he will make a short study of orange-growing methods in Spain.

DR. B. E. LISCHER, professor of orthodontics at the Washington University Dental School, gave a series of lectures on orthodontics at the University of California from August 25 to September 4.

A PORTRAIT bust in bronze of Louis Pasteur was dedicated on September 16 at the American Institute of Baking. The bust was presented by Helge Jacobsen, director of Carlsberg Glyptotek; Vagn Jacobsen, director of Carlsberg Brewery, and the Carlsberg Fund, Poul C. Poulsen, director, Copenhagen, Denmark.

DR. JOHN MARTIN SCHAEBERLE, formerly astronomer at the Lick Observatory, has died at the age of seventy-one years.

DR. CHARLES W. MOULTON, head of the department of chemistry at Vassar College, died on September 13, aged sixty-five years.

DR. ALBERT HAWORTH, recently appointed lecturer in pathology at the University of Leeds, England, died on September 8, at the age of thirty-six years.

DR. ALFRED BERGEAT, professor of mineralogy and director of the Mineralogical Institute of the University of Kiel, has died, aged fifty-eight years.

DR. KOLOMAN V. SZILY, emeritus professor of physics at the Budapest Polytechnic School and formerly the general secretary of the Hungarian Academy of Sciences, has died at the age of eighty-six years.

THE thirty-fifth annual general meeting of the Institution of Mining Engineers of England will be held at the Conference Halls of the British Empire Exhibition on Thursday and Friday, October 2 and 3. Sir John Cadman will relinquish his third term of office as president on October 2, when he will be succeeded by Dr. J. S. Haldane, director of the Mining Research Laboratory and honorary professor in the University of Birmingham.

THE zoological department of the Vienna Museum of Natural History opened recently a collection of insects having a bearing on medicine, according to the Vienna correspondent of the *Journal* of the American Medical Association. The whole exhibit, divided into six groups, shows which of these organisms exerts a disease-producing action on human beings or animals (1) by means of the secretions of its glands, (2) by means of hairs, (3) by poisonous appendages, (4) by sucking the blood, (5) by parasitism, or (6) by transmitting disease germs. The entire life cycle of these organisms, as far as it is known, is shown in a series of specimens arranged so as to reproduce the natural conditions, and short but concise explanations are placed in each receptacle. The organisms that are too small to be well visible with the naked eye are represented in colored photographic enlargements. Once a week expert guidance is provided. The entire collection comprises about 6,000 specimens.

THE Pasteur Institute has set up in the island of Los, near Konakri, in French Guinea, a "farm" for the breeding and preservation of apes and monkeys required for medical experimental purposes. This is a large, well-watered, woody fertile tract of land near a forest inhabited by chimpanzees and several species of monkeys. A director has been appointed, and the necessary outbuildings constructed. These include accommodation for sick animals.

IN order to determine the suitability of foreign trees for introduction into this country, arboretums in which groups of such "immigrant" species can be tried out are being established by the United States Forest Service in several of the forest regions. At Wind River 60 miles from Portland an arboretum of this sort has now some seventy-five different alien species of trees growing in small-sized groups or clumps. These trees are carefully watched by members of the Pacific Northwest Forest Experiment Station, which has a branch station at Wind River, and their growth and general development and ability to become acclimatized are studied. Local records of climate and soil conditions are also maintained.

UNIVERSITY AND EDUCATIONAL NOTES

THE Tulane University of Louisiana School of Medicine, New Orleans, has announced plans for the establishment of a chair of tropical medicine, made possible by a bequest of $60,000 from William E. Vincent.

IN addition to the sum of $110,000 bequeathed to the Western University Faculty of Medicine, Ontario, by Dr. Friend R. Eccles, $200,000 will become available after the lifetime of two relatives.

AN anonymous donor has given funds to the University of Chicago for the maintenance of a research fellowship in preventive medicine for two years.

NEW appointments at the Johns Hopkins University include Dr. F. O. Rice, formerly of the University of Liverpool, in physical organic chemistry, and Dr. F. Russell Bichowski, research associate at the University of California, in thermodynamics.

