

University and Educational Intelligence

CAMBRIDGE.—Dr. G. Salt, research student of Gonville and Caius College, has been elected as first holder of the Stringer fellowship, tenable at King's College, which is open to graduate members and research students of the University whose study and research fall within the fields of chemistry, experimental physics, or the chemistry or physiology of plant or animal life. Dr. Salt is a B.Sc. of the University of Alberta, and Sc.D. of Harvard University. He was elected to a Royal Society Moseley Research Studentship in 1932.

“WHAT is General Science?” An editorial on this question in the October number of the *Progress of Education* (Aryabhushan Press, Poona; monthly, 12 annas) criticises the course proposed by the Academic Council of the University of Bombay in view of the inclusion in the matriculation syllabus of general science in place of the four alternative groups, physics and chemistry, botany and zoology, physiology and hygiene, and domestic science. The proposed course consists of only the elementary study of physics and chemistry, botany and zoology and physiology and hygiene, and the article points out that whilst this is perhaps advantageous to those who will later specialise in science, it is ill-adapted to the professed object of the change in the syllabus, namely, to equip every student with that modicum of scientific knowledge which is indispensable for the intelligent appreciation of his material environment, a knowledge as necessary to-day as that of language, history, or arithmetic. The scope of modern science and its applications is so vast that there cannot be at the matriculation stage the same general science for students with all sorts of environments and there should be, it is suggested, a choice of several courses which would include (a) for students in big cities—mainly physics and chemistry; (b) for those in rural areas—mainly agriculture and allied topics; (c) for industrial areas—practical arts like weaving, wood or iron work, machine repairs, printing, moulding; (d) for girls—domestic science; (e) for all—science of health. After matriculation, the student should supplement this course until he has acquired such further knowledge of science as he will need, not as a specialist in science but as a man of culture.

THE problem of improving examination methods has received much more attention in the United States than in Great Britain, and the Carnegie Corporation has spent large amounts in recent years in devising objective tests in modern languages. It has now taken steps to further investigations in Great Britain, and, as a result of a private international conference held in 1931 at Eastbourne, under the auspices of the Carnegie Corporation, the Carnegie Foundation, and the International Institute of Teachers College, Columbia University, five independent committees have been set up, and promised a grant for three years, in England, Scotland, France, Germany, and Switzerland, to investigate such problems connected with examination systems of the countries concerned as they deem desirable. The English “International Institute Examinations Enquiry” Committee is constituted as follows:—Sir Michael Sadler (chairman), Dr. P. B. Ballard, Dr. C. Delisle Burns, Prof. Cyril Burt, Sir Philip Hartog (director), Sir Percy Nunn, Prof. C.

Spearman, and Prof. Godfrey H. Thomson (replacing the late Prof. Graham Wallas, who was an original member of the Committee). The Scottish Committee, which is a committee of the Scottish Council for Research in Education, is constituted as follows:—Prof. Godfrey H. Thomson (convener), Dr. William Boyd, Prof. James Drever, Mr. Thomas Henderson (honorary secretary), Mr. W. A. F. Hepburn, Dr. J. Mackie, Prof. W. W. McClelland, Dr. Robert Rusk, and Dr. J. C. Smith. The chairman of the French Committee is M. Desclos, Sous-Directeur, Office National des Universités et des Ecoles Françaises, Paris; the chairman of the German Committee is Prof. C. H. Becker, formerly Prussian Minister for Education, and the chairman of the Swiss Committee is Prof. A. Malche, professor of pedagogy in the University of Geneva.

Calendar of Nature Topics

February Fill-dyke

In western Europe, February is proverbially associated with flowing streams and a damp countryside. In the French Revolutionary Calendar of 1793, the period January 20–February 18 was the month ‘Pluviôse’ or ‘rainy’, but even allowing for its shortness, February is no rainier than January or March. The name ‘Fill-dyke’ may have originated from the melting of the January snows, but during the present century deep snow has been rare. The title is still justified, however, for in winter evaporation is negligible and the rains of December and January replenish the underground reservoirs and leave the soil in a water-logged condition. Thus the streams are often at their highest in February and fall rapidly under the drying conditions of March.

Tilling the Soil

Writing in 1661, Mathew Stevenson in “The Twelve Moneths” says of February: “Now methinks I see the Husbandman dresse afresh his rusty plowshare to teare up the stiffer clay grounds . . .” Although mechanical science has greatly improved the structure and design of cultivating implements, until quite recently all the major cultivations, whether by horse or tractor, were on the age-old principles of the turning action of the plough or the shattering effect of the hoe. A new system is now being introduced and scientifically examined. Rotary tillage, the milling of the soil by revolving tines, instead of the bodily movement or disturbance by the drawn implement, is the most natural way in which the internal combustion engine can be directed to the comminution of the soil. Rotary cultivation is gaining ground in small occupations, where it is employed as a substitute for the joint action of spade and rake; but larger machines are being developed for full-scale cultivation, where they will do in one operation the work of tractor plough and the cultivators and harrows which follow them. The aim of all cultivation should be, so far as possible, to let the weather do the work. Alternate wetting and drying, frost and thaw, have a wonderful mellowing effect on soil, and this greatly assists the formation of a seed-bed whether by the older or newer implements. To force a tilth against the weather is an expensive operation and at best only a makeshift; but in case of need the rotary cultivator presents more opportunities in this direction than the traditional implement.