

Ethylene causes an increased rate of digestion of starch, which may make fruits sweeter, it causes changes in the cell wall materials just as in ripening fruits, it causes the disappearance of tannins and of organic acids to some degree, and increases protein cleavage. These same changes when occurring in fruits on the tree may be taken as evidences of ripening.

The work of E. M. Harvey, J. T. Rosa, R. P. Hibbard, W. A. Gardiner, and others than the parties to this controversy has proven that ethylene and some related compounds have remarkable effect on stimulating enzyme actions. These compounds act as coenzymes, if such a blanket term is permitted, for the hydrolytic enzymes and may act as hydrolytic catalysts themselves according to data by Rhea and Mullinix. The triple bond as in acetylene has a different action from the double bond of ethylene and propylene. The addition of elements at the double bond seems to destroy the action, except in some compounds which may yield ethylene. The formation of the oxide from ethylene destroys the effect. One is inclined to wonder if this catalytic action on hydrolyses is not a function of the double bond which may take on hydrogen and hydroxyl ions and again yield them easily to anhydrides. The surface tension effects, solubility in aqueous and lipoid phases, as well as the low molecular weight may give these double bond compounds properties not possessed by other such compounds found in plants.

I had been asked by two journals which have published articles in this controversy to write articles for them on the ethylene process. The data of value for commercial application had already been published sufficiently, and explicitly. I can see no reason why one should be required to publish before he is ready to do so. Charles Darwin would have had a slim chance of accumulating data for eighteen years if he had lived under our present system of reporting scientific results.

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#### BANANA STOWAWAYS

In reference to the note of Mr. L. A. Adams in *SCIENCE* of February 24, 1928, it may be of interest to record that in the summer of 1909 a laborer engaged in carrying bananas from a refrigerator car to a warehouse in Madison, Wisconsin, was terrified by having an animal leap from a bunch he had just placed on his shoulder; and attack his throat. The creature was captured and brought to our laboratory. It proved to be a female *Marmosa*, probably *M. murina*, and carried a litter of young on her back. The whole family was kept alive for some days, but

eventually died of malnutrition. Twice in the last twelve years we have received specimens of a small boa snake, taken from banana bunches, one at Madison, and one at St. Croix Falls, Wisconsin.

GEORGE WAGNER

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UNDER the above caption in *SCIENCE* for February 24, L. A. Adams mentions the finding of opossums of some species of the genus *Marmosa* in a bunch of bananas at Urbana, Ill.

I have in my collection two specimens of small opossums, each taken in Colorado Springs. One is *Marmosa cinerea*, and was found in a bunch of bananas about August 2, 1905. I saw an account of the capture in a local paper and secured the animal, keeping it alive for several days. Like Mr. Adams' animals it ate grasshoppers as well as other food. I was told that when caught it had a young one clinging to it, but that had disappeared before the animal came into my possession. The specimen was a female.

The other example, *Marmosa zeledoni*, is a skin given me by C. E. Aiken, October 5, 1912. He told me the animal was given him in the flesh by a man who had killed it in a commission warehouse, thinking that it was a rat. The type locality of this species is Navarro, Costa Rica, and doubtless the animal reached here with bananas. Both of these specimens were identified by the Bureau of the Biological Survey.

If my memory does not play me false, Victor Borchardt, of Denver, told me that he had known of several instances of small tropical opossums being found in bananas in the city.

EDWARD R. WARREN

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#### GALILEI OR GALILEO?

WOULD it not be time to call the great Italian by his right name? He is always referred to as *Galileo*. But *Galileo* was his given name, while *Galilei* was his family name. The French and Germans have always referred to him as *Galilei*. Of course the objection will be made that this is a paltry matter and that the usage *Galileo* is time honored. Still it is wrong. How would it do, if we referred to noted men bearing the names William Williams or Samuel Samuels as William or Samuel?

