

and furniture. The building will be in the form of a double quadrangle, 510 feet from east to west, and 350 feet from north to south. The main buildings will be five storeys in height, and there will be cloisters 10 feet in width on two sides of each quadrangle. The style is to be that known as French Renaissance, and will be carried out in Portland stone and red brick. The object and scope of the college have been the subject of great consideration, and Mr. Holloway has had the advice and assistance of a large number of persons interested in the education of women. The proposed constitution of the college, to be embodied in a trust-deed, will, among other things, set forth that its object is to afford the best education suitable for women of the middle and upper middle classes, and it is intended to be mainly self-supporting. The trustees are to be a corporate body with perpetual succession, and to have all the usual powers and privileges. The governing body will consist of twenty-one persons, to be appointed partly by the University of London and partly by the Corporation of London, and it is stipulated that a certain portion shall always be women. Religious opinions are not in any way to affect the qualification for a governor. It is the founder's desire that power by Act of Parliament, Royal Charter, or otherwise, should be eventually sought to enable the college to confer degrees, after due examination, and that until such power is obtained the students shall qualify themselves to pass the women's examination of the London University, or any examination of a similar or higher character which may be open to women at any of the existing universities of the United Kingdom. The curriculum shall not be restricted to subjects enjoined by any existing university. Instead of being regulated by the traditions and methods of former ages, the system of education should be mainly founded on studies and sciences which the experience of modern times has shown to be most valuable and as best adapted for the intellectual and social requirements of students. The governors will, therefore, be empowered to provide instruction in any subject or branch of knowledge which shall appear to them from time to time most suitable for the education of women; and the curriculum of the college will not discourage students who may desire a liberal education apart from the Latin and Greek languages. Proficiency in classics is not to entitle students to rewards of merit over others equally proficient in other branches of knowledge. It is intended to provide twenty founder's scholarships of the value of 40*l.* each, tenable for not more than two years in the college. No professor will be required to submit to any test concerning his or her religious opinion, and denominational theology is not to be taught. The principal of the college must be a lady, and duly qualified lady physicians and surgeons are to be resident in the college. Mr. Holloway has determined to personally superintend the erection of the building, and has agreed to provide an endowment fund of 100,000*l.*, in addition to any fund that may be derived from the sale of such portion of the Mount Lee estate as may not be required for the purposes of the college.

THE following is the list of candidates successful in the competition for the Whitworth Scholarships, 1879, in connection with the Science and Art Department:—John Hardisty, engineer; George Harrison, millwright; Edward Shaw, engineer apprentice; John A. Simpson, engineer; John W. Geddes, mechanic; Sydney J. Harris, engine fitter; Thomas E. Sackfield, mechanic; John A. Brodie, engineer apprentice. As the result of the final competition of scholars appointed in 1876, Mr. Henry S. H. Shaw has received the first prize of 200*l.*, and Mr. Jerdan Nichols the second of 100*l.*

THE first Siberian university at Tomsk will be definitely opened for the term of 1879-80. The Czarewitsch has signified his intention of being present at the inauguration.

FROM a report which has been sent us of the awards made at the conclusion of the session of the Johns Hopkins University, we notice that out of twenty Fellows appointed for 1879-80, twelve were in physical and biological science, all of them from other colleges than the Johns Hopkins, one of them being from the University of Tokio, Japan. The public spirit of the president and professors is shown in the fact that they have subscribed 500 dollars to be divided as scholarships to two meritorious students next year. In consideration of marked ability in the study of mathematics exemplified during a year's residence in Baltimore and previously, the trustees have invited Miss Christine Ladd to continue her mathematical studies in this university, and have voted that she may receive an honorary stipend, equal to that bestowed upon those who are appointed to fellowships. The trustees promised their aid to a specified

amount for the encouragement of a journal of philology, to be published under the editorial control of Prof. Gildersleeve. This will be the fourth serial encouraged by the trustees—the others being the *Journal of Mathematics*, under Prof. Sylvester; the *Journal of Chemistry*, under Prof. Remsen; the *Biological Papers*, under Prof. Martin. The *Chesapeake Zoological Papers*, edited by Dr. Brooks, were published at the cost of a few liberal citizens of Baltimore. Arrangements have been matured for the continuance of the Chesapeake Zoological Laboratory during the ensuing year. The United States Fish Commission, under Prof. S. F. Baird, and the Maryland Fish Commission, under Major T. B. Ferguson, co-operate in this laboratory with the Johns Hopkins University.

