Thus visitors were further able to increase their fund of information regarding wild life by a study of pictures giving full colors, by specimens and by books giving detailed facts.

This experiment in making conservationists out of "vacationists" proved so successful that another year will doubtless see the work expanded and the opportunity to study under a nature guide offered to thousands of those on their holidays in all parts of the state.

A COMPENDIUM OF CHEMICAL AND PHYSICAL CONSTANTS[1]

SCIENCE played so important a rôle in the war that one of the war's outcomes has been a national stock-taking by each of the principal countries engaged in the struggle of its condition, both as regards the scientific knowledge and resources already in its possession and the means it has for increasing this knowledge. England, Japan and America have all established departments or councils of national scientific research, either supported by government, as in the case of England and Japan, or by private funds, as in the case of our own National Research Council.

Out of this stock-taking has come the realization that certain scientific knowledge and the means of access to it have been largely in the hands of the Germans, and that other countries have been obliged to rely on German publications in order to make any use of it at all. A notable instance of this is afforded by the situation as regards the chemical and physical constants so indispensable for precise work in all chemistry and physics and in the application of these sciences to industry.

The National Research Council, therefore, with the cooperation of the American Chemical Society and the American Physical Society has planned to compile and issue a critical American compendium of chemical and physical constants which shall be up to date and correct, which, by the way, the German publications were not. And yet these badly organized and inaccurate German compendia were the only ones available to the American experts during the war in connection with their all-important scientific work on the pressing problems of war technique.

This will be a tremendous task and will involve the expenditure of at least $100,000 which must be obtained from private sources. The committee representing the National Research Council and the American Chemical and Physical Societies will have to scour all the university and research laboratories of the country for the needed facts. In addition the committee will attempt to find out from the business and industrial concerns of the country whose work is based on applied chemistry and physics a list of all the constants required in their work, and then will undertake to have these determined by scientific investigators and included in the compendium. A successful outcome of this large undertaking will be of inestimable value to the scientific and material strength of the nation.

[1] Press bulletin issued by the National Research Council.

SCIENTIFIC NOTES AND NEWS

AT the October meeting of the executive board of the National Research Council Professor Vernon Kellogg, of Stanford University, was elected executive secretary of the council. He will hold this position in addition to that of chairman of the council's division of educational relations which he assumed last July. Professor Kellogg's work with Mr. Hoover's relief organizations and the Food Administration, which extended from May, 1915, to the present, is now practically at an end, although he remains one of the directors of the American Relief Administration European Children's Fund, which is the one still active organization under Mr. Hoover's direction.

AT its meeting held on October 8, the Rumford Committee of the American Academy of Arts and Sciences voted the following appropriations: To Professor Frances G. Wick, of Vassar College, in aid of her researches on the phosphorescence of hexagonite and of fluorite at ordinary and low temperatures, $300; to Professor Robert W. Wood, of the Johns Hop-

kins University, for the continuation of his optical investigations, additional to former appropriations, $350.

DR. THEOBALD SMITH, director of the department of animal pathology of the Rockefeller Institute for Medical Research, formerly professor of comparative pathology at Harvard University, has been appointed Cutter lecturer on preventive medicine and hygiene at Harvard University for the next academic year.

THE Botanical Society of Washington has elected the following officers for the ensuing year: *President,* Haven Metcalf; *Vice-president,* A. J. Pieters; *Recording Secretary,* Chas. E. Chambliss; *Corresponding Secretary,* R. Kent Beattie; *Treasurer,* L. L. Harter.

PROFESSOR H. VON MANGOLDT has been elected president of the German Mathematical Society, and Professor Felix Klein, honorary president.

DR. JOHN E. TEEPLE, of New York City, has been elected treasurer of the American Chemical Society to fill the unexpired term of the late Dr. E. G. Love.

AFTER many years of service in the examination of applications for chemical patents, Mr. Bert Russell has resigned his position as first assistant examiner, to devote his attention largely to chemico-legal problems arising in the patent practise of Messrs. Prindle, Wright and Small, of New York City. Mr. Russell has been secretary of the Patent Office Society, which has been active in improving the resources, the standards and the efficiency of the Patent Office.

DR. CARL HARTLEY, pathologist in the office of forest pathology, Bureau of Plant Industry, has recently resigned to accept a position as pathologist with the Instituut voor plantenziekten en Cultures, Buitenzorg, Java.

