

ly sold for the other. When carbolic acid is mixed with chloroform and an excess of caustic soda, and after the reaction is over the chloroform is distilled off, a substance remains which contains salicylic acid. By decomposing with acid an oily salicylic aldehyde remains, that can be purified by combination with bisulphite of soda and again decomposing with dilute acid. In this way an artificial winter-green oil is obtained. Guaiacol, a constituent of beech-wood tar creosote, if treated in this way, yields the aldehyde of vanillic acid or vanilline. S. Marasse, who discovered guaiacol in creosote in 1870 (*Ann. Chem. Pharm.*, ciii. 59), stated in his essay that it has a pleasant odour like vanilla, an odour also peculiar to guaiacum wood (Pockholz) and its resin, gum guaiacum, from which guaiacol was first made by Unverdorben in 1826.

It is probable that the numerous phenols will enable us to prepare other natural flavours artificially; at all events it opens an attractive field for research.

In the *Moniteur Scientifique* of Dr. Queseneville for October there are two elaborate and interesting articles "On the Combinations of Coniferine and Vanilline" and "On certain Derivatives of Vanillic Acid," by F. Tiemann.

ON SYRUP OF LIQUORICE ROOT AND BROWN MIXTURE.*

BY A. P. BROWN, PH.G.

A short time ago, having occasion to make some ammoniacal glycyrrhizin, it occurred to me that the use of ammonia in preparing syrup of liquorice root would be an advantage, I therefore devised the following formula:

Take of Liquorice root,	4 troyounces
Cold water,	q. s.
Water of ammonia,	1 fluidounce
Granulated sugar,	13 troyounces.

Grind the root in a mill, and place in a wide-mouth bottle, with a tightly-fitting stopper, pour upon it one pint of water, mixed with the water of ammonia, macerate for forty-eight hours, then transfer it to a funnel and allow the liquor to drain from it, and add sufficient water until two pints of liquid has passed; allow it to stand until the particles have subsided, then decant and evaporate to eight fluidounces, filter and, having added the sugar, dissolve it with the aid of heat.

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