A. KAMPMEIER

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#### CONTRIBUTIONS ASKED FOR MEMORIAL TO LAPLACE

FROM the Philosophical Society of Washington, accompanying its subscription to the fund for the erec-

tion of a monument to the memory of the illustrious Laplace, comes the suggestion that a place should be requested for the publication in *SCIENCE* of the aspiration on the part of the Municipal Council of Beaumont-en-Auge, where Laplace was born, to proceed with the project formed before the World War to erect a memorial to Pierre Simon Laplace, author of "La Mécanique Céleste" and "L'Exposition du Système du Monde."

A committee has been organized in France of the most distinguished members of the Academy of Sciences and affiliated bodies, whose resolve to make the intended monument an international tribute, worthy of the universal service performed by Laplace in the advancement of civilization, extends a call to scientists and scientific bodies of the United States, as well as those of other foreign countries, to hear this appeal for contributions toward the sum of \$3,000 which has been apportioned to be raised here.

Checks drawn to the order of Monsieur Pierre Leger, treasurer of the Committee of Initiative, Paris, and sent to Monsieur Maxime Mongendre, Consul-General of France in New York, at 9 East Fortieth Street, New York City, will be forwarded to M. Leger.

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### SCIENTIFIC BOOKS

*Flora of the Panama Canal Zone.* By PAUL C. STANDLEY. Contribution U. S. Nat. Herbarium. Vol. 27. 1928.

STANDLEY has published a very important contribution to our knowledge of the flora of the Panama Canal region. In 1921 the governor of the Canal Zone asked the assistance of the Department of Agriculture in the preparation of an illustrated flora of the region. Standley was selected to prepare the flora, and the results of his investigations are now published. The purpose of the investigation was not only to contribute to our scientific knowledge of the region, but also to develop our knowledge of tropical agriculture. Some idea of the method of presentation may be obtained from the statement that "with the aid of the many English and Spanish common names, it should not be difficult for the casual visitor to identify most of the important plants of the Canal Zone."

The flowering plants of the region number about two thousand species. Besides the native plants, the keys include also the cultivated plants. The work is

based on the collections of the United States National Herbarium, which for many years has been receiving a wealth of material from collectors. Standley himself visited the Canal Zone twice, studying the flora and making collections. He gave special attention to the common names in use and also to the local uses of plants. The publication, therefore, is not merely a taxonomic account of the flora, but includes also much material of more general interest.

An interesting account is given of the contrasts in physiography and flora of the Atlantic and Pacific slopes. About two thirds of the Canal Zone lies on the Atlantic slope and has a highly diversified flora, very little of the pioneer vegetation remaining. The Pacific slope is comparatively arid, and the vegetation is very different in type from that of the Atlantic slope. This difference in the two floras consists not only in the general appearance, but also in the genera and species represented. The most conspicuous element of the Atlantic slope flora is the great number and variety of palms. The author also includes a very interesting account of the history of botany exploration in Panama. In short, the publication assembles in a single volume all the available information in reference to the development of our knowledge of a very interesting region. It will also make possible to appreciate and investigate more intelligently the closeness of the relationship of this flora to that of South America. The sixty-six remarkably fine plates picture some of the outstanding features of the flora.

Only about fifty pages are taken up with the general presentation of the region, its history and its outstanding features. The bulk of the volume is made up of the taxonomic presentation of the flora. It is not written in ordinary taxonomic style, but presents the taxonomic facts in simpler and more readable form. Detailed descriptions are not given, but there are keys for identification that will help the taxonomist. These keys include not only the native or naturalized species, but most of the introduced plants grown for ornament or for economic purposes. In the case of the more important plants, those likely to prove of the greatest interest to the public, more extensive accounts are given which will assist in recognizing the species. It is not a rigidly taxonomic work in the usual sense, therefore, but a general introduction to the flora of an interesting region, which may be of service not only to botanists, but also to all who may be interested in the region.

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