

of the region. Two courses upon algæ will be given by Miss Josephine E. Tilden and a course upon lichens by Dr. Albert Schneider, the author of the leading American text-book upon this subject. Dr. Schneider will also give some lectures upon bacteria and nitrogen assimilation. The name of the instructor in zoology, who will have charge of the zoological laboratory, can not be announced until later. Such courses as are provided are believed to be of the most value to the inland student visiting the seashore.

By special arrangement with the authorities of the University of Minnesota it is possible to accept work done at the seaside station by graduates of colleges as counting for credit towards the degree of master of arts.

The station fee which covers board, lodging, laboratory space, instruction, etc., at the station is \$75 for the month. Those who expect to join the party are urged to send in their names as soon as possible in order that the director may know for how many to provide.

Descriptions of the station may be found in *The Popular Science Monthly* for January, 1902; the *Journal of Geography* for June, 1902; and *Nature* for December 18, 1902.

To those who join the party full instructions concerning all matters of detail will be furnished by letter.

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SCIENTIFIC NOTES AND NEWS.

THE Bruce Gold Medal of the Astronomical Society of the Pacific has been awarded to Sir William Huggins for distinguished services to astronomy.

PRINCIPAL C. LLOYD MORGAN, of University College, Bristol, has been offered the honorary degree of LL.D. by the University of Wisconsin, but has been unable to accept the honor because he can not attend the ceremonies connected with the celebration of the fiftieth anniversary on June 9.

CONGRATULATORY addresses will be presented on April 22 to Sir Henry Roscoe, the eminent

chemist, on the occasion of the fiftieth anniversary of receiving the doctorate from Heidelberg University. The presentation will be at Manchester, Sir Henry Roscoe having been professor of chemistry at Owen's College from 1857 to 1887.

THE following new members were elected by the American Academy of Arts and Sciences, of Boston, at the meeting of April 13, 1904: *As resident fellows*: Edward S. Sheldon and Herbert W. Smyth, both of Cambridge, Mass. *As associate fellows*: Eugene W. Hilgard, of Berkeley, Cal.; James D. Hague, of New York; Israel C. Russell, of Ann Arbor; Abraham Jacobi, of New York; and T. Mitchell Prudden, of New York. *As foreign honorary members*: Felix Klein, of Göttingen; Adolph Harnack, of Berlin; Pasquale Villari, of Florence; and M. L. Gaston Boissier, of Paris.

CAMBRIDGE UNIVERSITY has resolved to confer the honorary degree of doctor of science on Wilhelm Ostwald, professor of chemistry in the University of Leipzig.

LORD KELVIN has been unanimously elected chancellor of the University of Glasgow in the room of the late Lord Stair.

THE Paris Academy of Sciences has elected the following corresponding members: Professor Volterra in the section of geometry in the place of the late Professor Cremona; Dr. W. C. Brögger, professor of mineralogy and geology in the University of Christiania, in the section of mineralogy, in succession to the late Professor Karl von Zittel, and M. Charles Flahault, professor of botany in the University of Montpellier, in the section of botany, to succeed the late M. Millardet.

M. SANTOS DUMONT has been made a chevalier of the legion d'honneur by the French government for his experiments with dirigible balloons.

DR. CARL DUISBERG, director of the Elberfeld Dyeworks, has been given the title of professor.

It is announced that Professor A. Graham Bell will give an exhibition of his tetrahedral kites before the National Geographic Society on April 30.

PROFESSOR PAUL HANUS, who holds the chair of education at Harvard University, will be given leave of absence next year, and will spend the time making a study of foreign systems of school administration. Professor George Santayana, of the department of philosophy, will also spend the year abroad.

PROFESSOR LEVERETT MEARS, Ph.D., of the chemistry department of Williams College, has been granted a year's leave of absence and will probably go abroad.

PROFESSOR H. C. JONES, of the Johns Hopkins University, has received a grant of \$1,000 from the Carnegie Institution for research in physical chemistry during the year 1904-1905. The grant will be used for a research assistant, Dr. H. P. Bassett, who is now working at the Johns Hopkins University. This is a renewal of the grant which was made to Professor Jones for the year 1903-1904, and with which he received the assistance for the present year of Dr. F. H. Getman.

THE Carnegie Institution has renewed its grant of last year of \$500 to Professor M. Gomberg, of the chemistry department of the University of Michigan. This sum is expended for the payment of an assistant.

At the recent council meeting of the American Anthropological Association, held at the American Museum of Natural History, New York, Mr. George Grant MacCurdy was elected secretary of the association in the place of Dr. A. L. Kroeber, resigned.

