

Moissanite: Natural, Artificial and Meteoric," by Dr. Geo. F. Kunz.

9:30 P.M.—Lecture on "Deflocculated Graphite," by Mr. E. G. Acheson, of Niagara Falls, with demonstrations and experiments.

#### *Friday Morning Session*

9 A.M.—At Chemists' Club.

"On the Electrothermic Reduction of Iron Ores," by Messrs. Albert E. Greene and Frank S. MacGregor.

"Discussion of the Electric-Furnace Experiments for the Production of Pig Iron at Sault Ste. Marie," by Dr. Joseph W. Richards.

"Electric-Furnace Experiments," by Dr. H. N. Potter.

"Discussion of Moissan's Experiments on the Boiling Points of the Metals," by Dr. O. P. Watts.

"The Electrometallurgy of Zinc," by M. Gustave Gin.

"A New Application of Chlorine in Metallurgy," by Mr. C. E. Baker.

"The Heat Conductivity of Carbon," by Mr. F. A. J. Fitzgerald.

"Granular Carbon Resistors," by Professor S. A. Tucker.

#### *Saturday Morning Session*

9 A.M.—At Columbia University.

"Physico-chemical Notes on the Aluminates of Soda," by Mr. P. B. Sadtler.

"Action of Ammonium Persulphates on Metals," by Mr. J. W. Turrentine.

"Note on the Use of the Capillary Electrometer for Alternating Voltages," by Mr. M. G. Floyd.

"Electroscopic Determination of Radium in some Tufa at Hot Springs, Arkansas," by Dr. Herman Schlundt.

"Electrolytic Separation of Silver and Copper," by Mr. H. W. Gillett.

"Electrolytic Determination of Minute Quantities of Copper," by Mr. E. E. Free.

"Electrolytic Reduction of Nitric Acid," by Dr. H. E. Patten and Robinson.

"Electrochemical Methods for the Qualitative and Quantitative Determination of Free Silicon in the Presence of Silica, Silicates, Oxides, Free Carbon and Carborundum," by Mr. W. R. Mott.

"On the Nature of Electrolytic Conductors," by Dr. L. Kahlenberg.

"The Electrolytic Theory of the Corrosion of Iron," by Dr. A. S. Cushman. (Lecture with demonstrations.)

Professor S. A. Tucker, Columbia University, is chairman of the New York Committee. Mr. Alois von Isakovics, Monticello, N. Y., is the local secretary.

#### *SCIENTIFIC NOTES AND NEWS*

A COMMITTEE has been formed in Germany, with the Prussian minister of state as chairman, to found an institution in honor of Dr. Robert Koch. It is intended that the institution shall be devoted to research into the means of checking the diffusion of tuberculosis and that it shall be a permanent memorial of the discovery of the tubercle bacillus by Professor Koch twenty-five years ago. Appeal is made for contributions sufficient to make the institution a tribute of gratitude to Koch, similar to those with which the name of Pasteur has been honored in France and that of Lister in England.

SIR ARCHIBALD GEIKIE, as president of the Geological Society of London, welcomed the members and delegates to the centenary celebrations on the morning of September 26, and in the afternoon gave an address on the state of geology at the time when the Geological Society was founded.

DEAN M. E. COOLEY, of the engineering department of the University of Michigan, has been appointed by the Interstate Commerce Commission to act as chairman of a committee which will meet in Washington to consider devices for the automatic control of trains.

At the forty-fourth annual meeting of the American Veterinary Medical Association, recently held in Kansas City, Mo., Dr. W. H. Dalrymple, M.R.C.V.S., Louisiana State University, Baton Rouge, was elected president for the ensuing year.

PROFESSOR THEODORE W. RICHARDS, having returned from Germany, has been reappointed chairman of the division of chemistry in Harvard University. During his absence the chairmanship was held by Professor C. Loring Jackson.

PROFESSOR T. A. JAGGAR, of the Massachusetts Institute of Technology, has returned to

Boston from his trip to the Aleutian Islands, where he spent the summer, studying the volcanic conditions.

PROFESSOR EUGENE A. SMITH, Teachers College, Columbia University, is at present in Japan. He is spending his sabbatical year in the orient, collecting mathematical books and manuscripts bearing on the history of mathematics.

DR. GEORGE GRANT MACCURDY, curator of the archeological collection of Peabody Museum, Yale University, has during the past vacation mapped out the state of Connecticut for a systematic archeological survey, bearing particularly on the traces of the Connecticut Indians.

DR. C. L. MURALT, of the University of Michigan, has been granted a short leave of absence, in order that he may act as consulting engineer in the electrification of the Altb-erg tunnel, which is being constructed by the Austrian government.

MR. RAYMOND E. PRIESTLEY, a student of University College, Bristol, has been appointed geologist of the expedition to the Antarctic under the command of Lieutenant Shackleton. The party sails from Liverpool in October, for New Zealand, to join the *Nimrod*.

