

6. Have you any suggestions to make from your college point of view likely to be helpful to the trustees in their endeavor to make the bequest of Mr. Rhodes most effective?

The answers to the questions will be submitted to the trustees for their consideration. The first year the bequest comes into operation there will be elected probably between 70 and 75 scholars, the same number for the second year, and for the third year about 30, the numbers continuing thereafter from year to year in about the same proportion. The bulk of the replies to the questions have yet to be received, as the queries have not at present been formally submitted to the college meetings, but the reception which Mr. Parkin has met with at the hands of the heads of colleges has been most gratifying.

In the course of a statement made yesterday Mr. Parkin said: "What has impressed me greatly since I have been in Oxford is the exceedingly hearty and interested way in which all the colleges have discussed the best plan of working the Rhodes scholars into the university system. A universal feeling prevails that the conception of Rhodes was a splendid one, has in it more possibilities in the future, and is likely to make a profound impression on the English-speaking world. It is also very generally felt, I think, that any failure to make a complete success of this great thought of Mr. Rhodes would be a check to all giving on a grand scale for a long time to come. The heads of colleges and fellows I have found everywhere ready to cooperate with the Rhodes trustees in making this bequest most effective. We are only gradually getting answers to the questions which have been propounded to the various colleges, but all the replies that have come in are highly favorable. According to their size, each of the colleges seems prepared to take from two to five of the Rhodes scholars every year. This would give to the smaller colleges six in all for the three years' scholarship, and to the larger colleges about fifteen, when the plan is in full operation. As the holders of these scholarships will be very carefully selected from each of the colonies and from each state of the American Union, I have every reason to think that a high average of

man will be obtained—almost certainly a serious, earnest man, but interested in college athletics and all the best sides of college life, in accordance with the ideas that Mr. Rhodes had about the selection of such candidates. The interest taken in the matter in all parts of the world is illustrated by the flood of correspondence which has been poured in upon me as representing the trustees, upon the vice-chancellor and everybody who could be supposed to have any connection with the scheme."

SCIENTIFIC NOTES AND NEWS.

PRESIDENT ROOSEVELT has consented to act as honorary president of the local committee for the Washington meeting of the American Association for the Advancement of Science.

THE trustees of the Carnegie Institution held their first annual meeting in Washington on November 25. The positive action taken consisted in the appropriation of \$200,000 for grants for research, \$40,000 for publication, \$50,000 for administrative expenses, and \$100,000 to be placed in a reserve fund. All specific requests for aid were referred back to the executive committee for action. The Year Book, now in course of preparation, will contain the reports of the various committees and other material that will be of general interest.

EMPEROR WILLIAM in the farewell audience of Ambassador White presented him with the Gold Medal of the empire for science and art, which is given once a year to a person, either a German or a foreigner, who, in the opinion of the government, is best entitled to it.

LORD REAY, chairman of the London school board since 1897, and president of the Royal Asiatic Society and of University College, London, has been elected first president of the British Academy.

MR. FRANCIS GALTON has been elected an honorary fellow of Trinity College, Cambridge.

DR. M. TREUB, director of the Royal Botanic Gardens at Buitenzorg, Java, is at present in the United States.

DR. JUAN GUITÉRAS and Dr. Carlos Finley will represent Cuba at the sanitary congress to be held in Washington in December.

PROFESSOR WILLIAM LIBBEY has returned to Princeton from a year's trip devoted to exploration in Egypt and Palestine.

DR. FREDERIC E. CLEMENTS, of the botanical department of the University of Nebraska, has been granted a month's leave of absence in order that he may study at the New York Botanical Garden. He will return to Nebraska after the Washington meetings.

P. J. O'GARA, assistant in botany in the University of Nebraska, has been appointed student aid in pathology, in the Division of Plant Physiology and Pathology in the Department of Agriculture.

DR. F. A. WILDER has recently been appointed state geologist of North Dakota and professor of geology in the State University. Dr. Wilder comes to North Dakota with a varied experience in geological work and with an excellent record in connection with other surveys, notably that of Iowa. There is a growing demand for geological work, especially in our northwestern states, and North Dakota is fortunate in securing a man so well qualified for the work of the State Geological Survey. The work of the survey is an adjunct to the department of geology in the State University, located at Grand Forks.

CAPTAIN ROBERT E. PEARY gave an address before the National Geographic Society at Washington on November 29.

THE American Institute of Electrical Engineers has appointed a committee consisting of Ralph D. Mershon, chairman, and Messrs. F. O. Blackwell, C. C. Chesney, P. M. Lincoln and R. S. Masson, for the purpose of collecting data respecting present practice in electric transmission at high voltage and of presenting a report which will indicate the successful methods which are now in operation in such form as to be of immediate value to electrical engineers.

