with students who have had no training in the exact and orderly expression of their ideas.

"Our main intention is not, however, to offer detailed suggestions, but to express our belief that this question of the adaptation of secondary education to modern conditions involves problems that should not be left to individual effort, or even to public legislative control; that it is rather a subject in which the universities of the United Kingdom might be expected to lead the way and exert their powerful influence for the benefit of the nation."

SCIENTIFIC NOTES AND NEWS.

By order of its council the next meeting of the Astronomical and Astrophysical Society of America will be held in affiliation with the American Association for the Advancement of Science, at Philadelphia, during convocation week, 1904–05.

Dr. ALEXANDER AGASSIZ, director of the Harvard University Museum and president of the National Academy of Sciences, has been advanced to a foreign associate of the Paris Academy of Sciences, to fill the vacancy caused by the death of Sir George Gabriel Stokes.

McGill University has conferred the degree of LLD. on Dr. Edward L. Trudeau of Saranac Lake, N. Y., in recognition of his work on the open-air treatment of tuberculosis, and on Mr. Edward Weston, of Newark, N. J., the investigator and inventor in electrical science.

Professor W. Ostwald, of Leipzig, has been elected an honorary member of the Society of Scientific Men at Moscow.

THE University of Utrecht has conferred an honorary doctorate of medicine on Professor J. H. van't Hoff, of Berlin.

Professor G. H. Darwin, of Cambridge, has been elected a foreign associate of the Belgian Academy of Sciences.

LORD KELVIN is one of three nominees for the chancelorship of the University of Glas-

PRESIDENT JORDAN, of Stanford University, is expected to join the *Albatross* on about

April 10 to make a biological examination of Monterey Bay. Professor W. E. Ritter, of the University of California, is at present carrying on a survey of the coast between San Diego and Catalina Island, under the general direction of President Jordan.

REAR ADMIRAL GEORGE W. MELVILLE, U.S.N. (retired), and Mr. George Westinghouse arrived in Paris at the beginning of March after an extended European trip. The former is making an investigation of the extent to which turbine engines are being applied in naval construction.

Professor H. C. Ernst, of the Harvard Medical School, has recently appeared before a committee of the Massachusetts legislature in opposition to the bill to restrict animal experimentation in the state.

During the summer Assistant Professor J. O. Snyder, of Stanford University, will undertake for the government an examination of the rivers and streams of northwestern California, Nevada and Oregon.

Dr. W. R. Brinckerhoff and Dr. E. E. Tozzer, of the Harvard Medical School, members of the expedition to the Philippines sent out under the direction of Dr. Councilman, have arrived in Manila.

Professor Frederic S. Lee, who has recently been promoted to a full professorship of physiology at Columbia University, has been granted leave of absence for the academic year of 1904–5, and will spend the time in European laboratories.

SIR DAVID GILL, director of the Royal Observatory at the Cape of Good Hope, is on a visit to Great Britain.

It is stated in the newspapers that Professor E. P. Lewis, of the University of California, has received a grant of \$500 from the Carnegie Institution to purchase prisms and lenses for the study of the spectra of gases under different physical conditions.

Sir William Huggins, president of the Royal Society, celebrated his eightieth birthday on February 7.

Dr. August Döring, titular professor of philosophy at Berlin, has celebrated his seventieth birthday.

Professor Kuno Fischer, of Heidelberg, will not retire, as has been announced, but offers this summer four lectures a week on 'The History of Modern Philosophy.'

At the instance of Professor John Marshall and Professor Edgar F. Smith, of the University of Pennsylvania, thirty-four Americans, who formerly studied chemistry at the University of Göttingen, have united to send a gift to Heinrich Mahlmann, who is celebrating his fiftieth year of service as 'Diener' in the Chemical Laboratory at Göttingen.

DR. HENRY F. OSBORN, of Columbia University and the American Museum of Natural History, lectured before the Academy of Science and Art at Pittsburg in the Carnegie Institute on March 10, his subject being 'The Evolution of the Horse.'

WE regret to record the deaths of Dr. Magnus Blix, professor of physiology at the University of Lund, at the age of fifty-five years; of Dr. Ludwig Beushausen, docent for geology and paleontology at the Berlin School of Mines, at the age of forty-one years, and of Professor F. S. Schmitt, director of the Natural History Museum at Stockholm.

The St. Petersburg Academy of Science has offered \$3,750 for information in regard to the party of Baron Toll, the Arctic explorer, from whom nothing has been heard since he left the yacht *Zaria*, in 1902, and started for Bennett Island.

Several subscriptions are announced for the Institute of Medical Sciences, to be established under the auspices of the University of London, the largest of which is \$25,000 from Mr. Alfred Beit.

THE American Electrochemical Society will hold its fifth general meeting at Columbian University, Washington, D. C., on April 7, 8 and 9. The headquarters wil be at the Shoreham Hotel. The chairman of the local committee is Colonel Samuel Reber, and the chairman of the executive committee, Dr. H. W. Wiley.

