strange laboratory, so that he might manage things there just as in his own rooms. Everything must be carefully tested before he began his lecture. So it came about that his demonstrations became the star performances and attractions of each of these meetings.

It is difficult to enumerate all the pieces of apparatus for purposes of instruction and investigation which we owe to him. These are almost all published in our magazine, in which he took a lasting interest. Even the first volume in 1888 contained a report of his paper in which he published a new method of measuring the intensity of a tone. In the second volume there appeared the first original investigation from his hand, in which he described two pieces of apparatus for detecting the nodal points and internodes in a sounding column of air. His last lecture, which he gave in the spring of 1914 upon a new and simple means of showing the interference of light, he had also intended for our magazine. However, before he came to write it down, the war had pressed into his hand the sword instead of the pen.

Of his books only two may be mentioned here: the large "Lehrbuch der Physik"[2] which has in five years gone through three editions and the "Didaktik und Methodik der Physik"[3] (a part of Baumeister's Handbook) which in spite of its brevity and its strong personal color, is rich in valuable advice and fruitful ideas.

Death has brought his work to an untimely end, but the influence of this creative work will live after him and will assure for him a grateful memory among his followers as well as in the history of the teaching of physics.

SCIENTIFIC NOTES AND NEWS

Dr. Paul Ehrlich, the distinguished German pathologist, director of the Royal Institute for Experimental Therapeutics in Frankfurt a. Main, died on August 20, at the age of sixty-one years.

[2] B. G. Teubner, Leipzig.

[3] C. H. Beck'sche "Verlagsbuchhandlung," München.

Dr. Carlos J. Finlay, a leading physician of Cuba, known for his advocacy of the theory that yellow fever is transmitted by mosquitoes, died on August 20, at the age of eighty-two years.

It is announced that in consequence of the war, the meeting of the Australasian Association for the Advancement of Science, which had been arranged to take place in Hobart in January next, has been postponed for a year.

Dr. David Bancroft Johnson, president of Winthrop Normal and Industrial College, of Rockhill, S. C., has been elected president of the National Education Association, in succession to Dr. David Starr Jordan, chancellor of Stanford University.

During the San Francisco meetings of the American Association for the Advancement of Science, there was formed a Pacific Coast Branch of the American Society of Zoologists. The officers elected at this meeting were:

President: V. L. Kellogg, Stanford University.

Vice-presdent: R. M. Yerkes, Santa Barbara.

Secretary and Treasurer: Joseph Grinnell, University of California.

Executive Committee: C. O. Esterly, Occidental College; Barton W. Evermann, California Academy of Sciences; Charles L. Edwards, Los Angeles; J. Frank Daniel, University of California; Harold Heath, Stanford University.

At the same meeting there was formed a Pacific Coast Branch of the American Society of Naturalists with the following organization:

President: Barton W. Evermann, California Academy of Sciences.

Vice-president: John F. Bovard, University of Oregon.

Secretary: Ellis Leroy Michael, Scripps Institute for Research.

Treasurer: L. L. Burlingame, Stanford University.

Executive Committee: Trevor Kincaid, University of Washington; Harry Beal Torrey, Reed College; Frank M. McFarland, Stanford University.

The society will take the place of the local biological societies of the Pacific Coast.

The Biological Society of the Pacific met at the Hotel Sutter, San Francisco, on August 4, for its annual meeting. The ad-

dress of the evening was given by Dr. Harry Beal Torrey, of Reed College, on "Research and the Elementary Student of Science." At this meeting the Biological Society voted to drop its organization in favor of the newly organized Pacific Coast Branch of the American Society of Naturalists.

THE forty-third annual meeting of the American Public Health Association, the fifteenth annual conference of the Sanitary Officers of the State of New York, and the annual meeting of the New York State Sanitary Officers' Association, will be held in Rochester, N. Y., September 6 to 10.

BEFORE the American Public Health Association on Tuesday evening, September 7, the presidential address will be delivered by Professor William T. Sedgwick, of the Massachusetts Institute of Technology, his subject being "Achievements and Failures in Public Health Work." Other speakers at the meetings are Dr. Hermann M. Biggs, New York state commissioner of health; Dr. W. C. Gorgas, surgeon-general United States Army, Washington, D. C., and the Hon. William C. Redfield, secretary of commerce.

DR. ALBERT EULENBERG, the distinguished neurologist of the University of Berlin, has celebrated his seventy-fifth birthday.

DR. VON STRÜMPELL, professor of medicine at Leipzig, has been elected rector for the ensuing year.