As we have already stated, a committee with Professor Waldeyer as chairman is collecting funds for erecting a monument to Rudolf Virchow in Berlin. American subscriptions may be sent to Drs. Frank Billings, president of the American Medical Association, 100 State St., Chicago, Ill.; Thomas D.

Coleman, 505 Green St., Augusta, Ga.; A. Jacobi, 19 East Forty-seventh St., New York City; W. W. Keen, president of the Congress of American Physicians and Surgeons, 1729 Chestnut St., Philadelphia, Pa.; or Wm. H. Welch, 935 St. Paul St., Baltimore, Md.

JOSEPH MILLER WILSON, a well-known civil engineer of Philadelphia, died on November 24 at the age of sixty-four years. He had been engineer of the Pennsylvania railroad, and had carried out numerous works of importance. He was a member of the principal engineering societies and a fellow of the American Association for the Advancement of Science.

SIR WILLIAM CHANDLER ROBERTS-AUSTEN, professor of metallurgy in the Royal School of Mines, London, since 1880, and honorary general secretary of the British Association for the Advancement of Science, died on November 23, at the age of fifty-nine years.

THE *Morning*, which has been fitted out as a relief ship to the *Discovery*, arrived at Lyttelton, N. Z., on November 16.

LAST winter the legislature of New York State appointed a commission consisting of C. P. Steinmetz, H. W. Buck and State Engineer Edward A. Bond, to investigate and report upon the advisability of the state establishing an electrical laboratory. We learn from the *Electrical World* that the commission has held several meetings, and on November 13, it held a meeting at Niagara Falls, the three commissioners being in attendance. It is intimated that the commission will report in favor of establishing the institution referred to, which will also serve as a standardization bureau. Among other things it is reported that the commission has learned that the amount of capital in New York State directly interested in the development and use of electricity is \$1,680,590,290, made up of \$217,974,695 representing the capitalization of the companies engaged in the manufacture of electrical apparatus, and \$1,462,615,595, the capitalization of the companies involving the use of electricity.

At a meeting of the Michigan Section of the American Chemical Society, held in the

chemical laboratory of the University of Michigan, November 7, the following papers were read: 'A Rapid and Accurate Method for the Determination of Sulphur in Coal,' by Mr. C. Sundstrom; 'Non-uniformity in Portland Cements'; 'Causes and Remedies,' by Mr. O. Button, of the Hecla Portland Cement Company.

THE 228th meeting of the New York Electrical Society was held in the lecture room of the American Institute on November 25, when Mr. A. Frederick Collins lectured on 'Operative Systems of Wireless Telegraphy.'

THE American Electrochemical Society will hold the annual meeting of the society in New York on Thursday, Friday and Saturday of the week following Easter Sunday. A committee was appointed to arrange with the American Institute of Electrical Engineers for a contemporary meeting to be held in September at Sault Ste. Marie.

AN International Exposition of Hygiene will be held at Buenos Ayres in connection with the second Latin-American Medical Congress, which will hold its sessions in April, 1904. An invitation is extended to public and private institutions interested in the subject to participate in the exposition. Reduced rates for the transportation of exhibits have already been obtained from several steamship companies.

A SUMMARY of the progress of the Geological Survey of the United Kingdom and Museum of Practical Geology for 1901 has been issued by the Board of Agriculture. According to the abstract in the London *Times* it gives a full account of the field work of the Geological Survey throughout the year and of the chemical, petrological and paleontological work in connection therewith. In the west of England the process of subdividing the great killas-formation of De la Becha has been continued, and a new division—the Hayle sandstone—has been recognized. A considerable mass of granite, later in date than the main mass, has been found in the Land's End district, thus proving that the granitic area is not so simple in structure as is represented in the earlier maps. Special attention has been paid to the metamorphism produced by

the granite, not only on account of its scientific interest, but also because the more important mineral veins occur in the metamorphic zone. In the Devonian and Carboniferous areas of the west of England additional evidence has been obtained of an important unconformity between the middle culm or wearde beds and the Devonian. In the South Wales area the detailed examination of the coalfield has proceeded as far west as Swansea, and some new inliers of Silurian rocks have been detected in Gower. The resurvey of the Midland coalfields has been continued. In the northern district of Scotland work has been carried on in Ross-shire and Inverness-shire, extending eastwards from Loch Hourm and Loch Ailsh. Much additional information has been obtained as to the crystalline schists and the associated igneous rocks. Cretaceous rocks have for the first time been noticed in Soay Sound and Scalpay in the Skye district, and an interesting series of composite dykes of Tertiary age has been found in the Lorne plateau. The detailed mapping of the drifts in Ireland was begun in the Dublin area. Two points are cited as being worthy of special mention. The esker-like ridge south of the Liffey has been found at one point to rest on a water-worn floor of carboniferous limestone. At the same locality the gravels of the ridge can be seen to pass laterally into gravelly clay, full of scratched stones, resting on a striated rock surface. These facts strongly support the widely accepted view that ridges of this type are the casts of sub-glacial water-channels. Analyses of South Wales coals have been begun, and some notes on weathering of magnesian limestones are published.

