

minal lines in Pittsburgh on or before July 9, holders of same will be entitled up to August 31 to a continuous passage ticket by the route over which going journey was made, at one third the first-class limited fare.

Extraordinary concessions have been made for this Convention by the above-named Passenger Associations in allowing the purchase of tickets for the going journey eight days prior to any of the scheduled meetings and extending this privilege up to and including June 30. For obvious reasons this concession has been slightly modified as above noted by the Western Passenger Association. The extension of time limit on the return tickets to August 31 is decidedly out of the ordinary. An exception of the usual rule requiring the return journey to be made at least three days after adjournment, was granted at the earnest request of the Chairman of the Local Committee, Dr. W. J. Holland, expressed through the Chairman of the Transportation Committee, Col. Samuel Moody, Assistant General Passenger Agent of the Penna. Lines West of Pittsburgh.

The *Southeastern Passenger Association* will sell tickets on the regular certificate plan conditions, namely: Certificates to be issued in connection with going ticket three days before (Sunday not included) and two days after the first day of meeting, and to be honored for return tickets up to and including third day of adjournment. This means that tickets will be sold on June 25, 26, and 27 and honored for the return journey from June 28 to July 6 inclusive. Instructions regarding purchase of tickets, obtaining certificates, and having certificates acknowledged and validated at Pittsburgh are the same as those given above for the other Passenger Associations with the exception, however, that no certificate will be honored for the return ticket unless presented during the time that the meeting is in session or within three days (Sunday not included) after adjournment.

The *Transcontinental Passenger Association* has not granted a special rate for this Convention, but suggests that delegates using their lines avail themselves of the privileges afforded by purchasing a nine-months' tourist

ticket. This means transportation from extreme Western points to territory granting the rates above given, at two cents per mile, and is about equivalent to a rate of one fare and one third for the round trip.

The *Southwestern Passenger Association* has refused to grant any reduction of fare for this Convention.

GEORGE A. WARDLAW,
Local Secretary.

SCIENTIFIC NOTES AND NEWS.

THE Senate of Dublin University has voted to confer the degree of Doctor of Science on Professor J. Willard Gibbs, of Yale University.

DR. CARLOS FINLAY, of Havana, eminent for his work on yellow fever, has been given the degree of Doctor of Science by Jefferson Medical College, from which he graduated in 1855.

It appears from reports in the daily papers that American men of science—Dr. R. T. Hill, U. S. Geological Survey; Dr. Angelo Heilprin, Philadelphia Academy of Natural Sciences; Dr. T. A. Jagger, Harvard University, and Dr. E. O. Hovey, the American Museum of Natural History—have made careful observations of the geological conditions following the volcanic eruptions in the lesser Antilles.

PRESIDENT DAVID STARR JORDAN will leave on June 12 on the steamer *Sierra* for Samoa, where he will spend the summer in the investigation of the fishes and other marine animals of the Samoan islands. The work will be done for the United States Fish Commission, and Professor Vernon L. Kellogg, of Stanford University, will accompany Dr. Jordan.

MR. J. S. BUDGETT, F.Z.S., Balfour student of the University of Cambridge, left England on May 22 for Uganda, via Mombasa, on a mission from the Zoological Society of London. He will proceed to the southeastern corner of the Protectorate, and take up a station on the Semliki River, where he will collect mammals and birds, study the fishes, and endeavor to investigate the habits of the okapi in the forest of Mboga. Mr. Budgett, who has already paid two visits to the Gambia, is a

practiced collector of fishes and an experienced African traveller.

DR. LEOPOLD BATRES, conservator of national monuments, of Mexico, has returned from explorations of the ruins of Zapotecan cities in the State of Oaxaca.

DR. D. C. GILMAN, president of the Carnegie Institution, is at present in Germany, where he is holding consultations with the leading German men of science in regard to the plans of the institution.

THE bill to permit the retirement of Surgeon-General Sternberg with the rank of major-general was defeated by a vote of 68 to 103 in the House on June 2.

DR. WM. J. GIES, adjunct professor of physiological chemistry in Columbia University, has been appointed consulting chemist to the New York Botanical Garden.

PROFESSOR R. A. ZIMMERMANN has been appointed botanist to the Biological Station at Tanga in the German possessions in East Africa.