SIR A. SELBY-BIGGE, permanent secretary of the British board of education, has been appointed special secretary to the committee of the privy council for the organization and development of scientific and industrial research in Great Britain.

THE gold medal of the Company of Dyers, London, has been awarded to Professor A. G. Green, University of Leeds, and to Mr. W. Johnson, a research student of the University of Leeds, for research work in connection with the art of dyeing.

THE trustees of the American Medicine Gold Medal award have selected Surgeon-General Rupert Blue, of the Public Health Service, as the American physician who has done most for humanity in the domain of medicine during 1914, and the medal has been awarded to him for his work in national health and sanitation.

THE governor of Indiana has appointed a commission to investigate the causes and prevention of mental deficiency in the state. The medical members of the commission are Drs. George F. Edenharter, superintendent of the Central Indiana State Hospital, Indianapolis; Samuel E. Smith, superintendent of the Eastern Indiana State Hospital, Richmond; Charles P. Emerson, dean of the Indiana University School of Medicine, Indianapolis; Walter C. Van Nuys, superintendent of the Indiana Village for Epileptics, Newcastle; and Dr. George S. Bliss, superintendent of the State School for Feeble-minded Youths, Fort Wayne.

THE British secretary of state for the colonies has appointed a committee, presided over by Mr. A. D. Steel Maitland, parliamentary under-secretary of state for the colonies, to consider and report upon the present condition and the prospects of the West African trade in palm kernels and other edible and oil-producing nuts and seeds and to make recommendations for the promotion, in the United Kingdom, of the industries dependent on them. Mr. J. E. W. Flood, of the colonial office, is secretary of the committee.

DR. J. A. UDDEN, geologist of the bureau of economic geology in the University of Texas, has been appointed acting director of the bureau, the former director, Dr. Wm. B. Phillips, having resigned to become president of the Colorado School of Mines.

SIR AUREL STEIN, who has been making explorations in Central Asia, has arrived safely as Kashgar.

MR. CHARLES P. LOUNSBURY, chief of the department of entomology of the South African Union, expected to arrive in San Francisco about September 1. He has been spending some time in Australia and other points en route in furthering the interests of his department. He expects to be in America for several months.

The Reverend Alphone Schwitalia, S.J., professor of biology at St. Louis University, and two other members of the party, have returned from a medical inspection trip to British Honduras. Dr. Edward Nelson Tobey, assistant city bacteriologist and a lecturer at the university, also was a member of the expedition, but it is feared he perished with the steamer *Marowijne,* which has not been heard from since the West Indian hurricane swept through the Yucatan channel on August 13.

A memorial to Johann C. Reil, the anatomist, has been erected in Halle. It stands in front of the university clinic, the seat of his labors until called to Berlin in 1810. He died in 1813, aged fifty-five years.

The death is announced of Dr. B. Fisher, professor of hygiene and bacteriology in the University of Kiel.

The Paris Academy of Medicine has received a legacy from Dr. M. Sigaut of 8,000 francs to be awarded for a research on cancer of the digestive tract.

The exhibit arranged by the New York State Museum for the department of mines and metallurgy at the Panama-Pacific International Exposition was awarded a grand prize, besides one medal of honor, five gold medals, fifteen silver medals and nine bronze medals.

The Coast and Geodetic Survey informs the American Geographical Society of some recent significant soundings by the steamer *Pathfinder* in the southwest part of the Philippines area. The Cagayanes, Cavilli and Arena Islands, Tubbataha and Maeander Reefs, in the Sulu Sea, are apparently coral capped summits of a submerged mountain range extending for 200 miles southwesterly from the southwest part of Panay Island. They rise from depths of 6,000 to 12,000 feet with a stupendous submarine slope. The soundings indicate that this range divides the Sulu Sea into two deep basins by joining the shelf or plateau extending northwest of Borneo and east of Balabac Strait. Bancoran Island and Moyune Reef are elevations at the south end of the northwest basin. The Tubbataha Keys and Maeander Reef are the only elevations without vegetation. They are steep faced, similar in structure and consist of an accumulation of dead corals, coral rock and coral sand cemented into a greater or less degree of compactness. The pounding of the sea has accumulated the coral sand in the center to an elevation of five or six feet.

