

*Students in Evening Schools.*

Recognised schools or centres ... ..	7,422
Students who attended any time during the year :—	
(i) Age at date of first registration for the session :—	
Under 12 years of age ... ..	735
12 and under 15 years of age ... ..	151,330
15 " 18 " " ... ..	214,569
18 " 21 " " ... ..	118,682
21 years of age and over ... ..	222,943
(ii) Sex :—	
Boys and men ... ..	414,417
Girls and women ... ..	293,842
Total ... ..	708,259

In this large number of evening students, nearly one-third of whom are twenty-one years of age or above, and most of whom attend the classes after a day's labour in workshop or office, we have a volunteer army from which many captains of industry and leaders of thought have been selected. It is true that some of the instruction given in these evening schools and classes is not far removed from that of continuation schools, but there is much of a higher standard, and in the combination of practical experience in the works during the day with theoretical knowledge gained at night we have a means of technical education which has proved successful in the past, and from which more may be expected in the future.

R. A. G.

*UNIVERSITY AND EDUCATIONAL INTELLIGENCE.*

DR. ARTHUR I. KENDALL, instructor in preventive medicine and hygiene at the Harvard Medical School, has been appointed to the chair of bacteriology at Northwestern University, Evanston, Ill. This appointment will give him the oversight of the researches in the problem of tuberculosis which have recently been endowed by Mr. James A. Patten at a cost of 50,000l.

THE Calendar of the Royal Technical College, Glasgow, for the one hundred and seventeenth session, 1912-1913, has just been received. It contains much information as to the courses of work prescribed for candidates for the college diploma, as well as other details. We notice that the governors contemplate the extension and modification of the diploma courses in mechanical, electrical, and civil engineering, mining, and naval architecture. The whole building of the college extends over seven acres of floor space, and forms the largest structure in Great Britain devoted to education. With its equipment it has cost about 400,000l.

In the Calendar of the Edinburgh and East of Scotland College of Agriculture for 1912-1913, which has just been issued, full particulars are given of the various courses that may be taken at the Central Institution in the departments of agriculture, horticulture, and forestry. The new arrangements in forestry will come into operation next session, and in this subject a new class will be commenced, the syllabus of which has been laid down with a view to meet the needs of those who desire a general knowledge of forestry from the practical point of view. It is intended that this side will be specially emphasised by work in the forest garden. The calendar contains full details of the large amount of extension work carried on in the counties of the college area. The numerous lecturers and instructresses engaged in this department take to the doors of the rural population teaching in many subjects bearing on country life.

THE Board of Agriculture and Fisheries has awarded the following research scholarships in agricultural science:—A. W. Ashby, Oxford (economics of agriculture); W. Buddin, Cambridge (plant nutrition and soil problems); A. E. Cameron, Aberdeen (agricultural zoology); F. Cook, London (animal nutrition); A. Cunningham, Edinburgh (bacteriology); J. Davidson, Liverpool (agricultural zoology); F. C. Minett, London (animal pathology); P. A. Murphy, Dublin (plant pathology); M. S. Pease, Cambridge (genetics); W. W. P. Pittom, Cambridge (animal nutrition); J. A. Prescott, Manchester (plant nutrition and soil problems); F. Summers, London and Liverpool (plant physiology). The scholarships, which are of the annual value of 150l., and are tenable for three years, have been established in connection with the scheme for the promotion of scientific research in agriculture, for the purposes of which the Treasury has sanctioned a grant to the Board from the Development Fund, and they are designed to provide for the training of promising students under suitable supervision with a view to enable them to contribute to the development of agricultural science.

*SOCIETIES AND ACADEMIES.*

## PARIS.

Academy of Sciences, August 19.—M. Bassot in the chair.—A. Lacroix: The gem-bearing pegmatites of Madagascar. These pegmatites fall into two groups: potassium pegmatites and sodium and lithium pegmatites. The first contains beryls, and also rare minerals containing titanium, niobium, tantalum, uranium (radio-active), cerium, and yttrium; the latter is characterised by numerous lithium minerals, tourmalines of various colours, beryls, red triphane (lunzite), and also minerals containing boron and fluorine.—Richard Birkeland: The trajectory of an electrified particle in a magnetic field.—L. Wertenstein: The absorption of radio-active projections and the ionisation which they produce.—S. Ratner: The mobilities of the radio-active atoms in gases. A study of the mobilities of the atoms of radium B, projected by radium A, Rutherford's method of the alternating field being employed in the measurements.—Jean Bielecki and Victor Henri: The quantitative study of the absorption of the ultra-violet rays by alcohols, acids, esters, aldehydes, and ketones of the fatty series. The photometry of the spectrograms has been utilised as the basis of a quantitative study of the absorption in the ultra-violet. The absorption increases as the molecule becomes more complex. The acid group (CO.OH) possesses a very great absorptive capacity. Other groups possess specific absorption characteristics.—M. Portevin: The effect of tempering upon the electrical resistance of bronzes and brasses.—Georges Baume and F. Louis Perrot: The atomic weight of chlorine. Gaseous hydrochloric acid was allowed to come in contact with liquid ammonia, and the weight of gas necessary to form neutral ammonium chloride determined. Taking  $N=14\cdot009$ , the results lead to  $Cl=35\cdot465$ , practically identical with the international value  $35\cdot460$ .—E. C. Teodoresco: The presence of a nuclease in *Algæ*.