SOCIETIES AND ACADEMIES

PARIS

Academy of Sciences, August 4.—M. Daubrée in the chair. —The following papers were read:—On the recent tornado in the United States, and on records of Buffon's and Spallanzani's observations of whirlwinds, by M. Faye.—Remarks by M. Berthelot on M. Wurtz's paper on hydrate of chloral.—Secreting and circulating effects produced by the faradisation of the nerves which traverse the tympanum, by M. A. Vulpian.—Supplementary note on the theory of the pulsations of the heart and arteries and their registration, by M. Bouillaud.—On the origin of hail, and on some whirlwinds in which the air was drawn upwards, by M. Colladon.—On the theory of fertilisation, by M. Dechant.—Note on the rotation theory of heavenly bodies, by M. Mougeolle.—A number of communications relating to *Phylloxera vastatrix*, by MM. Gayon and Millardet, G. Foex, A. Quercy, Borel, and H. Barthélemy, were read.—Observations of the occultation of Antares on July 28 last, by C. Flammarion.—On the normal calorific spectrum of the sun, and of the incandescent platinum lamp (Bourbouze), by M. Mouton.—Some observations on M. Mouton's paper, by M. P. Thenard.—On the vibrations on the surface of liquids, by M. F. Lechat.—On Ampère's currents by M. Trève.—On magnets, by the same.—On the distillation of liquids under the influence of static electricity, by M. D. Gernez.—On the employment of the diffusion method in the study of the phenomena of dissociation, by M. L. Troost.—On the action of pyrogallate of potassium upon nitric oxide, by M. G. Lechartier.—On solid hydrocyanic acid, by MM. Lescœur and A. Rigaut.—On synthetic methylpropylcarbinol, by J. A. Le Bel.—On the non-existence of a soluble alcoholic ferment, by M. D. Cochin.—On the colouring matter of *Palmella cruenta*, by Mr. T. L. Phipson.—On the vital properties of cells and on the appearance of their nuclei after their death, by M. L. Ranvier.—On the lymphatics of the perichondrium, by Messrs. G. and Fr. E. Hoggan.—Note by M. L. Hugo, on a number representing the sphere among the ancients.

CONTENTS

PAGE

THE DISSOCIATION OF CHLORINE. By Prof. HENRY E. ARMSTRONG, F.R.S.	357
SCIENCE IN THE ARGENTINE REPUBLIC. By R. McLACHLAN, F.R.S.	358
MODERN METEOROLOGY	359
OUR BOOK SHELF:— Roland's "Farming for Pleasure and Profit".	360
LETTERS TO THE EDITOR:— Theory and Laws of the Microphone.—Prof. JULIAN OCHOROWICZ "The Rights of an Animal."—GEORGE J. ROMANIS, F.R.S.	361
A Suggestion on the Action of the Oblique Muscles of the Eye- ball.—EDWARD BELLAMY (<i>With Diagram</i>)	362
Natural History Notes from Burmah.—Prof. R. ROMANIS	362
Pigeons and Weather Warnings.—R.	363
Napoleon III. and the Nicaraguan Canal.—S. P. O.	363
Vitality of the Common Snail.—JAMES WARD	363
OUR ASTRONOMICAL COLUMN:— Variable Stars	363
The Minor Planets	363
The Satellites Minus and Hyperion	363
GEOGRAPHICAL NOTES	364
NORDENSKIÖLD'S ARCTIC EXPEDITION	365
SIR THOMAS MACLEAY, F.R.S.	365
A POINT AFFECTING THE DIFFUSION OF THE GASES OF THE ATMOSPHERE IN RELATION TO HEALTH. By S. TOLVER PRESTON	366
OBSERVATIONS ON THE PHYSICAL GEOGRAPHY AND GEOLOGY OF MADAGASCAR. By Rev. JAMES SIBREE, JUN. (<i>With Map</i>)	368
NOTES	372
ON SPHEROPYLLUM, ASTEROPHYLLITES, AND CALAMITES. By Prof. W. C. WILLIAMSON, F.R.S.	375
ANTHROPOLOGICAL INQUIRY IN FRANCE	376
VOLCANIC PHENOMENA AND EARTHQUAKES DURING 1878	378
UNIVERSITY AND EDUCATIONAL INTELLIGENCE	379
SOCIETIES AND ACADEMIES	380