

'Philosophy of Mathematics': Professor W. J. KERR, Agricultural College of Utah.

'Astronomy in the High Schools': MISS MARY PROCTOR, New York City.

'Concerning (a) the Concept of n -Dimensional Space and (b) Self-Reciprocal Geometries': C. J. KEYSER, Columbia University.

'On the Probable Densities of the Satellites of the Solar System': Professor T. J. J. SEE, U. S. Naval Observatory.

'Photometric Observations of Eros': HENRY M. PARKHURST, New York City.

'The History of Several Fundamental Theorems in the Theory of Groups of Finite Order': Dr. G. A. MILLER, Cornell University.

SECTION F. ZOOLOGY.

Professor Henry B. Ward, secretary, has sent the following circular letter to members of the section:

The next meeting of the A. A. A. S. will be held in Denver, Colorado, August 24th to 31st, 1901. The opportunity is good for bringing together a large number of zoologists and making the meeting particularly interesting.

A provisional program of papers to be read before Section F will be printed within a short time and all members are urged to send titles as soon as practicable.

Permit me to call your attention to Article 28 of the constitution which designates how the sectional committee shall complete the final program from abstracts of papers presented. Kindly conform to the conditions as given there. I enclose blanks for titles and abstracts of papers.

The work of section F would be much strengthened if a larger number of the morphologists of the country were enrolled in its membership. Now that each member of the association receives gratis the official journal, *SCIENCE*, it is certainly true that no one can afford to be without membership in the organization.

Will not each present member assist in the work of enlarging the membership roll?

CONVOCATION WEEK.

It will be remembered that, at the instance of a committee of the American Association for the Advancement of Science, the Association of American Universities recently took action recommending that a convocation week be set aside for the meetings of scientific and learned societies. Columbia University, Cor-

nell University, the Catholic University of America, Clark University and Johns Hopkins University have altered their calendars, so that exercises will not be held during the week in which January 1 falls. The schedules of California, Leland Stanford Junior, Michigan and Yale are already such that no exercises fall in this week. Pennsylvania and Princeton have arranged to permit all instructors who wish to attend the meetings held during convocation week to do so, and it is expected that they will alter their official calendars next year. The faculty of the University of Wisconsin has voted to lengthen the Christmas holidays so that convocation week will be left free till 1905; this action will doubtless be confirmed by the regents and made permanent. The only members of the Association of American Universities, whose sessions begin during the week above mentioned and which has not yet taken action are Harvard and Chicago. It is to be hoped, may we not say expected, that all the institutions of the United States and Canada will give their support to this important movement.

SCIENTIFIC NOTES AND NEWS.

THE HON. CHARLES D. WALCOTT, director of the U. S. Geological Survey, gave an address before the University of Chicago on June 17, his subject being 'The Relations of the National Government to Higher Education and Research.' We hope to publish this address next week.

DR. PAUL C. FREER, professor of general chemistry in the University of Michigan, has been granted leave of absence for one year to go to Manila on an important scientific commission on behalf of the Philippine Commissioners.

DR. WILLIAM Z. RIPLEY, of the Massachusetts Institute of Technology, has been invited to deliver the Second Huxley Memorial Lecture before the Anthropological Institute of Great Britain. The first lecture was given last year by Lord Avebury.

PROFESSOR BASHFORD DEAN, who is now working at the Misaki Marine Station of the Imperial University of Tokio, has presented a yacht, with a complete outfit for marine zoological work, to the institution.

THE Society of Arts, London; has awarded the Albert medal to King Edward, who for thirty-eight years has acted as president of the society.

COLUMBIA UNIVERSITY at its recent commencement exercises conferred its newly established D.Sc. on Mr. Arnold Hague, of the U. S. Geological Survey. The degree of LL.D. was conferred on Dr. W. H. Maxwell, superintendent of the New York schools, and the degree of M.S. on the Rev. Frank D. Gamewell, professor of physics at the University of Pekin, and on Dr. G. M. Lefferts, clinical professor of laryngology in the College of Physicians and Surgeons of the University.

THE valuable contributions to entomology made by William H. Ashmead, of the U. S. National Museum, were recognized by the Florida Agricultural College and Experimental Station in Lake City, Fla., at its recent commencement by the conferment of the honorary degree of A.M.

DUBLIN UNIVERSITY will confer its D.Sc. on W. Burnside, professor of mathematics, Royal Naval College, [Greenwich; W. E. Wilson, F.R.S., and Francis Joseph Edward Spring, C.I.E.

PROFESSOR H. S. CARHART has been appointed a delegate to the International Engineering Congress in Glasgow by the American Institute of Electrical Engineers. He has also been nominated as an honorary member of the Congress. He sails on August 13, and will attend both the Engineering Congress and the meeting of the British Association in Glasgow.

