tion was held on Monday at the Mercers' Hall, Sir S. Waterlow, M.P., one of the vice-presidents, in the chair. The most important points referred to in the report were the course taken in reference to the plans and estimates for the central institution, the settlement of the plans for the Technical College, and the technological examinations. With regard to the central institution the Board thought it ought not to authorise the entering into any contract beyond that for which they had the money in hand. The Chairman earnestly hoped that some of the companies that had not yet contributed would subscribe and enable the 20,000*l.* which was yet required to be made up. With reference to the Technical College at Finsbury there was no reason why the foundation-stone of the building should not be laid at an early date. He was glad to be able to state that the Drapers' Company had announced its intention of increasing its subscriptions from 2000*l.* to 4000*l.* per annum, the additional sum to be applied for the first two years towards the cost of building and fitting the Finsbury Technical College. The Vintners' Company had likewise signified its intention of contributing 250*l.* per annum, which showed its sympathy in the work. During the past year the income had been 13,549*l.*, and by the subscriptions received it was raised to 20,765*l.* for the year 1881. The chairman concluded by moving the adoption of the report. Mr. W. Spottiswoode seconded the motion, which was unanimously carried.

AT a meeting held at 68, Grosvenor Street, W., on February 18, Mr. George Palmer, M.P., in the chair, it was decided to raise a fund for the purpose of founding an annual prize or scholarship for mathematics in memory of Miss Ellen Watson, to be open for competition equally by men and women, at either University College or the London University. Miss Watson was the first woman to enter the classes of mathematics at University College, London. Her success as a student of mathematics was brilliant, and at the end of the session, in June, 1877, she gained the Mayer de Rothschild Exhibition, which is awarded annually to the most distinguished mathematical student of the year. After passing the 1st B.Sc. examination at the London University, in July, 1879, Miss Watson was obliged by failing health to leave England for Grahamstown, South Africa, where she died last December, aged twenty-four years. It may be added that the Ellen Watson scholarship, or prize, would be the first that has been founded in memory of a woman's mathematical genius and promise of scientific work. A second meeting to determine to which of the above institutions the scholarship should be offered, and to arrange other matters in connection with it, was held yesterday. Subscriptions will be gladly received and may be paid to Miss Alice M. Palmer, hon. sec., 68, Grosvenor Street, W., or to the account of the "Ellen Watson Fund," Messrs. Dimsdale and Co., Bankers, Cornhill, E.C.

PRINCE LEOPOLD will formally open the new University buildings at Nottingham on Thursday, June 30.

AT a meeting of the Council of the Wilts and Hants Agricultural College, at Downton, Salisbury, on Wednesday, it was unanimously resolved that the College should henceforth be called the College of Agriculture.

SCIENTIFIC SERIALS

Annalen der Physik und Chemie, No. 2.—On absorption of carbonic acid by wood charcoal, and its relation to pressure and temperature, by P. Chappuis.—On absorption of dark heat-rays in gases and vapours, by E. Lecher and J. Pernter.—New researches on Newton's rings (continued), by L. Sohncke and A. Wangerin.—On the discharge of electricity in rarefied gases (continued), by E. Goldstein.—On the question as to the nature of galvanic polarisation, by F. Exner.—On the same, by W. Beetz.—On excitation of electricity on contact of metals and gases, by F. Schulze-Berge.—Note on F. Exner's paper on the theory of Volta's fundamental experiment, by the same.

Bulletin de l'Academie Royale des Sciences (de Belgique), No. 1.—Geodetic junction of Spain and Algeria in 1879, by M. Perrier.—Fire-damp and atmospheric perturbations, by M. Cornet.—On the excretory apparatus of rhabdocœlan and dendrocœlan Turbellaria, by M. Fancotte.

