wish to give all their time to attendance at the scientific meetings. The splendid Art Gallery recently established will be opened, musical programs will be presented and other entertainment provided.

#### GENERAL SESSIONS

The general sessions will open at the luncheon hour on Wednesday, June 16, 1926, when the usual research conference will be held. The subject "What can the Colleges Contribute to Scientific Research?" will be discussed under the leadership of Professor Howard E. McMinn, department of botany, Mills College. Particularly it is proposed to consider methods of inciting interest in research work among undergraduates and providing special training with this objective. Members are invited to participate in the discussion.

On Wednesday afternoon, June 16, in Lisser Hall, a symposium on "The Constitution of Matter" will be presented. The remarkable results of recent research into the nature and structure of the atom will be given in somewhat popular form by specialists in their respective topics. The symposium is arranged as follows:

The Elements and their Composition: Dr. T. R. Hog-NESS, of the department of chemistry at the University of California.

Atomic and Molecular Structure: Dr. HERTHA SPONER, of the physical institute of the University of Göttingen, Germany.

The Nature of the Atom as Explaining and as Exhibited by the Lines in the Stellar and Solar Spectra: Dr. H. H. PLASKETT, of the Dominion Astrophysical Observatory, British Columbia.

The Structure of Matter as Elucidated by X-Rays: MAURICE L. HUGGINS, of the department of chemistry at Stanford University.

On Wednesday evening at eight o'clock in Lisser Hall the address of the President of the Pacific Division will be given. Following an address of welcome by the president of Mills College, Dr. Aurelia Henry Reinhardt, and a response by Dr. J. H. Hildebrand, chairman of the executive committee, the retiring president of the Pacific Division, Dr. Robert G. Aitken, will speak on "The Solar System; Some Unsolved Problems." The address will be illustrated with stereopticon.

Immediately following the address of the president adjournment will be taken to Alumnae Hall where a public reception will be held.

The annual dinner has been arranged for Thursday evening, June 17, at 6:30, for all members and visiting guests. After dining the members will adjourn to Lisser Hall, where Dr. L. O. Howard, chief of the

U. S. Bureau of Entomology, will deliver an address on "Insects and Human Progress."

The general sessions will close Friday evening, June 18, with an address by Dr. W. F. Durand, president of the American Society of Mechanical Engineers, on the subject of "Science and Civilization."

Fifteen affiliated societies have signified their intention of holding meetings at Mills College under the auspices of the Pacific Division, as follows:

American Association of Economic Entomologists, Pacific Slope Branch

American Meteorological Society

American Physical Society

American Phytopathological Society, Pacific Division

Astronomical Society of the Pacific

Botanical Society of America, Physiological Section

Cooper Ornithological Club

The Ecological Society of America

Pacific Coast Entomological Society

San Francisco Aquarium Society

Seismological Society of America

Society of American Foresters: California Section,

North Pacific Section

Society of Experimental Biology and Medicine, Pacific

Coast Branch

Western Psychological Association

Western Society of Naturalists

Western Society of Soil Science

### SCIENTIFIC NOTES AND NEWS

At the dinner of the National Academy of Sciences at Washington on April 27 the Agassiz Medal was presented to Dr. Vilhelm Bjerknes, of Bergen, Norway, for outstanding contributions to oceanography, and the Henry Draper Medal to Professor Harlow Shapley, of Harvard University, for distinguished contributions to astrophysics. Presentation of the Agassiz Medal was made by Dr. T. Wayland Vaughan and was received for Dr. Bjerknes by the minister of Norway. The Henry Draper Medal was presented by Dr. Henry Norris Russell and, in Dr. Shapley's absence in Europe as exchange professor to Belgium, was received by Professor Frank Schlesinger.

The National Academy of Sciences has elected the following foreign associates: Jacques Hadamard, professor of analytical and cosmic mechanics at the ficole Polytechnique, Paris, and professor of mathematics at the Sorbonne; Richard Willstätter, formerly professor of chemistry at the University of Munich; Sir Frank Watson Dyson, director of the Royal Observatory of Great Britain; Max Planck, director of the Institute of Theoretical Physics at the University of Berlin. No members were elected this year. Dr. Robert A. Millikan, of the California Institute of Technology, Pasa-

dena, Calif., was reelected foreign secretary for a term of four years. Dr. Robert A. Harper, of Columbia University, and Dr. Oswald Veblen, of Princeton University, were elected to the council of the academy for the three years ending with the annual meeting in April, 1929.

