

illness forced him to retire in 1942. He acted as treasurer of the Armstrong (later King's) College Choral and Orchestral Society for forty years and in the same capacity for the University of Durham Philosophical Society. The Newcastle Bach Choir was one of his greatest interests, and he was associated with it from the time of its foundation. For many years also he was a member of the committee of the Newcastle upon Tyne Literary and Philosophical Society. He had some reputation as a collector of North Country folk songs, and many people will have pleasant memories of his lectures on the subject.

Bullerwell died on March 17 at the age of seventy.

GEORGE W. TODD.

Prof. W. G. MacCallum

PROF. WILLIAM GEORGE MACCALLUM, the eminent American pathologist, who died on February 3 at the age of sixty-nine, was born at Dunnville, Ontario, on April 18, 1874, the son of a medical man. After qualifying at the University of Toronto in 1894 and at the Johns Hopkins University School of Medicine in 1897, he held the post of intern and later of resident pathologist at the Johns Hopkins Hospital. In 1899 he was appointed assistant in pathology at Johns Hopkins, where he afterwards became assistant professor and professor in pathological physiology and lecturer in forensic medicine. In 1909 he was appointed professor of pathology at the Columbia University College of Physicians and Surgeons, as well as pathologist at the German Hospital and Presbyterian Hospital. In 1917 he succeeded the well-known pathologist Dr. William H. Welch as professor of pathology at Johns Hopkins, and held this appointment until the spring of 1943.

In addition to a "Text-book of Pathology", of which the first edition appeared in 1916 and the seventh and last in 1940, MacCallum's chief publications were on the sexual conjugation of the parasites of avian malaria (1897), the pathology of pneumonia following influenza in the United States during the winter of 1917-18, calcium in tetany (1918), and with Ella H. Oppenheimer "Centrifugalization, a Method for the Study of Filtrable Viruses as applied to Vaccinia". He was also the author of a biography of the surgeon W. S. Halstead.

MacCallum was well known in Great Britain, where he was elected an honorary fellow of the Royal Society of Medicine in 1934. He was also honorary fellow of the Swedish Medical Society at Stockholm, a member of the U.S. National Academy of Sciences, and of the Harvey Society, of which he was president in 1914.

J. D. ROLLESTON.

We regret to announce the following deaths:

Dr. J. C. Dunlop, formerly registrar-general for Scotland, and an honorary fellow of the Faculty of Actuaries of Scotland, on April 10, aged seventy-eight.

Sir Clement Hindley, K.C.I.E., member of the Advisory Council for Scientific and Industrial Research, and president in 1939 of the Institution of Civil Engineers, on May 3, aged sixty-nine.

Mr. C. B. Rickett, an authority on the birds of southern China, aged ninety-three.

Commander J. A. Slee, C.B.E., chairman in 1938 of the Wireless Section of the Institution of Electrical Engineers, aged sixty-five.

Prof. W. M. Thornton, O.B.E., emeritus professor of electrical engineering at King's College, Newcastle upon Tyne, on May 2, aged seventy-four.

NEWS and VIEWS

Water Supply in Great Britain

A WHITE PAPER on water supplies ("A National Water Policy." H.M. Stationery Office, 6d.) points out that the problem facing Great Britain is one of organization and distribution, not of total resources, which are ample for all needs. Since water is a bulky commodity, its costs of distribution are relatively high and therefore local sources must be used so far as possible. To do this efficiently will require, not only changes in law and practice, with the co-ordination of the many varied authorities up and down the country, but also a fuller survey of resources than is at present available, and adequate protection against pollution and waste. There must also be a satisfactory supply for industrialists and farmers, who now are normally outside the obligations of public water-undertakings. Agricultural production must no longer be hampered by insufficiency of water and haphazard dependence on casual supplies. The proposals embodied in this report are based on three principles: first, adequate control of water supply services, including changes where they can be justified by greater efficiency or reduction in costs; secondly, responsibility for water supply to rest with democratic bodies ranging from Parliament to local authorities; and thirdly, sectional interests to be subordinate to the national interest, subject to Parliamentary approval.

In the light of these principles, the main proposals of the Government are as follow: the Minister of Health and the Secretary of State for Scotland would be given the statutory duty of promoting the provision of adequate water supply and the conservation of water resources, and their policy would be based on the collection of full information regarding sources and needs. The Central Advisory Water Committee of England and Wales should be reconstituted as a statutory body, and a similar committee set up for Scotland. Survey of the needs of large areas and the efficiency of supplies should be continued, close touch being maintained with town and country planning policies. Amalgamation of water undertakings may be necessary in order to secure efficiency and economy, and also the giving of bulk supplies by one water undertaking to another. Steps must be taken to prevent misuse, waste and pollution. Industry and agriculture are to have the right to water supplies. Compulsory powers, under proper safeguards, should be granted to take water from streams. The Ministers responsible should be given powers to require information and statistics from all users of water and sinkers of wells. The White Paper also contains certain financial proposals; but its main importance is that it considers the problems of water supply on a national basis, and admits the need for rural supplies, even though urban

populations afford the most serious problems in their steadily increasing demands.

