

derive equal benefit from the meteorological service if inland stations are established and care is taken that the general population of the country are taught how to appreciate their work. Dr. Neumayer concluded with the sentence:—It is not only the duty of the State to found beneficial institutions and to organise them efficiently, it is also the duty of the State-citizen to learn to understand and to appreciate these institutions and to enter into this spirit of the work they are called upon to perform.

UNIVERSITY AND EDUCATIONAL INTELLIGENCE

ST. ANDREW'S.—The Senatus Academicus of St. Andrew's University have conferred the degree of LL.D. upon Mr. Henry Woodward, F.R.S., of the British Museum, and Dr. W. C. Macintosh, of Murthly, well known for his researches on British anellides.

THE YORKSHIRE COLLEGE, LEBDS.—Mr. Arnold Lupton, F.G.S., has been elected Instructor of Coal Mining, a department recently endowed by the Drapers' Company of London.

HIGHER EDUCATION OF WOMEN.—A public meeting composed for the most part of ladies, was held on the 6th instant in the Vestry Hall, Kensington, to inaugurate the system of lectures for the higher education of women, undertaken by the Principal and Professors of King's College with the co-operation of the Women's Educational Union. The object of the lectures, which commenced on the 11th instant, is to supplement and continue school education, and the instruction will have, as far as possible, reference to the examinations open to women in the University of London or elsewhere. The minimum age of students is fixed at 17, except in such cases as receive the special sanction of the committee. The classes will be at present held in the Vestry-hall, High Street, Kensington. The curriculum embraces Holy Scripture and Church history, logic and moral philosophy, modern and ancient history, the English, Latin, French, and German languages and literatures, mathematics, mechanics, and botany. Experimental physics, chemistry, and drawing will also be taught as soon as suitable arrangements can be made. Other classes, if necessary, will also be formed. The fees vary from 10s. 6d. to 2l. 2s. per term; for any four complete courses they will be 6l. 6s. For ladies engaged in teaching there will be a remission of 25 per cent.

PRIZES IN BOTANY FOR YOUNG WOMEN.—The Society of Apothecaries of London announce their intention to award prizes to young women students in botany for proficiency in that science, the prizes to be competed for under the following conditions:—The competition will be open to all young women who shall produce from their teachers certificates that their age at the time of examination does not exceed twenty years. The examination will be in general and not medical botany. It will consist of questions both written and oral, in—(1) Structural Botany; (2) Vegetable Physiology; (3) Description of Living Plants; (4) Systematic Botany; so far as these subjects are contained in Sir Joseph Hooker's "Science Primer—Botany," and in Prof. Oliver's "Lessons in Elementary Botany." The first examination will take place in London on the third Wednesday and the third Friday in June, 1878. Candidates will be required to send their names and their residences, at least fourteen days before the examination, to the Beadle, Apothecaries' Hall, Blackfriars, E.C., when they will receive tickets of admission to the examination.

FRANCE.—M. Bardoux, the French Minister of Public Instruction has taken preliminary steps for organising at Paris on the occasion of the Universal Exhibition, a great congress of schoolmasters. A delegate from each district will be sent by his fellow-teachers. Not less than 4,000 are expected to be present.

M. Bardoux has again taken up in the French Chamber the proposed erection of new schools in France. M. Waddington was the originator of the scheme. It is intended to build no less than 17,320 new school-houses, and purchase, enlarge, or restore 12,000 others.

