

to the fact that the marks used had the place of origin indicated upon them ("Zool. Museum, Oslo") as well as a distinguishing number, and that on this account the reporting of recaptures was more complete. In the Scottish operations we relied upon a wide circulation of the occurrence of the marking and the offer of rewards, but on one or two occasions it did happen that the report of a recapture was obtained only after the fish had made a railway journey to market. Also, the Norwegian marks were inserted not in the base of the dorsal fin, but were wired through the back just in front of the dorsal fin, where the mark was more conspicuous.

The greatest distance recorded from the Scottish marking was about 620 miles, being the shortest distance from the Spey round the north of Scotland to the Eden in Cumberland. On the Pacific coast of North America 'tagging' had shown greater distances than this, and operations at the Alaskan Peninsula had yielded not only long distances but also some interesting information about the pace of travel at different times of the year. Newspaper reports had even told of a salmon (*Onchorhynchus*) from this set of operations that followed the line of the Aleutian Islands and had been captured in Kamchatka by Japanese fishermen. This journey is well over 1,000 miles. From the west of Vancouver Island also fish had gone south to the Columbia River, a distance of 800 miles.

The Norwegian records now give one example of a fish having travelled from Titran on an island off the Trondhjem Fiord, north to the Wyg River in the Gulf of Onega in the White Sea, a distance of 2,500 kilometres, which is approximately 1,500 miles. Lesser distances are 1,100 km., 800 km. and 700 km. It is interesting to notice also that one fish, marked at Rong not far from Bergen, had gone south-west across the North Sea to Montrose, the interval of time being 19 days and the distance 550 km., which is approximately 350 miles.

This paper opens up a new vista of the range of *S. salar*, and some interesting particulars are given also about smolt marking carried out by Dr. Gunnar Alm in the Baltic, and showing wide movements.

W. L. CALDERWOOD.

## Educational Topics and Events

LONDON.—Mr. D. G. Catcheside, lecturer in botany in King's College, has been awarded a Rockefeller fellowship in cytological genetics. He is to spend a year in Dr. T. H. Morgan's laboratory at the California Institute of Technology, Pasadena, beginning in September 1936.

ST. ANDREWS.—The Senatus Academicus has resolved to confer the honorary degree of LL.D. on the following, among others, at the graduation ceremonial to be held in June.: Mr. David Anderson, of the firm of Messrs. Mott, Hay and Anderson, consulting engineers, London; Prof. J. E. Littlewood, Rouse Ball professor of mathematics in the University of Cambridge; Major F. J. J. Ney, executive secretary, National Council of Education of Canada, Toronto, Canada; Prof. E. W. Reid, emeritus professor of physiology, University College, Dundee.

SHEFFIELD.—Lord Crewe, Chancellor of the University, will open the new University Students' Union building on Saturday, May 2. The building was made possible through the generosity of Alderman J. G. Graves, who gave £15,000, the cost of the building. Before opening the building, Lord Crewe will confer honorary degrees upon the following, among others: Sir Charles Grant Robertson, Vice-Chancellor of the University of Birmingham; Sir Harold Hartley, vice-president and director of scientific research of the L.M.S. Railway Company; Sir Frank Smith, secretary of the Department of Scientific and Industrial Research and secretary of the Royal Society; Sir Harold Carpenter, professor of metallurgy in the Royal School of Mines.

THE American National Research Council has administered during the past sixteen years a post-doctoral fellowship scheme, financed by the Rockefeller Foundation, involving the expenditure of nearly four million dollars. It seems that the Foundation, while continuing to take a keen interest in the post-doctoral fellowship principle, will not continue its support on the same scale and in the same way as in the past; and some anxiety has, in consequence, been aroused in university circles as to ways and means for ensuring the maximum of opportunity for minds capable of productive scholarship. At the thirty-seventh annual conference of the Association of American Universities held at Cornell University last November, this question was discussed in papers by Prof. F. R. Lillie of the National Research Council, Dr. K. T. Compton, president of the Massachusetts Institute of Technology and Dr. Ray Lyman Wilbur, president of Stanford University. The National Research fellowships are comparable in aim and scope with the fellowships instituted in Great Britain in 1891 by the Royal Commission for the Exhibition of 1851 and, like them, have this great advantage over fellowships awarded by universities, that the field of selection is enormously wider. Dr. Compton's paper outlined an ingenious plan, the essential features of which are: the offer by each of a group of associated universities of fellowships for research to be carried out within it, and the assumption of the task of selecting fellows by an independent board which receives applications from candidates throughout the country. A schedule of stipends uniform for all the universities would tend to prevent candidates' choice from being influenced by financial considerations. Such a scheme would, Dr. Compton believes, if subscribed to by a sufficient number of universities, be subsidised by the Rockefeller and other foundations.