## CAPE TOWN.

Royal Society of South Africa, July 17.—J. Medley Wood: Addendum to revised list of the flora of Natal.—J. Hewitt and Hon. P. A. Methuen: Descriptions of some new Batrachia and Lacertilia from South Africa.—Miss L. Currlé: Notes on Namaqualand Bushmen. The account is taken from a gentleman whose early life afforded him ample facilities for obtaining a clear insight into the characteristics of Cape Colony Bushmen. Their wandering life is noted, also their mode

of existence; the K'mè, by means of which they procure white ants; their dress and adornments. Nothing comes amiss to them, eating hyæna, jackal, reptiles, and worms. Huts they never build, making only a frail shelter of grass and twigs. The poison they use for their arrows consists of snake poison, and also of that of the large spiders reputed to be very venomous, mixed with the milky juice of a Euphorbia growing in the Langebergen. They practise witchcraft to remove illness, this being done in a very simple manner by the old women. They acknowledge no chief or leader, and are not polygamous, but they have no marriage ceremonies. They are extremely revengeful, killing even their own relations if necessary. They believe in resurrection, and bury the dead in a sitting position, so as to enable them to get up easily and walk to a certain place where there is plenty of wild honey and locusts. Those who have been quarrelsome and have behaved badly towards their friends during their lifetime would get common flies to eat as a punishment. The Bushmen believe that jackals, wild cats, &c., were formerly human beings transformed by witchcraft as punishment for evil doing.—Dr. J. R. Sutton: The physical significance of the mean diurnal curve of temperature. This paper discusses briefly the question whether hourly average temperatures have any great scientific value. The author comes to the conclusion that it is not unlikely that the mean diurnal curve of temperature is, for Kimberley, made up of at least three superimposed curves of the same period, which curves are proper, perhaps, to various outstanding types of weather.—Dr. J. R. Sutton: A note on the earthquakes of the South-African Table-land. Occasional shocks of earthquake are felt in South Africa. Four have occurred of sufficient intensity to be plainly felt since the observatory at Kenilworth (Kimberley) was established. The author directs attention to the fluctuations of barometric pressure which were in progress at the time of these shocks.

### BOOKS RECEIVED.

Kausale und konditionale Weltanschauung. By Max Verworn. Pp. ii+46. (Jena: Gustav Fischer.) 1 mark.  
 Das Tierreich. Edited by F. E. Schulze. 31 Lieferung, Crustacea, Ostracoda. By G. W. Müller. Pp. xxxiii+434. (Berlin: R. Friedländer & Sohn.) 32 marks.  
 Notes on Foundry Practice. By J. J. Morgan. Pp. viii+108. (London: C. Griffin and Co., Ltd.) 2s. 6d. net.  
 A Text-book of Rand Metallurgical Practice. By R. Stokes, J. E. Thomas, and others. Vol. ii. Pp. xxii+438. (London: C. Griffin and Co., Ltd.) 21s. net.  
 Campagne Arctique de 1907. By le Duc d'Orléans. Crustacés Malacostracés. By Dr. L. Stappers. Pp. vi+152+xii+xii+vii plates+ii maps. Bryozoaires. By O. Nordgaard. Pp. iii+43+map. Coelentérés du Fond. By Dr. H. Broch. Pp. ii+29+map. Annélides Polychètes. By Prof. F. Fauvel. Pp. iii+45+iv+i plate+i map. (Brussels: C. Bulens.)  
 Black's Sentinel Reader. Book iv. By Prof. E. E. Speight. Pp. x+210. Book v. By Prof. E. E. Speight. Pp. xii+239. (London: A. and C. Black.) 1s. 6d. each.  
 The Treatment of Tuberculosis by means of the Immune Substances (I.K.) Therapy. By W. H. Fearnis. Pp. xx+206. (London: John Murray.) 6s. net.  
 Naturwissenschaftliche Studien am Toten Meer und im Jordantal. By Prof. M. Blanckenhorn. Pp. vii+478. Berlin: R. Friedländer & Sohn.) 25 marks.

A Manual Flora of Egypt. By Dr. R. Muschler. Vol. i. Pp. xii+672. Vol. ii. Pp. 673-1312. (Berlin: R. Friedländer & Sohn.)

Axiom and Principles of the Science of Organisation. By M. Bruce-Williams. Second edition. Pp. 21+plates. (London: Association of Standardised Knowledge, Ltd.) 7s. 6d.

The Strategy of Nature. By M. Bruce-Williams. Pp. 60. (London: Association of Standardised Knowledge, Ltd.) 2s. 6d.

Die Feigenbäume Italiens und ihre Beziehungen zu einander. By Dr. R. Ravasini. Pp. 174+6. (Bern: M. Drechsel.) 11 marks.

Solar Physics Committee. Report of the Solar Eclipse Expedition to Vavau, Tonga Island, April 29, 1911. (Eastern date.) By Dr. W. J. S. Lockyer. Under the direction of Sir Norman Lockyer. Pp. iv+82+10 plates. (London: H.M. Stationery Office.) 6s.

The Evolution of Ethers and Ether Phenomena. By A. Dillks. Pp. 50. (Bridgwater: Coombs and Dillks.) 2s. 6d. net.

Fifth Scientific Report on the Investigations of the Imperial Cancer Research Fund. By Dr. E. F. Bashford. Pp. vi+94. (London: Taylor and Francis.) 5s.

Jahrbuch der Naturwissenschaften, 1911-1912. Edited by Dr. J. Plaszmann. Pp. xvi+452. (Freiburg and London: B. Herder.) 7s. 6d.

Dactylography, or the Study of Finger-prints. By H. Faulds. Pp. 127. (Halifax: Milner and Co.) 1s. net.

Reports of the Cambridge Anthropological Expedition to Torres Straits. Vol. iv. Arts and Crafts. Pp. xxiv+393+40 plates. (Cambridge: University Press.) 25s. net.

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