

rates at the hotel, are \$1.50 per day and upwards on European plan, and \$3.00 to \$5.00 per day, American plan. Reduced rates will doubtless be made for the meeting.

Transportation.—The Western Passenger Association, covering the territory west of Chicago and St. Louis, has made a rate of one fare plus \$2.00 for the round trip, in their territory, to Denver, Colorado Springs and Pueblo. The tickets may be bought from July 10th to August 31st, and are good for return up to October 31st. At this rate the fare from Chicago to Denver and return will be \$31.50. The Pullman fare is \$6.00 extra, each way.

Further details will be found in the A. A. A. S. circular, which will be issued soon.

Geological Excursions.—A circular has been sent to all Fellows, describing an extended excursion through Colorado planned by Professor C. R. Van Hise, Chairman of Section E, for the ten days (Aug. 17–27) preceding the meeting. For information concerning this trip request should be made to Professor Van Hise, Madison, Wis.

The Secretary of the Denver Local Committee writes as follows:

“Geological excursions which are likely to be arranged by the local committee are as follows, but subject to change: An all-day railroad excursion to Mt. Alto and Ward; one to the mesas at Golden; one to Morrison, to the Garden of the Titans, to study the magnificent exposure from the red beds of the Triassic to the uppermost beds of the Denver formation; to the classic ground where were obtained the first *Atlantosaurus* and *Stegasaurs*; to the Pleistocene deposits near Denver. At Colorado Springs excursions will be taken to the Garden of the Gods; to the mineral springs at Manitou; and to the top of Pike’s Peak. The greatest gold camps of the world, Victor and Cripple Creek, will also be visited.”

The preliminary circular of the A. A. A. S. will be sent to Fellows of the Geological Society, who are not members of the Association, upon request to the secretary of the local committee, Mr. Arthur Williams, Denver Chamber of Commerce. All arrangements described in the association circular, relating to entertainment, transportation, etc., apply to the Geological

Society and other societies which meet in conjunction with the Association. Details will be found in that circular which cannot be given here.

Express and Mail.—Matter for use at the meeting should be sent in care of the janitor, East Denver High School building. It should bear the shipper’s address and be fully prepaid.

HERMAN LE ROY FAIRCHILD,
Secretary.

ROCHESTER, N. Y.,
June 7, 1901.

SCIENTIFIC NOTES AND NEWS.

AN official announcement has now been made in regard to the Rockefeller Institute for Medical Research, toward the establishment of which Mr. John D. Rockefeller has recently given \$200,000. The directors are: William H. Welch, M.D., Baltimore, President; T. Mitchell Prudden, M.D., New York, Vice-President; L. Emmett Holt, M.D., New York, Secretary; C. A. Herter, M.D., New York, Treasurer; Theobald Smith, M.D., Boston; Simon Flexner, M.D., Philadelphia; H. M. Biggs, M.D., New York. The purpose of the foundation, as the name implies, is to furnish facilities for original investigation, particularly in such problems in medicine and hygiene as have a practical bearing upon the prevention and treatment of disease. The sum of money mentioned above is not an endowment, but may be used for current expenses. The Institute will be situated in New York City. A building will not, however, be erected at present, but research will be conducted in existing laboratories under the auspices of the directors.

PRESIDENT DAVID STARR JORDAN and Dr. Barton W. Evermann sailed from San Francisco on May 30th to conduct the investigation on the fishes of the Hawaiian Islands to which we have called attention.

PROFESSOR ASAPH HALL has resigned the lectureship in celestial mechanics at Harvard University, and will spend the next year or two abroad.

PROFESSOR HENRY F. OSBORN, of Columbia University and the American Museum

of Natural History, is at present in the Bad Lands of South Dakota, planning the work to be carried on this summer by the American Museum and the U. S. Geological Survey.

DR. A. SMITH WOODWARD, of the British Museum, has, since the beginning of April, been carrying on excavations at Pikermi, near Athens, where many interesting vertebrate fossils have been found.

PROFESSOR STEWART CULIN, of the University of Pennsylvania, is at present on a visit to Cuba and Porto Rico. On his return he will visit the Indian tribes of the Northwest in the interest of the museum.

PRESIDENT JAMES LOUDON, of the University of Toronto, is at present attending the celebration of the University of Glasgow, and will later visit the universities of England and the Continent to obtain information for use in erecting the new science building of the university. During his absence Professor R. Ramsay Wright, of the chair of biology, is acting president. Principal John Galbraith, of the School of Practical Science, has been visiting the scientific schools in the United States, also with a view to the new building at Toronto.

