

the action in the Department of Electrical Engineering, where Prof. A. Tustin has eliminated much detail from third- and fourth-year honours courses to make room for lectures and discussions on philosophy, literature, economics, and the impact of the natural sciences on society. The students are expected to write a substantial essay each session on some topic outside their professional syllabus, and a departmental library of books on non-technical subjects has been provided. The results so far appear highly satisfactory. The problem of staff salaries has been accentuated by the recommendations of the Spens Report. Whatever solution is found, the effect on university welfare will be profound. The problem is not one of standard of living but of competition for the best human material, without which the costly measures being taken to give university education to a greater proportion of the best of the youth of Great Britain will not produce the results they should.

University of Natal

THE University of Natal is celebrating at Pietermaritzburg on March 15 and Durban on March 19 the granting of a charter to the University which became effective at the beginning of this year. Sir Raymond Priestley, vice-chancellor of the University of Birmingham, Lord Eustace Percy, vice-chancellor of the University of Durham, and Prof. J. Dover Wilson, formerly regius professor of rhetoric and English literature in the University of Edinburgh, are visiting South Africa for these celebrations. They are travelling under the Commonwealth University Interchange Scheme initiated by the British Council as a result of recommendations made at the Congress of Universities of the British Commonwealth last July. Under the scheme the Council will award travel grants to university teachers travelling on recognized study leave; distinguished scholars invited for short visits; and postgraduate research workers holding research grants. The grants are made on the recommendation of a committee representing the Association of Universities of the British Commonwealth, the Committee of Vice-Chancellors and Principals of the United Kingdom, and the Universities Advisory Committee of the British Council.

Exchequer Grants for Universities in Britain

SIR STAFFORD CRIPPS, Chancellor of the Exchequer, in a written answer in the House of Commons on March 1, stated: "I am providing £12,814,500 for recurrent grants to universities. This amount includes provision for the additional expenditure which universities will incur in bringing into operation the revised scales of payment for teachers in the medical and dental schools. . . . The progress of the universities' scheme for physical expansion necessitates an increase in the amount required for non-recurrent grants, and I am providing £4½ million for this purpose as against £2,600,000 this year."

Effects of the Mild Winter

THE unusually mild weather over the greater part of the winter of 1948-49 in England and Wales has not only produced many remarkably interesting phenological observations, but also substantially contradicted the various theories and averages upon which amateur and professional meteorological observers forecast a probably severe winter for this period. Indeed, one London wild-life quarterly produced in the winter of 1948-49 a paragraph: "Nature-

wise observers predict an unusually severe winter". Their reasons were: "(1) There has been an unusually heavy crop of wild berries. (2) Squirrels have been noticeably active in gathering and storing nuts. (3) Flocks of wild geese from Iceland and Russia have arrived earlier than usual. (4) Wild swans are arriving in considerable flocks. . . . (5) In the Highlands the deer have left their mountain fastnesses a month earlier. . . ." In each case the oft-quoted forecast had been disproved even so recently as the mild winter of 1947-48, which followed an abundant berry crop—the result of a previously good growing season. Very large flocks of pintail and wigeon have been recorded on the Cheshire Dee despite the mild winter.

January was free from the cold and snowy conditions usually prevailing at this time of the year. On January 24 a mallard duck was reported with a nest of four eggs in a hollow tree at Worcester College, Oxford, and it had increased its clutch to seven by January 27. In North Wales the lesser celandine was in flower from January 9 at Llanarmon, as was the water-crowfoot, and by the third week dog's mercury, hazel and barren strawberry were in flower. The coltsfoot was first reported flowering in Cheshire on January 16, compared with the thirty-five years average date of March 3. Hazel catkin flowers appeared seventeen days earlier than the thirty-five years average. The chiffchaff has been reported wintering in southern England. In Shropshire the chaffinch was first heard in song on January 31 compared with February 6 in 1948, February 5 in 1944, and February 7 in 1943. The Merseyside Naturalists' Association recorded forty species of plant in flower by March 1, 1949, compared with April 1, 1948.

The Eyasi Skull

THE June 1946 issue of the *Journal of the East Africa Natural History Society* contains two articles, one by Dr. J. S. H. Beakey entitled "Report on a visit to the site of the Eyasi skull found by Kohl-Larsen", and the other by W. H. Reeve on "A geological report on the site of Dr. Kohl-Larsen's discovery of a fossil human skull, Lake Eyasi, Tanganyika Territory". In the course of an expedition to the region of Lake Eyasi in Tanganyika Territory during 1934-36, Dr. Kohl-Larsen discovered there parts of three human skulls, together with some artefacts and fossil mammalian remains. The actual site is situated on the flats bordering the lake, and is approximately at the level to which the water rises during the wet seasons. The fossil human skull came from the so-called bone bed, a deposit of slightly consolidated sand. As the Eyasi deposits have not been disturbed, they must be subsequent to the earth movements which immediately followed the Middle Pleistocene in those regions. There seems, however, no reason, either on archaeological or geological grounds, to question their late Pleistocene age, a date assigned to them by Dr. Kohl-Larsen. It may be added that the Eyasi strata contain minerals often found in Olduvai Bed 5, which also belongs to the same period.