DR. L. C. GLENN, who has recently been on leave of absence from Vanderbilt University while in charge of the collection of oil and gas valuation data in Kentucky, Tennessee and Alabama for the Internal Revenue Department, has made an examination for the United States Department of Justice of certain oil lands along the Red River near Burk-Burnett, Texas, over which there has arisen a question as to jurisdiction between Texas and Oklahoma.

PROFESSOR MERLE RANDALL, of the department of chemistry of the University of California, has returned to Berkeley after having spent the summer as research chemist in the laboratories of the Experimental Kelp-Potash Plant of the U. S. Department of Agriculture, at Summerland, California.

PROFESSOR HENRY B. WARD, of the University of Illinois, special assistant of the Bureau of Fisheries, has returned to Urbana, after completing an investigation of the salmon spawning grounds of the Copper River and certain important tributaries. Accompanied by Professor W. A. Oldfather, also of the University of Illinois, and J. R. Russell, superintendent of the Bureau's fish-cultural stations in Washington.

PROFESSORS R. A. DALY, of Harvard University, and A. G. Mayor, of Princeton University, have returned from an expedition to American Samoa under the auspices of the Department of Marine Biology of the Carnegie Institution of Washington. Professor Daly made a study of the lithology of Samoa, and also confirms the opinion that the fringing reef now surrounding Tutuila is of recent origin, and was antedated by a time wherein there were no living reefs around the island. Ancient reefs are sunken to depths of about 30 fathoms, but these have nothing to do with the modern reefs. Corals were planted out at depths between 8½ fathoms and the surface in order to determine the growth-rate of the reefs.

AT the eight hundred and twenty-first meeting of the Philosophical Society of Washington which was held on Saturday, October 11, Dr. C. G. Abbott read a paper on "Solar studies in South America"; Dr. L. A Bauer, on "The total solar eclipse at Cape Palmas, Liberia, May 29, 1919," and D. M. Wise, on "The total solar eclipse at Sobral, Brazil, May 29, 1919."

THE Bulletin of the American Mathematical Society states that the firm of Julius Springer,

Berlin, announces the publication of a new journal devoted exclusively to original mathematical memoirs, the *Mathematische Zeitschrift*. It is edited by Professor L. Lichtenstein, with the collaboration of Professors K. Knopp, E. Schmidt and I. Schur and an editorial committee consisting of Professors W. Blaschke, L. Féjer, C. Herglotz, A. Kneser, E. Landau, O. Perron, F. Schur, E. Study and H. Weyl. Two volumes appear annually.

Dr. Edward L. Thorndike, professor of educational psychology in Teachers College, Columbia University, delivered an address at Wesleyan University on October 14 on "Psychological tests for college entrance examinations."

Dr. Alexander D. Blackader, professor of pharmacology and therapeutics in McGill University, Montreal, delivered the annual address to the medical students on Founder's Day, his subject being, "Our medical faculty and the value of continued medical research."

The late Professor Rudolf A. Witthaus, of the Cornell Medical College, bequeathed his medical apparatus and scientific books to the college.

Wilhelm von Siemens, head of the Siemens-Halske Companies, is dead at Arona, Switzerland.

Nature reports that the council of the Royal Society has nominated representative committees to deal with national questions connected with the international unions which it is intended to form under the International Research Council. The committee for astronomy will consist of the Astronomers Royal for England, Scotland and Ireland, the Superintendent of the Nautical Almanac, six members nominated by the Royal Society, six members nominated by the Royal Astronomical Society, two members nominated by the Royal Society of Edinburgh, two members appointed by the Royal Irish Academy and two members appointed by the British Astronomical Association. The committee for geodesy and geophysics will consist of the Astronomers Royal, the director of the Meteorological Office, the director-general of the Ordnance Survey, the hydrographer of the Navy, two representatives of the Royal Society of Edinburgh, two representatives of the Royal Irish Academy, two members nominated by the British Association, and two members nominated by the Royal Society. Since their formation these committees have advised the council of the Royal Society on the formation of the international unions in their respective subjects, and nominated the delegates to the recent meeting at Brussels. The Federated Council for Pure and Applied Chemistry was also recognized as the national committee on that subject.

The following lectures were delivered during the graduate summer quarter in medical sciences at the University of Illinois, College of Medicine, Chicago, Illinois.

"Transmission of eye-defects induced in rabbits by means of lens-sensitized fowl-serum:" Michael F. Guyer, Ph.D., professor of zoology, at the University of Wisconsin.