At the recent meeting of the American Philosophical Society in Philadelphia the following members were elected: Irving W. Bailey, James M. Beck, Gilbert Ames Bliss, John Cadwalader, Jr., Roland Burrage Dixon, William Charles Lawson Eglin, William P. Gest, Charles E. Hughes, Charles Kenneth Leith, Ralph Modjeski, Oscar Riddle, John M. Scott, William F. G. Swann, Henry Osborn Taylor and Alfred North Whitehead.

Professor A. A. Michelson, of the University of Chicago, will spend five months this summer at the Mount Wilson Observatory, Pasadena, Calif., where he will continue his measurement of the velocity of light.

Dr. Ernest Clayton Andrews, government geologist of New South Wales, will give the Silliman lectures at Yale University in 1926–27 on the subject of "The Geology of the Pacific Area."

Dr. Konrad E. Birkhaugh, of the University of Rochester, has received a \$500 award established by the Women's Educational and Industrial Union for his work on the treatment of erysipelas.

THE Mining and Metallurgical Society of America has awarded its gold medal for 1925 to Daniel C. Jackling, of San Francisco.

THE Franklin Institute has awarded its Louis Edward Levy Medal to Dr. E. G. Coker, professor of civil and mechanical engineering at University College, London, for his paper on "Photo-Elasticity," published in the *Journal* of the institute.

- Dr. G. Kingsley Noble, curator of amphibians and reptiles in the American Museum of Natural History, has been made a corresponding member of the Zoological Society of London.
- F. W. LANCHESTER has been awarded the gold medal of the Royal Aeronautical Society and elected an honorary member of the society in recognition of his pioneer work in aviation.

Drs. José Carracido, professor of biological chemistry at Madrid, and H. G. Greenish, professor of pharmacy, London, were recently elected corresponding members of the French Academy of Medicine.

A TESTIMONIAL dinner was tendered Dr. Albert P. Brubaker at the Adelphi Hotel on March 27 by the alumni of the Philadelphia College of Dental Surgery and the Dental Department of Temple University, in

which Dr. Brubaker has been professor of physiology for more than twenty years.

In honor of the recent election of Theodore J. Bradley, of Brookline, dean of the Massachusetts College of Pharmacy, to the presidency of the American Pharmaceutical Association, members of that organization tendered him a complimentary dinner on April 29. The principal speaker at the dinner was Eugene G. Everle, of Baltimore, editor of the *Pharmaceutical Journal*.

A TESTIMONIAL, signed by the leading representatives of astronomy and astrophysics in Great Britain, was presented to Sir Howard Grubb in recognition of his skill and long-continued labors in the production of large objectives for astronomical instruments.

PROFESSOR H. NAGAOKA, who has occupied the chair of physics at the Imperial Tokyo University for nearly thirty years, has been honored by a compilation of a volume of original papers by his friends and students. The volume was published in celebration of the twenty-fifth anniversary of his appointment but was delayed by the earthquake.

The New York Academy of Sciences has appointed the following delegates to the International Congress of Plant Sciences to be held at Ithaca, N. Y., on August 16 to 23: Dr. N. L. Britton, Professor R. A. Harper and Professor H. M. Richards.

AT the annual meeting of the Anthropological Society of Washington, on April 20, the following officers were elected for the ensuing year: President, Mr. Neil M. Judd; Vice-president, Mr. David I. Bushnell, Jr.; Secretary, Dr. John M. Cooper; Treasurer, Mr. Henry B. Collins, Jr. Mr. Herbert Krieger, Dr. Charles L. B. Anderson, Mr. J. N. B. Hewitt, Dr. Daniel Folkmar and Mr. B. H. Swales were elected councilors.

According to an Associated Press dispatch, A. L. Pickens, professor of biology at Furman University, a Baptist institution, has resigned as a result of a conflict of views on evolution with the trustees.

ARTHUR CLARK TERRILL, formerly professor of mining engineering at Pei-Yang University, Tientsin, China, has been appointed petroleum engineer, State Mining Bureau, Los Angeles.

G. M. RAPP, assistant engineer with the Delaware River Bridge Commission, has resigned to become assistant engineer with the Port of New York Authority.

EARL S. HASKELL, of the department of middle American research at Tulane University and formerly with the U. S. Department of Agriculture, has been appointed director general of agriculture for Persia, and is sailing from New York this week.

