

And if this is not enough his estate will add to this.

A special hall will be set aside for it, to be known as 'Bishop Hall,' where it will be displayed in the finest solid gilt-bronze, plate-glass cases, but it will not be upon exhibition until a year from this time.

This is the finest collection of jade objects, engraved and jeweled, that exists in any public museum or private collection. It numbers more than one thousand specimens and fully represents all phases of the artistic development of this interesting material. The collection was started by the purchase of the Hurd jade vase from Messrs. Tiffany & Co., in 1878. This was one of the finest pieces that ever left China, and led to Mr. Bishop's taste for collecting such objects.

The collection will be described in a volume, which when published will probably be one of the most remarkable, expensive and sumptuous books ever issued, limited to an edition of one hundred copies.

Nearly ten years ago, Mr. George F. Kunz began the preparation of a mineralogical, geological and archeological description of the collection, to be published in this great catalogue, upon which Mr. Bishop had expended more than \$100,000 at the time of his death. The scientific investigation was given entirely to Mr. Kunz, and he associated with him about twenty of the most eminent men in various related lines upon both sides of the water; and a more thorough investigation of this mineral has been made than was ever perhaps undertaken upon any other known mineral. The specific gravity, the tensile strength, the compression test, the sonorousness of the mineral from a musical point of view; a chemical investigation, a microscopical study, a microscopical examination of the thin sections; the origin of the mineral, the mining, the archeological history; the cutting, drilling, polishing, and many other phases, were gone into most thoroughly; and where a specialist existed who more minutely understood any special branch, he was called upon by Mr. Kunz to carry out the work.

The volume upon publication will go only to public institutions. The foreign etchings by French and Chinese colonists are unequalled. Many of the color illustrations are by Prang, who made those in 'Gems and Precious Stones of North America,' so well known by our readers. It was this work that suggested the color illustrations for the Bishop book on Jade, as well as for the magnificent Walters book on Chinese porcelains.

SCIENTIFIC NOTES AND NEWS.

THE Nobel Prizes, if the statement now cabled from Sweden is correct, have been awarded as follows: *Medicine*, Major Ronald Ross, of the School of Tropical Medicine, Liverpool. *Chemistry*, Professor Emil Fischer, of Berlin. *Physics*, divided between Professors Lorenz and Zeemann, of Holland.

THE Cambridge Philosophical Society has elected as honorary members Professor H. F. Osborn, Bayley Balfour, A. H. Becquerel, E. Fischer, Richard Heymons, J. H. van't Hoff, M. Jordan, W. K. von Röntgen, Corrado Segre and Hugo de Vries.

MR. PHILIP MACMILLEN, director of the Queensland Botanic Garden at Brisbane, has been elected a corresponding member of the Royal Botanic Society of London.

W. H. OSGOOD, of the U. S. Biological Survey, has just returned from a biological exploration of the base of the Alaska Peninsula and the region between Lake Clark and Nushagak River. This work is in continuation of his previous explorations of the Yukon River and Cook Inlet regions, the results of which have been already published in North American fauna.

PROFESSOR J. C. ARTHUR has been granted a month's leave of absence by the authorities of Purdue University, and will spend January at the N. Y. Botanical Garden in researches on the genera of the Uredineæ and their types.

DR. M. A. HOWE, assistant curator of the N. Y. Botanical Garden, has returned from a six week's collecting trip along the coast of Florida, bringing a large number of specimens of the algal flora of the Keys. Professor

F. S. Earle, assistant curator, returned from Jamaica on December 2. During his tour on the island of Jamaica an investigation was made of a number of diseases of the economic plants and a large collection of fungi was made.

MR. HANBURY, fellow of the Royal Geographical Society, reached Winnipeg on December 15, after an absence of nearly two years in the Arctic circle and the Hudson's Bay regions.

As has been fully reported in the daily papers, Mr. Marconi has established communication by wireless telegraphy between Cape Breton and Cornwall. His announcement, dated December 21, is as follows: "I beg to inform you for circulation that I have established wireless telegraph communication between Cape Breton, Canada, and Cornwall, England, with complete success. Inauguratory messages, including one from the Governor General of Canada to King Edward VII., have already been transmitted and forwarded to the Kings of England and Italy. A message to the *London Times* has also been transmitted in the presence of its special correspondent, Dr. Parkin, M.P."

