

fifty-four essays, representing each state, as well as the District of Columbia, the Canal Zone, the Philippines, Porto Rico, Hawaii and Alaska. Selection of the best essays, out of the thousands written in the states and territories, was made by leading educational institutions, such as a state university, or the state department of education.

It is estimated by officials of the board that at least 250,000 pupils of high school grade participated in the contest, and these fifty-four manuscripts, therefore, represent the cream of all papers presented. Essays were written on the subject, "How good roads are developing my community." In many states local prizes were given, as well as state prizes by the institutions conducting the contest.

The scholarship is given by H. S. Firestone, Akron, Ohio, a member of the Highway Education Board. It is intended to defray tuition and expenses of the student in college and is valued at not less than \$4,000. The successful student, to be selected by the judges, may attend any college or university in the United States. It is expected that the judges will reach a decision in time to permit the successful boy or girl to enter college this autumn. The scholarship is given annually for the best essay on a subject pertaining to good roads.

THE ASSOCIATION OF IRON AND STEEL ENGINEERS

THE sixteenth annual convention will be held September 11 to 15, at Cleveland, Ohio. Following is the tentative program:

MONDAY, SEPTEMBER 11

9:30 A.M.

Business session—Election of officers.

2:00 P.M.

Report of Standardization Committees. F. W. Cramer, chairman.

Report of Sub-Committee on Motors. D. M. Petty, chairman.

Report of Sub-Committee on Lighting. R. G. Bauer, chairman.

Report of Sub-Committee on Control. F. W. Cramer, chairman.

Report of Sub-Committee on Cranes: "Résumé of AI&SEE Crane Code." R. S. Shoemaker, chairman.

Report of Sub-Committee on Transmission: "In-

vestigation of Insulators for Steel Mill Service." A. R. Leavitt, chairman.

Report of Electric Development Committee. R. B. Gerhardt, chairman.

Report of Electric Furnace Committee. E. T. Moore, chairman.

Report of Safety Committee. "Safety Organization—General Safety Rules." F. A. Wiley, chairman.

TUESDAY, SEPTEMBER 12

9:30 A.M.

"Generating Station Development": D. B. Rushmore and E. Pragst.

2:00 P.M.

"Electrification of the International Nickel Company's Works for Monel Metal": F. C. Watson.

WEDNESDAY, SEPTEMBER 13

9:30 A.M.

"Steam Turbine Operation": L. W. Heller.

"Internal Combustion Engines for Power Generation in Steel Mills": D. M. Petty.

2:00 P.M.

"Judging the Combustion of Gaseous Fuels from Gas Analysis": A. G. Witting.

Topical Discussion—"Boiler Practices of 1922": J. B. Crane, E. R. Fish, Alfred Cotton, R. E. Butler, R. M. Rush and P. H. Falter.

THURSDAY, SEPTEMBER 14

9:30 A.M.

"A Review of Steel Mill Electrification": B. G. Lamme and W. Sykes.

2:00 P.M.

"Improvement in Efficiency of Electric Power Supply": Dr. C. P. Steinmetz.

7:00 P.M.

Sixteenth annual banquet.

FRIDAY, SEPTEMBER 15

9:30 A.M.

"Some Considerations in the Electrification of the Steel Plant Railroad Yard": R. B. Gerhardt.

2:00 P.M.

Inspection trips—Cleveland industrials.

SCIENTIFIC NOTES AND NEWS

THE centenary of the death of two distinguished astronomers occurred last month. William Herschel died on August 25, 1822, and Jean Baptiste Joseph Delambre on August 19.

At the meeting of the French Association for the Advancement of Science, held at Montpellier from July 24 to 29, M. Mangin, director

of the Paris Museum of Natural History, gave the presidential address on the "War against the enemies of plants." M. Desgrez presided, and M. Viala was chosen to succeed him in the presidency. The meeting next year will be at Bordeaux.

M. BERGSON presided at the two sessions of the Committee on Intellectual Cooperation of the League of Nations that met at Geneva on August 1. Reports were presented by M. de Reynold, of Switzerland, and Mme. Curie, of France, respectively, on the situation in Austria and in Poland. The question of international cooperation in bibliography was discussed and a committee was appointed consisting of M. J. Destrée, of Belgium, M. de Reynold, Miss Bonnevie, of Norway, and Mme. Curie.

