

the country, with the view of the further elucidation of the immigration problem.

Among the more general papers read at the Congress were "Rural Surveys; Change and Decay and Rebirth" by W. P. D. Stebbing; "Pond-Life, with Special Reference to the Rotifera and Polyzoa", by H. E. Hurrell; "Evolutionary Sequence Amongst Desmids", by Prof. F. E. Fritsch; "The Viking Period", by P. D. Kendrick; "The Relationship of Geology to the Scenery of the Weald", by F. H. Edmunds; and "The Pliocene and Pleistocene Deposits of Norfolk", by J. E. Sainty.

A very full programme of excursions to places of scientific interest was carried out during the Congress. It was announced that the Congress for 1934 will be held at Reading, under the presidency of Prof. H. L. Hawkins, professor of geology in the University of Reading.

### University and Educational Intelligence

CAMBRIDGE.—Dr. G. D. H. Bell, of Selwyn College, has been appointed University demonstrator in agricultural biology.

A university demonstratorship in chemistry is vacant. Information concerning it may be obtained from Mr. H. Thirkill, Clare College, to whom applications should be submitted before June 30.

D. Thoday of Trinity College and Dr. F. H. Constable of St. John's College have been approved for the degree of Sc.D.

Dr. K. A. C. Elliott, Beit fellow, has been elected to a fellowship at Selwyn College.

LONDON.—The following degrees have recently been awarded: D.Sc. degree in botany to Mr. C. L. Huskins (King's College) for eight published works on genetics and cyto-genetics; D.Sc. degree in plant physiology to Mr. E. Ashby (Imperial College—Royal College of Science) for nine works, including four papers on "The Interaction of Factors in the Growth of *Lemna*", and two papers on "Studies in the Inheritance of Physiological Characters"; D.Sc. degree in vital statistics to Hilda M. Woods (recognised teacher at the London School of Hygiene and Tropical Medicine) for nine works on medical statistics and epidemiology; D.Sc. degree in zoology to Cherukad Cherian John (Imperial College—Royal College of Science) for a thesis entitled "On the Anatomy, Habits and Development of *Spadella Cephaloptera*" (*Quart. J. Micro. Sci.*, Feb. 1933); D.Sc. degree in chemistry to Mr. A. G. Francis (private study) for four independent publications, entitled (1) "Report on the Investigations carried out by the Experimental Staff of the Departmental Committee on Ethyl Petrol"; (2) "Presence of Barium and Strontium in Natural Brines"; (3) "The Recovery of Radium from Luminous Paint"; (4) "3:4-di-*p*-nitrotetraphenylfuran"; together with four conjoint subsidiary contributions.

To meet the growing demand for biological teaching in schools, a diploma course in biology will shortly be instituted at the University of Leeds, chiefly to meet the needs of teachers qualified in the physical sciences. The course will extend over two years and it is proposed to begin it on October

3. Lectures will be given on one evening a week and Saturday mornings. Further information can be obtained from the Registrar of the University.

ON the recommendation of the Scientific Advisory Committee of the Lady Tata Memorial Fund, the following awards of scholarships, open to graduates of any nationality for research work on diseases of the blood, with special reference to leucæmia, for the academic year 1933-34 have been made: Dr. W. Büngeler, University of Frankfurt-on-Main; Dr. L. Dolschansky, University of Berlin; Dr. M. C. G. Israëls, University of Manchester; Dr. C. Oberling, Faculty of Medicine, Paris.

AT a recent council meeting of the Association of University Teachers the position of the recently displaced teachers in German universities was discussed. The Association recorded its continued adherence to the fundamental principle of freedom of opinion and teaching in academic life and stated that it is ready to co-operate in affording facilities at British universities for such displaced teachers, provided that special funds are made available for the purpose. The Executive Committee of the Association appointed a sub-committee to keep in touch with other groups having similar aims, of which the convener is Prof. R. J. Tabor, Imperial College of Science and Technology, South Kensington, London, S.W.7.

WE have received from Armstrong College, Newcastle-upon-Tyne, the report for 1931-32 of the College Standing Committee for Research. This report demonstrates that the researches aided by the Committee's grants, which amounted during the year to £586, are bearing excellent fruit. In addition to giving a list of a hundred publications, the report particularises some results of special interest. A notable addition to the resources of the Physics Department was made possible by a grant of £842 from the Rockefeller Foundation towards the cost of a reflecting echelon interferometer, the research committee undertaking to find the remainder (£300) of the price. An investigation dealing with the use of high-frequency fields to raise body temperatures gave such promising preliminary results that the Medical Research Council made a grant for its continuance. Incorporated in the report are accounts of the work of the Northern Coke Research Committee and the Electrical Engineering Committee of the College.

"The Broad Highway of Soviet Education", as shown to a party of twenty men and women interested in education, is described in a pamphlet recently published by the Society for Cultural Relations between the Peoples of the British Commonwealth and the U.S.S.R. The tour, which took place more than a year ago, included a series of visits and receptions in Leningrad, Moscow, Kharkov (where part of the visit was filmed) and Kiev. The compulsory seven-years school in two stages, 8-12 years and 12-15 years, is said to be based upon correlation with working life. The schools are commonly attached to factories and, so far as possible, all practical work is productive: one of the schools visited was found to be self-supporting. Continued education is provided in technical and factory-apprentice schools for the stage 15-18 years. Higher education is conducted chiefly in single-faculty institutes intended to turn out technical experts in factories, and other specialists.