The White Paper was discussed on a motion moved by the Minister of Health, Mr. Willink, in the House of Commons on May 3. While the statement received a general welcome, there was criticism from all sides that the suggested procedure was slow and the scheme lacked boldness. Mr. Willink said that the main instrument for collecting information on the yield and quality of water resources is the Inland Water Survey, and the Government proposes to press on with it at the earliest possible date. The Central Advisory Water Committee, with new powers, would advise the Minister of Health on general policy in the light of the information provided by the Survey. As an alternative to this Central Committee, a national water board under a strong, well-qualified chairman, was suggested as a means of co-ordinating the water policy of Great Britain. Against this suggestion it was urged by the Minister of Agriculture, Mr. R. S. Hudson, that water policy touched on too many aspects of national administration, such as housing, health, drainage and agriculture, to make a national water board feasible and practicable.

Regional Organization in Australasia

THE Agreement between the Commonwealth of Australia and the New Zealand Governments signed at Canberra on January 21, 1944, has now been published (Cmd. 6513). In addition to undertaking general collaboration with regard to the location of machinery set up under international organizations such as the United Nations Relief and Rehabilitation Administration, the two countries agree to promote the establishment of a regional organization with advisory powers, which could be called the South Seas Regional Commission, on which the Governments of the United Kingdom, the United States and the French Committee of National Liberation might be represented. Such a Commission would have as its function to secure a common policy on social, economic and political development directed towards the advancement and well-being of the inhabitants themselves and, particularly, the Commission would recommend arrangements for the increasing participation of local inhabitants in administration, with a view to the ultimate attainment of self-government in the form most suited to the circumstances of the peoples concerned; arrangements for material development, including production, finance, communications and marketing; for the co-ordination of health and medical services and education; for the maintenance and improvement of labour conditions and social services as well as collaboration in economic, social, medical and anthropological research.

The publication of periodical reviews of progress in this field is also visualized, and in addition to the establishment of a regional zone of defence and of permanent machinery for collaboration and co-operation between Australia and New Zealand, the Agreement provides for joint action in support of the principles that full control of the international air trunk routes and the ownership of all aircraft and ancillary equipment should be vested in an international air transport authority operating those routes, and that the routes themselves should be specified in an international agreement. Failing such agreement the two Governments support a system of air trunk routes controlled and operated by Governments of the British Commonwealth of Nations under Government ownership.

Colonial Geological Surveys

THE function and future of the Colonial Geological Surveys formed the subject of a recent article in *NATURE* (153, 273; 1944), in which a discussion on the matter, held under the joint auspices of the Geological Society of London and the Institution of Mining Engineers in November last, was summarized at some length. The subject has again been dealt with in the *Bulletin of the Imperial Institute* (41, No. 4, 255; 1943), by the 'intelligence staff' of the Institute, under the heading "A Review of Geological Survey Work in the Colonies". In this article the authors refer to all the Colonies except those small islands and groups where, it is stated, the question of establishing official Surveys scarcely arises. Particulars are given separately for each Colony as to area, the years, if any, during which geological survey work has been carried out, the amounts of money expended on such work, the staffs employed and the maps that have been published. Reference is also made to the question of water-supply and to mining activities. With few exceptions, it appears that in none of the colonies was a Geological Survey established earlier than 1918. In Ceylon, a mineral survey was commenced in 1903; and in British Malaya a Geological Survey has existed for forty years, though until 1912 it employed only one geologist. In certain other Colonies short-term mineral surveys were carried out in the early years of this century by the Imperial Institute, under the auspices of the Colonial Office.

The information supplied is based on published records, and it certainly provides factual support for the views expressed at the joint meeting of the Geological Society and the Institution of Mining Engineers at their joint meeting last year. It makes it clear, in fact, that there is ample room for enlargement, and improvement in the continuity and scope, of the work of the Colonial Geological Surveys. Actually the matter is in hand, for the Secretary of State for the Colonies has appointed a panel of experts to advise him on the subject. The intention of the authors of the Imperial Institute article is to point out the desirability that a fair share of the Colonial Office grants for the extension of scientific investigation into Colonial problems should be allocated to the expansion of geological survey work. In the view of the Institute, a Geological Survey should be regarded as a public service available to the mining, agricultural and other industries; as well as for government-sponsored public works and water supply services; and also as an educational institute. The association of the Imperial Institute with the Colonial Geological Surveys is one of long standing, and the recommendations made in this article, backed by an authoritative statement of facts, should command the attention of those interested in the welfare and development of the Colonies.

Archæological Find in Kenya

DR. L. S. B. LEAKEY, honorary curator of the Coryndon Museum, who is employed in war-time duties with the C.I.D., Nairobi, has spent eighteen days leave on Site 10 at Mount Olorgesailie in Kenya, accompanied by Mrs. Leakey, Mr. A. J. Arkell, the Commissioner for Archæology in the Sudan, Miss E. Cory, Mr. F. de V. Kirk and Mr. G. Alkin. The excavations carried out showed that the surface indications noted early in 1942 had not been misleading and that the site is of outstanding importance.