DR. W. B. WHERRY, associate in bacteriology at the University of Chicago, has received an appointment to the post of bacteriologist in the Government Laboratories at Manila, P. I.

DR. DAVID T. DAY, chief of the Division of Mineral Resources of the U. S. Geological Survey, has been elected a member of the board of managers of the National Geographic Society to fill the unexpired term of Mr. Henry Gannett. As Mr. Gannett will remain in the Philippines for a year or more, engaged in the census of the islands, he has resigned temporarily from the board.

THE first Livingstone gold medal has been awarded by the council of the Scottish Geographical Society to Sir Harry H. Johnston, G.C.M.G., K.C.B., for his distinguished services as an explorer and administrator in Africa.

MR. EDMUND PERRIER has been elected as the representative of the Paris Museum of

Natural History on the French Council of Public Instruction.

DR. J. B. DETONI has been appointed professor of botany and director of the Botanic Gardens at the University of Modena.

PROFESSOR G. W. GREEN, professor of mathematics in the Illinois Wesleyan University, has died at Bloomington, Ill., at the age of forty-five years.

WE learn from the *American Geologist* of the death of Mr. R. A. Blair, at Sedalia, Mo. He had spent many years in studying the rocks of central Missouri, and had made valuable collections from the Chouteau limestone.

THE death is announced of Dr. J. Wislicenus, professor of chemistry in the University at Leipzig.

PRIVY COUNCILLOR VON KUPFFER, professor of anatomy at Munich, died on December 16.

WE regret also to record the deaths of Dr. Friedrich Rüdorff, formerly professor of inorganic chemistry at the School of Technology at Charlottenburg, at the age of 70 years; of Dr. Wladislaw Celakowsky, professor of botany at the German University at Prague, at the age of sixty-seven years; of Dr. Latschinow, professor of physics and meteorology in the School of Forestry at St. Petersburg; of M. Dehérain, professor of vegetable physiology in the Paris Museum of Natural History; of M. Hautefeuille, mineralogist in the Faculty of Sciences at Paris, and of M. Millardet, professor of botany at Bordeaux, known for his researches on phyloxera.

THE Board of Trustees of the Carnegie Institution has made an appropriation of \$8,000 for the establishment and maintenance of a desert botanical laboratory for the fiscal year 1902-1903, and the executive committee of the institution has appointed Mr. Frederick V. Coville and Dr. D. T. MacDougal an advisory board in relation to this undertaking. The proposed laboratory has been established for the purpose of making a thorough investigation of the physiological and morphological features of plants under the unusual conditions to be found in desert regions, with particular reference to the relations of the char-

acteristic vegetation to water, light, temperature and other special factors. A resident investigator to be placed in immediate charge of the laboratory will begin a series of researches upon certain more important problems outlined by the board, and facilities will be provided by the aid of which a few other investigators from any part of the world may carry on work upon any problem connected with desert plants. A discussion of the scope and purposes of the laboratory was arranged to be given before Section G at the Washington meeting of the American Association.

THE Convocation of Oxford University has authorized a grant of £100 from the Craven Fund to Mr. David G. Hogarth, M.A., fellow of Magdalen, in aid of researches and exploration at Naucratis.

THE Thomson Foundation Gold Medal of the Royal Geographical Society of Australasia, Queensland, will be awarded to the author of the best original paper (provided it be of sufficient merit) on each of the following subjects, the papers to be sent in by the date named: (1) The commercial development, expansion, and potentialities of Australia; or, briefly put, the commerce of Australia (July 1, 1903); (2) the pastoral industry of Australia, past, present, and probable future (July 1, 1904); (3) the geographical distribution of Australian minerals (July 1, 1905); (4) the agricultural industry of Australia (July 1, 1906).

WE learn from the *Botanical Gazette* that Pearson's collections of Hepaticæ have been secured by the National Herbarium at the British Museum. It contains about 9,000 specimens, among which are many types and the material used in preparing several well-known papers.