Qualification for admission generally includes two years' experience of factory life and two or three years of a workers' preparatory course embracing a wide variety of subjects. The writer of the report, Mr. C. A. Harrison, education officer of Messrs. Cadbury Bros., suggests that educational contacts may serve to bridge the gulfs which separate the Soviet system from the rest of the world. He was impressed while in Russia by the apparent prevalence of what he describes as a "wholesome" dread of embroilment in war coupled with a determination to be prepared.

### Calendar of Nature Topics

#### Fourth 'Buchan Cold Spell'

June 29–July 4. It not infrequently happens that June in England brings an interval of dull weather separating the sunshine of May from the heat of July. In Great Britain at least, the soubriquet of 'flaming June' appears to be a misnomer. On the whole the fluctuations of temperature in June are relatively slight, and the general tendency is for a steady warming up throughout the month without any marked set-backs. At Greenwich the 90-year averages from 1841 to 1930 show that this rise is interrupted by a short period of steady temperatures from June 29 until July 1, but this is too slight to be dignified by the name of a 'cold spell' and there is no reason for supposing that it will be repeated in future years.

#### Nile Flood

The River Nile is very low during April, May and the early part of June, reaching its minimum at Khartoum about May 11. In June heavy monsoonal rains begin to fall on the mountains of Abyssinia, and throughout July, August and September, immense quantities of water are discharged into the Blue Nile. The main Nile commences to rise rapidly towards the end of June, reaches its maximum level about September 4, and remains high until some time in October. The water fills the irrigation channels and covers much of the flood plain, on which silt is deposited, forming a soil of great fertility. This annual flood is the most important event of the Egyptian year, and river gauges have been maintained since early times to measure its progress and height. Before the building of the great dams, the crops of Egypt were so dependent on the annual flood that the gauge readings were used as a basis for assessing taxation.

#### Migration and Plumage Coloration of Birds

During the summer months there occur on the mud-flats and sandbanks of northern Holland many wading birds belonging to species which normally should have been at their breeding places in the north of Europe or Asia. A first impression would regard them as immature birds, but G. J. van Oordt has shown that many wear adult summer plumage or some modification of it. On June 23 and 27, 1927, he collected seven knots and fifteen turnstones on the island of Vlieland, and since the very last of the migratory individuals pass through in the end of May or in the first days of June, these were real summering birds (*Tijdschr. Ned. Dierkundige Vereen.*, Ser. 3, 1928, p. 25). Examination showed that the testes of most of the individuals collected were

inactive, having formed no spermatocytes, and that although the plumages of such birds varied much, they all possessed in various degrees the feathers of adult summer plumage. Three birds were found to have a relatively large number of spermatocytes and in them the plumage was almost or quite identical with the adult summer phase. From these observations, it would appear that the absence of urge to migrate as well as the failure to replace winter by summer plumage was associated with inactivity of the gonads and that summer plumage in male birds cannot develop until spermatogenesis has started and many spermatocytes have been formed.

#### Spat-Fall and Shore Populations

In June and July occurs the spat-fall of many shore molluscs, when rock surfaces, seaweeds, and the sand itself begin to be deluged with a rain of minute individuals on the point of settling down after their free-swimming larval life. They are often very small—the shells of recently settled mussels measure about 0.3 mm.—but the number is very great, and this and their rapid growth make them important elements in the shore population. Indeed they have proved to be a nuisance to many coastal towns, for intake pipes have become blocked by the growth of mussels which have settled in them from the passing current. The late Sir William Herdman reckoned that on the seashore about 120,000 mussels might go to the square yard, and Richard Elmhirst finds a similar number on the piles of Keppel Pier at Millport, upon which about 60,000 individuals of the beautiful plumose anemone (*Metridium senile*) also find foothold. At Millport the numbers of the acorn barnacle (*Balanus balanoides*), a crustacean, are still greater. Elmhirst states that in late April the cyprid larvæ may occur 300 to the litre close inshore when swarming in to settle down (*Glasgow Naturalist*, 1932). These small larvæ may settle 200 to the square inch, or more than a quarter of a million a square yard. A heavy mortality, due largely to the molluscs *Purpura* and *Littorina* ensues, so that by autumn they are reduced to 15,000 a square yard. But even the dead ones have contributed to the circulation of organic matter in the shore area.

#### The Ice Bridge: A Correction

The paragraph under this heading in NATURE for April 15, p. 557, requires some modification. The harbours and waterways of the system of American "Great Lakes" are frozen or blocked by ice, and in Lake Superior ice-fields often extend beyond the range of vision from shore, but in most winters much open water remains, especially in the lower part of Lake Michigan. In February 1904 the lakes were almost completely ice-covered, but this is exceptional.

In many parts of the northern hemisphere the winters of the twentieth century have been generally milder than those of the latter half of the nineteenth, and ice conditions may also have become less severe, but precise information is difficult to obtain, as the greater power of steamers and the extended use of ice-breakers would suffice to keep navigation open longer than formerly. The record of 300 ships held up at one time, which is quoted in the "Gulf of St. Lawrence Pilot", was first published in 1888, and therefore must refer to sailing or low-powered craft, but the actual date of the occurrence cannot now be traced. For the reasons stated, such an occurrence is unlikely to recur.