its action in—namely, *pruritus pudendi*, a disease exceedingly troublesome and unpleasant to the patient, and for the relief of which she is often very reluctant to ask a remedy until she is forced to do so. I have used it in a case of this kind in the person of a very intelligent patient, who for a length of time had been annoyed, particularly on the approach of a menstrual period, by this distressing complaint, for which she made use of various remedies. The vapor of chloroform, she informed me, afforded her relief from her uneasy sensations. On referring to one of the cases (Case v.) detailed, it will be seen that there was a very severe sense of scalding in the vagina, which seemed to demand a good deal on uterine irritation.—Knowing the heat caused by the vapor of chloroform, I feared this patient would have suffered severely from its application; but, on the contrary, she was quite relieved of it; so in *pruritus pudendi*, arising from a similar cause, the like results have been obtained as in her case.

“In future investigations as to the effect of the vapor of chloroform when