THE U. S. Department of Agriculture has received through the Department of State notice that a general exposition of hygienic milk supply will be held at Hamburg from May 2 to May 10, 1903. The exposition will embrace eight sections as follows:

Section A.—For milk production: (1) Exhibit of limited number of milch cows of known race; (2) stable fittings and implements; (3) regimen and hygienic food; (4) technics of milk, tests, and execution of; (5) management of milk in

stable and pastures; (6) personnel of milking and stable (clothing, health, and supervision of the same).

Section B.—Veterinary control of the condition of milch cows and of milk: (1) Legislation; (2) management of contagious outbreaks (with demonstration); (3) diseases of milch cows; (4) special disease; (5) unwholesome food plants and drinking water; (6) secretion through the milk of medicinal stuffs; (7) sanitary management; (8) disinfection of stalls (means and apparatus).

Section C.—Conveyance of milk, land, and waterways, railways; conveyance and distribution in cities; (2) cleansing, spinning, cooling, Pasteurizing, sterilizing, and concentrating (condensing) milk; (3) arrangements for measuring and weighing; (4) cleansing apparatus for flasks; (5) machinery for bottling, pouring, and sealing.

Section D.—Exhibit of management and sale of milk (wholesale and retail trade), with complete furnishings.

Section E.—Milk legislation and administration: (1) Laws, ordinances, decrees, and judgments; (2) police supervision of milk traffic (removal, previous examination, preserving, conveyance); (3) chemical and bacteriological inspection; (a) model laboratory, working; (b) instruments and tools for laboratory.

Section F.—Scientific: (1) Means of instruction with scientific demonstration; (2) scientific instruments and tools for milk laboratories; (3) literature, statistics, and graphic exhibitions.

Section G.—Milk preparations: (1) Condensed and prepared for long keeping for use in the army and navy; (2) milk for infants; (3) for therapeutic purposes; (4) other foods and preparations produced from milk.

Section H.—Machinery and apparatus for the treatment of milk in the household.

UNIVERSITY AND EDUCATIONAL NEWS.

MR. JAMES STILLMAN, of New York City, has given \$100,000 to Harvard University for the endowment of a professorship in comparative anatomy.

At a recent meeting of the Board of Trustees of the Iowa State College of Agriculture and Mechanic Arts, the one fifth mill building tax granted by the general assembly will be devoted to the following purposes: the erection of a central building for administrative and general purposes at a cost of \$225,000; an

agricultural building at a cost of \$200,000; of a fire proof addition to Agricultural Hall 60 x 100 feet; a pavilion for agronomy and animal husbandry, 60 feet in diameter, to cost \$50,000; and a suitable heating plant, to cost \$65,000. The central building is to be commenced next spring. This will contain the departments of botany, domestic science, history, English, mathematics, political economy and administrative offices; the \$225,000 does not include furnishing, heating or lighting. The addition to Agricultural Hall will be completed by August, 1903.

THE National Conference of Jewish Charities has established two scholarships at Columbia University and the University of Chicago to train men and women in sociological work for the administration of Hebrew charities in New York and Chicago. The scholarships are of the annual value of about \$750.

THE new laboratory of physics given to the University of Jena by Dr. Carl Zeiss has been dedicated. The former physical laboratory will be used for technical chemistry with Professor Vongerichten as director.

DR. J. H. HYSLOP, professor of logic and ethics at Columbia University, has resigned, owing to ill health.

DR. GEORGE C. CALDWELL, since 1868 professor of chemistry at Cornell University, has retired, in accordance with the recent regulations of the trustees permitting professors to retire with a pension.

J. E. WALLACE WALLIN, PH.D., who has been assistant at Yale and Clark Universities, has been appointed assistant in philosophy at the University of Michigan.

DR. L. ASCHOFF, of Göttingen, has been called to the chair of pathological anatomy at Marburg, vacant by the removal of Dr. Hugo Ribbert to Göttingen.

DR. H. KOBALD, astronomer in the observatory at Kiel, has been made professor in the university.

Erratum: In the article by Mr. Hatcher, page 831, in the second column, fifth line from bottom, for *with* read *within*.