SCIENTIFIC SERIALS

Verhandlungen der k.k. zoologisch-botanischen Gesellschaft in Wien (vol. i., 1877).—This volume contains the continuations of, and additions to, several important papers commenced in the

volumes for previous years. We mention particularly the mycological researches by Herr Schulzer von Müggenburg.—The other papers, of which some are very elaborate, are:—On *Cecidomyiidae*, by Dr. Franz Löw.—On the Diptera genus *Medeterus*, Fischer, by F. Kowarz.—On the fungus flora of Vienna, by W. Voss.—On some spiders from Madagascar, by Count E. Keyserling.—On some American spider genera from the families *Pholcoidee*, *Scytodoidee*, and *Dysderoidee*, by the same.—On the *Holothuria* fauna of the Mediterranean, by Dr. Emil von Marenzeller.—On *Psyllodee*, by Dr. Franz Löw.—On the *Chalcididae* genus *Olinx*, by Dr. Gustav Mayr.—Coleopteron, species novae, by E. Reitter.—On the passage of *Pastor roseus* (Temm.) through Austria, Hungary, and the neighbouring countries in 1875, by V. von Tschusi.—Ornithological notes, by B. P. Hanf.—On the flora of Southern Istria, by I. Freyn.—On the lepidoptera fauna of the Dolomite district, by I. Mann and A. Rogenhofer.—On the coleoptera fauna of Central Africa, by P. V. Gredler.—The volume concludes with an interesting description of the piscicultural establishment of Herr A. Fruwirth at Freiland, near St. Pölten (Lower Austria), by Dr. E. von Marenzeller.

Memorie della Società degli Spettroscopisti Italiani,* May, 1877.—A note on the solar eruptions during 1876, by Prof. Tacchini. Number of days of observation, 106; number of eruptions, 9, two on eastern limb and 7 on western limb.—Note by the same author on the present solar phenomena as compared with those during the maximum spot period; the number of eruptions observed at Palermo in 1871 were 97, while only one was seen in the first four months of this year.—Letter from Father Secchi to Prof. Tacchini on the above subject, also a letter between the same persons relative to Winnecke's comet.—Drawings of solar prominences for January and February, 1876, accompany this number.

June.—Note on a water-prism, by Father Secchi. Path of solar protuberance observed at Rome in April, 1877; same for May.—Note by Prof. Tacchini, on a metallic solar eruption seen in June last; the following lines were visible in the spectrum: b^1 , b^2 , b^3 , b^4 , 14744 , $4923A$, $5017A$, sodium, $5369A$.

July.—Continuation of the above note.—Note by Prof. Millosevich, on the contact of Mercury with the sun's chromosphere on May 6, 1878.—Drawings of the chromosphere for the months of March, April, and May, 1876, accompany this number.

August.—Note on the zodiacal light, by Prof. Serpieri.—Announcement of the death of Eduardo Heis.—Description of a new form of gravity escapement, by Prof. Young.—The spectroscopic drawings of the chromosphere for June and July, 1876, accompany this number.

September.—A paper on the discovery of oxygen in the sun by photography, and a new theory of the solar spectrum, by Prof. H. Draper. [This discovery, and all matter relating thereto, have already been fully reported in our columns.]—Table of solar protuberances observed at Rome in June, 1877.—Table of solar spots seen at Palermo in July and August, 1877. Four maps, together with a preface by Prof. Heis explaining them; the maps are of a portion of the heavens adjoining the ecliptic, and show stars down to the fifth magnitude, and they are for use in determining the position of the zodiacal light.

Journal de Physique, January.—On the employment of rotating discs for the study of coloured luminous sensations, by M. Rosentieh.—On the use of the radiometer as an apparatus of demonstration, by M. Violle.—Rheostatic machine, by M. Planté.—Experimental researches on the interferences of light, by M. Righi.

SOCIETIES AND ACADEMIES

LONDON

Royal Society, January 10.—"On the Structure and Development of the Skull in the Common Snake (*Tropidonotus natrix*)," by W. K. Parker, F.R.S.

"Observations on the Nervous System of *Aurelia aurita*," by Edward Albert Schäfer, Assistant-Professor of Physiology in University College, London. Communicated by W. Sharpey, M.D., LL.D., F.R.S.

January 24.—The Cortical Lamination of the Motor Area of the Brain," by Bevan Lewis, F.R.M.S., Pathologist and Assist. Med. Officer to the West Riding Asylum, and Henry Clarke, L.R.C.P. Lond., Med. Officer to the West Riding Prison.