Reale Istituto Lombardo di Scienze e Lettere. Rendiconti, vol. xiv., fasc. i. and ii.—Synoptic tables of results obtained in the Botanical Garden of Pavia University from cultivation of fifteen qualities of vine (Asiatic and American species and varieties), by S. Giacomo.—Contribution to the pathology of

voluntary muscles, by C. Golgi.—Contribution to the physiology of strychnic tetanus, by G. Ciniselli.—On Cremonian correspondences in the plane and in space, by C. F. Archieri.—The invasion by the *Peronospora viticola* in Italy, by S. Garovaglio.—On the damage which Peronospora may do in Italy in future, by V. Trevisan.—Statistical note on inflammation, on cancer, on cirrhosis, on tuberculosis, and on pyæmia, by G. Sangalli.—Proposed classification of the stature of the human body, by S. Zoja.

Atti della R. Accademia dei Lincei, vol. v. fasc. 2 (December 18, 1880).—Reports on prize competitions.

Fasc. 3 (January 2).—Contributions to the study of medullated nerve fibre and observations on amylaceous corpurcles in the brain and spinal cord, by A. Ceci.—On the bacillus of contagious mollusca, by M. Domenico.—On an equation between the partial derivatives of the inverse distances of three planets which attract one another, by Dr. G. Annibale.—Two small fossil hymenoptera of Sicilian amber, by G. Mulfatti.—On some rare species of Italian birds, by P. Luigi.—On Stilbite from Miage (Monte Bianco), by C. Alfonso.—On ollenite, an amphibolic rock of Mount Ollen, by the same.

Rivista Scientifico-Industriale, No. 2, January 31.—Coglievina's centigrade photometer, by R. Ferrini.

Memoirs of the St. Petersburg Society of Naturalists.—The last volume of the *Memoirs* of the St. Petersburg Society of Naturalists contains, besides the minutes of meetings of the Society, a most interesting paper by Prof. Kessler, on the "Law of Mutual Help," or sociability, which he proves to be the necessary complement of Darwin's law of the struggle for existence.—Ornithological observations in Transcaucasia, by M. Mikhailovsky.—Observations on the motions of diatomaceæ and their causes, by M. K. Merejkovsky.—Materials for the knowledge of the infusorial fauna of the Black Sea, by the same author.—A sketch of the flora of the province of Toula, by MM. D. Kojevnikoff and W. Tzinger, with a map.—Figures showing the quantities of gases in the blood and the quantities of urea and urine secreted by man under various conditions of life, by M. Shitz; and a paper on Medusæ, by M. K. Merejkovsky.

SOCIETIES AND ACADEMIES
LONDON

Royal Society, February 3.—Dr. Klein communicated a paper by John Haycraft, Senior Physiological Demonstrator in the University of Edinburgh, on the cause of the striation of voluntary muscular fibre. The author showed that all the cross striæ observed are due not to any differences of structure along the fibre, but simply to the shape of the fibre itself. The fibre is not a smooth cylinder, but is ampullated, alternate ridges and depressions occurring with beautiful regularity across its length. The striæ correspond with these in position, and are caused by their action on the transmitted light. He showed theoretically how this must be so, and illustrated it with a model of the same shape but of uniform structure, which exhibited down to the minutest detail the cross striæ seen in the muscle itself. He then showed the true explanation of the action of staining agents and of polarised light.

Mathematical Society, March 10.—S. Roberts, F.R.S., president, in the chair.—Prof. Cayley read a paper on the equilibrium and flexure of a skew surface.—Mr. Tucker communicated portions of papers, viz. :—An application of elliptic functions to the nodal cubic, by Mr. R. A. Roberts ; and note on Prof. C. S. Peirce's probability notation of 1867, by Mr. H. McColl.—Mr. J. W. L. Glaisher, F.R.S. (vice-president), having taken the chair, the president communicated the following direct analogue in space of the well-known plane theorem, "If we take an arbitrary point on each side of a triangle and describe a circle through each vertex and the two points on adjacent sides, the three circles meet in a point," viz. if we take an arbitrary point on each edge of a tetrahedron and describe a sphere through each vertex and the three points on adjacent edges, the four spheres meet in a point. The analogue was used as a point of departure for the study of four spheres meeting in a point.

Chemical Society, March 3.—Prof. Roscoe, president, in the chair.—The following papers were read :—On the action of Bacteria on various gases, by F. Hatton. An aqueous extract of flesh was used as the source of the Bacteria-containing liquid. A small flask half full of this liquid and half full of