AT the last annual meeting of the American Academy of Arts and Sciences, \$145 was appropriated from the C. M. Warren Research Fund to Dr. Charles H. Herty, University of Georgia, for purchase of material to be used in an investigation of the constitution of complex platinum compounds.

ONE of the Carnegie Research Fellowships of the Iron and Steel Institute of Great Britain has been awarded to Mr. John A. Matthews, who at present holds the Columbia University Barnard Fellowship.

THE Soemmering prize of the Senckenburger Natural History Society, of Frankfurt, has been awarded to Professor Franz Nissl, of Heidelberg, for his researches on the minute anatomy of the nerve cell.

THE Director-General of the British Army Medical Service, Surgeon-General J. Jameson, C.B., retired on June 1.

THE seventh Robert Boyle lecture at Cambridge University was delivered by Professor

Sylvanus P. Thompson on June 6, his subject being 'Magnetism and Growth.'

PROFESSOR VOLNEY G. BARBOUR, for thirty-one years professor of civil engineering in the University of Vermont, died in Minneapolis on June 4.

THE eminent paleontologist, Professor Gustaf Lindström, keeper of the department of fossil animals in the Royal Museum, Stockholm, Sweden, died on May 16, last, at the age of 72 years. Dr. Lindström, who in 1876 was appointed successor of Professor N. Angelin in the Royal Museum, was well known among paleozoic investigators all over the world. He was an eminent scholar, and his works on paleontology and archeology are distinguished by their accuracy and thoroughness.

DR. KARL ZELLER, docent in theoretical astronomy in the German Technical Institute at Brünn, died on March 13, at the age of 46 years.

THE following is a translation by Professor J. C. Branner, of Stanford University, of a decree issued at Pará, Brazil, by the Governor of that State in regard to the Natural History Museum, hitherto known as the *Museu Paraense*: "In view of the valuable services rendered by Dr. Emilio Augusto Goeldi, director of the *Museu Paraense*, in the organization of that important establishment, adapting it to the scientific purposes for which it was founded and enriching it by his efforts with valuable materials which have brought it to its present degree of prosperity; and considering that this distinguished official has dedicated himself with praiseworthy devotion to those subjects which bear upon the progress and improvement of this State, effectively contributing to its good name abroad; and considering that he brought to bear the valuable help of his scientific knowledge in the study and comprehension of our rights in the question of boundary with French Guyana: It is resolved, as a testimony of the gratitude of the State to the said official, to give to the *Museu Paraense* the name of the *Museu Goeldi*."

PROFESSOR C. S. SARGENT, of Harvard University, acknowledges the receipt of \$126,485 for an addition to the endowment fund of the Arnold Arboretum.

MR. J. PIERPONT MORGAN has given to the Cooper Union Museum a collection of textile fabrics, the value of which is estimated at over \$50,000. The collection, including the Bodia collection of Barcelona, the Rivas collection of Madrid and the Baron collection of Paris, very completely illustrates the history of weaving through the middle ages to the end of the seventeenth century.

ENGLISH journals report that the national collection of Lepidoptera in the Natural History Museum at South Kensington has recently been greatly enriched by the addition of the almost unique collection of butterflies from Europe, and Central and Eastern Asia, together with the collection of European moths, formed by the late Mr. John Henry Leech, of Hurdclott-house, Salisbury. Arrangements had been made during Mr. Leech's lifetime under which the museum became possessed of his eastern Asian moths, and now the same public institution has acquired the still more important accessions adverted to, through the munificence of his mother, Mrs. Leech, of Kensington Palace gardens. It is understood that the museum authorities will publish a catalogue of the butterfly collection. Of Rhopalocera there are rather more than 18,000 specimens, representing some 1,100 species, among which are over 400 male and female types of species described by Mr. Leech. This collection of Palearctic butterflies is very rich in Chinese and Japanese species, and in local forms and aberrations of European species. The European Heterocera number about 23,000 specimens, including some fine aberrations and extensive series of the variable species. The collection of eastern Asian moths, from which the museum had already made a selection, comprised nearly 3,000 species, of which about 800 were made known to science by Mr. Leech.

A MEETING was held in Dublin on May 17 for the purpose of advocating a pathological institute for Dublin. Delegates were present from various institutions, and plans were adopted for a laboratory intended primarily for research work.

As a return for the courtesies extended to members of the American Institute of Electrical

Engineers during their visit to London last year, an illuminated address was prepared and was presented to the British Institution of Electrical Engineers on May 30.

