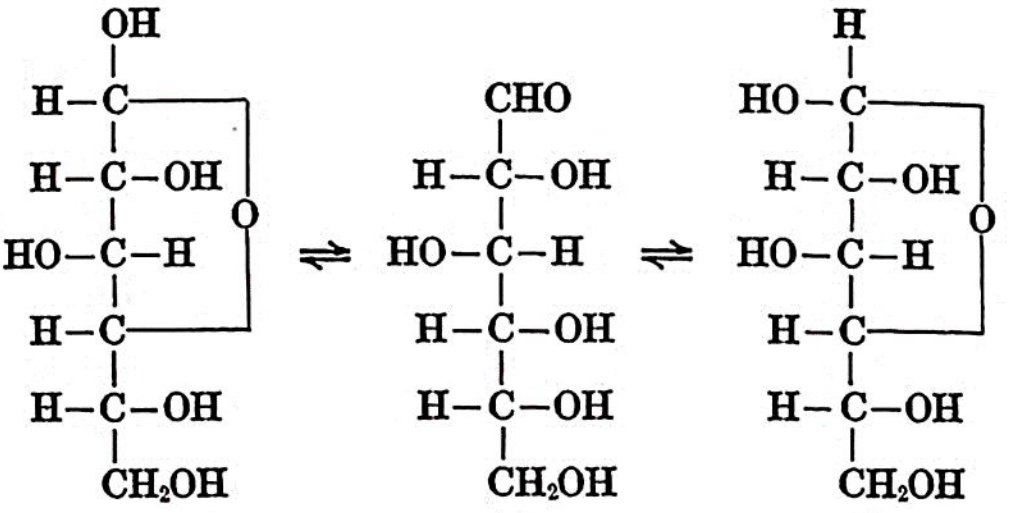

When to such a solution of glucose a small quantity of alkali is added, certain remarkable further changes occur, as was first demonstrated by Lobry de Bruyn.[1] These processes result in the formation of mannose and levulose, probably according to the accompanying diagram.

Moreover, like glucose, levulose and mannose both exist in solution in three different forms, so that the resulting solution contains at least ten chemical individuals. But it is almost certain that other changes simultaneously occur and that the solution is actually still more complex, even from the outset.

Upon a continued increase of alkalinity, or even slowly under the original conditions, a multitude of other changes set in. These

[1] See the numerous papers by Lobry de Bruyn and Alberda van Eckenstein in *Recueil des Travaux Chimiques des Pays Bas*, XIV–XIX.