THE astronomers who are visiting Australia for the eclipse were given a civic welcome on August 8 by the Lord Mayor of Melbourne and afterwards entertained at luncheon by the federal ministers at the Federal Parliament. The prime minister expressed the willingness of the government to afford the utmost facilities to ensure the success of the expedition. Dr. W. W. Campbell, director of the Lick Observatory, replying, said that Australia had shown greater interest and rendered more assistance than the government of any other country for previous expeditions with which he had been associated.

HENRY EDWARD PELLEW, of Washington, has become Lord Pellew, the sixth viscount of Exmouth, at the age of ninety-four years. The title will devolve on Dr. Charles E. Pellew, of New York, formerly associate professor of chemistry in Columbia University.

DR. ROBERT AITKEN, astronomer, Lick Observatory, has returned from the meeting of the International Astronomical Union which was held from May 2 to May 10 at Rome. Dr. Aitken acted as chairman of the commission on double stars at the international meeting and was re-appointed chairman of the commission for the period 1922-25. He was also made a member of the commission on positions and orbits of minor planets, satellites and comets. Dr. Aitken took part in the meetings in cele-

bration of the centenary of the Royal Astronomical Society of London which were held from May 28 to May 31 in London. While there Dr. Aitken had the honor of presenting the Bruce Gold Medal of the Astronomical Society of the Pacific to the astronomer royal, Sir Frank Watson Dyson.

DR. J. S. KINGSLEY, who has been on leave of absence for the past year, has retired from the faculty of the University of Illinois with the title of professor emeritus of zoology. His address for the future is 2,500 Cedar Street, Berkeley, California.

PROFESSOR G. A. MILLER, of the University of Illinois, has recently been elected an honorary member of the Indian Mathematical Society. This society was organized in 1907 and its membership list, dated 1922, includes about 200 names. It then had only one honorary member.

PROFESSOR L. BAIRSTOW has been elected chairman of the Royal Aeronautical Society in succession to Lieutenant Colonel M. O'Gorman.

A. W. AMBROSE, chief petroleum technologist of the United States Bureau of Mines, has been appointed assistant director of the bureau, to fill the vacancy created by the resignation of E. A. Holbrook, who has accepted the deanship of the mining school at Pennsylvania State College. The duties of F. J. Bailey, assistant to the director, have been increased by assigning to him virtually all the business matters of the bureau formerly handled by the assistant director.

COLONEL DELCAMBRE has been appointed director of the French Meteorological Office.

HAROLD E. BABCOCK, of Cornell University, has resigned his position in the department of farm management and agricultural economics of the College of Agriculture to become manager of the Cooperative Grange League Federation Exchange.

DR. D. I. ANDRONESCU, of Emerson, New Jersey, has accepted a position with the Department of Agriculture of Romania as chief of the department of plant breeding. His address will be Statiunea Agronomica, Baneasa-Bucuresti, Romania.

AMONG the British civil list pensions granted "in consideration of their circumstances" during the year ended March 31, 1922, and announced in *Nature* are: Lady Fletcher, in recognition of the services rendered by her late husband (Sir Lazarus Fletcher) to science, £60; Dr. Francis Warner, in recognition of the services rendered by him in his investigations into the mental and physical condition of defective children, £100; Sir George Greenhill, F.R.S., in recognition of his services to science and his ballistic work, £125; Mrs. J. M. Miller, in recognition of the services rendered by her late husband (Dr. N. H. J. Miller) to agricultural science, £50; Mrs. Alice Mabel Ussher, in recognition of the services rendered by her late husband (Mr. W. A. E. Ussher) to geological science, £50; Mrs. Agnes E. Walker, in recognition of the services rendered by her late husband (Mr. George W. Walker, F.R.S.) to science, £75; the Misses Ellen C., Gertrude M., Alice B., Katherine E. and Mary L. Woodward, in recognition of the services rendered by their late father (Dr. Henry Woodward, F.R.S.) to geological science, £125.

ACCORDING to the *Journal* of the Washington Academy of Sciences, at a meeting of the executive committee of the Institute for Research in Tropical America it was decided to concentrate the efforts of the institute on the establishment of a research station in Panama near the Gorgas Memorial Institute which is to be erected in the outskirts of the city of Panama. The members are Thomas Barbour, Harvard University; H. E. Crampton, Barnard College (representing the New York Academy of Sciences); A. S. Hitchcock, Smithsonian Institution; A. G. Ruthven, University of Michigan, and Dr. Witmer Stone, Philadelphia Academy of Sciences.

