

WE learn from a memorandum that has just reached us that the number of students who attended the City and Guilds of London Institute Central Technical College last session was 245. Of these 220 were following the Diploma Course, eighty-eight attending the First Year Course, seventy-eight the second, and fifty-seven the third. Twenty-five other students were either engaged in research work or were following a special course. During the past year the council has conferred the diploma of Fellowship of the City and Guilds of London Institute upon two of the past students: Mr. W. J. Pope and Mr. A. E. Childs. Siemens Medals were awarded to Mr. F. E. Whittle and Mr. F. C. Hounsfield. Mr. T. M. Lowry and Mr. E. C. Jee, were successful in gaining the D.Sc. degree of the University of London for research work done in the Chemical Department of the College. Twelve students of the College were successful in passing the intermediate B.Sc. examination of the London University. In addition to the students admitted on the results of the Matriculation examination, several others have been admitted to special courses of instruction, and the number in the College at the commencement of the new session will be about 260. Those in special courses number 20. As built the College was intended to accommodate only 200 students. To make adequate provision for Electrical Engineering, a large portion of the basement floor in the adjoining new building of the School of Art Needlework is to be used. The suite of rooms now occupied by the Technological Examinations Department will also become available for teaching purposes, as more extensive quarters are to be found for the Examinations Department in the new building. In connection with this institution, our readers may be referred to the address delivered to the students by Sir Andrew Noble, K.C.B., F.R.S., on Tuesday last (see p. 551 of the present issue).

WHEN the history of education in rural districts comes to be written, the school of science established by the united efforts of the Countess of Warwick and Prof. Meldola, at Bigods, near Dunmow, in Essex, will be given an important place in it. The claims of science to form a part of every national system of education are becoming more and more recognised in our cities, but the forward movement has not been much felt in rural districts, hence the school at Bigods is of the nature of an experiment, and much depends upon the success attained. The curriculum followed in the school meets the requirements of modern education in a most efficient way. The school is a continuation or secondary one in which the ordinary "humanitarian" subjects are by no means neglected, but are carried to higher stages. Modern languages are included, and grammar, geography and history find their places. But the noteworthy characteristic of the school lies in the fact that students devote fifteen hours a week to science, which is not taught in the old-fashioned way, by means of books and blackboard and chalk, but by real work and by observations carried on by the pupils themselves in the laboratories and in the fields. The reasoning faculty is developed by scientific methods at the very commencement of the pupil's education at the school; and students who stay at Bigods for three or four years will have acquired knowledge which will be of the highest value in after life, whether they pass into an agricultural college or enter at once into rural or other industries. For the sake of British agriculture, it is to be hoped that parents in East Anglia will appreciate the efforts being made at Bigods to provide a system of education which will assist both individual and national progress.

## SOCIETIES AND ACADEMIES.

### PARIS.

**Academy of Sciences, September 25.**—M. Maurice Lévy in the chair.—Studies on trimethylene, by M. Berthelot. Preliminary experiments were made on the preparation of trimethylene in the pure state, free from propylene, and the gas obtained, believed to be pure, was characterised by its slow reaction with bromine. Propyl alcohol dropped upon hot zinc chloride gives propylene mixed with hydrogen and propane, but almost free from trimethylene; isopropyl alcohol behaves similarly, and the substitution of strong sulphuric acid for the zinc chloride does not result in the formation of any trimethylene.—On the Neomylon, by M. Albert Gaudry. An account of the discovery of fossil remains in a cave in Terra del Fuego by Dr. Otto Nordenskjöld, the chief being the

skin of a large animal resembling the Mylon, and which has been named Neomylon by M. Ameghino.—An account of the ceremony organised at Como to celebrate the discovery of the galvanic battery by Volta.—Observations of the sun made at the Observatory of Lyons with the 16 cm. Brunner equatorial during the first quarter of 1899, by M. J. Guillaume. The results are expressed in three tables giving the number of spots, their distribution in latitude, and the distribution in latitude of the facule.—A comparison of the times obtained for the contacts of partial eclipses of the sun by direct observation and by measurements of the lengths of common chord, by M. Ch. André.—On fixed transformation points, by M. H. Le Chatelier.—On the diurnal variation of atmospheric electricity, by M. A. B. Chauveau. From the results of observations made at the summit of the Eifel Tower, it is found that the true law of variation is given by a simple oscillation with a maximum in the day time, and a very constant minimum at 4 to 5 a.m. The more complicated curve obtained by observations in an ordinary building are probably due to the influence of water vapour.—On a particular mode of reproduction of appendices of insects in course of regeneration after artificial section, by M. Edmond Bordage.—On the lateral cephalic organs in *Glomeris*, by M. N. de Zograf.—Some phenomena of cellular disorganisation, by M. Vital Boulet. The osmotic pressure in the cells of a leaf severed from the plant and left in the same water as that in which the original plant was growing was found to regularly increase from 2.2 on the first day to over 6.0 on the twenty-second day.—On the formation of secreting canals in the seeds of certain species of *Garcinia* and *Allanblackia*, by M. Édouard Heckel.

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