

A. S. P. Pattison; Sadoletto on Education, a translation of the *De pueris recte instituendis*, with notes and introduction, by Prof. E. T. Campagnac and K. Forbes. *Seeley, Service and Co., Ltd.*—Aircraft of To-Day. Lieut. C. C. Turner, illustrated; Marvels of Scientific Invention, T. W. Corbin, illustrated; Marvels of Aviation, Lieut. C. C. Turner, illustrated; War Inventions, and How they were Invented, C. R. Gibson, illustrated; The Wonders of the Submarine, T. W. Corbin, illustrated. *T. Fisher Unwin, Ltd.*—Essays: Scientific and Literary, Dr. A. E. Shipley, illustrated; Hausa Botanical Vocabulary, J. M. Dalziel.

UNIVERSITY AND EDUCATIONAL INTELLIGENCE.

LEEDS.—The urgency in the demand for the training of colour chemists and dyers has led to a reorganisation of this department of the university. The newly appointed head of the department is Mr. A. G. Perkin, F.R.S., who is assisted in the theoretical and practical teaching of colour chemistry by Dr. J. B. Oesch, formerly colour chemist in one of the chief Continental factories, whilst that of dyeing is under the special supervision of Mr. G. H. Frank, Mr. P. King, former chemist to Messrs. Courtaulds, Ltd., and Mr. A. E. Woodhead. In addition to systematic instruction in the above branches of technology, opportunities will be afforded to students of hearing special courses of lectures on "Cellulose" by Mr. C. F. Cross, on "The Distillation of Coal Tar" by Mr. H. P. Hird, and on "Colour in its Relation to Constitution" by Prof. E. R. Watson, of Dacca University.

At the request of British Dyes, Ltd., a laboratory has been set apart for the accommodation of a staff of chemists working on behalf of this firm, and will be exclusively in charge of a member of the university staff. The department is controlled by the Textile Industries and Dyeing Committee of the university, consisting of well-known representatives of both industries. The aim of the newly organised department is therefore to render service to the colour-making and dyeing industries by offering special training in these branches, whilst giving assistance to the enterprise promoted by Government money.

MR. E. A. WOODS, of New College, Oxford, has been awarded a Burney Yeo scholarship for 1916 at King's College Hospital Medical School.

MR. W. NEILSON JONES, late assistant-lecturer in botany at Bedford College for Women, N.W., has been appointed lecturer and head of the department in botany of the college.

THE sum of 300*l.* has been left to the Bristol General Hospital by Dr. W. Barrett Roue to found a scholarship for medical students of the hospital. The scholarship will be known as the "Barrett Roue Scholarship."

By the will of Sir James Sivewright, whose death was announced last week, legacies are bequeathed of 5000*l.* to Milne's Institution, Fochabers, and of 10,000*l.* to the University of Aberdeen, for the purpose of providing bursaries for students coming from the county of Morayshire.

THE resignation of Dr. R. Armstrong-Jones of the medical superintendency of the Claybury County Asylum was announced in our issue of August 10. To mark the esteem in which Dr. Armstrong-Jones is held by the staff of the asylum a silver tea and coffee service was presented to him by the staff on September 7. Dr. Armstrong-Jones will continue to lecture on mental diseases at St. Bartholomew's Hospital.

THE calendar for the current session of Birkbeck College, London, provides full particulars of the numerous day and evening classes in the subjects included in university faculties of arts, science, laws, and economics. The character of the work accomplished at this institution is well summarised in the final report of the Royal Commission on University Education in London (1913). The commissioners write: "We think that the original purpose of the founder of Birkbeck College and the excellent work that institution has done for the education of evening students who desire a university training mark it out as the natural seat of the constituent college in the faculties of arts and science for evening and other part-time students."

THE prospectus and time-table of the Belfast Municipal Technical Institute for the current session show convincingly the care and thoroughness with which the Technical Instruction Committee of the city has provided instruction in the principles of the arts and sciences which bear directly or indirectly upon the trades and industries of Belfast. The prospectus describing the work of the various departments runs to 384 closely printed pages, and every subject likely to be of service to the men and women engaged in the city's industries seems to be included in the time-table. The day technical college provides instruction in the science and technology of mechanical engineering, electrical engineering, the textile industries, and pure and applied chemistry. The Queen's University of Belfast and the Corporation of Belfast have entered into an agreement whereby the institute is recognised as a college in which students of the University may pursue a course of study qualifying for a degree of the University.

THOUGH the governors of the Royal Technical College, Glasgow, in view of the war, reserve full power to modify the arrangements announced in the recently published calendar for the session 1916-17, they again offer suitable educational facilities for those who wish to qualify themselves to enter upon one of the industrial professions, or to follow one of a number of selected trades. Complete courses of instruction are provided in mathematics, physics, chemistry, the principles of engineering, and other subjects, and in their application to industries and arts. The college is affiliated to the University of Glasgow, and candidates for the degree of B.Sc. in applied science may attend the necessary qualifying courses either in the University or in the college. The University of Edinburgh, too, has recognised the day classes of the college as qualifying for its degree in science. Numerous important firms have expressed their willingness to allow a selected number of their apprentices facilities for carrying out a scheme of college study conjoined with practical work, and some are willing to recognise the time spent in college as part of the apprenticeship period.