PROFESSOR and Mrs. David P. Todd left Lima on September 28, for the United States, by way of the Isthmus of Panama. While in Lima Mrs. Todd gave an address before the Geographical Society, her subject being "The Ainus of Japan," among whom she resided for several weeks in 1896, while the *Coronet* Eclipse Expedition was stationed in Yezo.

PROFESSOR WILLIAM BATESON, of Cambridge University, is giving, on October 3 and 31, and November 1, at the Brooklyn Institute of Arts and Sciences, three illustrated lectures, entitled "Demonstrations of Mendel's Principles of Heredity."

INAUGURAL exercises will be held on October 18 at 2 P.M. at Urbana, Ill., to celebrate the election of Dr. Wm. A. Noyes as professor of chemistry, head of the Department of Chemistry, and director of the Chemical Laboratory of the University of Illinois. The following program has been arranged:

Address: President Edmond J. James, Ph.D., LL.D.

"The Relation of Chemistry to Agriculture," by Professor H. A. Weber, Ph.D., professor of agricultural chemistry, Ohio State University.

"The Relation of Chemistry to the Industries," by Dr. William McMurtrie, Ph.D., consulting chemist, New York City.

"The Teaching of Chemistry in State Universities," by Professor George B. Frankfurter, Ph.D., dean of the School of Chemistry, University of Minnesota.

"The Contribution of Chemistry to Modern Life," by Professor William Albert Noyes, Ph.D., professor of chemistry and director of the chemical laboratory, University of Illinois.

At 8 o'clock in the evening an inaugural banquet will be provided, and on the following morning the Chemical Laboratories will be open to the public for inspection.

DURING the academic year 1907-08 Columbia University offers the following series of non-technical lectures descriptive of the achievements of science and modern scholarship. While the lectures are intended primarily for the officers, students and alumni of the university, they will also be open to the public. The lectures will be given in 309 Havemeyer Hall on Wednesday afternoons at 4:10 P.M.

Oct. 16—Mathematics, Professor Keyser.

23—Physics, Professor Nichols.

30—Chemistry, Professor Chandler.

Nov. 6—Astronomy, Professor Jacoby.

13—Geology, Professor Kemp.

20—Biology, Professor Wilson.

27—Physiology, Professor Lee.

Dec. 4—Botany, Professor Richards.

11—Zoology, Professor Crampton.

18—Anthropology, Professor Boas.

Jan. 8—Archeology, Professor Wheeler.

15—History, Professor Robinson.

22—Economics, Professor Seager.

Feb. 12—Politics, Professor Beard.

19—Jurisprudence, Professor Munroe Smith.

26—Sociology, Professor Giddings.

Mar. 4—Philosophy, President Butler.

11—Psychology, Professor Woodworth.

18—Metaphysics, Professor Woodbridge.

25—Ethics, Professor Dewey.

Apr. 1—Philology, Professor Jackson.

8—Literature, Professor Peck.

FOREIGN papers report that an institution for promoting science and scholarship has been founded in Rome, with headquarters at the Vatican Observatory under the direction of Father Hagen. The institution is to have offices in the different countries.

THE late Josephine Naprstek has bequeathed 80,000 crowns to the Naprstek Bohemian Industrial Museum in Prague. The museum, which is to a large extent ethnographical in character, was established by Herr and Frau Naprstek.

AN anonymous gift of \$2,500 has been received for the investigation of cancer at the Harvard Medical School. This will be used under the advice of the Cancer Commission now administering the Caroline Brewer Croft Fund.

A BULGARIAN Museum of Natural History was opened in Sofia at the beginning of this month.

WE learn from the *Journal of the New York Botanical Garden* Mr. Oakes Ames, of North Easton, Mass., has presented his valuable collection of living orchids to the garden. This collection is the result of many years work. It contains many valuable plants, some of great rarity.

THE International Statistical Institute will hold its twelfth biennial session at Paris in 1909.

ON the occasion of the seventy-eighth Congress of the German Men of Science and Physicians, held at Dresden from September 15 to 21, the city of Dresden appropriated for the meeting 20,000 Marks, 14,000 of which were spent for the entertainment of members. This has aroused objections from the public, and in the daily as well as the scientific press, the practise of public entertainment on such occasion has been criticized severely.

THE International Congress of "Free Thinkers" was held from September 8 to 12, in Prague. The attendance consisted largely of scientific men and physicians. Honors were paid to the memory of Berthelot, the great chemist, formerly president of the French branch of the society.