MR. F. W. HODGE has recently been appointed assistant in charge of office in the Smithsonian Institution, and to accept that appointment has resigned his position as ethnologist in the Bureau of American Ethnology. He continues as managing editor of the *American Anthropologist*.

DR. VICTOR C. VAUGHAN, of the University of Michigan, was elected president of the

American Academy of Medicine at the annual meeting held in St. Paul, Minn., the first week in June.

DR. FREDERICK BEDELL, of Cornell University, will spend the coming year in Europe.

PROFESSOR J. CULVER HARTZELL, of the Illinois Wesleyan University, will be engaged during the summer in tracing certain partings in Indiana for the Indiana Geological Survey.

PROFESSOR W. RAMSAY will lecture on the 'Inert Constituents of the Atmosphere,' and Professor Francis Darwin on 'The Movements of Plants,' at the approaching Glasgow meeting of the British Association.

PROFESSOR JAMES DEWAR gave the Bakerian Lecture before the Royal Society on June 13, his subject being 'The Nadir of Temperature and Allied Problems.'

THE William T. Lusk Memorial Science Prize has been awarded by the faculty of the University and Bellevue Hospital Medical College to S. S. Goldwater, for a paper entitled 'Notes on Blood Pressure in Man.' This prize is awarded to the member of the senior class presenting the best thesis which is the product of personal original research.

A MEMORIAL tablet to the late J. C. Porter, the botanist, was unveiled at Lafayette College in connection with the commencement exercises.

WE regret to announce the death of Professor Truman Henry Safford, which occurred at Williamstown, on June 13. Born at Royalton, Vt., in 1836, he had since 1876 occupied the chair of astronomy in Williams College.

DR. ARTHUR HAZELIUS, of Stockholm, the enthusiastic inspirer of the Northern Museum in that town, and the reviver of old Swedish customs, dances and costumes in the beautiful open-air museum known as Skansen, died on Whitmonday, mourned by all his countrymen.

M. MARÈS, known for his contributions to scientific agriculture, died at Montpellier, on May 9; Professor W. H. Heineke, for thirty-three years professor of surgery at Erlangen, has died at the age of sixty-six years.

JOHN VIRIAMU JONES, principal of, and professor of physics in, the University College of South Wales at Cardiff, died at Geneva on June

2. An obituary notice in the London *Times* states that he was born at Pontreporth, near Swansea, in 1856, he matriculated at London University in 1872, and won a University scholarship in geology, a subject in which he graduated as B.Sc. with first-class honors in 1875. In the preceding year he was elected Brackenbury scholar in natural science at Balliol College, Oxford; and in due course he was placed in the first class in mathematical moderations (1877), the final school of mathematics (1879), and the final natural science school (1880). For a short time he was demonstrator in the Clarendon Laboratory under Professor Clifton; but in 1881 he left Oxford to become principal of, and professor of mathematics and physics in, Firth College, Sheffield. Two years later, on the establishment of the University College of South Wales, he was appointed its first principal, also acting as professor of physics; and this position he retained up to his death. In 1894 he was chosen a fellow of the Royal Society, and in 1897 was elected a fellow of Jesus College, Oxford. His scientific work was mainly concerned with the measurement of electrical resistance, and he was a member of the committee of the British Association on that subject. In particular he was deeply interested in the determination of the standard ohm by the Lorenz method in absolute measure, *i. e.*, conditioned only by the units of length and time and the properties of the ether; he constructed a Lorenz apparatus for his laboratory at Cardiff, and took a prominent part in designing and testing another that was made in London for the McGill University. The cause of technical and scientific education in Wales owed much to his powers of organization, and he was vice-chairman of the Welsh Central Board for Intermediate Education, besides being the first Vice-chancellor of the University of Wales.

DR. R. A. DALY, of Harvard University, has given up the plan of conducting a geological expedition to the North this summer.

MAJOR RONALD ROSS, of the Liverpool School of Tropical Medicine, expected to leave for Sierra Leone on June 8, in charge of the fifth malarial expedition from the school.

ALVISO B. STEVENS, assistant professor of

pharmacy, in the University of Michigan, will spend a portion of the coming summer in New York City gathering old mortars, jars, shelf fixtures, etc., which will be made the nucleus of a collection illustrating the history of pharmacy.

A CORRESPONDENT of the London *Times* states that Dr. Stein, writing from Khotan on April 22, reports the latest results of his excavations in northern Chinese Turkestan. He has unearthed a large number of fine stucco sculptures closely resembling the Greco-Buddhist relics of the northwestern Punjab, probably belonging to the first century of the Christian era. Great difficulty is being experienced in excavating the colossal Buddhas, but valuable photographs have been taken of them, while the smaller pieces have been removed. Dr. Stein has now a fine illustration of what the big Stupa with its chapel and court was like in Khotan at the time of the Han dynasty.