NOTHING perhaps could be more opportune to the cause of educational reconstruction than the recent publication by the Board of Education of the pamphlet entitled "The Admiralty Method of Training Dockyard Apprentices." By its system of training the Admiralty has succeeded in providing on one hand a body of leading technical experts in shipbuilding and engineering, and on the other a body of skilled workmen among whom the labour troubles that have so sorely affected employers elsewhere are practically unknown. Moreover, not only have the Admiralty and a considerable proportion of the larger shipbuilding and engineering firms throughout the country thus obtained their managers, designers, and other lower-grade officials, but the foundation of the

Navy of Japan was likewise laid by the products of this remarkable scheme. It is only natural, therefore, to inquire what are the fundamental characteristics of a system that has achieved such a unique success. The details are described in the pamphlet already mentioned; but it may be stated that the underlying principles consist in the adoption of a military form of organisation dependent almost exclusively upon individual merit, and a method of admission to its ranks as broad as democracy itself. Apprentices enter the Royal Dockyards as the result of a competitive examination, and they are compelled to continue their education by attending the Dockyard schools for twelve hours a week (two afternoons and three evenings), of which seven and a half hours are given by the Admiralty. Apprentices pay no fees for attending the schools, are provided with text-books and stationery free of cost, and are paid their usual wages for the afternoons on which they are at school. Perhaps the most astonishing feature of the whole system lies in the fact that this remarkably democratic scheme was quietly inaugurated in the least expected of our national institutions, and in a time when practically every other form of high professional training in the country was a class privilege. In a crisis like the present, therefore, when the whole of the virtues of a nation are powerless without outstanding leadership and genius, the moral is plain.

SOCIETIES AND ACADEMIES.

PARIS.

Academy of Sciences, September 4.—**M. Camille Jordan** in the chair.—**G. Bigourdan**: The conference of longitudes of 1634. A historical account of Morin's proposals.—**P. Zeeman**: Direct measurement of the axial velocity of water in Fizeau's experiment. The axial velocity was formerly determined by measuring the whole of the water passing through the tube, giving the mean velocity, and using the coefficient 0.84 to determine the axial velocity. As this coefficient is liable to uncertainty, a new alternative method is described, based on the introduction of very small air bubbles into the flow, and observing their trajectory by means of a rotating mirror. This has led to an unexpected result: the axial velocity varies in a complicated manner along the tube, so that there is no one axial velocity. The extreme variation is more than 10 per cent. Finally, a standardised Pitot tube was used to measure the velocities at a large number of points, with satisfactory results.—**J. Bougault**: The preparation of acylsemicarbazides, starting from the semicarbazones of α -ketonic acids. The oxidation of semicarbazones by iodine and sodium carbonate, by a quite unexpected reaction, gave a semicarbazide according to the equation, $R.C(CO_2H):N.NH.CO.NH_2 + O = CO_2 + R.CO.NH.NH.CO.NH_2$. The reaction is completed at the ordinary temperature, and its generality is shown by the examples given, in which R is $(C_6H_5.CH_2)$, $(C_6H_5.CH_2.CH_2)$, (C_6H_5) , and $((CH_3)_3.C)$. Of the four semicarbazides thus prepared, three are new.—**M. Lnizet**: Shooting star with a persistent luminous track. This meteor left a line of light which, after taking a wavy form, broke up into several fragments. Some of these combined together, taking the shape of an elongated bulb. This disappeared four minutes after the first disruption of the meteor.—**J. L. Dantan**: Observations on the larva of *Ostrea edulis*.—**M. Ranjard**: The first hundred cases of deafness treated by Marage's method at the *Centre de rééducation auditive* of the 8th district. The treatment of deafness by the method of Marage has been proved to be useful from the military, financial, and social points of view. Only 16 per cent. of the cases gave negative results

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under the treatment.—**J. Danysz**: The causes of the disturbances observed after the injection of products of the arsenobenzene group, and anaphylactic crises. A study of the conditions producing a precipitate in the veins after injection of arsenobenzene derivatives.—**L. Camus**: The preparation, properties, and advantages of a homogeneous vaccine.

BOOKS RECEIVED.

The Punjab, North-west Frontier Province, and Kashmir. By Sir J. Douie. Pp. xiv+373. (Cambridge: At the University Press.) 6s. net.
 Le Principe de Relativité. By E. M. Lémeray. Pp. 150. (Paris: Gauthier-Villars et Cie.) 3.75 francs.
 Cours d'Hydraulique. By Prof. J. Grialou. Pp. vi + 536. (Paris: Gauthier-Villars et Cie.) 20 francs.
 The Influence of Joy. By G. Van Ness Dearborn. Pp. xviii+223. (London: W. Heinemann.) 5s. net.
 Wratten Light Filters. Third edition. Pp. 72. (London: Kodak, Ltd.) 1s.
 The Photography of Coloured Objects. Second edition. Pp. 118. (London: Kodak, Ltd.) 1s.
 The Birds of Shakespeare. By Sir A. Geikie. Pp. x+121. (Glasgow: J. Maclehose and Sons.) 3s. 6d. net.
 Rev. William Hall's Visible Astronomical Compass. (London: J. D. Potter.) 1s. net.

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