ish Columbia, and was placed in charge or the Yukon expedition, undertaken by the Canadian government in 1887. As one of her Majesty's Behring Sea Commissioners he spent the summer of 1891 in investigating the facts connected with the fur-seal fishery on the northern coasts of America and Asia. Two years later he was elected president of the Royal Society of Canada. In January, 1895, he was appointed director of the Geological Survey of Canada. He was the author of numerous original scientific papers, principally geological, but including geographical, ethnological and other observations made in the course of his explorations.

MR. EDWARD PHILIP LOFTUS BROCK, honorary secretary of the British Archæological Association, died in London on November 2d.

MR. BERNARD GRENFELL, fellow of Queens College, Oxford, intends shortly to visit Egypt to continue his studies on Greek papyri.

THE Boston Transcript states that Prof. David P. Todd will undertake the direction of an expedition to be sent out from Amherst College for the purpose of observing the solar eclipse of 1896. The expedition will sail from San Francisco next spring, on the schooner yacht Coronet, which will be in command of Captain Arthur C. James, New York Yacht Club, a member of the class of '89. The island of Yezo, one of the largest northern islands of the Japanese Empire, has been chosen as the point of observation.

THE Pharmaceutical Society of Great Britain has presented the Hanbury Medal to Dr. August Vogl. This is the eighth award of this medal, which was presented in 1881 to Flückiger, in 1883 to John Elliot Howard, in 1885 to Dragendorff, in 1887 to Dymok, in 1889 to Plaichon, in 1891 to Hesse and in 1893 to Maish. At a meeting of the Royal Institution on November 4th it was reported that the late Mr. John Bell Sedgwick, M.R.I., had bequeathed £300 to the Royal Institution in aid of the fund for the promotion of experimental research at low temperatures. The special thanks of the members were returned to Sir Frederick Abel for his donation of £50 to the same fund.

DR. FRASER HARRIS proposed exhibiting before the Glasgow Philosophical Society a new optical instrument known as the stereophoto-chromoscope, the aim of which is to photograph an object in such a way that the ' positive' of the picture, viewed as a transparency, will present the object with its natural colors and also with stereoscopic effects.

THE Revue Scientifique states that M. G. Delage will issue at the beginning of next year an Année biologique, which will give analytical and critical reviews of publications in general biology.

A COURSE of Monday evening lectures has been instituted by the faculty of the University of the City of New York, who will lecture on their respective subjects to the people living in the vicinity of University Heights. The first lecture was delivered by Dr. J. J. Stevenson, in the lecture room of the Havemeyer Laboratory, on 'Coal.'

UNIVERSITY AND EDUCATIONAL NEWS.

PROF. WILLIAM M. THORNTON, chairman of the faculty of the University of Virginia, has published a letter stating the needs and plans of the University. Reconstruction of the Rotunda, the central building of the group recently destroyed, has already been begun. It will be restored in its original form, a reproduction on the half scale of the Roman Pantheon, but with fire-proof materials. The necessary money for this purpose, about \$80,000, has been practically subscribed.

In place of the large rectangular annex to the Rotunda, built in 1852 for the accomodation of the growing classes of the University, a number of isolated structures will be erected. They are to be a general academical building costing \$90,000, a physical laboratory costing \$30,000, а building for mechanics and engineering costing \$30,000, and a building for the law school costing \$20,000. Governor O'Ferrall has promised to recommend in his message to the State Legislature a prompt and liberal appropriation to repair the losses of the school, and it is hoped that \$200,000 will be received from this source. Friends of the University and of Education are urged to contribute liberally to the rebuilding and enlargement of the University.

DAVID J. HILL, President of the University of Rochester, has resigned. The action is said to be on account of the opposition to him manifested by conservative Baptists who have not favored his liberal views and management of the University.

AT its last biennial session the Legislature of Minnesota appropriated \$10,000 for the erection of a Students' Observatory at the University of Minnesota. The building is already under roof and is promised for use by the first of January. The equipment will include a ten-inch equatorial of 150 inches focal length. This instrument is to have three objectives, one combination of which forms the visual telescopic objective and another the photographic objective. There are also three eye pieces of different magnifying powers, a filar micrometer and a driving clock. Two reading microscopes are provided for reading the declination circles, and the guiding telescope is of fourinch aperture. A spectroscope and photograph measuring machine are among the instruments soon to be added Upon the completion of this working observatory Prof.

Leavenworth will offer courses in astronomy in advance of those which are now in the curriculum of the institution.

