

UNIVERSITY AND EDUCATIONAL INTELLIGENCE.

IN a letter to the *Times* of July 25, Mr. J. Parker Smith, M.P., describes the action that has been taken by Wykehamists with a view of commemorating the 500th anniversary of the opening of Winchester College by some permanent memorial. It was resolved last May that any fund which might be raised should be applied, first, to the restoration of the Founder's Chantry in the Cathedral, and secondly, to establishing a group of memorial buildings for the preservation of Wykehamical antiquities and the encouragement of art, archæology, natural history, and other sciences. Mr. Smith is the Chairman of the Executive Committee formed to administer the funds, and he says that the aims of the collection of archæology and art would be to illustrate and encourage the regular course of school study, and to furnish boys with interests outside that course. As to science, the idea is that the science collections should be a development of the present collection of the Natural History Society, which is good though not large. Mr. Smith thinks that special stress would doubtless be laid on the collection of local minerals, fauna, and flora. An attempt might also be made (as has been done at Harrow) to imitate the admirably instructive series of type forms exhibited in the Museum of Natural History at South Kensington; and it would be highly desirable to connect some moderate provision for elementary biological and botanical work with the natural history museum. Contributions to the fund will be received by the hon. secretary, Mr. Percy R. T. Toynbee, 109, Gloucester Terrace, Hyde Park, W.

THE sixth annual meeting of the National Association for the Promotion of Technical and Secondary Education was held on July 24. The Duke of Devonshire, who occupied the chair, said that public funds had been so rapidly secured for purposes of technical instruction that in some cases both county councils and municipal authorities were at a loss to decide upon the best means of administering them. He thought that it might be advisable for another Royal Commission to be appointed to inquire and report upon the progress made since 1881 in our own and in Continental countries. He was glad to see that the county councils of Staffordshire, Bedfordshire, and Manchester had sent their organising secretaries to the Continent to ascertain the latest developments of technical education abroad, and hoped that their example would be followed by others. Sir Henry Roscoe presented the report of the Society, and its adoption was moved by Mr. Mundella, and supported by Sir F. S. Powell. The officers of the Society were re-elected, with the addition of Sir W. Hart-Dyke as a vice-President, and Sir A. Rollit as a member of the executive committee.

As an outcome of the Technical Instruction Act, a scheme was promoted, and plans subsequently adopted, for the erection of technical schools at Maidstone, and the foundation stone of the new buildings has just been laid. The schools, which are commodious and well adapted for the purpose for which they will be used, have received the sanction of the Science and Art Department, and comprise, on the ground floor, science, lecture, and class rooms—the former capable of seating from sixty to eighty-four students—large lecture hall, and a library, together with physical and chemical laboratories, and a wood-carving workshop. On the first floor is the art school, with painting and modelling rooms, and a life studio. The basement is designed for an electric installation and stores. There being a large available space in the vicinity of the Maidstone Museum, the new buildings will form an adjunct, and both in the science and art departments direct communication may be had with that institution, which will thus mutually further the objects of the whole group.

THE following alterations, among others, have been introduced into the programme of technological examinations of the City and Guilds of London Institute for the session 1893-94. 1. An examination in cabinet-making and one in metal-work as a branch of manual training have been added. 2. The syllabus in boot and shoe manufacture has been divided into two grades, and separate practical tests are added to each grade. 3. The honours examination in photography is divided into two sections—(1) pure photography and (2) photo-mechanical processes—and the practical examination will be held in connection with the honours grades only. 4. The examination in cotton weaving in the ordinary

grade is divided into two sections—(1) plain weaving and (2) fancy weaving. 5. An examination preliminary to that in the ordinary grade will be held in electric lighting and in typography; and the examination in typography in the ordinary grade is divided into two sections. 6. The syllabus in silk weaving is enlarged so as to include ribband weaving. 7. The syllabuses in cloth weaving, flax spinning, hosiery, goldsmiths' work, brick-work, and in other subjects have been revised.

DR. DENDY, who for the past five years has held the position of demonstrator and assistant lecturer in biology in the University of Melbourne, has been appointed lecturer in biology at the Canterbury College, in the University of New Zealand, and will enter upon his duties there in February next. At present Dr. Dendy has sole charge of the biological department during the absence of Prof. Spencer in England.

MR. STANLEY DUNKERLY, M.Sc., has been appointed assistant-lecturer in engineering at the Walker Engineering Laboratories, University College, Liverpool.

LAST year the Staffordshire Technical Education Committee sent a number of teachers to Leipzig for a course of manual training in wood-work, iron-work, &c., at Dr. Gotze's Institute. The plan is again being followed this year, not only in Stafford but by other counties that have come to recognise its usefulness.

SCIENTIFIC SERIALS.

American Journal of Science, July.—The following are among the papers appearing in this number:—Studies of the phenomena of simultaneous contrast colour; and on a photometer for measuring the intensities of lights of different colours, by Alfred M. Mayer. The photometer was constructed in such a manner that the two tints to be compared were reduced to the same by the effects of contrast. Two discs, 13cm. in diameter, and having half of their surface removed in the shape of eight equidistant sectors, were made of thin Bristol board. Between them was placed a circle of white translucent tracing paper, and the discs were clamped together with the open sectors coinciding. The compound disc was mounted on a rotator and placed opposite two silvered mirrors inclined at an angle of 150°. The plane of the disc bisected the angle formed by the mirrors, so that the surfaces of both sides could be seen simultaneously. On rotating the disc while illuminated by daylight on the one side and by lamplight on the other, the side illuminated by daylight appeared white tinted with yellow, the other appeared white tinted with blue. A compound disc of red lead, of chrome yellow, and of white cardboard was placed on the daylight side, and an ultramarine, emerald green and white disc on the lamplight side. The greenish-blue produced by the latter combination made the light blue on the lamplight side appear faintly orange-yellow by contrast, while on the other side of the ring the orange-yellow disc had diminished the orange-yellow tint of the ring to the same feeble orange-yellow as seen on the other side. —On the ammonium-lead halides, by H. L. Wells and W. R. Johnston, and on the rubidium-lead halides, and a summary of the double halides of lead, by H. L. Wells. The authors are of opinion that not one of the many complicated ammonium-lead halides described by André really exists, but that the bodies obtained by him were mixtures. They themselves succeeded in preparing five salts representing three different proportions of ammonium and lead.—A one-volt standard cell, by Henry S. Carhart. This is a calomel and zinc chloride cell adjusted to an E.M.F. of one volt by a proper concentration of the zinc chloride solution. In the bottom of the tube is pure mercury in contact with platinum wire; then follows a paste of mercurous chloride and zinc chloride held in position by a cork diaphragm; and finally an amalgamated zinc rod immersed in zinc chloride solution of density 1.391 at 15°C. The cell has a small positive temperature coefficient.

SOCIETIES AND ACADEMIES.

LONDON.

Royal Society, June 8.—“The Influence of Exercise on the Interchange of the Respiratory Gases,” by W. Marcet, M.D., F.R.S.

The following is a summary of the contents of this paper:—1st. It was shown that in three persons out of four who