PROFESSOR WILLIAM PATTEN, of Dartmouth College, has been granted leave of absence for the first semester of the next academic year. He will attend the International Congress of Zoologists in Berlin and afterwards explore the coast of the Baltic in Russia in search of specimens of *Cephalaspis* and other Ostracoderms. The United States Government, through its Geological Survey, has generously offered financial support in the undertaking. Dr. Patten's courses at Dartmouth will be given during his absence by Dr. J. H. Gerould.

DR. FRANK RUSSELL has recently reported to the Bureau of American Ethnology a successful archeological trip through southeastern Arizona, in the course of which a number of hitherto unknown ruins were discovered and reconnoitered.

PROFESSOR W. H. HOLMES recently returned from a visit to the South Carolina State College, at Columbia, where he supervised the arrangement and installation of the Babcock collection of stone implements. This collection, which represents the findings of the late Dr. Babcock during thirty years' residence in the district formerly occupied by the Catawba Indians, recently passed into the possession of the State; and it is now available for inspection, as well as for systematic study.

THE U. S. Biological Survey, Department of Agriculture, has sent an expedition to Athabasca and Great Slave Lakes. The chief object is the collection of information and specimens illustrating the geographic distribution of mammals, birds, trees and shrubs in the region. The expedition is in charge of Edward A. Preble. Last year Mr. Preble was sent to Hudson Bay on a similar mission.

REUTER'S correspondent in Berlin, telegraphing on June 1, says: The evening papers state that the international negotiations which have been proceeding with reference to the international protection of birds have now been concluded, and that the imperial chancellor has forwarded the draft of the international convention on this subject to the federal council with a recommendation that Germany should subscribe to it.

THE Chamber of Commerce of Cambridge-shire, has unanimously passed a resolution declaring that it is desirable for the British government to establish an official seed-testing station.

THE Antarctic exploring vessel *Discovery* left Dundee for London on June 3. A successor to Professor Gregory as leader of the scientific staff has not, we understand, yet been appointed.

THE Rockefeller Institute for Medical Research was incorporated in New York State on June 13. The directors for the first year, as we have already stated, are: William H. Welch, of Baltimore, T. Mitchell Prudden, C. A. Herter, L. Emmett Holt, and Hermann W. Biggs, of New York; Simon Flexner, of Philadelphia, and Theobald Smith, of Boston.

A COMMISSION, consisting of Sir T. Lauder Brunton, Dr. T. Stevenson, Mr. A. G. Salamon, Dr. A. P. Luff, Dr. Samuel Buckley and Mr. Fletcher Moulton, K.C., M.P., appointed by the Manchester Brewer's Central Association to investigate the causes of the beer poisoning that has recently occurred in Great Britain has made its report. The Commissioners say: "It is clear that the most frequent source of arsenical contamination in beer is the use of malt which has been kiln-dried or malted with improper fuel containing arsenic. At the same

time the experience of the late outbreak has shown that precautions must be taken against the presence of arsenic in brewing sugars and other materials (except, perhaps, malt adjuncts) on account of the serious consequences of any carelessness in manufacture which might introduce arsenic. Accordingly, we have considered what steps should in future be taken by brewers to protect themselves from any repetition of the recent disasters. We recommend that brewers should make it a rule to require a written guarantee of freedom from arsenic with all purchases of brewing materials of every kind. In addition to this we recommend that brewers should from time to time test the purity of their beer in respect of arsenic. The fact that yeast has a special affinity for arsenic affords an excellent method of demonstrating the purity of the materials used. If the yeast be tested for arsenic, it will readily show whether the wort is contaminated, for it will be many times richer in arsenic than the wort itself. It thus forms an excellent indicator of the presence of arsenic. In addition to frequent testing of the yeast, it would be advisable for the brewers to take control tests from time to time of their brewing sugars, finings and other materials."

UNIVERSITY AND EDUCATIONAL NEWS.

THE bills in the Michigan Legislature to reduce the quarter-mill tax levied for the benefit of the university have been defeated. The annual income from this tax is now approximately \$275,000, an increase over last year of \$50,000.

THE alumni of the Massachusetts Institute of Technology have subscribed \$100,000 for a gymnasium, to be erected as a memorial to the late President Walker. Over 15,000 former and present students have sent subscriptions.

COLUMBIA UNIVERSITY has received an anonymous gift of \$100,000 for the establishment of a department for the study of Chinese institutions, language and history.

PRESIDENT PATTON announced at the commencement exercises of Princeton University that the authorities of the university had received \$50,000 for an endowment fund for the library and \$10,000 to establish a fellow-