

THE revised regulations relating to the subjects of examination for degrees in science at the University of London were published a few days ago. The regulations come into force at the beginning of 1899. The subjects for matriculation are Latin, English, mathematics, general elementary science (a new subject), and any one of the following languages or sciences:—Greek; French; German; Sanskrit; Arabic; Elementary Mechanics; Elementary Chemistry; Elementary Sound, Heat, and Light; Elementary Magnetism and Electricity; Elementary Botany. The general elementary science refers to the physical and chemical properties of matter, and the subject will be treated, wherever possible, from an experimental point of view, numerical examples or problems being restricted to very simple calculations. In the intermediate examination in science, candidates will only be required to take up three of the following subjects, viz.: (1) Pure and mixed mathematics; (2) experimental physics; (3) inorganic chemistry; and (4) botany and zoology. It will thus be possible for students of physical science to obtain a pass or take honours without studying the biological subjects; and, on the other hand, biological students will not need to take up mathematics. For the final B.Sc. examination, eight subjects are given, and candidates will be examined in any three of them. The subjects are:—Pure mathematics, mixed mathematics, experimental physics, chemistry, botany, zoology, animal physiology, geology, and physical geography. All the syllabuses have been revised, and their general tendency is towards a fuller practical knowledge of the subjects than has hitherto been expected from candidates.

PERHAPS the most critical period in the career of a man of science is when he has completed his college course but has not established himself sufficiently to obtain a post of any value. For the benefit of promising students thus situated, the municipality of Lyons has, it is stated, decided to make some provision. According to the announcement, the municipality proposes to lend to young men on leaving the University the funds necessary "for their first needs," on their simple word of honour to repay the sum advanced as soon as their pecuniary position allows them to do so. The *British Medical Journal*, in referring to this action, says:—A similar humane principle has, indeed long been acted upon by the Union des Anciens Étudiants de l'Université Libre de Brussels, which not only provides bursaries for deserving poor students, but in case of need procures employment for them after graduation, and in some cases a loan to start them in a profession. But this is the work of a private body, and the help that can be given is on a much smaller scale than the Lyons municipality proposes to give. The German Government, in certain cases, allows students to go through the University curriculum without payment of fees on their undertaking to discharge the liability when they are able to do so, and the old University of Paris was sometimes equally accommodating. It is often, however, even more difficult to find a market for academic and professional knowledge than to acquire that knowledge, and it is to such cases that the Lyons municipality proposes to lend the needed helping hand. The Fellowships of the older universities of this country have a distinct use for the same purpose, but they are for the few, and not always for those who most need them, nor perhaps for those who would make the best use of them. The Companies of the City of London seem not infrequently to find it difficult to dispose of their unearned increment in a really useful way. We venture to commend to them the example of the City of Lyons. We also congratulate the University of Lyons on its connection with a Corporation so enlightened and so anxious to further its interests.

SOCIETIES AND ACADEMIES.

PARIS.

Academy of Sciences, September 20.—M. A. Chatin in the chair.—On the hypocycloid with three inflections, by M. Paul Serret.—On oxycellulose, by M. Léo Vignon. This substance is prepared from cellulose by the action of hydrochloric acid and potassium chlorate, and its composition is expressed by the formula $C_{24}H_{39}O_{21}$. Its absorptive power for dyes is greater than that of cellulose. Oxycellulose behaves as an aldehyde towards Schiff's reagent.—On retamine, by MM. J. Battandier and Th. Malosse. The combination of this base with hydrobromic, sulphuric, and hydriodic acids have been prepared, the last-named being obtained in fine crystals, $C_{15}H_{26}N_2O \cdot 2HI$.—The influence of colouring matters upon the fermentation of highly coloured red wines, by MM. P. Carles and G. Nivière.

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The incomplete transformation of sugar into alcohol in highly coloured wines is not due to the acidity, but to the antiseptic action of the colouring matter itself.—On the function of *Pseudo-commis vitis* (Debray) in two diseases of the vine, by M. E. Roze.

BOOKS, PAMPHLETS, and SERIALS RECEIVED.