M. DANIEL BERTHELOT, professor of physics in the University of Paris, gave the lecture at the joint meeting of the five French academies held on July 17.

DR. STEPHEN SMITH, distinguished for his contributions to public health, died on August 26, in his ninety-ninth year.

GISBERT KAPP, born in Austria in 1852, professor of electrical engineering at the Univer-

sity of Birmingham, died on August 10.

MRS. J. A. OWEN VISGER, author of books on natural history, died in London on July 30, at the age of eighty years.

HANS BATTERMAN, at one time director of the astronomical observatory at the University of Königsburg, has died at the age of sixty-two years.

M. LOUIS FAVÉ, known for his work on oceanography, died on July 31 at the age of sixty-nine years.

THE third annual meeting of the Southwestern Geological Society will be held at Dallas, Texas, on September 15 and 16. Visiting geologists, who are in that part of the southwest are invited to be present at this meeting.

THE Gutiérrez prize of 400 pesos will be awarded by the Havana Academy of Sciences for the best work on the medical geography of some part of Cuba. The Cañongo prize of 200 pesos is offered for the best work on any scientific subject, and the Gordon gold medal for the best work on the "Physiological conception of sleep." The competing articles must be sent in anonymously, and be in the hands of the secretary before March 30, 1923.

AN institute of theoretical and applied optics has been established at Paris with a course lasting two years and a laboratory for research. A monthly journal has been established with the name *Revue d'optique théorique et instrumentale*, which has the cooperation of the French syndicate of makers of optical apparatus and instruments of precision.

Nature states that a new biological station for the study of limnological problems and for research on the development of fresh-water fishes has been established at the Lake of Trasimeno, in Umbria. The University of Perugia has assumed responsibility, and the director of the station is the professor of physiology, Dr. Osvaldo Polimanti.

ACCORDING to *The Experiment Station Record*, the entomological laboratory and offices of the Station Agronomique de la Guadeloupe were recently destroyed by fire. Among the material lost was the mailing list, and the sta-

tion asks to be informed of individuals and institutions desiring to continue to receive its publications. Correspondence should be addressed to the director, Station Agronomique, Pointe-à-Pitre, Guadeloupe, West Indies.

At the meeting of the American Psychological Association at Princeton in 1921, there was constituted a Section of Consulting Psychologists to represent persons able to carry on the applications of psychology at a recognized scientific level. Up to the present, the membership in this section has been restricted to members of the Section of Clinical Psychology. Applications for membership to the Section of Consulting Psychologists can now be received from all members of the American Psychological Association who are engaged in the applications of psychology. The committee in charge will act upon these applications at the next annual meeting of the association. For further information address the representative of the committee, Dr. F. L. Wells, 74 Fenwood Road, Boston, Mass.

THE Wintersteiner Collection of 13,000 microscopical preparations of eye pathology has been acquired by the St. Louis University through the generosity of Mr. Charles Rebstock, of St. Louis. This collection, which is said to be the most complete in Europe, will be utilized for graduate instruction in ophthalmology.

It is proposed to build an observatory on the top of the Jungfrau. The Swiss Meteorological Bureau has carefully studied the proposal, and decided that should the observatory be erected it ought to be placed on the Sphinx rock. The rock stands above the Jungfrau-Jock at the height of 11,721 feet, 388 feet higher than the Jungfrau-Jock railway station. The observatory, which would be intended for meteorological observation, should, owing to its altitude, prove important and useful. Its construction, however, would involve a great expense, but it is hoped that the state and the scientific bodies of Switzerland will contribute towards its erection.

It is stated in *Nature* that the British Research Association for the Woolen and Worsted

Industries announce the following awards of research fellowships and advanced scholarships for the year 1922-23: Mr. G. W. Chester, Liverpool, £200 to conduct research on wool fats at the University of Manchester; Mr. John L. Raynes, Nottingham, £100 to conduct research on the bleaching of wool at the University College of Nottingham; Mr. George Barker, Baildon, £100, to conduct research on the action of water on wool as regards strength, elasticity, lustre, dyeing properties, etc., at the University of Leeds. Scholarships have been granted to Mr. Arthur Banks, Sutton Mill, Keighley, tenable at Bradford Technical College; and Mr. William B. Elliot, Wellington Road, Hawick, tenable at the South of Scotland Central Technical College, Galashiels.