HARVARD UNIVERSITY celebrates this year the three-hundredth anniversary of its foundation. The occasion is to be marked by inaugurating two schemes of high importance, the outcome of what is termed "a new appraisal of the University's place and function in the life of the nation". One of them is for the creation of 'university professorships' of a novel kind, affording to teachers and scholars of unusual scope and ability broader opportunities than have hitherto been available in American universities. The Harvard authorities are impressed by the realisation that all subjects which are intensively studied lead into other subjects, and the occupants of the new chairs, while not exactly "professors of things-in-general", will be limited by the scope of their own

interests rather than by the traditional division of subjects. It is hoped by this means to "fortify the university as a whole in contrast to its separate parts or departments". It is sought to obtain for each chair an endowment of half a million dollars to provide not only an adequate salary, but also an allowance for assistants, both for instruction and for investigations. In thus safeguarding itself against departmentalism—that insidious disease incidental to the growth of specialisation in universities—Harvard has given a lead that may prove to have very far-reaching results. It stands for a movement the very antithesis of the tendency, exemplified in Russia, to abandon the ideal of a great community of scholars working in all fields in the best environment in which to promote breadth of understanding, and to substitute that of separate schools or research institutes each concentrating upon its own field in isolation. The other scheme is for "national scholarships" intended to open the door of opportunity for study at a great endowed university to more of the most promising youth from every part of the country. They are to provide "as much as may be needed up to \$1000 in the first year and \$1200 thereafter" and will not carry an implication that all the recipients are poor.

## Science News a Century Ago

### The British Museum

*The Times* of April 13, 1836, commenting on a return dealing with the British Museum issued in April 1836, said: "The receipts of the British Museum last year were £19,603 8s. 0½d., of which the public money voted by Parliament amounted to £19,076 4s. 6½d., leaving a balance of £527 3s. 6d. The estimated expenditure for the present year is £23,600. . . . There is in the present estimate a special item of £2,000 for the purchase of manuscripts, and another of £500 towards making moulds of the Elgin marbles. The principal item in which there is an increase this year is in salaries to the minor officers and servants . . . and to a provision for an increased number of copyists for the purpose of furnishing the public in the reading-rooms with a complete catalogue of the printed books within the current year. . . . The number of visitors to the general collection last year was 289,104."

### Airy's Lectures at Cambridge in 1836

WHEN Airy was appointed Astronomer Royal, he stipulated that he should be allowed to give a final course of lectures at Cambridge. Lord Auckland, the First Lord of the Admiralty, agreed to this, but his successor Lord Minto refused the necessary permission. When this was known in Cambridge, a petition was sent to Lord Minto, who then yielded. Referring to this in his "Autobiography", Airy wrote: "On April 18 I went to Cambridge with my wife, residing at the Bull Inn, and began Lectures on April 21st: they continued [apparently] to May 27th. My lecture room was crowded [the number of names was 110] and the lectures gave great satisfaction. I offered to the Admiralty to put all the profits in their hands, and transmitted a cheque to the Accountant General of the Navy: but the Admiralty declined to receive them."

### The Royal Society

AT a meeting of the Royal Society held on April 21, 1836, Murchison being in the chair, a communication from Prof. J. F. Daniell was read entitled "Additional Observations on Voltaic Combinations". "The author," the report said, "has found that the constant battery, described in a former communication, might be rendered not only perfectly steady in its action, but also very powerful, as well as extremely efficacious and convenient for all the purposes to which the common voltaic battery is usually applied. With this view he places the cells which form the battery in two parallel rows, consisting of ten cells in each row, on a long table, with their siphon-tubes arranged opposite to each other and hanging over a small gutter, placed between the rows, in order to carry off the refuse solution when it is necessary to change the acid. Having observed that the uniformity of action may be completely maintained by the occasional addition of a small quantity of acid, he is able to dispense with the cumbrous addition of the dripping funnel; an arrangement which admits with facility of any combination of the plates which may be desired."

### Bichat's Theory of Life

"EVERYTHING around human beings, according to M. Bichat, tends constantly to their destruction, and to this influence they would necessarily yield, were they not gifted with some permanent principle of reaction. This principle is their life, and a living system is necessarily always engaged in the performance of functions, whose object it is to resist death. Life, according to Bichat, is the state of being produced by the possession and exercise of what he calls the vital properties; yet he does not always adhere with logical strictness to this definition; but rather uses the term sometimes to designate the vital properties collectively, and this is perhaps the best and most convenient sense. His essential doctrine, however, is that there is no one single individual presiding principle of vitality, that animates the body, but that it is a collection of matter gifted for a time with certain powers of action combined into organs, which are thus enabled to act, and the result is a series of functions, the connected performance of which constitutes a living being." (*Lancet*, April 22, 1836.)

### Scientific Lectures in Ealing

IN an interesting contribution to *The Times* of April 23, 1836, a correspondent said: "The beautiful village of Great Ealing, Middlesex, has been kept in a most pleasing state of excitement during the last week by the opening of an institution patronized by the principal of the nobility, clergy and gentry of the neighbourhood and entitled 'The Union for the Moral and Intellectual Improvement of the Industrious Classes of Great Ealing and its Vicinity.'" The opening of the institution took place in the Great Hall of Messrs. Nicholas's Ealing School on April 11, the Rev. Mr. Smith, the vicar, presiding. "Mr. Bird, lecturer at Eton College, Harrow School, Messrs. Nicholas's School, etc. was appointed to open the institution with a course of three lectures on astronomy, he having risen from the working class by his own exertion and perseverance to the high honour of lecturing before royalty. . . ."