BOOKS.—Quantitative Chemical Analysis: Profs. Clowes and Coleman, 4th edition (Churchill).—City and Guilds of London Institute, Programme of Technological Examinations, Session 1897-98 (Whittaker).—Traité Élémentaire de Mécanique Chimique fondée sur la Thermodynamique: Prof. P. Dubem, Tome 2 (Paris, Hermann).—Glimpes into Plant Life: Mrs. Brightwen (Unwin).—Organic Chemistry for the Laboratory: Prof. W. A. Noyes (Easton, Pa., Chemical Publishing Company).—University College, Bristol, Calendar for the Session 1897-98 (Bristol, Arrowsmith).—Thermo-Geographical Studies: C. L. Madsen (Williams and Norgate).—International Congress on Technical Education. Report of the Proceedings of the Fourteenth Meeting, held in London June 1897 (Trounce).—An Introduction to Geology: Prof. W. B. Scott (Macmillan).—In Northern Spain: Dr. H. Gadow (Black).—Epping Forest: E. N. Buxton, 4th edition (Stanford).—Vorlesungen über Bakterien: Dr. A. Fischer (Jena, Fischer).—Among British Birds: O. A. J. Lee, Part 6 (Edinburgh, Douglas).—Diagrams illustrating Principles of Mining: F. T. Howard and F. W. Small (Chapman).—Elementary Practical Physiography (Section 1): J. Thornton (Longmans).—First Principles of Electricity and Magnetism: C. H. W. Biggs (Biggs).—University Geological Survey of Kansas, Vol. 2 (Topeka).—British Central Africa: Sir H. H. Johnston (Methuen).—Elementary Geometrical Statics: W. J. Dobbs (Macmillan).—The Story of Germ Life: H. W. Conn (Newnes).—The Mathematical Psychology of Grady and Boole: M. E. Boole (Sonnenschein).—Deductive Physics: F. J. Rogers (Ithaca, N.Y., Andrus).—Wild Neighbours: Outdoor Studies in the United States: E. Ingersoll (Macmillan).—Lectures on Physiology. 1st Series. On Animal Electricity: Dr. D. J. Waller (Longmans).—Les Choses Naturelles dans Homère: Dr. A. Kums (Anvers, Buschmann).—University College of North Wales, Calendar, 1897-98 (Manchester, J. E. Cornish).

PAMPHLETS.—Glacial Observations in the Umanak District, Greenland: Prof. G. H. Barton (Boston).—Theory of the Motion of the Moon: Dr. E. W. Brown (Royal Astronomical Society).—A Descriptive Catalogue of Useful Fibre Plants of the World: C. R. Dodge (Washington).—South American Trade of Baltimore: Dr. F. R. Rutter (Baltimore).—Some New Orchids from Sikkim: G. King and R. Pantling, Pp. 1 and 2 (Calcutta).—Materials for a Flora of the Malayan Peninsula: Dr. G. King, Nos. 8 and 9 (Calcutta).—Flax-growing: Major Fraser (Cable Company).—Les Forces de la Nature, &c.: T. L. Bienkowski (Léopold).—Kritik der Exakten Forschung, F. Ego (Leiden, Brill).—Reisen in den Mollukken, &c.: Prof. R. Martin, 1ste Liefg. (Leiden, Brill).—Mineral Statistics of the United Kingdom for the Year 1896 (Eyre and Spottiswoode).

SERIALS.—Psychological Review, September (Macmillan).—Journal of the Franklin Institute, September (Philadelphia).—Archives of the Roentgen Ray, July (Rebman).—American Journal of Science, September (New Haven).—Botanische Jahrbücher, Vierundzwanzigster Band, 2 Heft (Leipzig).—Physical Review, May-July (Macmillan).—Himmel und Erde, September (Berlin).—An Account of the Crustacea of Norway: G. O. Sars, Vol. 2, Parts 7 and 8 (Bergen).—L'Anthropologie, July and August (Paris).—Botanische Jahrbücher, Dreiundzwanzigster Band, v. Heft (Leipzig).—Proceedings of the Physical Society of London, September (Taylor).—Economic Journal, September (Macmillan).—Timehri, June (Stanford).—Zoologist, September (West).—Beiträge zur Psychologie und Philosophie, i. Band, 2 Heft (Leipzig).—Annalen der K.K. Universitäts-Sternwarte in Wien, x., xi. and xii. Band (Wien).—American Naturalist, September (Philadelphia).—Longman's Magazine, October (Longmans).—Sunday Magazine, October (Isbister).—Good Words, October (Isbister).—Annales de l'Observatoire Magnétique et Météorologique de l'Université Impériale à Odessa, 1896 (Odessa).—Memoirs and Proceedings of the Manchester Literary and Philosophical Society, Vol. 47, Part 4 (Manchester).—East Asia, No. 2 (Longton, Hughes).

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