

tifacient in those women who have some tendency thereto. Certainly, menorrhagia and metrorrhagia have been ascribed to its use. Discretion should be exercised in prescribing any of the salicylates in albuminuria, renal irritation, middle ear disease, meningeal inflammations, and in diseases with marked cardiac weakness, from its well known physiological effects upon the particular structures involved in these diseases. It should be given with caution to alcoholics. The salicylates have seldom, if ever, directly caused death. Eccles¹⁵ failed to find a single fatality from its use recorded in the leading works on toxicology.

Antiseptic Action.—The movements of protozoa, leucocytes, and plant protoplasm are arrested by salicylic acid, which is also a very potent destroyer of organized or living ferments. It retards the digestion of proteids by the gastric and pancreatic juices, and the decomposition of glucosides by the unorganized ferments, pepsin, ptyalin, trypsin, etc. The decomposition of proteid solutions, of urine, and of alcoholic and acetic acid fermentations is more or less completely retarded and prevented by comparatively small quantities of salicylic acid. Prof. Dunham³ found that 1:960 salicylic acid solution was sufficient to kill staphylococcus pyogenes aureus, streptococcus pyogenes, and bacillus coli communis, in two minutes. Miller found that 1 per cent. of salicylic acid checked the action of ptyalin upon starch; to produce the same effect required 10 per cent. of carbolic acid. Vallin, on the other hand, asserts that both the ferments and bacteria rapidly acquired a tolerance for the antiseptic, and the latter transmitted this quality so markedly that succeeding generations of bacteria resisted doses fatal to their ancestors. The use of the salicylates as preservatives of foods, fruits, wines, beer, etc., has occupied very considerable attention of late years, and has called into existence regulative legislation in various countries. The continued use of salicylic acid, in very considerable amounts, cannot be without injurious results, even in conditions of health; how much the more so in cases where its use is contraindicated and yet, where its presence may not even be suspected. Neubauer and Bechamp found that in poor wines and cider even so much as 1.5 grammes salicylic acid per litre did not prevent fermentation occurring comparatively early. The Kansas University experiment determined that one part salicylic acid to the thousand (1:1000) is necessary to preserve cider. As much as 4 to 8 grains per pint have been discovered in perishable goods. In 1901 the English De-