A CIVIL service examination will be held on January 27 for the position of assistant biologist in the Department of Agriculture, at a salary of \$1,200. The subjects and weights are as follows:

Geographic distribution of animals.....	20
Mammals	20
Birds	15
Geography of North America.....	10

Taxidermy	10
Field experience in biological investigation....	15
General education and training.....	10

On the same day there will be held an examination for the position of botanical clerk in the National Museum at a salary of \$600. The scientific part of the examination is on systematic botany. On January 29 and 30 there will be held an examination to secure an eligible list of physicians in the United States and Philippine services. The scope of the examination is as follows:

Thesis (500 words to be written on one of two topics given).....	4
Correction of rough-draft manuscript (250 words)	3
Mathematics (arithmetic, algebra, including quadratics, and plane geometry).....	3
History and civil government of the United States	3
General history and geography.....	2
Colonial government and administration (general questions)	2
Political economy (general principles).....	1
Education and experience.....	2

Optional examinations may at the same time be taken in most of the sciences. Candidates are particularly desired for positions in chemistry, engineering and agriculture in the Philippine service at salaries from \$1,200 to \$1,400.

REUTER'S AGENCY is informed that the suggestion that the British Association should hold its annual meeting for 1905 in South Africa emanated from the new South African Association of Science, of which Sir D. Gill, Astronomer Royal for the Cape, is president. Before the last meeting of the British Association at Belfast invitations were sent from the municipalities of Cape Town, Kimberley, Bulawayo and other centers in South Africa, and it is understood that these have been accepted, and that the session of 1905 will be held in South Africa. Scientific papers will be read at various centers in the South African colonies, and visits will be paid to numerous places of interest. A sum of £7,000 has been collected in South Africa for the entertainment of the Association. While in Rhodesia the visitors will be the guests of

the Chartered Company, who will place their railways at their disposal, and, among other things, take them by special train to the Zambesi, where they will stay at the new hotel to be erected near Victoria Falls. Probably the guests will leave England in a special steamer.

THE second International Congress of Mathematicians will be held at Heidelberg in 1904.

THE Association for Promotion of Scientific Research by Women announces that applications should be received before March 1 for the American Women's Table at the Zoological Station at Naples. Application blanks for the use of candidates, items relating to the expense of living at Naples, and full information as to the advantages for research at the station may be obtained from the secretary, Miss Cornelia M. Clapp, Mount Holyoke College, South Hadley, Mass.

THE House of Representatives has passed the pure food bill introduced by Mr. Hepburn; it provides "for preventing the adulteration, misbranding, and imitation of foods, beverages, candies, drugs and condiments between the States and in the District of Columbia and the Territories, and for regulating inter-State traffic therein." It directs the Secretary of Agriculture to organize the chemical division of the Department of Agriculture into a Bureau of Chemistry, which shall be charged with the inspection of food and drug products, and shall from time to time analyze samples of foods and drugs offered for sale. Traffic in adulterated or misbranded goods is prohibited under penalty of a fine not exceeding \$200 for the first offense, and for each subsequent offense a fine not exceeding \$300 or imprisonment not exceeding one year or both.

At a meeting of the Zoological Society of London on November 18 Dr. Forsyth Major read a paper on the specimens of the Okapi that had recently arrived in Brussels from the Congo Free State. The author stated that these specimens, whilst presenting the same specific characters as the specimens formerly received by the Congo State authorities,

showed conclusively that the male was alone provided with horns, and that the mode of their development was the same as in the Giraffe. The Okapi seemed to be a more generalized member of the Giraffidæ than the Giraffe, sharing not a few features of alliance with the Upper Miocene *Palæotragus* (*Samoitherium*). In several characters it was intermediate between the Giraffe and the fossil forms; but, apart from these, some features were pointed out in which it appeared to be even more primitive than its fossil relatives. These last characters went some way to support the assumption that Africa was the original home of the Giraffidæ.