Professor George D. Shepardson, head of the department of electrical engineering at the University of Minnesota, is spending his sabbatical year on a tour around the world.

Professor Yoshiji Yoshii, professor of plant physiology, Biological Institute, Tohoku Imperial University, Sendai, Japan, is visiting the United States.

Dr. Samuel J. Barnett, research associate of the Carnegie Institution of Washington, is lecturing on physics during the second semester of this year at the University of California, Southern Branch, at Los Angeles.

PROFESSOR MICHAEL I. PUPIN, professor of electromechanics at Columbia University, will be the principal speaker at the banquet of the Radio Club of America, which is to be held on May 13, at the Hotel McAlpin, New York.

Dr. LIBERTY HYDE BAILEY, president of the American Association for the Advancement of Science, is to deliver the baccalaureate address at the fiftieth annual commencement of Texas Agricultural and Mechanical College, on June 2.

DR. FRANK BALDWIN JEWETT, vice-president of the American Telegraph and Telephone Company, and president of the Bell Telephone Laboratories, will give the commencement day address at Purdue University.

Dr. JEROME ALEXANDER, consulting chemist and chemical engineer, of New York, will give an address on May 13, before a meeting of Phi Beta Kappa Alumni in New York. The subject of the address will be "Down to the Atom and within it."

SIR ARTHUR NEWSHOLME gave two De Lamar lectures in the School of Public Health and Hygiene of the Johns Hopkins University, on May 4 and 5, when he spoke on "William Farr, the Father of English Vital Statistics" and "The Growth of Social Insurance in England."

Dr. Knud Faber, professor of internal medicine, University of Copenhagen, recently gave an address at the Harvard Medical School, Boston, on "The Intestinal Origin of Pernicious Anemia."

Among the nine busts to be unveiled in the Hall of Fame at New York University on May 12 is one of Eli Whitney, inventor of the cotton gin.

Mechanical Engineering states that as a memorial to John Edson Sweet, founder of The American Society of Mechanical Engineers, first head of the College of Engineering at Cornell University, and inventor of the straight-line engine, friends of Cornell University are raising a fund to endow a pro-

fessorship at the university to be known as the Sweet memorial professorship. The endowment plan happens to coincide to some extent with the Sesquicentennial Celebration in Philadelphia, in the fact that the straight-line engine invented by Professor Sweet was used at the 1876 Centennial to drive the first dynamo ever made in the United States. This dynamo was constructed at Cornell and is still in use in a Cornell laboratory. Professor Sweet died in 1916. More than half of the fund has already been subscribed by about one hundred men.

HERBERT FRANKLIN DAVISON, assistant professor of chemistry in Brown University, died on April 29, aged forty-five years.

Douglas B. Young, for nearly twenty-five years assistant state entomologist of New York, died on April 5, aged sixty-six years.

SIR TIMOTHY AUGUSTINE COGHLAN, of Australia, statistician and formerly president of the Australasian Association for the Advancement of Science, died on April 30, aged sixty-nine years.

PROFESSOR W. J. LEWIS, F.R.S., professor of mineralogy at the University of Cambridge, died on April 16 at the age of seventy-nine years.

PROFESSOR L. G. GOUY, of the University of Lyons, distinguished for his contributions to the theory of the propagation of spherical waves, the velocity of light and Brownian movements, died on January 27, aged seventy-two years.

Dr. Carlo de Marchesetti, honorary director of the Museum of Natural History and director of the botanic garden, Trieste, died on April 2.

PROFESSOR FRITZ RAUSENBERGER, known for his work in ballistics, died in Munich on April 30, aged fifty-eight years.

THE Journal of the American Medical Association reports the death of Dr. Levy, assistant professor of physiology, Turin. She was with a skiing party overwhelmed by an avalanche.

THE thirty-fourth annual meeting of the Society for the Promotion of Engineering Education will be held at the State University of Iowa from June 16 to 18.

SUMMER meetings of the American Mathematical Society will be held at the Ohio State University this year and at the University of Wisconsin in 1927.

A MEETING of the San Jacinto section of the Western Society of Naturalists was held on April 23 at Pomona College, California. At the scientific session fifteen papers were given and two others read by title. The president of the section, Dr. O. L. Sponsler, presided. In the evening about thirty members dined at the Claremont Inn and later at the home of W. A. Hilton, secretary-treasurer, listened to a paper by Dr. R. C. Denison, of the department of philosophy of Pomona College, on "Philosophy and Science." The following two days a few members took a field trip to the region of Rock Creek Canyon, north of Claremont. The officers elected for the next year were: Gordon Surr, president, and Edmund Jaeger, of the Riverside Junior College, secretary-treasurer.

