

ability can obtain a free-place in a secondary school; and the brilliant pupil can proceed from this stage to a higher by means of senior scholarships. We are reminded of the efficiency of this educational ladder by a return just made to the Somerset County Council by the County Education Committee. It appears from this report that twenty-five out of the thirty senior county scholars referred to in it were enabled by the Education Committee's system of scholarships to pass from a public elementary school to a university or a university college. Many of the senior scholars have had remarkably successful careers since their university courses, and some have reached exceptional distinction. The return as a whole is very gratifying, and the result is due in part at least to the committee's policy of awarding scholarships of any grade only when candidates of really satisfactory merit present themselves.

MR. J. A. PEASE, Minister of Education, last week received at the offices of the Board in Whitehall, an influential deputation representing the civic, commercial, and educational life of Nottingham, and headed by the Duke of Portland, on the subject of granting the status of a university to University College, Nottingham. His Grace gave a *résumé* of the history of the college, emphasising the fact that its work would bear favourable comparison with that of the majority of the modern universities in the country. The time had now come when steps should be taken to broaden the constitution of the college, to place it in the same position as other similar institutions, and to establish it definitely as the university centre of the east midlands, spreading the responsibility for its government and maintenance over the area which it serves. Principal Heaton dwelt upon the educational work in the college itself, especially its honours, post-graduate, and research work, upon the home the college afforded to local branches of various national associations (such as Classical, Historical, English, Workers' Educational, Chemical Industry), and on the increased facilities it now offered for social intercourse among the students. The patriotic side of its work was well represented by its efficient Officers Training Corps, and the fact that it was the first college in England to form for women students a voluntary-aid detachment of the Red Cross Association. In his reply, Mr. Pease said:—"I appreciate, and the Board of Education appreciates, the desires of the people of Nottingham, their ambition, their aspiration, in connection with the formation of what one might call a full-blown university. There are schools of thought which think provincial universities have already been established in enough centres up and down our land. I am not one of those who take this view; I believe that there is work for additional universities, and I for one would be very glad to see a provincial university which would meet all requirements in connection with the wants of the people in the east midland area."

#### SOCIETIES AND ACADEMIES.

##### EDINBURGH.

**Royal Society**, March 16.—Prof. James Geikie, president, in the chair.—Rev. T. R. Stebbing: Stalk-eyed Crustacea Malacostraca of the Scottish National Antarctic Expedition. Most of the fifty specimens described were collected by the *Scotia* at various stations during its voyage out and home, so that not more than ten could claim to be Antarctic or sub-Antarctic in their place of capture. Six new species were described, viz., *Coryrhynchus algicola*, *Eupagurus modicellus*, *Gennadas kempi*, *Nauticaricus brucei*, *Phye scotiae*, *P. rathbunae*.—D. W. Steuart and Ingvar Jørgensen: Note on the atmospheric electrical

potential gradient in industrial districts. The experiments were carried out in the neighbourhood of Leeds. The chief feature was the magnitude of the potential gradient under certain conditions.—J. B. Robertson: A chemical examination of the organic matter in oil-shales. Thirteen samples had been analysed. The carbon hydrogen ratio varied from 6 to 8, the lower ratio belonging to the shale yielding the larger amount of oil produced from a definite percentage of organic matter. The ratios were lower than that of ordinary bituminous coal. The organic matter, the main bulk of which was insoluble in organic solvents, was the product of the decomposition of vegetable substance (algæ, spores, etc.), similar in nature to what was found in peat and cannel coal.

##### PARIS.

**Academy of Sciences**, April 14.—M. P. Appell in the chair.—L. E. Bertin: Calculation of the increase of load or of velocity obtainable by increasing the dimensions of ships. A development of some consequences of a formula given in an earlier communication.—G. Gouy: The absorbing power of the electric arc for its own radiations. Confirming results previously obtained with flame spectra, a complete opacity of the vapour for the line it produces is never observed. The absorptive power is between 0.5 and 0.7 for the very strong lines, and less for the weaker lines.—A. Laveran: New facts tending to demonstrate that Mediterranean kala-azar is identical with the Indian kala-azar. Comparative inoculation experiments were carried out on monkeys, dogs, and mice. *Macacusan cynomolgus* rendered immune to the Mediterranean kala-azar is refractory to the Indian virus, whilst another animal of the same species, inoculated under the same conditions as the first, and serving as a control, rapidly contracted a fatal infection. From this it is concluded that the diseases are identical.—A. Bilimovitch: The canonical transformations of the equations of motion of a non-holonomical system.—L. Dunoyer and R. W. Wood: Photometry of the superficial resonance of sodium vapour under the stimulation of the D lines. Fineness of the resonance lines. The magnitude of the resonance lines was of the order of 0.03 Ångström.—Félix Ebrenhaft: Minimum quantities of electricity and the existence of quantities (quanta) smaller than the charge of an electron. The electrical charges of particles of mercury and gold in the colloidal state were determined, the spherical shape of the particles under examination being previously proved by the microscope. The minimum charge is not the charge of the electron.—Albert Perrier and H. Kamerlingh Onnes: The interpretation of the magnetic properties of mixtures of oxygen and nitrogen. The molecular field varies inversely as the third power of the mean distance of the oxygen molecules.—R. Fosse: The gravimetric quantitative analysis of urea. The urea is precipitated from an acetic acid solution with xanthidrol, and the compound weighed. Its composition is definite, and can be controlled by analysis.—J. Bergonié: The rational distribution of meals in man in the nyctemeral cycle. The best times are shown to be 7.30 a.m. for principal meal, 4.30 p.m., and 8 p.m.

#### BOOKS RECEIVED.

Echinoderma of the Indian Museum. Part viii. Echinoidea (1). By Prof. R. Koehler. Pp. 258+xx plates. (Calcutta: Indian Museum.) 20 rupees.  
Gibt es denkende Tiere? By Dr. S. v. Mádáy. Pp. xiv+461. (Leipzig and Berlin: W. Engelmann). 9.60 marks.  
Die wichtigsten Lagerstätten der "Nicht-Erze." By Dr. O. Stutzer. Zweiter Teil. Kohle (Allgemeine