THE American Medical Association, which met at St. Paul last week under the presidency of Dr. C. A. L. Reed, decided to meet next year at Saratoga. Dr. John A. Wyeth, of New York, was elected president.

THE third quinquennial Congress of Medical Men and Naturalists of the Czech and Slav nations was held at Prague on May 25 to 29, under the presidency of Dr. Jaroslav Hlava, professor of morbid anatomy in the Bohemian University at Prague. More than nine hundred members were in attendance.

THE Department of State has received a note from the minister of the Netherlands, dated Washington, May 22, 1901, stating that the Fifth International Congress of Criminal Anthropology will be held in Amsterdam from September 9-14, 1901. The principal questions to be discussed are: First, anatomical and physiological characters of criminals, descriptive studies; second, criminal psychology and psychopathology, criminals and lunatics, theoretical considerations and practical measures; third, criminal anthropology in its legal and administrative application, principles to be followed, preventive measures, protective measures, penalties; fourth, criminal sociology, economic causes of crime, criminality and socialism; fifth, criminal anthropology and ethnology compared. Special questions, such as alcoholism, sexuality, juvenile criminality, senile criminality, hypnotism, criminal psychology in literature, etc., will also be considered.

THE Geological Survey of South Dakota was treated more liberally by the last Legislature than in former years. It is therefore planned to prepare and publish soon a bulletin on the mineral resources of the State, giving the production for the year 1900, and, later, another on the water supplies, treating particularly of the Artesian areas. A reconnaissance is purposed for the coming summer into the region of the Moreau and Grand rivers. The persistent rumors of the occurrence of coal there will be investigated. As it is a region less known and

less settled than others, special attention will be given to the native plants and animals. The prevalent formations there are the Fox Hills of Hayden and the Laramie. The original localities of the former will be visited and collections made. The personnel of the Survey at present is as follows :

J. E. Todd, A.M., professor of geology, State University, Vermillion, *State Geologist*.

C. C. O'Harra, Ph.D., professor of geology, State School of Mines, Rapid City, *Assistant Geologist*.

C. P. Lommen, B.S., professor of biology, State University, Vermillion, *Assistant in Zoology*.

D. A. Saunders, A.M., professor of botany, State Agricultural College, Brookings, *Assistant in Botany*.

MR. D. I. BUSHNELL is about to undertake a trip of reconnaissance to southwestern Missouri and northwestern Arkansas to examine caves in the White river region which is practically unknown to the archeologist.

WE learn from the London *Times* that the Department of Agriculture and Technical Instruction for Ireland has, with the concurrence of the Agricultural Board and the Board of Technical Instruction, allocated a sum of £5,000 to the purposes of the Cork Exhibition, 1902, to be applied on condition that the general scheme of the exhibition is approved by the department. A portion of this sum will be devoted to the organization by the department of an exhibit of products, appliances, and processes relating to industries which are capable of being introduced into Ireland, or, where already established, of being developed on the most modern lines.

THERE was held last month in the Paris Jardin des Plantes, the first exhibition of useful plants cultivated in the colonies.

THE French Jesuits of the Shanghai Mission have for some time maintained a meteorological observatory at Zi-Ka-Wee, and they have now established an astronomical observatory on the summit of a hill about twenty miles distant. The two institutions are to be connected by wireless telegraphy. Father Chevallier is to have charge of the new observatory.

THE mirror, being made by Mr. John A. Brashear for the reflecting telescope of Lick Observatory, was accidentally broken on June 5. It is feared that this will delay the ex-

pedition from the observatory to the Southern Hemisphere, as glass for a new mirror must be imported from France.

THE New York *Evening Post* states that the Mexican government has refused to allow a collection of antiquities gathered there by Marshall H. Saville, assistant curator of the American Museum of Natural History, to be shipped out of the country. Mr. Saville returned about six weeks ago from a six months' trip in Mexico, and will go back to that country in September, when he expects to have the dispute adjusted. The Mexican law forbids the export of antiquities, but the Museum has a contract with that government by which it is empowered to take duplicates of specimens.

THE government has decided to exclude immigrants suffering from tuberculosis.

BEGINNING with the present year Spain has adopted Greenwich time, which is 14 min. 46 sec. in advance of that of the meridian of Madrid which had previously been used.

It is planned to have an extensive exhibit of Röntgen ray apparatus at the meeting of German Scientific Men and Physicians which is this year held at Hamburg beginning on September 22.