THE U. S. Civil Service Commission announces the postponement to November 6-7, 1907, of the examination scheduled for October 23-24, to fill the position of anatomist (male), at \$1,600 per annum, in the Army Medical Museum. The commission further announces an examination on October 23, to fill vacancies as they may occur in the position of laboratory helper, at \$600 per annum each, in the Bureau of Chemistry, Department of Agriculture, at Washington, and in other cities in which the department has established chemical laboratories. Vacancies in this position are constantly occurring. Chemical laboratory helpers will be required to render assistance in any work that does not require the training of a chemist. Their duties will be the cleaning of apparatus, the construction and repairing of apparatus, the care and storage of chemicals and apparatus, the preparation of stock solutions and of special reagents, and any other work in which they can save the time of chemists by performing labor that is essentially manual and does not require the training of a chemist, but is of such a nature that it can only be performed by one who has had training and experience in a chemical laboratory. Applicants must indicate in their applications that they have had actual experience as helpers in chemical laboratories. It is not desired that qualified chemists should apply for this examination, as the work will not be of an analytical character. Analysts are appointed from the examination for scientific assistant. Age limit eighteen years or over on the date of the examination.

DETAILED statistics of the world's production of coal, by countries, are incorporated in an advance chapter from "Mineral Resources of the United States, Calendar Year 1906," on the production of coal in 1906, by E. W. Parker, chief statistician of the United States Geological Survey, which will soon be ready for distribution. It appears that the world's production of coal in 1906 amounted to about 1,106,478,707 short tons, of which the United States produced 414,157,278 tons. Since 1868, during a period of thirty-nine

years, the percentage of the world's total coal produced by the United States has increased from 14.32 to 37, and this country now stands far in the lead of the world's coal producers. It has been only eight years since the United States supplanted Great Britain as the leading coal producer, yet the increase in this country has been so enormous that Great Britain can no longer be classed as a competitor. In 1906 the United States produced 43.7 per cent. more coal than Great Britain and 85 per cent. more than Germany. Exclusive of Great Britain the United States in 1906 produced more coal than all the other countries of the world combined. It may also be noted that more than 96 per cent. of the world's production of coal is mined in countries lying north of the equator, the countries south of the line contributing less than 20,000,000 tons annually.

THE Allahabad *Pioneer Mail*, as quoted in *Nature*, states that the programs of work of the various scientific departments for the current year, as settled by the Indian Board of Scientific Advice, have been published. The following points are of general interest: (1) Schemes have been completed for the establishment of a central research station and agricultural colleges at Poona, Lyallpur, Cawnpore, Bhagalpur, Coimbatore, Nagpur and Mandalay, and a staff of three European specialists has been sanctioned for each; (2) new agricultural stations are to be started (*a*) at Aligarh for the improvement of cotton, (*b*) at Partabgarh for the study of rice and sugarcane, (*c*) at Jullundur, (*d*) at Bassein, and (*e*) at Bhagalpur and Bankipur (Bengal). The special investigations connected with the improvement of Indian cottons and wheats will be continued, but the scheme for the improvement of Indian tobacco will largely remain in abeyance until the appointment of a specialist for this purpose. The study of sugarcane diseases and of practical measures for the suppression of cotton boll-worm in the Punjab will also be continued. The lead mines of the southern Shan States, the tin deposits in Mergui, Tavoy and Karenni, the oil beds in the Irrawaddy Valley and the

Arakan districts, the volcano of Popa in the Myingyan district, Burma, the copper beds of Singbhum, and the manganese mines in the central provinces, are all to be the subject of geological investigation.

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#### UNIVERSITY AND EDUCATIONAL NEWS

By the will of the late D. Willis James, of New York City, the sum of one million dollars divided into ten portions of \$100,000 each, is bequeathed to educational and charitable institutions, the former being: Columbia University, Yale University, Amherst College, Union Theological Seminary, Cooper Union and the Hampden Institute.

MISS ANNA T. JEANES has bequeathed practically all her estate, said to be of the value of \$5,000,000, for public purposes, including the establishment of a hospital. A bequest of certain property, estimated to be between \$500,000 and \$3,000,000 in value, has been bequeathed to Swarthmore College on condition that it abandon intercollegiate sports. A committee of the board of managers has been appointed to report on the question.

THE buildings of the Barnard Medical College and the Centenary Hospital, St. Louis, valued at \$300,000, have been transferred to the University of Missouri, which expects to provide the two final years in medicine at St. Louis, after 1908.

A CABLEGRAM from Tientsien states that an imperial edict decrees compulsory education for everybody in China, and adds, furthermore, that the people are to be taught the principles of constitutional government, in order that they may be better fitted to elect representatives when a parliament is created. The throne expresses anxiety to establish parliamentary institutions, but adds that the success thereof depends upon the education and knowledge possessed by those called upon to govern.

A NEW university library, to cost one million Marks, will be erected in Tübingen.

THE name of the high school in Münster was changed on August 22, to "Wilhelms Westfalian University." A school of medicine will be established.