The Southern Society for Philosophy and Psychology was organized on February 23 in Atlanta, Ga. Its officers are: *President*, Professor J. Mark Baldwin, Johns Hopkins Uni-

versity; Secretary, Professor Edward Franklin Buchner, University of Alabama; Council, the president, secretary, Dr. William T. Harris, Washington, D. C., Mr. Reuben Post Halleck, Louisville, Ky., and Professor A. Casewell Ellis, University of Texas. The aim of the organization is to promote the welfare of philosophy and psychology in southern institutions.

WE are requested to state again that the Association for maintaining the American Women's Table at the Zoological Station at Naples and for promoting Scientific Research by Women announces the offer of a second prize of one thousand dollars for the best thesis written by a woman on a scientific subject, embodying new observations and new conclusions based on an independent laboratory research in biological, chemical or physical science. The theses offered in competition are to be presented to the executive committee of the association and must be in the hands of the chairman of the committee on the prize, Mrs. Ellen H. Richards, Massachusetts Institute of Technology, Boston, Mass., before December 31, 1904. The prize will be awarded at the annual meeting in April. 1905.

WE learn from *The Observatory* that an observatory has been established at Zagreb, the capital of Croatia (Hungary), under the direction of Professor Otto Kucera. This institution, which is an offshoot of the Croatian Philosophical Society, established in 1887, aims at doing good astronomical work as well as popularizing the science in Croatia. It already possesses equatorials of 6.4 inches and 4.25 inches aperture, as well as other instruments, and with these it is proposed to observe the sun and planets, and variable and colored stars.

A PARLIAMENTARY paper has been published relating to the proposed adoption of a metric system of weights and measures for use within the British empire. The London *Times* states that in a circular sent from the Colonial Office, dated December 9, 1902, the colonial governors were asked to say what action was likely to be taken in their respective colonies with regard to the resolution adopted at the

Conference of Colonial Premiers in London in favor of the adoption of a metric system. replies received are thus summarized. The metric system is already used in Mauritius and Seychelles. The following are favorable to its adoption: Australia, New Zealand, Cape of Good Hope, Transvaal, Orange River Colony, Southern Rhodesia, Gambia, Northern Nigeria, Gibraltar, British Guiana, Trinidad, Leeward Islands, Windward Islands. with a reservation that it must also be adopted in the United Kingdom or in the empire generally, Sierra Leone, Southern Nigeria, Ceylon and Falklands. Hongkong would take common action with other colonies. The states of New South Wales, Victoria and Western Australia are also favorable, but, together with South Australia and Tasmania, consider that the matter is one for the Commonwealth Government. Fiji is doubtful, but must follow Australia and New Zealand. British New Guinea would go with Australia. Jamaica and British Honduras need the adoption of the system in the United States of America. The practise of India is important to the Straits Settlements, which would be followed by Labuan; and the Bechuanaland Protectorate would follow the rest of South St. Helena, Cyprus, Lagos, Wei-haiwei, Barbados and Bahamas are on the whole unfavorable. The Gold Coast Colony and the state of Queensland are prepared to adopt the system, but consider that inconvenience would Natal can not consider the matter until some general lines of legislation have been agreed upon. No definite answer has been given by Newfoundland, Malta or Bermuda. Canada has not yet replied.

The forthcoming annual volume of 'Mineral Resources' published by the U. S. Geological Survey will contain a report of Mr. F. H. Oliphant on the production of petroleum in 1902. Seven facts with reference to the petroleum industry of 1902 are emphasized in this report. (1) The production of crude petroleum, which amounted to 88,757,395 barrels, was greater than that of any previous year. (2) The great increase was due principally to the development of an inferior

grade of petroleum in Texas, California and Louisiana. (3) There was a slight decrease in the production of the Appalachian field and a slight increase in the Lima-Indiana field, caused by the increased production in the state of Indiana. (4) The general average price paid for the crude petroleum produced was less than in any year since 1898, although the average price for the better grades produced in the Appalachian and the Lima-Indiana fields was four cents greater in 1902 than in 1901. (5) Stocks held in the Appalachian and Lima-Indiana fields showed a considerable decrease, principally in the Appalachian field. (6) The amount of refined and crude petroleum exported in 1902 was slightly less than that of 1901. There was an increase in the amount of crude petroleum and residuum exported, a decrease in illuminating petroleum, and an increase in lubricating pe-While the quantity of exports of all grades decreased only 1.37 per cent., the value decreased 5.62 per cent. The home consumption has been increasing more rapidly in the last three years than it did in former years. (7) No new pools were discovered in 1902. Indications point to the existence of a new source of petroleum supply in Alaska.

UNIVERSITY AND EDUCATIONAL NEWS.

The College of Pharmacy of the City of New York, established in 1831, and possessing a well-equipped building on Sixty-eighth St., has become a part of Columbia University. President Butler becomes president of the college, which, however, remains a separate corporation, its finances being managed by its own board of trustees, as is the case with Teachers College and Barnard College. It is also announced that Columbia University has received an additional sum of \$50,000, making \$350,000 in all, for Hartley Hall, and will proceed to erect this and another dormitory on the Amsterdam side of South Field.

Princeton University has received gifts of the value of \$35,000, including \$15,000 from Mr. Morris K. Jesup, to increase the endowment fund bearing his name.