PROFESSOR LEWIS SWIFT, who is said to have discovered fifteen comets, has recently celebrated his eighty-first birthday.

DR. KARL NEUMANN, professor of mathematics at Leipzig, has celebrated his seventieth birthday.

DR. JOHN K. REES, professor of astronomy at Columbia University, will give the commencement address before the Worcester Polytechnic Institute, his subject being 'Recent Progress in Astronomy.'

AT the meeting of the Royal Geographical Society, on May 26, the following awards were made:—The Murchison grant for 1902 to J. Stanley Gardiner, for his researches in Funafuti Island, in the Pacific, and the Maldive Islands, in the Indian Ocean. The Gill memorial for 1902 to G. G. Chisholm, for the services rendered during 25 years to geographical education by text-books of various kinds, atlases and lectures, all of a high standard of value as well as for his geographical investigations, among other subjects into cataracts and waterfalls, and on the sites of towns. The Back grant for 1902 to Lieutenant Amdrup,

for his two voyages of exploration to the east coast of Greenland, during which he surveyed and mapped in detail much of the coast hitherto unknown or imperfectly mapped. The Cuthbert Peek grant for 1902 to J. P. Thomson, who was founder of the Queensland branch of the Australian Geographical Society and by his writings and in other ways has done much to promote the interests of geography in Queensland.

PROFESSOR EMMETT S. GOFF, professor of horticulture at the University of Wisconsin, died on June 6 in Madison, after a short illness.

THE Rev. Dr. John Henry Barrows, president of Oberlin College, died on June 3, aged fifty-five years. Dr. Barrows was well known as an educator and author, and for the part he took in organizing the Parliament of Religions at the World's Columbian Exposition.

MR. W. H. AUSTIN, senior wrangler and Smith's prizeman at Cambridge and lecturer on mathematics at the University of Birmingham, died on May 20, at the age of twenty-seven years.

THE American Medical Association is this week holding its fifty-third annual meeting at Saratoga with about two thousand physicians in attendance.

THE American Institute of Electrical Engineers will hold its nineteenth annual meeting at Barrington, Mass., beginning on June 18.

THE American Electrochemical Society will hold its second general meeting at Niagara Falls, N. Y., beginning Monday, September 15.

THE position of computer in the Coast and Geodetic Survey at a salary of \$1,000 will be filled by civil service examination on July 8 and 9. The position is open both to men and women.

THE New York City Board of Estimate has authorized the issue of \$600,000 bonds, for the City College; \$200,000 for the Museum of Natural History; \$250,000 for new library sites, and \$125,000 to begin the work of estab-

lishing public baths in Manhattan and Brooklyn.

CARL FABER, of Munich, a son of the late Johann Faber, the pencil manufacturer, has given 1,000,000 Marks for the Germanic Museum at Nuremberg and to the Bavarian National Museum at Munich.

MEMBERS of the American Society of Civil Engineers, the American Society of Mechanical Engineers, the American Institute of Mining Engineers, and the American Institute of Electrical Engineers have united to found a gold medal in honor of the eightieth birthday of John Fritz, the eminent metallurgist. It is hoped that subscriptions of \$10 amounting to five or six thousand dollars will be made.

THERE has been erected in Schenley Park, Pittsburgh, as gift of Mr. Phipps, a Hall of Botany. It adjoins the conservatory, being a substantial brick building equipped with laboratory facilities. The hall is for the study of botany by the school children of the city.

THE Antwerp Geographical Society has opened an exhibition in the Zoological Park illustrating the recent progress of geological discovery.

IN July next another German expedition will start from the West African coast for Lake Chad. This time it will have more of a scientific nature and will really be undertaken to study the products of the German territory up to the lake with a view of ascertaining the commercial value.

THE British Board of Agriculture is informed by the High Commissioner for Canada that the Canadian Government has sent Mr. A. G. Hopkins, veterinary quarantine officer for Canada, to England to apply the tuberculin test to all cattle over six months old intended for export for breeding purposes from the United Kingdom to Canada.