ACCORDING to the census taken on March 31, the population of England and Wales was 32,525,716, being an increase of 12.15 per cent. in ten years. The increase in the preceding decennium was 11.65. The percentage increase of London was only 7.3 per cent., its population now being 4,536,034. There has, however, been a large increase in the surrounding country, the population of Middlesex having nearly doubled. The population of Ireland is 4,456,546 and of Scotland 4,471,957. The change in the population of Ireland and of Scotland in the past sixty years is remarkable :

Year.	Ireland.	Scotland.
1841	8,197,000	2,620,000
1851	6,574,271	2,888,742
1861	5,798,967	3,062,294
1871	5,412,377	3,360,018
1881	5,174,836	3,735,573
1891	4,704,750	4,025,647
1901	4,456,546	4,471,957

THE number of applications for patents in Great Britain last year was 23,922, as compared

with 25,800 in 1899. The highest point was reached in 1897 with 30,952. It is somewhat interesting to note that, while there has been a falling off in the number of patents granted to citizens in the United Kingdom and also to citizens of Germany and France, the number of applications from the United States increased from 3,002 in 1899 to 3,189 in 1900.

THE English papers state that a complete installation of Marconi's wireless telegraphy, specially suitable for signalling purposes as used in the navy, has been fitted on board the *Elder, Dempster* Beaver liner, *Lake Champlain*. This installation is the first which has been fitted on any of the Atlantic liners sailing from Liverpool. The *Lake Champlain* left the Mersey for Halifax on May 21, with over 1,000 passengers, and arrangements were made to establish communication between the vessel and the Marconi wireless telegraph station at Holyhead. At 9:37 P. M., when off the Skerries, contact was obtained with the Holyhead station, the vessel being then 13 miles distant. Numerous telegrams were then forwarded from passengers to friends in all parts of the United Kingdom, each message being acknowledged by the receiving operator. Constant communication with the station was continued until 1 A. M., the vessel being then 37 miles distant. Communication was established with the Marconi station at Rosslare, and at 4:30 A. M., a fresh batch of telegrams was forwarded, notifying the vessel's arrival off the Tuskar Light to the owners, Messrs. Elder, Dempster & Co.

ACCORDING to Reuter's Agency the ice-breaker *Yermak* will leave Kronstadt on May 29 for Newcastle, and, after coaling there, will proceed to Tromsø to cooperate in the fresh phase of the Spitzbergen expedition for the measurement of the terrestrial meridian. It is expected that by the end of June next she will be able to return to Tromsø and take on board Vice Admiral Makaroff, who is to direct the projected Arctic expedition. In the course of this expedition she will coast round Novaya Zemlya in order to determine precisely the outlines of that island. The *Yermak* will next inspect the state of the ice on the channel leading to the Yenisei River, in order to ascertain the correctness of the widely held theory that the

passage to the Siberian rivers to the north of Novaya Zemlya is better than that by the Yugor Strait. Lieutenant Isliamoff, the astronomer, M. Weber, the geologist, and M. Vukuloff, the chemist, will take part in the Arctic expedition.

UNIVERSITY AND EDUCATIONAL NEWS.

MR. ANDREW CARNEGIE has transferred \$10,000,000 to trustees for university education in Scotland. The trustees include Lord Rosebery, Lord Kelvin, Mr. John Morley and other eminent Scottish citizens. It is expressly stated in the deed of gift that the fund is intended to improve and extend the opportunities for scientific research in the universities of Scotland and to facilitate attendance by paying the fees of students; and it is understood that the income will be divided equally between these two objects. The departments to be strengthened are science, medicine, modern languages, English literature and history.

IN view of Mr. Carnegie's great gift for Scottish universities, the following statistics regarding attendance and fees, published in a British parliamentary paper, are of interest. It will be noted that one-half of the income of the fund would pay all fees. The summer sessions, attended by 431 students, are not included.

Winter Session, 1899-1900.				
	Men.	Women.	Total.	Fees.
St. Andrews.....	264	114	378	£2,934 4 6
Glasgow	1,604	329	1,933	13,597 10 0
Aberdeen	661	107	768	5,169 13 6
Edinburgh.....	2,427	250	2,677	19,889 18 7
Total.....	4,956	800	5,756	£41,591 6 7

THE University of Glasgow has received subscriptions amounting to £38,000 toward an increased endowment. This sum includes an anonymous gift of £5,000 for the department of physiology. Among the donors of subscriptions of £1,000 are Lord Kelvin, Lord Rosebery and Mr. J. S. Kennedy, of New York.

COLUMBIA UNIVERSITY has received an anonymous gift of \$20,000, of which \$10,000 is for the purchase of books, \$5,000 for a historical reading room and \$5,000 for general purposes. Barnard College has received \$1,500 for fitting up the zoological laboratory. Teachers Col-