

place of lard; how the once despised coal tar may be made the basis for the manufacture of dyes and scores of organic chemicals, and how the waste lye of the soap-boiler may be used for the manufacture of glycerine.

In the preservation of the life and health of the children, who is more concerned and active than the expert who studies the composition of the air they breathe in the school room, and of the water they drink, at home? What more efficient help can be afforded to the people at large than that given by the various pure-food laboratories, both state and national? The foremost object of these laboratories is to safeguard the public against impure and injurious foods, and to protect them from the frauds of mislabeling and misbranding.

In the department of domestic science in the schools and colleges, much of the instruction is in these same lines, *i. e.*, to teach what is good food, wholesome surroundings, pure air, a sanitary dwelling; in all of this and similar work the chemist is continually giving his help, and by his investigations advancing the well-being of the community, so as to make life more worth the living.

E. H. S. BAILEY

CYRUS G. PRINGLE

CYRUS G. PRINGLE was born in Charlotte, Vermont, May 6, 1838, and died in Burlington, Vermont, May 25, 1911. At an early stage his studies at the University of Vermont were interrupted by the death of his father and he was compelled to return to the home farm to assist his mother in the support of the family.

Always interested in botany and horticulture, he declared in 1869, "My chief study shall be the adaptation of our beautiful Valley of Lake Champlain to horticultural pursuits"—the development of his native valley was the ambition of his life.

He began with a comparative study of the climatic conditions of the Champlain valley and of the adjoining horticultural areas. He followed this study by introducing plants from more southern areas and testing them under Vermont conditions. Finally, he attempted to improve plants which could be grown under

these conditions, by breeding and selection. It was in this field that he attained his greatest success.

Dr. Pringle laid a broad foundation for his work. He visited nearly all persons in this country who were engaged in the improvement of plants by breeding and selection, studying their methods and results. February 24, 1869, he imported a copy of Lecog's work on hybridization. While waiting at the mill for his turn to have his wheat ground, he learned to read French and pursued the study of Lecog's work.

As might be expected from such a man, he soon gained a wonderful insight into the nature of plants and success crowned his efforts. In a short time his farm became well known both to scientists interested in the laws of plant breeding and to horticulturists and seedmen seeking new varieties. Among his early friends and visitors was Luther Burbank.

Dr. Pringle did not limit his work to any one line of plants, but included all kinds, both useful and ornamental, which might help to develop his native state. Some idea of the scale on which he worked may be gained by a study of his early records. These show that he set out 1,500 apple and 600 pear stocks for an experiment in adaptation; that he was carrying on breeding experiments with over 25 species of plants, including cereals, potatoes, grapes, pears, plums, apples, cherries, a variety of ornamental plants and others; and that in every case he was working with very large numbers of individuals. His collection of bulbs of ornamental plants was the largest in point of variety, not only in the United States, but in the world.

He was able to originate and place on the market three potatoes of special merit. These were the Snowflake, the Alpha and the Ruby. The first attained great popularity and was sold at a large figure to a New York house. This house paid him as high as \$1,000 per pound for potato seed. In cereals he originated the Defiance Wheat, the Champlain Wheat and Hulless Oat. The first of these "has been for years the standard wheat for

irrigated sections in Colorado and adjoining states."

Only about ten years was devoted to the work outlined above. In that brief period he accomplished much. His farm was an experiment station teeming with possibilities when adverse circumstances caused him to give up this work. In a short time he turned his attention entirely to collecting and he became a botanical explorer. He began his collections in Vermont, but gradually extended his field to include the lower St. Lawrence, the Pacific slope, the southwestern states and territories, and finally Mexico.

Early in his career as a botanical collector of rare ferns in the Green mountains, he became acquainted with Professor Asa Gray, who later styled him "the prince of botanical collectors." Dr. Gray was engaged at that time upon his "Synoptical Flora of North America" and he assigned to Dr. Pringle the investigation of the flora of Mexico, "charging him, as they sat with a map spread before them, to ascertain especially the southern limit of distribution of species found in the United States and also to ascertain what related species might be indigenous in the adjacent regions of Mexico."

His first trip to Mexico was begun February 25, 1885. He was cordially received by the Mexican government officials, who gave him every possible assistance in his work, including letters to subordinates, special police protection when necessary, railroad passes for himself and assistants, etc. During the following twenty-six years he made thirty-nine trips to Mexico, sometimes bringing home large collections, sometimes returning empty-handed on account of sickness either of himself or his assistant. During this period he was able to travel over large areas and collect from many localities. He collected the desert flora of the arid interior plains of the great northern states; the alpine plants from the mountains capped with perpetual snow; the rich flora of the tropical jungles along the coast and lowlands.

As official collector for Harvard and the National Museum, he made for each institu-

tion a set of all his collections in addition to the set which he made for his own herbarium. However, he did not confine himself to these three sets, but attempted in every case to collect 60 extra sets for purposes of sale and exchange. These sets are to be found in all the large herbaria of the world. I believe it is now impossible to furnish complete sets. He brought out of Mexico alone over 12,000 numbers, very many of which were new to science.

His own herbarium, now the property of the University of Vermont, "The Pringle Herbarium," contains about 160,000 mounted plants and occupies two rooms, each 40 by 45 feet, in addition to office and storeroom. He was very busy the past winter making exchanges and buying plants to increase its size. The additions he made this year will approximate 30,000.

During the past year Dr. Pringle, although far from being as vigorous in bodily health as he was mentally, hoped to make another trip. Owing to the revolution in Mexico, he was considering South America as a field for this work, but his indomitable will and energy had carried him beyond his strength and an attack of pneumonia together with other complications cut short the life that had been so full of energy and masterful achievements.¹

GEORGE P. BURNS

UNIVERSITY OF VERMONT

*THE INAUGURATION OF THOMAS EDWARD
HODGES AS PRESIDENT OF WEST
VIRGINIA UNIVERSITY*

THE formal inauguration of Dr. Thomas E. Hodges, late member of the State Board of Control, and formerly professor in the university, as president of the State University of West Virginia took place on Friday, November 3, 1911.

The various exercises incident to the inauguration lasted several days, and were initiated by President Taft, on Wednesday morning, when he addressed a large gathering of

¹ An extended biography of Dr. Pringle by Professor Ezra Brainard will soon appear in *Rhodora*.