THE California Chapter of the Society of the Sigma Xi was organized this spring at the University of California. The total membership of the Chapter now number forty-nine, which includes the following students, recently elected from the scientific colleges:

Graduates: E. Baruch, F. C. Calkins, R. T. Crawford, R. H. Curtiss, H. M. Hall, A. S. King, H. K. Palmer, and W. J. Sinclair.
Seniors: A. Adler, J. S. Colbath, B. A. Etcheverry, C. O. Esterly, E. Everett, D. Finley, J. Newfield, G. C. Noble, C. P. Richmond and C. A. G. Weymouth.

MR. W. BRUCE, who is to lead the Scottish Antarctic expedition, has received a letter from Professor von Drygalski, leader of the German South Polar expedition, announcing the arrival of the *Gauss* at Kerguelen at the beginning of January. The expedition will therefore have made the ice at about the same time as the Swedish and British ships. Dr. von Drygalski has penetrated the Antarctic region at the point of the still hypothetical termination island in order to discover the western side of Victoria land and clear up its possible connection with the Kemp and Enderby lands. By taking this route he believes he may be ultimately able to sweep westwards by a high southern latitude into the South Atlantic and emerge by way of South Georgia.

THE Berlin correspondent of the London *Times* writes under date May 25:—"Experiments were made last year at the General Telegraph Office in Berlin with the octoplex system of typographic telegraphy invented by the late Professor Henry A. Rowland, of Baltimore. The necessary apparatus for communication with Hamburg and Frankfort is being installed and will shortly come into use. It is claimed for the octoplex system that it enables a total of 20 officials at the despatching and receiving stations to send in one hour 18,000 words on a single wire. By the Hughes system at present in use between Berlin and the towns just mentioned it is not possible to send more than 2,200 words in the hour. The despatching instrument of the octoplex system resembles the Remington typewriter, and any given letter can be telegraphed by the depression of the proper key, whereas in other systems the depression of more than one key is usually necessary to form the current required to telegraph a letter. The labor of the despatching clerk is thus lightened, while at the same time the receiving in-

strument, by printing the message on a sheet of paper instead of on a tape, enables the attendant official to detach and forward the telegram as soon as it is concluded. If the system proves to be successful in practice, the result will be to relieve the congestion from which the wires now suffer, and thus to enable many places, which, owing to their distance from one another, have hitherto had to be content with an indirect service, to enjoy direct communication."

CONSUL G. W. ROOSEVELT, of Brussels, writes to the Department of State: In 1898, an international competition for a paste for matches not containing white sulphur was announced, and a prize of 50,000 francs was offered by the Belgian Government to the inventor. The commission appointed to judge results has now declared that, after four years of careful experiment and analysis, it has been found that none of the products so far submitted fill the required conditions, being defective in inflammability, igniting on all surfaces, or, in igniting, ejecting inflammable matter containing some poisonous substance. The sum already expended in the matter amounts to 8,178 francs. This covers cost of printing, correspondence with foreign countries, purchase of material, analysis and experiments.

WE learn from the London *Times* that an international agreement for the protection of birds useful to agriculture was concluded in Paris on March 19. The parties to the agreement are Belgium, France, Greece, Lichtenstein, Luxemburg, Monaco, Austria-Hungary, Portugal, Sweden, Switzerland and Spain. The agreement contains 16 clauses, of which the first states that birds useful to agriculture, especially insect eaters and birds enumerated in the lists attached to the agreement, are to enjoy an unconditional protection and that the destruction of these birds, their nests, eggs and broods is to be forbidden. Certain nocturnal birds of prey, as well as woodpeckers, bee-eaters, swallows, and several birds of the sparrow species, appear as useful birds, while ravens, magpies, jays and others are branded as mischievous. Some exceptions protect sporting

and other rights. Italy, a country in which the capture of northward-bound birds is a regular trade, does not appear amongst the signatories. According to statistics recently given in the Reichstag no less than seven hundredweight of migratory birds were put on the Verona market at one time. The agreement will shortly be submitted to the Reichstag.