DR. CARLO VON MARCHESETTI has been appointed director of the botanical gardens at Trieste.

SIR WILLIAM RAMSAY, of University College, London, will give the address at the next commemoration day of the University of Glasgow. His subject will be 'Joseph Black,' lecturer on chemistry 1756-66 in the old college, and enunciator of the doctrine of latent heat.

THE death is announced, on February 4, of Dr. Kazuyoshi Taguchi, professor of anatomy in the medical faculty of the University of Tokio.

THE second annual meeting of the South African Association for the Advancement of

Science was opened at Johannesburg, on April 4, when Sir Charles Metcalfe delivered the inaugural address. Lord Milner occupied the chair.

REUTER'S AGENCY is informed that the British Antarctic vessel *Discovery*, with Captain Scott and his staff, is not likely to return to England before the autumn. Some little time will be spent at Christchurch in repairing the vessel, after which Captain Scott will enter upon the work of taking a line of soundings between New Zealand and Cape Horn. It is expected that the relief ships *Morning* and *Terra Nova* will sail direct for home.

THE Goldsmith's Company has given £1,000 to the Royal Society for research on radium and radio-active bodies.

THE Institute of France has received a bequest from M. Jean Debrousse, yielding an annual income of about \$6,000. A thousand dollars has been appropriated for the publication of a lunar table.

PROFESSOR J. H. VAN'T HOFF has placed at the disposal of the *Zeitschrift für Physikalische Chemie* the sum of \$300 for prizes for papers on the literature of the phenomena of catalysis. The papers may be published in the journal and must be received before June 30, 1905.

THE Royal Astronomical Society is making a collection of portraits of its past presidents, and has recently received from Sir Robert Ball a portrait of Professor Brinkley; of Manuel Johnson, who was Radcliffe observer in the middle of the last century, and of Dr. Rambaut.

THE U. S. Civil Service Commission announces an examination on April 19-20, to secure eligibles to fill a vacancy in the position of assistant (male) in the Nautical Almanac Office, at \$1,000 per annum, and other similar vacancies as they may occur. The commission also announces an examination on May 11-12, 1904, for the position of assistant biologist (male) in the Division of Biological Survey, Department of Agriculture, at \$1,200 per annum.

THE Lake Laboratory announces courses of instruction in various branches of zoology and

botany for the summer of 1904. As in previous years, provision is made for the accommodation of investigators, no fee being charged to those who do independent work, but each investigator being expected to furnish his own microscope or any special apparatus required unless otherwise arranged. The laboratory building completed last summer is beautifully located on Cedar Point across the bay from Sandusky and furnishes very advantageous opportunities for study and research. Persons enrolled at the laboratory are given free transportation on the steamers of the Cedar Point Resort Company. This makes it very convenient to visit neighboring localities and permits a wide choice in living. The enrolment for last summer included teachers and students from a number of colleges and universities, chiefly in the central states. Announcements and full information may be secured from the director, Professor Herbert Osborn, Ohio State University, Columbus, Ohio.

THE magnetograph records of the Magnetic Observatory of the Coast and Geodetic Survey, situated at Cheltenham, Maryland, showed effects apparently to be attributed to two recent earthquakes, one of which occurred in the state of Washington and in British Columbia on the night of March 16, and the other in New England, in the early morning of March 21. The curve showing the variations of the magnetic declination revealed three faint but distinct seismic disturbances on March 16 at 10^h53^m, 10^h59^m, 23^h03^m P.M., eastern time, the first being the most pronounced. On March 21, the same curve showed a very plain seismic disturbance at 1^h08^m, eastern time. The times in both instances are in fair agreement with the reported times in the newspapers. In neither instance were the horizontal and vertical intensity curves affected.

THE Canadian Government has purchased for \$75,000 the steamer *Gauss*, which was built three years ago for the German Antarctic expedition at a cost of \$125,000. She is to be commanded by Captain Bernier, and will be employed at once in conveying relief stores and coal to the government steamer *Neptune*, at present wintering in Hudson Bay. Sub-

sequently she will be engaged in survey work on the coast of Labrador. It is said that Captain Bernier hopes to be able to utilize the *Gauss* in 1905 in an attempt to reach the North Pole from Canada.

THE directors of the Manchester Chamber of Commerce have resolved to urge upon the city corporation that in the interest of the general wellbeing of the district a municipal industrial and commercial museum should be established and constantly replenished for the purpose of exhibiting permanently the raw materials and manufactures of British Colonies, India, and foreign countries. Such an institution they regard as an invaluable means of instruction as to the requirements and economic situation of other countries, and as an authoritative source of information as to the customs and habits of their peoples.