AT the University of Virginia the following appointments have been made: Dr. Bruce D. Reynolds, Ph.D. (Johns Hopkins, '24), assistant professor of zoology, Dr. Arthur F. Benton, national research fellow at the California Institute of Technology, assistant professor of chemistry, and Dr. A. A. Pegau,

Ph.D. (Cornell), acting assistant professor of geology. Resignations include Dr. Graham Edgar, professor of chemistry, Dr. J. T. Lonsdale, assistant professor of geology, Dr. W. S. Keister, assistant professor of public health, and Dr. B. B. Hershenson, assistant professor of physiology and biochemistry.

DR. NICHOLAS M. ALTER, instructor in internal medicine at the University of Michigan Medical School, Ann Arbor, has been appointed professor of pathology at the University of Colorado School of Medicine, Denver.

THE vacancy in the University of Texas College of Pharmacy, caused by the death of Dr. Raoul R. D. Cline, has been filled by the appointment of William F. Gidley, professor of pharmacy at Purdue University.

DR. GEORGE N. BAUER, formerly professor of mathematics at the University of Minnesota, and recently president of a Minneapolis bank, has been appointed associate professor of mathematics at the University of New Hampshire.

DR. RAYMOND O. FILTER, assistant professor of psychology at the University of Minnesota, and Dr. Homer B. Reed, professor of psychology and education at Grinnell College, have each been appointed to an assistant professorship of psychology at the University of Pittsburgh.

AT Pomona College, Dr. Paul Atwood Harvey has been appointed assistant professor of botany, and Francis G. Gilchrist, instructor in zoology.

DR. CHESTER HAMLIN WERKMAN, research bacteriologist at Iowa State College, has been appointed assistant professor of microbiology at Massachusetts Agricultural College, to succeed Dr. Itano, who has returned to Japan.

DR. D. P. D. WILKIE, lecturer in clinical surgery, has been appointed to the chair of surgery at the University of Edinburgh for a period of ten years.

DR. JULIUS WATJEN, prosector at the hospital of Barmen, has been appointed professor of pathology and director of the laboratories of the Pathological Institute of the University of Berlin.

DISCUSSION AND CORRESPONDENCE

PLANT CLASSIFICATION IN ELEMENTARY BOTANICAL TEXTS

IN a recent number of SCIENCE[1] Professor D. H. Campbell takes to task the authors of some of our current botanical texts, citing in particular a recent book by the present writer, for their conservatism in still accepting the same primary divisions of the plant kingdom which were in use fifty years ago, and asks whether this is due to ignorance or merely to indifference. In view of the fact that this system of classification (which divides the plant kingdom into four main groups, the Thallophytes, Bryophytes, Pteridophytes and Spermatophytes) is employed in most of the texts in common use to-day, one is tempted to suspect that there may be other reasons for its persistence than those which Professor Campbell suggests. Two of these reasons the writer desires to mention here.

First, such a method of presenting the plant kingdom to an elementary student has important pedagogical advantages. The author of an elementary text must, of course, be cognizant of the results of modern research, but his chief problem is to present these results without overwhelming the beginner by an array of discouraging complexities. It is now clearly recognized, for example, that the so-called Thallophytes are a very heterogeneous assemblage of plants and include a large number of diverse groups which represent more or less independent evolutionary lines and may not be closely related to one another. All Thallophytes, however, have certain fundamental characters in common, and stand at an evolutionary level quite distinct from that of the higher groups. The teacher who wishes to acquaint a beginner in botany with the salient features of the plant kingdom as a whole and who is allotted but a short time in which to do so will have the best chance of success if he treats the Thallophytes as a single great, though admittedly heterogeneous, group, emphasizing the resemblances among them rather than the differences, and pointing out the main features whereby they may be distinguished from the other major divisions. Similarly, the Bryophytes, Pteridophytes and Spermatophytes are probably not strictly monophyletic groups, but each nevertheless has certain points in common by which it may be readily distinguished and its position in the plant kingdom fixed.

We may fairly expect the elementary student to become familiar with four major groups, but if we ask him to learn twenty or thirty of these we must plan to devote to this end the bulk of the entire course. Elementary college courses of this type, commonly in vogue half a century ago, no longer meet the need for progressive botanical instruction, and one is inclined to ask whether their occasional survival is the result of conservatism or merely of bad pedagogy. There is a widespread conviction to-day that elementary botany should stress the plant as a living organism rather than simply the product of an evolutionary process, and our major effort must therefore be first to acquaint beginners with the im-

[1] Campbell, D. H., "A question of classification," SCIENCE, 55, 64–65, July 18, 1924.