

THE sixty-second session of the Bedford College for Women begins to-day. The college was founded in 1849 by Mrs. Elizabeth Jesser Reid, with the intention of offering to women the opportunity of a liberal education in the higher branches of knowledge. The number of students has increased steadily. We notice from the current calendar of the college that in 1889 the number of students was 145, in 1899 226, and in 1909 357. It will be remembered that the institution is now one of the constituent colleges of the University of London, and prepares its students for degrees in arts, science, and medicine. It is hoped that the new buildings of the college at York Gate, Regent's Park—which will provide accommodation for from 400 to 500 students, with residence for about a quarter of the number—will be ready for occupation in 1912.

THE new chemical and physiological laboratories for the University of Bristol are now complete, and were opened for students this week. The formal opening will take place on November 15 by Lord Winterstoke, Chancellor of the University. The new chemical department consists of thirty rooms and laboratories, and contains working places for two hundred students. The main laboratory is capable of accommodating eighty students working at one time. The laboratories have been wired for electrical experiments and so on, and heavy currents from the city supply are available for electro-metallurgical and physico-chemical investigations. Smaller laboratories, specially designed and equipped for physical, organic, biological, and photographic chemistry, have been provided. The department of physiology is arranged to accommodate fifty students. The main lecture theatre has seats for about 120, and is served by a preparation room, store, and museum, all on the same floor. Chemical physiology is taught in a special laboratory. Optical work, photography, and gas analysis are allotted a fine room, to which is attached a well-ventilated dark-room of ample size. Experimental physiology has its own laboratory, and histology is housed in one of the finest rooms in the building, with north light, weaving-shed roof, and a gallery over. There is also a demonstration theatre, built on the model of the operating theatre of a hospital. Research is amply provided for; there is a room for the preparation of electrometer and other records by photography, and a fine suite of rooms apart from the teaching laboratories. Incubator room, constant temperature room, and cold store are also provided. Altogether, between twenty and thirty rooms are comprised in the department, and they are thoroughly convenient and up-to-date. It is noteworthy that nearly 50,000l. has been expended on these additions.

SOCIETIES AND ACADEMIES.

PARIS.

Academy of Sciences, Sept ember 26.—M. Bouchard in the chair.—The president announced the death of Mme. Pasteur.—M. **Darboux** presented vol. xiv. of the *Travaux et Mémoires du Bureau international*, containing a full account of the measurements of the exact volume of the kilogram of water. Three different methods have been employed, and the mean of the closely concordant results gives 1.000027 cubic decimetres as the volume of the kilogram of water at 4° C. and under normal atmospheric pressure.—A. **Laveran**: The treatment of different trypanosomiasis by arsenic and antimony emetic. The compound used was obtained in large crystals by crystallising together under certain conditions aniline-arsenyl-tartrate and aniline-antimonyl-tartrate. Details of the methods and dosage are given. Fifteen guinea-pigs infected with *T. evansi*, *T. gambiense*, *T. dimorphon*, or by *T. congolense* were cured. In four of these cases there was a relapse, which was cured by a second treatment. The possibilities of application to the human subject are discussed.—R. **Bourgeois**: The comparison of two astronomical pendulums with the aid of electrical signals transmitted by a submarine cable of great length. A Thomson siphon recorder was modified in a manner to suit this work. The method will be used to determine the difference of time between Brest and Dakar, a distance of about 4500 kilometres.—A. **Demoulin**: The families of Lamé composed of surfaces

possessing singular points.—Gaston **Darboux**: Remarks on the preceding communication.—Carl **Störmer**: The canonical forms of the general equations of motion of a particle in a magnetic field and an electric field superposed.—H. **Truc** and C. **Fleig**: Experimental ocular action of the dust on tarred roads. Dust from tarred roads is shown experimentally to be capable of provoking much more serious eye troubles than dust from untreated roads, and the smaller the lapse of time since the road has been tarred the more serious are the lesions produced.—H. **Guillemard** and G. **Regnier**: Observations on animal calorimetry made on Mt. Blanc. Increase of altitude has no sensible effect on the body temperature, but there is a marked increase in the amount of heat evolved by the body as the altitude increases, amounting to more than 30 per cent. between Chamonix and the summit of Mt. Blanc. A discussion of the results leads to the conclusion that protection against the cold is the best way of combating mountain sickness.—Charles **Nicolle** and E. **Conseil**: Properties of the serum of convalescents and animals cured of exanthematic typhus. Serum collected from the ninth to the fourteenth day of convalescence has well-marked preventive and curative properties against the disease. The curative effects disappear if the serum is collected later.—Joseph **Roussel**: The mode of formation of tricalcium phosphate in Algeria and Tunis.

CONTENTS.

	PAGE
The Mammals of Manitoba. By R. L.	423
The Care of Trees	423
The Making of Beet-sugar. By C. S.	424
Methods of Rock-analysis. By A. H.	425
New Geographical Books. By B. C. W.	426
Our Book Shelf	427
Letters to the Editor:—	
The Fur Trade.—Prof. T. D. A. Cockerell	428
An Attempt to Determine the Supposed Change in Weight Accompanying the Radio-active Disintegration of Radium.—Dr. Bertram D. Steele	428
The Habits and Distribution of Scutigera in India.—A. D. Imms	429
Fire Tests with Textiles.—Leonard Parry	429
Customs at Holy Wells.—Zorah Godden	429
A Meteorological Phenomenon.—Rev. R. Ashington Bullen	429
Radium Standards and Nomenclature.—Prof. E. Rutherford, F.R.S.	430
Heredity at the Church Congress	431
Cocos-Keeling Atoll. (Illustrated.)	432
Researches in Stellar Parallax. By W. E. P.	433
The Perfilograph. By A. M. F.	434
Notes	435
Our Astronomical Column:—	
Astronomical Occurrences in October	438
A Bright Meteor	438
Rediscovery of Brooks's Periodical Comet (1889 V.), 1910d	438
The Luminosity of Comets	439
Coloured Stars between the Pole and 60° N. Declination	439
Observations of the Companion of Sirius	439
The Perseid Shower, 1910	439
A Modified Method for Nadir Observations	439
A New Micrometer	439
The Mean Parallax of Tenth-magnitude Stars	439
Halley Meteors	439
The Autumn Meeting of the Iron and Steel Institute	440
The Geological Congress at Stockholm	440
The Thomas Young Oration	443
The Polar Eskimos	443
The British Association at Sheffield.	
Section I.—Physiology.—Opening Address by Prof. A. B. Macallum, M.A., M.B., Ph.D., Sc.D., LL.D., F.R.S., President of the Section	444
Section K.—Botany.—Opening Address by Prof. James W. H. Trail, M.A., M.D., F.R.S., President of the Section	452
University and Educational Intelligence	455
Societies and Academies	456