THE *Journal* of the American Medical Association states that a deputation received on July 13 by the British minister of health laid before him the present status of graduate medical education in London. The committee appointed by Dr. Addison, former minister of health, recommended that an institute or college of hygiene be established in London. This has been made possible by the munificent gift of the Rockefeller Foundation, and furthered by a promise from the minister of health of an annual grant of £25,000 for upkeep. A site has been selected and other arrangements are in progress. It was further recommended that a graduate medical school be established to serve as a center of a great teaching organization, in which the special hospitals of London, the Poor Law infirmaries and the medical schools, with their clinical units and research departments, would all find their place. It advised that, as an integral part of the organization, there should be a bureau or central office controlled by a committee of management and providing a library, a hostel and full facilities for social intercourse. Nothing has been done to advance this second recommendation, and it is on this point that the deputation made representations to the minister. The president of the Royal College of Physicians of London, the president of the Royal College of Surgeons of England and the chairman of the committee on graduate education of the British Medical

Association, were among the members of the deputation.

THE program for the Eighth National Exposition of Chemical Industries, to be held in Grand Central Palace, New York, N. Y., September 11 to 16, 1922, numbers among its speakers not only many eminent chemists but several well-known public men. There are already about 400 exhibitors. Every branch of the chemical and chemical equipment industries, as well as numerous allied houses, will be represented at the exposition. The chemical products displayed will include all types manufactured in the United States: Coal, medicinal, and dyestuffs, technical chemicals for the rubber, leather, paper, textile, paint, and other consuming trades,—“everything in chemicals from the crudest of crude materials to the most delicate aromatic ready for the perfumer's use.” A number of new devices in apparatus and machinery developed since the termination of war-time activity and completed since the 1921 Exposition will be displayed for the first time, as well as improvements on machinery long standard for industrial operations. Many of the machines will be seen in actual operation. Some new features which will be on display are: New special high-capacity evaporator; Lead pumps for handling phosphoric acid under pressure; new adaptation of the all hard-rubber pump for use in muriatic acid loading; recent development on a balanced automatic control valve and in direct reading resistance thermometer; new ideas in pyrometers; developments of the past year in butyl alcohol and furfural and their derivatives for solvent purposes; the use of liquid chlorine in the paper industry in place of bleaching powder; new dust controlling and humidifying equipment; new ideas for loading machinery on trucks; all types of containers, steel fiber, wood and glass.

THE *Journal* of the Royal Society of Arts states that because it represents an entirely new industry to Malaya, the formal opening of the pottery works at Gopeng, was made the occasion of somewhat elaborate ceremonies. The plant, which is situated about 16 miles from Ipoh, is equipped to handle all the processes from refining the crude clay to the decoration of the completed piece. According

to a report by the United States consul at Penang, casting and jollying are the processes used, permitting a comparatively large output with labor that is not yet thoroughly trained. Teapots, jugs, ewers and basins are already being turned out, notwithstanding that a few weeks ago the Malay girls employed in the casting room had never seen a pottery. As the available labor becomes more skilled the production of porcelain ware in bulk is contemplated. All the materials required for pottery making are found within three miles of the works. Besides supplying its own clay requirements, the company ships china clay to cotton mills in Bombay and paper mills in Calcutta. The barrels for packing the product are made at the works.

UNIVERSITY AND EDUCATIONAL NOTES

THE will of Arthur B. Emmons, of Newport, R. I., leaves \$50,000 to the Museum of Fine Arts of Boston and \$25,000 to the Children's Hospital of the same city, and the Newport Hospital. Berea College, Kentucky, Hampton Institute, Virginia, and Tuskegee Institute, Alabama, receive \$10,000 each.

DR. ANDREW M. SOULE has resigned the presidency of the Georgia State College of Agriculture, to accept the presidency of the University of Wyoming, to take the place of Dr. Aven Nelson, who returns to his former position as head of the department of botany.

DR. J. L. BEESON, for twenty-five years professor of chemistry at the Georgia State College for Women, Milledgeville, Ga., has been elected acting president of the college.

WILLIAM F. G. SWANN, Sc.D., professor of physics in the University of Minnesota, has been appointed professor of physics at the University of Chicago. Professor Swann was connected with the Royal College of Science, London, and the University of Sheffield before coming to the United States in 1913. For six years he was chief of the physical division, Department of Terrestrial Magnetism of the Carnegie Institution at Washington.

DR. HENRY H. GODDARD, for the past four years director of the State Bureau of Juvenile