"Metabolic gradients:" C. M. Child, Ph.D., professor of zoology at the University of Chicago.

"Modes and age periods of infection in tuberculosis:" M. P. Ravenel, M.D., professor of preventive medicine at the University of Missouri.

"Catalase:" W. E. Burge, Ph.D., assistant professor of physiology at the University of Illinois.

"Nerve transplantation:" C. Carl Huber, M.D., professor of anatomy at the University of Michigan.

"Malaria with especial reference to its control:" C. C. Bass, M.D., professor of experimental medicine, Tulane University.

"Giant cells and their rôle in bone resorption:" Leslie B. Arey, Ph.D., professor of microscopic anatomy, Northwestern University., Medical School.

"The influence of some chemical substances on immunity reactions:" Aaron Arkin, Ph.D., M.D., professor of pathology and bacteriology, University of West Virginia.

The Advisory Committee of the American Chemical Society, on the authority given it by the council, has recommended Professor W. A. Noyes as chairman of the board of editors in charge of the scientific series of monographs, and Dr. John Johnston as chairman of the board of editors of the technological series of monographs recommended by the committee

THE Royal Society announces that two John Foulerton studentships will shortly be awarded for original research in medicine, the improvement of the treatment of disease, and the relief of human suffering. Researches must be carried out under the supervision and control of the Royal Society. The studentships are of the value of £400 each, and are tenable for three years, but may be extended to a total period of six years. Candidates must be of proved British nationality; both sexes are eligible.

UNIVERSITY AND EDUCATIONAL NEWS

AT a recent meeting of the New York Endowment Fund Committee of the Massachusetts Institute of Technology, Mr. Coleman du Pont presiding, President R. C. MacLaurin announced that $1,500,000 had been subscribed toward the $8,000,000 endowment fund. "Mr. Smith," the anonymous donor of $7,000,000 to the institute, has agreed to give $4,000,000 to the fund if $3,000,000 is pledged by January 1, 1920.

DR. GEORGE W. CRILE, of the School of Medicine of Western Reserve University, has given $100,000 to endow a chair of surgery. Dr. Crile is chief of the surgical staff of the school. He headed the Lakeside Hospital Unit of Cleveland, one of the first American units in France.

COLUMBIA UNIVERSITY has received a gift of $6,000 for research work in food chemistry.

PROFESSOR SAMUEL N. SPRING has returned to the United States for the first term of the present college year to teach silviculture, forest law and policy in the Department of Forestry at the University of Missouri. He will resume his work as professor of silviculture at Cornell University on January 1, being at present on leave of absence.

RICHARD M. FIELD has been appointed assistant professor of paleontology and historical geology at Brown University. He also continues his association with the research staff of the Museum of Comparative Zoology at Cambridge.

EDWARD H. MACK, Ph.D. (Princeton, 1916), has returned from overseas duty and has gone to the Ohio State University as assistant professor of physical chemistry.

PROFESSOR EDWIN MORRISON, for thirteen years head of the department of physics at Earlham College, has been granted a year's leave of absence and is teaching engineering physics in the Michigan Agricultural College.

C. M. YOUNG, formerly of the University of Kansas, has returned as professor and head of the department of mining engineering.

DR. HORST OERTEL has been appointed head of the department of pathology at McGill University.

DR. EDWARD HINDLE, Kingsley lecturer and fellow of Magdalene College, Cambridge, assistant to the Quick Professor of biology, has been elected to the chair of biology in the School of Medicine, at Cairo, Egypt, in succession to professor A. Looss. Dr. Hindle was instructor in zoology at the University of California from 1909 to 1910.

DISCUSSION AND CORRESPONDENCE

DOUBLE USE OF THE TERM ACCELERATION

TO THE EDITOR OF SCIENCE: The use of clear and distinct meanings of terms has not kept pace with the progress in science. One repeatedly hears appeals for the stardardization of the meanings of terms. Great confusion arises when different writers use the same term with entirely different meanings. In the writer's opinion, it is quite as important to fix the definitions of the fundamental terms as it is to fix the units; scientific organizations ought to get together, arrive at some conclusion, and then appeal to the Bureau of Standards to officially standardize such definitions as they do the units.

A notable case which gives rise to much confusion, is the term acceleration. The engineer always used this term to mean the rate of increase of speed, that is, velocity divided by time, hence its dimensions are LT^{-2}; it is measured in feet (or meters) per