THE Sigma Xi Alumni Association of the University of Pittsburgh, the secretary of which is Dr. Richard Hamer, held a meeting on April 5 when papers were presented from the department of mathematics by M. M. Culver, F. A. Foraker, A. E. Staniland and K. D. Swartzel.

Public lectures will be given at the New York Botanical Garden during May and June on Saturday afternoons at 4:00 o'clock as follows: May 1, "Variation, Heredity and Environment in Relation to Evolution," Dr. A. F. Blakeslee; May 8, "The Bermuda Islands," Dr. Fred J. Seaver; May 15, "Tulips," Mr. Kenneth R. Boynton; May 22, "The Land of Cotton," Dr. Israel Weinstein; May 29, "Iris and its Culture," Dr. George M. Reed; June 5, "Floral and Scenic Features of Porto Rico," Dr. H. A. Gleason; June 12, "The Extinct Flora of New York City and Vicinity," Dr. Arthur Hollick; June 19, "Roses," Dr. Marshall A. Howe; June 26, "Our Friend John Burroughs," Dr. Clara Barrus.

At the twenty-third annual meeting of Experimental Psychologists, held at the University of Pennsylvania from April 5 to 7, the following resolution was passed:

RESOLVED, That this meeting deplores the increasing practice of collecting administrative or supposedly scientific data by way of questionnaires; and

That the meeting deplores especially the practice under which graduate students undertake research by sending questionnaires to professional psychologists.

The resolution was sponsored by the following members: Edwin G. Boring, Harvard University; Samuel W. Fernberger, University of Pennsylvania; Herbert S. Langfeld, Princeton University; E. S. Robinson, University of Chicago; E. B. Titchener, Cornell University, and R. S. Woodworth, Columbia University.

THE Swedish parliament has rejected a proposal to make the Nobel prize fund tax-free. The proposal was made by members of all political parties, which considered it wrongful that the state should take a good deal of money donated for the international progress of civilization. The Swedish state, from the beginning of the fund, has had an income on this tax of 10,000,000 crowns and last year the tax, it is said, was higher than the prize sum given in that year.

WITH total assets of \$199,031,338, consisting chiefly of gifts of John D. Rockefeller, the annual report of the Rockefeller Foundation for the year ending December 31, 1924, now issued, states that income during the year was \$8,191,338 and expenditures were \$7,288,822. The balance on hand was \$7,607,187 as compared with \$6,704,503 in 1923. The expenditures included \$1,676,495 for checking hookworm, malaria and yellow fever; \$405,876 for public health education; \$1,146,297 in China, and \$2,045,293 for medical education.

JOHN D. ROCKEFELLER, Jr., has made an unconditional gift of \$125,000 to the American Society for the Control of Cancer of New York, according to an announcement by Winthrop W. Aldrich, who is in charge of the campaign of the society for an endowment of \$1,000,000. Mr. Rockefeller also made a gift of \$10,000 to defray the expenses of a congress of the leading cancer specialists of this country and Europe at Lake Mohonk in September. A luncheon was to be held at the Lawyers' Club, 115 Broadway, on May 6, by the committee and others interested in the society's work. The speakers were Dr. Wood, Dr. James Ewing and Dr. Taylor.

AT a recent meeting of the British Empire Cancer Campaign, in London, the following grants were made: £1,695 to St. Bartholomew's Hospital, towards the maintenance of their new X-ray Cancer Research Department: £2,500 to the Cancer Hospital (Free), towards the upkeep of their Cancer Research Institute; £3,000 to the Middlesex Hospital, for cancer research purposes; £300 to Dr. Malcolm Donaldson, in connection with his investigations into certain inoperable cases of cancer; a further £250 to St. Mark's Hospital for cancer research purposes, making a total grant of £500 for the year; £300 to Professor Charles Walker, of the Liverpool University, to defray certain cancer research expenses; and £300 to Professor Wilkie, professor of surgery, Edinburgh University, for the purchase of apparatus and material for use in connection with cancer research. These grants, together with the provision for commitments entered into by the campaign, approximate to an expenditure of £85,000 to date. The grand council was informed that the first number of the publication, to be known as the Cancer Review, of the campaign would be issued during the month of May and would continue thereafter as a monthly publication.

