

Dr. Charles E. Brown, of the Milwaukee Public Museum, is acting editor of the Bulletin, which will be known as the *Wisconsin Archaeologist*.

HARLAN I. SMITH.

GOVERNMENT RAILWAYS IN EUROPE.

DR. A. VON DER LEYEN, a railroad expert, has published an article in the June number of the *German Review*, concerning the management of the government railroads of Prussia, of which Consul General Günther sends an abstract to the Department of State.

He demonstrates that the example of Prussia in buying the private railroads and running them on government account has contributed to popularize this system in other countries, and states that not only have the other German states followed it, but that almost all the other European countries have purchased the existing railroads.

The Austrian government railroad net has to-day a mileage of almost 6,300 miles; that of Hungary, about 8,150 miles. Since 1882 a great change has taken place in Russia; of the then existing 14,000 miles of railroad, only about 40 miles were owned by the government. The total mileage in 1897 was about 24,300 miles, of which 15,780 miles belonged to the government. To this must be added the government railroads in Finland and Asiatic Russia, the Trans-Caspian and the Siberian railroads. The Servian, Roumanian and Bulgarian railroads are owned exclusively by the respective governments. Of the northern European kingdoms, Denmark has a government railroad system of 1,167 miles and 525 miles of private railroads. Norway's railroads belong almost exclusively to the government. Sweden has 2,303 miles of government and 4,387 miles of private railroads. The government has not yet succeeded in acquiring the latter, although efforts have been made to do so. Belgium, in 1898, through the purchase of the Grand Central Belge and some minor private roads, became the possessor of the whole Belgian railroad system. Holland acquired all the remaining private railroads in 1890; they are, however, operated by two private companies. The Italian Government purchased all

private main railroads of Italy in 1885 and leased them for twenty years to private corporations. Mr. von der Leyen states that both the last countries have had unpleasant experiences with this arrangement. Switzerland, after long discussion, resolved by federal law in October, 1897, to gradually purchase all the private railroads. On January 1, 1901, the first federal railroads were operated by the Government. By agreements of 1883, the six large French private railroads had their rights recognized by the Government, and no change has been made in the policy in that country. The relatively small Government railroad system, located between the Orleans and the Western railroads, has remained intact. As the private railroads, however, have received large subsidies from the Government, and as they will revert to the State in the second half of the present century, they can hardly be considered purely private railroads. Of the countries which have a private railroad system exclusively, only England and the United States remain.

SCIENTIFIC NOTES AND NEWS.

THE fiftieth annual meeting of the American Association for the Advancement of Science, as all the readers of this Journal are doubtless aware, opens with a meeting of the council, at three o'clock on the afternoon of Saturday, August 24. The first general session of the Association, however, begins at ten o'clock on the following Monday, when Professor Woodward, the retiring president, will introduce the president-elect, Professor Minot. Addresses of welcome will be made by the Hon. J. B. Orman, Governor of Colorado, and Hon. R. R. Wright, Jr., Mayor of Denver. Honorary President, J. B. Grant, will introduce General Irving Hale and Aaron Gove, who will welcome the Association on behalf of the business men of Denver and the educators of Colorado. To these addresses President Minot will reply. After announcements have been made by the secretaries, the general session will adjourn and the sections will be organized. The addresses of the vice-presidents are delivered in the afternoon, and the retiring president will give his address entitled 'The Progress of Science' on Tuesday evening. The Sections of

the Association and the nine societies affiliated with it will hold their regular sessions on Tuesday, Wednesday, Thursday and Friday. The general committee will meet on Thursday evening for the election of officers and agreement on time and place for the next meeting.

Two of the prizes created by the will of Alfred Noble will be awarded to Dr. Niels R. Finsen, of Denmark, for discovering the light treatment for lupus, and to Professor I. P. Pavlov, the Russian physiologist, for his researches in nutrition.

Nature quotes from a London daily the statement that Professors Haeckel, Conrad and Fraas, of Jena, Halle and Stuttgart Universities respectively, announce that the sum of 1,500*l.* has been placed at their disposal as a prize for the best work on the question, "What do we learn from the principles of the theory of heredity in reference to the inner political development and legislation of States?" Manuscripts must be in German and sent not later than December 1, 1902, to Professor E. Haeckel, Jena.

THE University of Glasgow has appointed John Ferguson, professor of chemistry, F. O. Bowers, professor of botany, and R. M. Wenley, formerly of the University of Glasgow and now professor of philosophy at the University of Michigan, as representatives at the bi-centennial celebrations of Yale University.

E. R. BUCKLEY, assistant superintendent of the Wisconsin Geological and Natural History Society and instructor of commercial geography in the University of Wisconsin, has been appointed State geologist of Missouri.