DURING the coming summer the United States Geological Survey will continue the study of the lead and zinc fields in northern Arkansas; this work will be under the charge of George I. Adams, assistant geologist, who will be assisted by Professor A. H. Purdee, of the Arkansas State University, and by Ernest F. Burchard. In this investigation an attempt will be made to describe all the camps of that important section and in particular will include a careful survey of the territory covered by the Government topographic map sheet known as the Yellville quadrangle, which includes most of Marion and parts of Boone, Newton and Searcy counties. This work will be a continuation in detail of the study of the Ozark lead and zinc region, which includes northern Arkansas upon which a preliminary report by Baine and Adams was issued in the last annual. The results of the work will be a report on the lead and zinc field of northern Arkansas, together with a geological folio, which will follow other similar folios, issued by the Geological Survey, in giving an accurate geological description of the region, illustrated by maps showing the topography and also the surface, economic and structural geologic features. At the close of his work in northern Arkansas, Mr. Adams will be engaged in a reconnaissance in northern Texas for the purpose of determining the stratigraphic relations existing there between the Carboniferous and the so-called Red-beds; it is expected that this work will throw light upon the disputed problem of the extent of the Permian formation in that region. Mr. Adams has recently published a report on the oil and gas fields of the western interior and northern Texas Coal Measures, and the Upper Cretaceous and Tertiary of the western Gulf Coast, which appeared as Bulletin 184 of the United States

Geological Survey. A documentary edition of this bulletin for free distribution, upon application to the director, is now available.

UNIVERSITY AND EDUCATIONAL NEWS.

BRYN MAWR COLLEGE has secured gifts amounting to \$256,000, thus making available the conditional gift of \$250,000 offered by Mr. John D. Rockefeller.

FRIENDS of Columbia University have purchased from the New York Hospital for \$1,900,000 the two blocks of land facing the University. It is hoped that this land may be ultimately acquired for the use of the University.

THE valuable natural history collections, of the late Dr. C. Kramer, professor of botany at the Polytechnic Institute at Zurich, has been presented by his heirs to the institute.

EFFORTS are being made to establish a university at Frankfort on the Maine. The city possesses in its Schenkenberg Institute a school of natural science and medicine, and there is also in the city a commercial school. The trustees of the Karl Juegel's bequest, amounting to about \$500,000, have decided to use the fund for a school of law, history and philosophy. The proposal now being considered is to unite these various institutions in a new university.

THE University at Jena has established introductory courses in Greek and Latin for students from the Realgymnasia and Oberrealschulen who decide after coming to the University that they wish to study law.

THE Omaha Medical College has recently become the medical department of the University of Nebraska. The first two years of the course will be given at both Omaha and Lincoln.

At the Jefferson Medical College, Philadelphia, Dr. Julius L. Salinger and Dr. Thomas G. Ashton have been elected professors of clinical medicine.

THE School of Practical Agriculture, in which a number of New York citizens are interested and of which Professor George T.

Powell is director, has purchased 415 acres of land for a site.

At Columbia University Professor Friedrich Hirth, of Munich, has been appointed head of the recently established Dean Lung Department of Chinese, and Dr. Felix Adler to a newly created professorship of social and political ethics. At the College of Physicians and Surgeons, the medical department of the University, Dr. Emmett Holt has been appointed clinical professor of the diseases of children, succeeding Dr. Abram Jacobi, who had held this position for more than thirty years and now becomes professor emeritus. Dr. Russell B. Opitz has been appointed demonstrator in physiology and Dr. R. E. Buffington, assistant in normal histology. Mr. J. H. Bair has been made assistant in the department of anthropology, and Miss Jean A. Brodhurst, assistant in botany at Barnard College.

PROFESSOR LYMAN S. MOREHOUSE, of Washington University, St. Louis, has accepted a chair of electrical engineering at the University of Michigan.

MR. ARTHUR E. WADE, '02, of Cornell College, Iowa, has been appointed demonstrator in chemistry at the Sioux City Medical College.

AMONG the announcements made by President Goucher at the commencement of the Woman's College of Baltimore on June 3, were the following: Dr. Florence Peeble, instructor of biology, has been advanced to assistant professor. Miss Marie Eleanor Nast, Cincinnati, Ohio, who receives the fellowship given each year to a member of the graduating class, will study biology and physiology at the University of Chicago. Miss Nast last year received from the Woman's College a scholarship entitling her to study at the Marine Laboratory at Wood's Holl. Two Wood's Holl scholarships granted this year are awarded to Miss Mary Taylor Abercrombie, '03, Baltimore, Md., and to Miss Miriam Alice Belt, '03, Beltsville, Pa. A scholarship entitling the holder to work at Cold Spring Harbor is awarded to Miss Mary E. G. Lentz, Baltimore, Md.