DR. H. P. JOHNSON, Harvard '90, Chicago' '94, succeeds Mr. J. J. Rivers as Curator of the Museum of the University of California. Dr. J. C. Merriam, Munich '93, has been appointed instructor in paleontology.

PROF. JEROME H. RAYMOND, formerly of the University of Chicago, has been appointed professor of sociology and secretary of the University Extension Department of the University of Wisconsin.

THE will of Rev. John H. Duggan of Waterbury, Conn., leaves his library to the Catholic University of America at Washington, D. C.

DR. FREDERICK H. WINES has been appointed lecturer on social classes and social evils in Harvard University.

THE Agassiz professorship of Oriental languages at the University of California has been filled by the election of Dr. John Fryer, who has been for many years and is now a translator in the service of the Emperor of China. Dr. Fryer assumes his new duties the latter part of the present term or early in the next.

DR. HARRY MARSHALL WARD, Sc.D., F. R.S., of Christ's College, professor of botany at the Indian Engineering College, Cooper's-hill, has been elected to the chair of botany in the University of Cambridge, vacated through the death of Prof. Babington. The following particulars concerning Dr. Ward's work in botany are taken from the London Times:

Dr. Ward graduated B.A. as a member of Christ's College, obtaining a first-class in the Natural Sciences Tripos, 1879, with distinction in botany. In 1883 he was elected to a Fellowship, and in 1888 was elected a Fellow of the Royal Society. After taking his degree at Cambridge he devoted himself with ardour and success to research. He, at the invitation of the Ceylon government, investigated the disease which about the year 1880 devastated the coffee plantations of Cevlon. His account of the life-history of Hemilieia vastatrix, the fungus which immediately caused the disease, while contributing many new morphological and physiological facts, was especially valuable by reason of the scientific basis it established by which the method of the treatment of the disease that might be adopted should be founded. In 1889 he contributed a paper to the Royal Society 'On the tubercles in the roots of leguminous plants, with special reference to the pea and the bean.' In the following year, 1890, he was selected to deliver the Croomian lecture before the Royal Society, and selected as his subject 'The Relations between Host and Parasite in certain Epidemic Diseases of Plants.' In 1891 his paper on 'The Ginger-beer Plant and the Organisms composing it, a Contribution to the Study of Fermentation Yeasts and Bacteria,' attracted much attention, and was described by Lord Kelvin as a model of experimental biological investigation. In 1892 he contributed an important paper, entitled 'Experiments on the Action of Light on Bacillus Anthracis.' A further paper on the same subject was written by him, and later, in conjunction with Mr. P. F. Frankland, he contributed to the second report of the Water Research Committee of the Royal Society a paper entitled 'The Vitality and Virulence of Bacillus Antracis and its Spores in Potable Water.' In 1893 the Royal Society recognized his great merit as an investigator by awarding him a Royal medal, and the President of the Society (Lord Kelvin) especially alluded to Prof. Ward's contribution on the action of light in arresting the development of and killing bacteria as having brought out striking results, the significance of which, from a sanitary point

of view, was sufficiently apparent, and, further, had led to other investigations by Prof. Ward into the wide question of the function of color in the vegetable kingdom. These further investigations were communicated to the Society in 1894 and form a part of the third report of the Water Research Committee. It may be mentioned that the value of the professorship is $\pounds700$ a year, and it is tenable for life, subject to certain regulations as to residence and delivery of courses of lectures.

AT the meeting of the University Court of Glasgow University, according to The Lancet, a letter was received from Mr. C. W. Mitchell, who quotes from a letter to Sir W. Geddes, written by the late Dr. Mitchell, who said: "Lord Huntly, I believe, is endeavoring to raise a special fund of £20,000, and if £6000 of that amount can be collected soon I would be prepared to contribute an additional £4000; further, if his lordship can increase his collection in £10,000 I will increase my subscription to £6000, thus making up the required £16,000 without appeal to the Government." "I now beg to confirm this offer," writes Mr. Mitchell, "subject to the consideration that your lordship's£6000 is collected by January 1, 1896, and the additional \$4000 by May 1st."

MR. JAMES WILSON, lecturer in agriculture at the University College of Wales, has been appointed to a similar lectureship in Glasgow University.

DR. OSTMANN, of Königsberg, has been appointed extraordinary professor of otology in succession to Professor Barth, who goes to Breslau.

DISCUSSION AND CORRESPONDENCE. EXPERIMENTAL PSYCHOLOGY IN AMERICA.

TO THE EDITOR OF SCIENCE: I think my Journal, where the misunderstood words appeared, and where their context could be seen, should have had a chance to print the well concerted