THE Baly Gold Medal of Royal College of Physicians of London for special distinction in the science of physiology has been awarded to Dr. F. W. Pavy, F.R.S.

PROFESSOR A. C. HADDON expects to retire from the chair of zoology at the Royal College of Science, Ireland, in order to devote himself more exclusively to anthropological work.

DR. ERNST MACH, professor of philosophy in the University of Vienna, has been compelled by ill health to retire from the active duties of his professorship.

PROFESSOR E. HAECKEL, of Jena, has made public the announcement that owing to the state of his health, his advanced age and pressure of work, he will not in future make any public addresses or attend any scientific congresses.

PROFESSOR ED. SUESS, the eminent geologist, gave on July 13 a formal lecture to his present and former students on the occasion of his retirement from the chair of geology. He has reached his seventieth year and his forty-fourth year as a university teacher. A scholarship has been established in the University at Vienna in his honor.

IN honor of the sixtieth birthday of Dr. A. Kirchhof, of the University of Halle, and at the same time of his twenty-fifth year of service to the university, a fund amounting to 12,500 Marks has been collected for the furtherance of geographical research.

THE Saxon Academy of Sciences at Leipzig has elected to membership Dr. Arthur von Oettingen, honorary professor of physics at Leipzig, and Dr. E. Ernst Abbe, honorary professor of meteorology and astronomy at Halle.

PROFESSOR A. R. CROOK, who holds the chair of mineralogy and petrography at Northwestern University, is at present engaged in explorations in Mexico. He is intending to ascend Mount Orizaba.

DR. CHARLES E. BROWN, of the Milwaukee Public Museum, is continuing his studies, begun several years ago, in the department of anthropology of the Field Columbian Museum, Chicago.

THE town of Amalfi has arranged to have this month a celebration in honor of Flavio Gioja, who lived in that city six hundred years ago, and is supposed to have invented or improved the compass.

A MEDALLION of Charles Hermite, the great mathematician, who died this year, will be placed in the Court of Honor of the Sorbonne.

WE learn from the *British Medical Journal* that a portrait of Dr. Thomas Young, from the painting by Sir Thomas Lawrence, has been placed in the Victoria Hall, Milverton, Somerset, with the following inscription: "Thomas

Young, M.D., F.R.S., etc. Born at Milverton, 1773. Died 1829. Physician, Natural Philosopher, and Master of many languages; he first established the undulatory theory of light, and translated the Rosetta Stone, which is the key to our understanding the Egyptian hieroglyphics."

DR. ADOLF ERIK NORDENSKJÖLD, the well-known arctic explorer and naturalist, died on August 13, in his sixty-ninth year. He first visited Spitzbergen in 1858 and again in 1861, 1864 and 1868, and visited Greenland in 1870 and 1875. In 1878-79 he made his famous voyage in the *Vega* through the northeast passage. He was professor in the Royal Museum of Natural History at Stockholm.

THE deaths are announced at the age of 55 years of Dr. W. Schur, professor of astronomy at Göttingen, and of Dr. E. Rehnisch, professor of philosophy at the same university, at the age of 62 years.

M. CASIMAR DE CANDOLLE was elected honorary president of the recent International Congress of Botanists at its meeting in Zurich on August 8, and Professor Claudet, of Geneva, was elected acting president.

THE British Mycological Society will hold a meeting at Exeter during the week beginning September 23. Professor H. Marshall Ward, of Cambridge University, will give a presidential address.

AMONG the Americans in attendance at the International Congress of Zoology are Professors Wilson of Columbia, Mark of Harvard, Patten of Dartmouth, McMurrich of Michigan, Woodworth of California, Dr. Allen of the American Museum of Natural History, Dr. Elliot of the Field Columbian Museum, Dr. Stiles of the U. S. Department of Agriculture and Mr. Stejneger of the U. S. National Museum. News has not yet reached this country regarding the meeting of the Congress, but about 150 papers have been promised in advance to be presented before seven sections, as follows: (1) General zoology; (2) vertebrata (biology, classification, distribution); (3) vertebrata (anatomy, histology, embryology); (4) invertebrata, except arthropoda; (5) arthropoda; (6) economic zoology (fisheries, etc.); (7) nomenclature. Lec-

tures before the Congress as a whole have been arranged by Professor G. B. Grassi on 'The malaria problem from a zoological standpoint,' by Professor A. Forel on 'The physical characters of ants,' by Professor E. B. Poulton on 'Mimicry and natural selection,' by Professor Wilhelm Branco on 'Fossil human remains' and by Professor Ives Delage on a subject not announced. Dr. P. L. Sclater is expected to exhibit the skull of the *Okapi Johnstoni*, the remarkable mammal recently discovered in the Semliki forest of the Congo State. The entertainments were expected to include an excursion to Potsdam, a theatrical performance, a luncheon by the Berlin Zoological Society and a dinner in the Zoological Gardens. Following the Congress an excursion is planned to Hamburg and Heligoland.