The Field Museum of Natural History has recently acquired a large collection of vertebrate fossils from the asphaltum beds of southern California. This collection consists of more than two thousand specimens varying from skeletons to single bones. Among them are mounted and mountable skeletons of the saber-tooth tiger (*Smilodon*) and the large wolf, *Canis dirus,* together with numerous series of skulls and skeletal parts of these animals. There are also skulls of *Megalonyx, Bison, Teratornis, Gymnogyps* and *Cathartes.* Other genera represented are *Felis, Camelops, Mastodon, Equus, Cervus* and *Antelocapra.* Most, if not all, of these specimens are of Pleistocene age. For this valuable collection the museum is indebted to the generosity of Messrs. E. E. Ayer, M. A. Ryerson, W. R. Linn and E. B. Butler, members of its board of trustees.

There has just been issued by the Bureau of Standards a paper describing briefly the methods of calibrating and using bomb calorimeters, such as are used in determining the amount of heat available from a given weight of coal or coke or other combustible. The amount of heat which can be obtained depends largely upon the kind and quality of fuel. When purchased in large quantities, therefore, a fuel is commonly tested to determine the amount of heat available per pound, and the price paid depends upon the results of these tests. The instrument used for such tests is called the bomb calorimeter and consists essentially of a steel shell or "bomb" in which a small weighed sample of the fuel can be burned in pure oxygen gas. The bomb is immersed in a known amount of water before the sample is ignited, the heat produced warms the water, and by suitable measurements of the change of temperature the amount of heat can be calculated. Provision is made

by the Bureau of Standards for standardizing bomb calorimeters by means of standard samples of certain pure materials, viz., sugar, napththalene and benzoic acid. By burning known amounts of these substances in the bomb the observer determines the amount of heat required to raise the temperature of the bomb together with the proper amount of water one degree. This being determined the amount of heat furnished by a given sample of coal burned in the same bomb with the same amount of water can be found. Thus these standard samples, which are sent all over the United States, serve as standards of heat and make it possible to get the same results from tests made anywhere in the country, much as the use of the standards of length and of mass makes a yard or a pound the same in all parts of the country. Copies of this paper known as Circular No. 11, "Standardization of Bomb Calorimeters," may be obtained without charge upon application to the Bureau of Standards, Washington, D. C.

THE *Journal* of the American Medical Association reports that Mr. James Berry, who is at the head of a British hospital mission at Vrnjachka Banya, has collected from official sources figures which show that ninety-three Serbian physicians have died out of a total of 387 alive at the beginning of the war. Of these, no fewer than eighty-two succumbed to typhus fever, and only one was killed in battle. These figures contrast remarkably with those of the recent Turkish war in which Serbia lost only two physicians. Of the foreign physicians who have come to her aid in this war, thirty-five have died from typhus or typhoid fever. They include three British, four American, two Belgian, several Greeks, and six others.

UNIVERSITY AND EDUCATIONAL NEWS

DR. JOHN LEE COULTER has been appointed dean of the College of Agriculture and director of the Experiment Station of the West Virginia University. He goes from the George Peabody College, and will take the place of E. D. Sanderson, who resigned about a year ago.

AT the Johns Hopkins University, the degree of bachelor of science in education has been established in connection with the college courses for teachers and the summer courses. The degree will be open to men and women. The regulations concerning the work for the new degree will be determined by an advisory committee of the faculty. The title of director of the college course for teachers and of the summer courses has been assigned to Professor Edward F. Buchner.

DR. ORIN TUGMAN, of the staff of the research laboratory of the Eastman Kodak Company, has been elected associate professor of physics at the University of Utah.

DR. L. CHAS. RAIFORD, of the department of chemistry of the University of Chicago, has been elected professor of chemistry in the Oklahoma Agricultural and Mechanical College.

DR. J. A. MENZIES has been appointed professor of physiology in the University of Durham College of Medicine, Newcastle-upon-Tyne.

DISCUSSION AND CORRESPONDENCE

ANOTHER REASON FOR SAVING THE GENUS

I AM writing to second Dr. F. B. Sumner's plea for the saving of the genus.[1] I am sure he has the sympathy of the great mass of workers in non-taxonomic biology. Leaving aside the question of expressing relationship in the generic name which Sumner has so well stated, there is another point that he has not sufficiently emphasized. It is by the genera that animals and plants are catalogued. In the *Nautilus,* Vol. 28, February, 1915, the writer made this plea. I illustrated it by the form on which I had been working for the past eight years, the genus *Lymnæa.* I quote the following passage from that paper:

> The most recent classification of this group is that of F. C. Baker in his admirable "Lymnæidæ of North and Middle America" (Chicago Academy of Sciences Pub. No. 3, 1911), p. 120. Whereas the older classifications considered shell characters alone, this author "proposed to classify the

[1] "Some Reasons for Saving the Genus," SCIENCE, Vol. XLI., No. 1068, p. 899.