THE London *Times* states that the official decision of Germany to take part in the Universal Exposition to be held in St. Louis in 1904 has long been assured. The delay in making the announcement has been due wholly to the exigencies of the domestic situation, and to the depression in business prevailing during the past two years. In fact, after the visit of Prince Henry to St. Louis, the tender by the Emperor of a statue of Frederick the Great to the city of Washington, and the changed attitude towards the Monroe doctrine, recently apparent, participation on large lines was certain. These have been an earnest of the emperor's desire to please and conciliate the Americans upon both the diplomatic and personal sides. High politics has, however, been only one of the influences behind this decision. The principal idea has been that of broadening the demand for German wares, with the result that there is general concurrence in the opinion both as to the necessity and the helpfulness which come from the most perfect and varied displays at all the great exhibitions. Even that at Paris in 1900 was striking, following, though it did, the failure to exhibit there at all in 1889. The great Krupp firm, which has so distinctly been built up to its present massive proportions by the policy inaugurated at the Great Exhibition of 1851 and since maintained without interruption, has really been the one potent example. At the Chicago Exhibition of 1893 Germany expended about \$800,000 upon its

buildings, its official display, and as an aid to the manufacturing and commercial features. Thus far no announcement has been made of the sum likely to be set aside for use at St. Louis, but, from assurances given by the emperor, that for the purpose of illustrating every phase of its artistic, manufacturing, agricultural and industrial development Germany would make at St. Louis the finest exhibit ever shown from that country, the conclusion has been reached that at least 4,000,000 Marks will be set aside for this purpose.

MOUNT McKinley, the highest mountain on the North American continent, was visited last season by Alfred H. Brooks and his party from the United States Geological Survey, of which Mr. D. L. Reaburn was topographer. As far as is known, this is the first time the slopes of the peak have been reached by white men, though in 1898 its altitude and moisture were determined from a distance by Robert Muldrow, of the same survey. The mountain is located near the western margin of the Alaskan Range, the general name given to the large mountain mass which separates the Yukon and Kuskokwim waters from Cook Inlet drainage. It is a great dome-shaped mountain, formed of intrusive rock, towering to an elevation of over 20,000 feet above the sea level. Though its summit reaches so high an altitude, almost four miles above tide, it probably is not as difficult of ascent as some other Alaskan mountains, for example, Mount St. Elias, because of its relatively high snow line. As the season was well advanced, as much of his itinerary had still to be carried out, and as it was no part of the original plan, Mr. Brooks did not attempt to pass the snow line, though this point was reached. Now that the location and height of the mountain have been established by the exploration of the Geological Survey, travelers and individual explorers will doubtless soon attempt to reach the summit. In anticipation of these attempts, Mr. Brooks is preparing a description of the country, giving routes by which the mountain may be reached and other information valuable to those interested in its ascent. His paper will appear in one of the

leading geographical magazines. The more elaborate and extended report of the exploration will be published by the Geological Survey at an early date.

UNIVERSITY AND EDUCATIONAL NEWS.

It is announced that during the past two years an endowment fund of more than \$1,000,000 has been raised for Syracuse University.

By the will of the late Mrs. Lura Courrier, of New York City, Yale University will ultimately receive \$50,000 for the aid of poor students.

NORTHWESTERN UNIVERSITY will celebrate its founder's day on January 28, when its new professional school building, costing over \$900,000, will be dedicated. President Hadley, of Yale University, will deliver the dedicatory address, taking as his subject, 'The Place of the Professional School in the Modern University, and its Relation to the Other Departments.'

THE electrical laboratory of the Rensselaer Polytechnic Institute at Troy, N. Y., has been almost completely destroyed by fire. The loss is estimated at over \$30,000.

WE learn from *Nature* that the reader in geography and the lecturers in ethnology and geology of Cambridge University have arranged for a series of lectures and practical courses to serve as a training for persons wishing to undertake exploration or desirous of contributing to our knowledge of foreign countries. The series will be held during the Lent term, and will include history of geographical discovery, principles of physical geography, map-making and map-reading, geography of Europe, by Mr. Oldham; anthropogeography, practical ethnology, by Professor Haddon; geomorphology and geology, by Mr. Marr; plane-table and photographic surveying, by Mr. Garwood, and elementary astronomical surveying, by Mr. Hinks.

KENYON K. BUTTERFIELD, instructor in rural sociology at the University of Michigan, has been appointed to the presidency of the Rhode Island State College of Agriculture, at Kingston.