THE American Institute of Electrical Engineers began its annual meeting in New York City on August 14, with a large number of foreign delegates in attendance. The members then proceeded to Buffalo, stopping to visit the works of the General Electric Company at Schenectady, and are this week holding meetings for the presentation of scientific papers and inspecting the electrical equipment installations at the Exposition and at Niagara Falls.

A HISTORICAL Congress will be held in Rome in the spring of 1902. We understand that the history of science will be specially included in the scope of the Congress.

DR. C. W. DANIELS left Liverpool, on July 8, for Sierra Leone, West Africa, to join the sixth malarial expedition of the Liverpool School of Tropical Medicine under Major Ronald Ross. Dr. Daniels was a member of the Royal Commission on Malaria, in which capacity he spent a long time in Central and East Africa recently. He will join Major Ross in Sierra Leone, and will probably proceed to the Gold Coast and Lagos. The expedition is now composed of Major Ronald Ross, Dr. Logan Taylor, Dr. McKendrick (officially attached to the expedition on behalf of the Indian Government), and Dr. Daniels. The seventh expedition of the Liverpool School, which will be despatched to the Gambia, is expected to leave for Bathurst about the end of the present month.

LARGELY through the agency of the 'Semper-virens Society' the State of California has appropriated \$250,000 to purchase and preserve the grove of redwoods near Santa Cruz.

THE exhibits of the German chemical industry at the Paris Exposition, valued at \$150,000, has been presented to the Technological Institute of the University of Berlin.

MR. CARNEGIE has offered \$50,000 to Burlington, Vt., for a library building on the usual conditions. He has also offered a building for Montrose, Scotland.

THE French Society for Colonial Expansion in France has instituted a special branch devoted to the assistance of doctors and chemists who desire to emigrate.

UNIVERSITY AND EDUCATIONAL NEWS.

By the will of Mrs. Louise Frisbie, bequests amounting originally to \$28,000, but which may now amount to much more, are left to Smith, Vassar and Wellesley Colleges.

MRS. D. BANDY, who recently gave \$25,000 to Eureka College, Illinois, has given the institution land valued at \$60,000, subject to a life interest on the part of her daughter.

PROFESSOR W. VON ZEHENDER, of Munich, has given his valuable ophthalmological library to the University of Bern.

IT is reported in the medical journals that the University of Pennsylvania Veterinary Department will be moved to Thirty-ninth and Woodland avenue, instead of to the Flower Farm, on the West Chester Pike, as formerly intended. The reason assigned for the change in the plans is that the department would be too inconvenient for the public on the West Chester Pike, and too far from the university for the students. It is also stated that the work on the new \$60,000 buildings will begin in October.

THE Technical Education Board of the London County Council has directed the higher education subcommittee to inquire and report (a) as to the need and present provision for special training of an advanced kind in connection with the application of science (especially chem-

istry and electricity) to industry; (b) as to what, if any, developments are needed to secure efficient training in these subjects for senior county scholars and other advanced students who desire to qualify themselves to take leading positions in scientific industries.

A COMMITTEE of the Birmingham City Council has recommended the council to make a grant to the Birmingham University of the proceeds of a halfpenny rate, which would provide an annual sum of about \$25,000.

THE University of Zurich has enlarged its anatomical building. A dissecting room with overhead light to accommodate two hundred students has been added and on the floor below a microscopical room of the same size. There is also a demonstration room with overhead light, a laboratory for anthropology, and a laboratory for advanced embryological study, together with rooms for the director. The old part of the building will be rearranged for a large lecture room, a reading and study room for the students, a museum, and the laboratories for assistants.

THE University at Erlangen announced a summer school for clergymen on the lines of the summer schools for teachers. It appears, however, that not sufficient clergymen felt the need of instruction, and the plan has been abandoned.

J. E. LOUGH, Ph.D. (Harvard), for the past four years professor of psychology at the State Normal School at Oshkosh, Wis., has been appointed to the professorship of psychology in the School of Pedagogy, New York University.

N. O. BOOTH has resigned his position as horticulturist in the University of Missouri to accept a position in the New York Agricultural College at Geneva.

MR. ROLLA R. RAMSEY, Ph.D., Cornell, '01, has been appointed instructor in physics in the University of Missouri. Dr. Ramsey is a graduate of the University of Indiana and has held graduate scholarships at Clark and Cornell. He has also been assistant in physics at Cornell and instructor at Indiana.

DR. VICTOR UHLIG, professor of paleontology at Vienna, succeeds Professor Ed. Suess in the chair of geology.