the following facts are obvious: All cell tissues contain diastase. The more vigorous and active the tissue the greater the diastase content. Diastase is formed in greater quantity, perhaps entirely, in the anabolic or growing state. This anabolic state persists to some extent as long as the tissue lives, and while not manifest by an increase in size, is manifest in the repair of tissues exhausted by the basal metabolism. In conditions of great waste, *i.e.*, excessive katabolism, there is a decrease in diastase content. The method used for the determination of the diastatic content of the tissues is described in the *Journal of Biological Chemistry*, 1919, Vol. 39, p. 274. The order of diastatic activity of the dog and rabbit was given. The tissues of other animals show a close agreement with this test. The effect of the state of health on the diastatic content of the blood of human patients suffering from cancer, pernicious anemia and typhoid was compared with the diastatic content of normal blood. In all cases the content was lower in the diseased state. This is in agreement with what has been found on plants which contain more diastase in the healthy vigorous state. The suggestion is made tentatively that the diastase content of a tissue may be used as a measure of its functional activity, and perhaps also as a test of basal metabolism. While the work is unfinished it would seem that diastatic activity runs parallel with functional activity; the more active the tissue the greater its diastatic activity and the significance of the diastases is that of life itself. There is no indication that diastase is a waste product as has been assumed by some investigators.

New benzyl esters possessing anti-spasmodic action: H. A. SHONLE and P. Q. ROW. In investigating the anti-spasmodic action of the benzyl nucleus the benzyl esters of lauric, myristic, palmitic, stearic, and oleic acids were prepared. They are either liquid or low melting solids, insoluble in water and practically tasteless and odorless. They are hydrolyzed as readily as olive oil when acted on by lipase in vitro. They possess no irritating effect on the mucous membrane, and in clinical cases cause the relaxation of smooth muscle.

Benzyl succinate: MORTIMER BYE. Following in the footsteps of Macht, of Johns Hopkins, and appreciating the many objectionable features in the administration of benzyl benzoate, the writer was led to seek for some *solid* material which would be more suitable for medication and more palatable to take. Benzyl succinate seemed to offer a solution of this problem, and accordingly the product was prepared, following modifications of the method of Bischoff & Von Hedenstrom (*Ber.*, 35, 4079) in which succinic acid and benzyl alcohol in molecular proportions are heated on an oil or metal bath for several hours at 180°–190°; after cooling and filtering the filtrate is subjected to vacuum distillation on a metal bath. The benzyl succinate distilling over at 235°–245° C. at 15 mm. pressure, crystallizes on cooling and is purified with solutions such as alcohol, ether or chloroform. The product is a beautiful snow white crystal, practically with very little odor or taste and practically non-toxic. Judging from our own experience and by the work of other investigators, benzyl succinate should be applicable to the treatment of all "diseases" wherein the use of benzyl benzoate is indicated. Such uses will be given in greater detail in the main paper.

Benzyl derivatives of salicylic acid: E. A. WILDMAN. It has seemed desirable to investigate the various types of compounds containing the benzyl radical in other types of linkage than esters. The benzyl ether of salicylic acid has been shown to possess distinct physiological activity.

Some new compounds of phenylcinchoninic acid: H. W. RHODEHAMEL and E. H. STUART. Phenylcinchoninic acid (2 phenyl-quinoline-4-carboxylic acid) combines readily with halogens and forms stable compounds with well characterized properties. A hydrochloride, hydroiodide, hydrobromide and hydrofluoride are described. Phenylcinchoninic acid also combines readily with quinine to form quinine phenylcinchoninate. This compound occurs as a white crystalline, nearly tasteless body, insoluble in water, but soluble in alcohol and acetone.

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Secretary

SCIENCE

A Weekly Journal devoted to the Advancement of Science, publishing the official notices and proceedings of the American Association for the Advancement of Science

Published every Friday by

THE SCIENCE PRESS

LANCASTER, PA. GARRISON, N. Y.
NEW YORK, N. Y.

Entered in the post-office at Lancaster, Pa., as second class matter