Archæology in the Vaal River Basin

THE Archaeological Survey of the Union of South Africa has recently published a pamphlet entitled "Early Man in the Vaal River Basin" (Archæological Series, No. 6. Pretoria: Government Printer, 1948. 5s.). This interesting paper includes an article by Prof. H. Breuil on the earlier stone-age finds in the

Vaal River area, a second by Dr. C. van Riet Lowe on the older gravels of the Vaal, their industrial contents and the relationships with successive pluvial and interpluvial periods, while a third, by Dr. A. L. du Toit, is a note on the older gravels of the Vaal between Barkley West and Windsorton. Much important work is being done just now in South Africa not only in correlating the various cultural stone-age levels with the successive climate changes, but also in the intensive typological and technological study of industries made mainly from non-flint material. The raw material occurs in large blocks; and the frequent occurrence in Stellenbosch industries of the so-called Clacton platform would seem to show that this method of breaking up large blocks of raw material is in no sense typical of any particular culture, but was used freely when fashioning a nucleus from large lumps of refractory material. The diagram correlating the various phases of the Stellenbosch culture and the middle and later stone ages with the climate changes will especially interest students and give rise to some earnest thought. Dr. du Toit's note is purely geological and is concerned with the actual formation of the various gravels. This series of pamphlets issued by the Survey is always interesting; but to those concerned with correlations and the earlier industries this number is of very considerable importance.

Mortality of Adult and Young Mallards

A RECENT examination by E. O. Höhn of the recovery of mallards (*Anas p. platyrhynchos*) ringed under the *British Birds* marking scheme shows an interesting difference in length of survival of birds ringed as adults as compared with those ringed as young (*British Birds*, 41, No. 8; August 1948). Ringing recoveries of 305 adult mallards showed that 65.3 per cent died during the first year after ringing, 23.9 per cent during the second year, 6.6 per cent during the third year and 4.2 per cent during subsequent years. The average length of further survival from the date of ringing was one year and two months. Of 828 mallards ringed as young, 89 per cent died during the first year after ringing, 9.6 per cent during the second year, 0.6 per cent during the third year and 0.8 per cent during succeeding years. The average period of survival was 4.5 months after ringing. The mortality recorded by Höhn is almost entirely due to shooting.

Photometric Elements of a Binary Star

A PAPER by M. L. Baglow (*Mon. Not. Roy. Ast. Soc.*, 108, No. 4; 1948) on "The Photometric Elements of *RS Sagittarii*" is based on R. O. Redman's observations of the star, a description of which has already been published (*Mon. Not. Roy. Ast. Soc.*, 105, 212; 1945). Redman's measurements were made photographically by the Fabry method and refer to an effective wave-length of 4400 Å; these are shown in two figures together with a theoretical curve for both minima, computed by Baglow. Tables were calculated for various degrees of darkening, utilizing those given by Russell and Shapley, and elements were finally computed for an assumed coefficient of limb-darkening u equal to 0.4. The spectral type of the brighter star is given as B5, but that of the fainter one has not yet been observed. For the purpose of calculating the correction for reflexion it was assumed to be of type A0; but until its spectrum has been observed the absolute dimensions of the system cannot be accurately determined,

nor can the observed ellipticity of the components be compared with theoretical expectations. Table 3 of the paper shows the dimensions of the system for three different assumptions of the mass ratio, 1.0, 0.5 and 0.2, leading to the radii of the relative orbits as 4.7, 7.0 and 14 million km., respectively. It is believed that *RS Sagittarii* is a normal eclipsing binary with a circular orbit, the secondary star being considerably less massive than the primary but comparable in size with it. Suitable spectroscopic observations of the system could greatly reduce the large uncertainties in the photometric results.

Board of Greenkeeping Research: St. Ives Station, Bingley

AT the annual meeting of the Board of Greenkeeping Research in Leeds on February 11, 1949, the director of the St. Ives Research Station, Mr. R. B. Dawson, presented his report on the Station's activities during 1948. In spite of a shortage of staff, the work has increased, and research has continued on many of the old experiments put down early in the Station's history. New work has been done on soil stabilization with bitumen, seeds mixtures, growth substances for the control of weeds, and worm control. The advisory work carried out during the year has been very heavy. Visits to subscribing clubs, the Station's postal advisory service and the number of samples from clubs which were handled by the laboratory, all showed substantial increases in the 1948 figures as compared with 1947. In addition to the pH, lime requirement and the phosphate status, the reports of the laboratory analyses of club samples now include the potash status. Golf clubs in Great Britain have continued their support, and there has been a marked increase in the support from municipalities and clubs. Educational work has been kept up in that many lectures have been given to outside bodies, and six courses of instruction for groundsmen have been arranged at the Station.

British Commonwealth Specialist Agricultural Conference in Australia

IN accordance with the resolution of the 1946 British Commonwealth Scientific Official Conference, a Specialist Conference in Agriculture will be held in Australia during August 22–September 15, 1949. The theme of the Conference is "Plant and Animal Nutrition in Relation to Soil and Climatic Factors", with emphasis on 'nutrition' interpreted broadly as well-being, and it is intended that the meeting shall consist of informal discussions between workers actively engaged in this field. The Conference, which is being organised by the Australian Council for Scientific and Industrial Research, will commence in Adelaide, South Australia, for the period August 22–31, when sessions A, B, C and D will be held. This will be followed by an official twelve-day tour through southern South Australia, Victoria and southern New South Wales, and the final sessions, E and F, and winding-up will be at Canberra during September 13–15. Official invitations have been made to each member country of the British Commonwealth, and some fifty delegates will be nominated. In addition, some invited contributors from other countries, from the United States, for example, will be attending. Travelling expenses and subsistence of the delegates will be borne by their respective countries; but the Australian Government is financing the twelve-day tour. The papers for the Conference will fall into three main groups: (a) officially invited papers; (b)