THE family of Mr. Alexander M. White, of Brooklyn, has offered \$100,000 to be added to the fund of \$250,000 being raised to meet the condition of Mr. John D. Rockefeller, Jr.'s, gift of \$250,000 for the endowment of the Brooklyn Botanic Garden. Mr. White is head of the citizens' committee of 260 members which is working to obtain the endowment.

THE department of botany of Rutgers University is the recipient of an herbarium collection of ten thousand dried plants, presented by Mr. E. D. Riley, of Absecon, N. J. This collection contains valuable material from the southern part of the state, and a considerable number of plants from Ohio and California as well. A part of the collection was exhibited by Mr. Riley at the Columbian Exposition. Founded by Dr. N. L. Britton, botanist of the Geological Survey, in the years of 1881–1890, the State Herbarium has been developed until it contains a considerable representation of the flora of the state.

# UNIVERSITY AND EDUCATIONAL NOTES

FRIENDS of Professor William Berryman Scott, chairman of the department of geology at Princeton University, plan to raise \$50,000 to establish a Scott research fund in paleontology, as part of the \$2,000,000 fund which Princeton is endeavoring to raise for advanced teaching and scientific research.

At the University of London, a university chair of bacteriology and immunology, tenable at the London School of Hygiene and Tropical Medicine, and a university chair of epidemiology and vital statistics, tenable at the London School of Hygiene and Tropical Medicine, have been instituted.

Professor Arnold Bennett Hall, of the department of political science at the University of Wisconsin, has announced his acceptance of the presidency of the University of Oregon and will assume his duties in September.

It is announced from the University of Wisconsin that Professor Arthur Sperry Pearse, of the department of zoology, has resigned to accept a research professorship in Duke University, Durham, S. C. He is now on a leave of absence, studying in the London School of Tropical Medicine.

Dr. A. A. Moore, professor of physiology at Rutgers University, has recently accepted the position of professor of zoology at the University of Oregon.

The department of botany at the University of Texas has been reorganized to provide for the development of courses in bacteriology given by the department. The name has been changed to the department of botany and bacteriology. The staff in botany consists of Professors I. M. Lewis, F. McAllister, John T. Buchholz and Associate Professor B. C. Tharp; in bacteriology, Professor I. M. Lewis, Adjunct Professors E. E. Pittman and O. B. Williams.

THE recent announcement of changes in the department of mathematics at Princeton University should

read as follows: Dr. J. W. Alexander has been made associate professor and Dr. Tracy Yerkes Thomas has been made assistant professor.

Professor L. E. Blackman, formerly employed as research chemist at the University of Delaware, Agricultural Experiment Station, has been appointed to the headship of the chemistry department of Upper Iowa University, Fayette, Iowa.

RECENT promotions at Princeton University include the following: Associate professors, B. F. Howell, A. F. Budington, R. M. Field, in the department of geology; F. A. Heacock, department of engineering; assistant professor, Philip Kissam, department of engineering.

Dr. V. A. Tan has been appointed to a professorship of mathematics at the University of the Philippines. He received the doctorate at the University of Chicago in June, 1925.

### DISCUSSION AND CORRESPONDENCE

## ANTAEUS, OR THE FUTURE OF GEOLOGY

It may seem strange for a scientist to venture to offer a defense of the study of the classics in these days of uneducated scientific experts, and yet I can not help but feel that the older and now largely discredited training prepared one somewhat better for life, even the life of a well-rounded scientist, than the present technological preparation for a profession. I am not denying that the quintessence of culture can be gotten out of any science, but we are not all Huxleys, and one must ruefully admit that among us mediocre men who necessarily make up the bulk of the present day enlarged army of scientists, the full life is exceptional, and the cultural level is exceedingly low.

One never ceases to wonder at the important truths tucked away in Greek mythology, and among these there is none so full of meaning for every one as the legend of Antaeus, and it contains also a most serious and timely warning for geologists. To the man in the street its moral has been unconsciously voiced in the compelling phrase "Getting down to brass tacks."

Antaeus was a Libyan giant, the son of Poseidon and Gaea, and it could not be more appropriate than that the personification of geology should be the som of such a fitting union as the sea and the earth, and what could be nearer the mark of expressing the true ideal of a geologist? Antaeus compelled all strangers passing through the land to wrestle with him. When thrown, as he permitted himself to be, the strength which came to him from this contact with mother earth rendered him invincible, and he was thus enabled to build a temple with the skulls of his victims.