A CORRESPONDENT writes to the *London Times* that it is officially announced that the secretary of state for India has sanctioned the decision of the government of India to establish an agricultural research station, with an experimental farm and an agricultural college, at Pusa, in the Darbhanga district of Bengal, and to devote to the purpose the donation recently entrusted to the Viceroy by Mr. Henry Phipps for some object of public utility, preferably for scientific research. The farm is to serve as a model for similar institutions under provincial governments, some of the existing institutions being in need of improvement. Lines of experiment are to be initiated and tested before being recommended for trial under local conditions on the provincial farms; seed of improved varieties will be grown for distribution in the different provinces; results reported from other farms will be tested; scientific research work will be carried on; and practical training will be given to students at the college, which is to be known as the Imperial Agricultural College. The students' course will be one of five years, and it will be open to young men from all parts of India. The government will look to the institution to provide them with teachers of agricultural subjects, with managers of experimental or demonstration farms, and with officers of the Court of Wards. At the same time the trained

staff and laboratories at Pusa will provide facilities for the application of higher science to those agricultural problems the importance of which to the welfare of India and its people can hardly be exaggerated. Mr. Bernard Coventry, manager of the Dalsingh Serai estate, has been appointed principal, and enters upon his new duties forthwith, but the college will not be ready to receive students until August or September of next year.

THE five-foot equatorial telescope, with Newtonian and Cassegrain mirrors, and many other astronomical and optical instruments belonging to the late Dr. Common, are offered for sale by T. A. Common, 88 Wigmore Street, London, W.

UNIVERSITY AND EDUCATIONAL NEWS.

THE Drapers' Company, in addition to their previous gift of £10,000, have promised £5,000 to the building fund of University College, Cardiff.

THE secretary of state for India has vetoed the proposal to abolish the engineering college at Coopers Hill, the proposal having been warmly opposed by the government of India, and by the Departments of Public Works, Forests and Telegraphs, which are recruited from the college.

ACCORDING to *The British Medical Journal*, the total number of students attending the French universities is 30,405, made up as follows: Paris 12,985, Aix-Marseille 1,080, Besançon 333, Bordeaux 2,320, Caen 752, Clermont 299, Dijon 880, Grenoble 705, Lille 1,164, Montpellier 1,707; Nancy 1,327, Poitiers 863, Rennes 1,190, Lyon 2,069, Toulouse 2,291. The Arts Faculty has 4,384 students, of whom 3,873 are French. It has 613 women students. Law has 10,972 students, and of these 4,382 belong to the University of Paris and 1,021 to Toulouse. In the Faculty of Science there are 4,765 students, of whom 1,546 attend the Paris Faculty, 552 that of Lyon, and 476 at Nancy. There is a total of 6,686 students of medicine, of whom 6,115 are French. They are distributed as follows: Paris 3,496, Lyon 958, Bordeaux 654, Montpellier 552. There are 571 foreigners attending this Faculty, of whom

197 belong to Persia, 89 to Turkey, 63 to Bulgaria, and 57 to Roumania. To these must be added 202 French women students and 164 women students from abroad, together with 1,558 students who are taking the course of medicine and pharmacy. Besides these there are 3,014 students of pharmacy.

MR. J. G. JACK will conduct a field class at the Arnold Arboretum on Saturdays during the spring and early summer, to assist those who wish to gain a more intimate knowledge of the native and foreign trees and shrubs which grow in New England.

AT a meeting of the trustees of Columbia University, on April 11, the heads of the departments of civil, mechanical, electrical and mining engineering and of metallurgy were assigned to seats in the faculty of pure science. Dr. William T. Bull, professor of surgery, tendered his resignation, to take effect on June 30.

THE senate of London University has resolved to establish a degree in veterinary science in the faculty of science.

AT Harvard University Dr. C. L. Bouton has been appointed assistant professor of mathematics and Mr. G. S. Reyner, assistant professor of mining; Dr. H. W. Morse has been appointed instructor in physics.

MISS MARY PERLE ANDERSON, who had charge of the instruction in nature study in the summer session at Columbia University in 1903, has been appointed instructor in botany at Mt. Holyoke College for the coming year. Miss Anderson has recently received the first prize for an essay on the preservation of native plants awarded by the New York Botanical Garden.

MR. SIDNEY SKINNER, M.A., of the Cavendish Laboratory, and director of natural science studies at Clare College, Cambridge, has been appointed principal of the Southwestern Polytechnic, Chelsea.

MR. W. L. SYMES, M.R.C.S., has been appointed scientific assistant in physiology at London University. Mr. John Herbert Parsons has been awarded the degree of doctor of science in physiology as an external student.