physics, chemistry and biology, together with a one-year diploma course already provided by one or two training colleges, will provide some 100 science graduates a year, who will do good work below the sixth form in grammar schools and secondary modern schools.

In the course of the discussions which followed, Sir Graham Savage, formerly senior chief inspector of the Ministry of Education, pointed out that in the next three years some 500 naval officers will be retiring from the Royal Navy as a result of its reorganization programme. All these officers have been to a first-class school, Dartmouth, and then to the Royal Naval College, Greenwich, and are graded by the Burnham Committee as graduates. He was disappointed that the Ministry of Education expects these men to take a two-year course at a teachers' training college with students twenty years younger than themselves before allowing them to teach in schools, and he was afraid that some 300 promising teachers will thereby be lost to the schools, as it is unlikely that men of 40 years of age will be willing to take two years further training in order to teach. He appealed to the Ministry of Education to do for these men what it did for a body of ex-Service men after the Second World War by arranging a one-year emergency training scheme for them. Sir Gilbert Flemming, Permanent Secretary to the Ministry of Education, said that the deterioration in the standard of staffing of the grammar schools since 1939 is due to the fact that they are now trying to do more than they did before the War.

In the final discussion Sir Raymond Priestley pleaded that these defects should be remedied by spending more on education. At the opening session of the Conference, Sir Ben Lockspeiser expressed the hope that some action would result from the Conference. At the conclusion of his address, Dr. Barton hoped that the British Association would appoint two deputations: one to seek an interview with the Minister of Education to urge him to make the grammar schools his first priority in the next five years, and the other to seek an interview with the Lord President of the Council to ask him to set up an inter-departmental committee to find the facts about the distribution of scientists among the various bodies which use them, and to advise on what steps may be necessary to ensure that their distribution is in the best interests of the nation.

A. W. Barton

OBITUARIES

Dr. W. J. Arkell, F.R.S.

William Joscelyn Arkell was born on June 9, 1904, and was educated at Wellington College and New College, Oxford, where he took first-class honours in geology in 1925. He thus began the studies in Jurassic stratigraphy and palæontology which were to gain him an international reputation.

During 1929–33 he was lecturer in geology, and during 1933–40 Research Fellow at New College. From 1941 until 1943 he was with the Ministry of War Transport; a serious illness left him partly disabled, but although his hours of work had to be restricted and his field-work reduced, he returned to his scientific research, and few except his intimate friends realized the disadvantages under which he produced a steady stream of results. In 1947 he was elected a Fellow of the Royal Society, and a Research Fellow of Trinity College, Cambridge, where he worked at the Sedgwick Museum until a severe stroke in 1956 left him partially paralysed. But with the same courage and determination as he had shown after his first illness, he continued his work and wrote to his many correspondents from all parts of the world, showing his usual mental alertness, until a second stroke was followed within a few hours by his death on April 15 last. His last manuscript had been completed a few days previously.

Arkell's choice of subject for research was in part governed by his intense love of the English countryside, particularly of Cumnor, Oxford (where he lived), and of the Dorset coast where he stayed for part of each year. He enjoyed the thorough intimacy with the country which detailed geological mapping entails. He collected his first fossils around the home of his boyhood at Highworth, Wiltshire. His interest in Oxford and Dorset bore fruit in his "Geology of Oxford" (1947) and "Oxford Stone" (1947), and "Geology of the Country around Weymouth" (*Mem. Geol. Surv.*, 1947). His "Jurassic System in Great Britain" (1933), an informed, critical and exhaustive summary, exhibited his grasp of all aspects of stratigraphy and became at once an indispensable handbook; and his three monographs of the Palæontographical Society ("British Corallian Lamellibranchia", 1929–37; "Ammonites of the English Corallian", 1935–48; and "The English Bathonian Ammonites", begun in 1951, with the final part still in manuscript) are the work of one who had not only a keen grasp of the problems of systematic palæontology but also was familiar with the specimens in the field. He summarized his conception of the systematic relations of Jurassic ammonites in his section of the "International Treatise on Invertebrate Paleontology" (1957).

As his reputation grew, Arkell was asked to examine collections of Jurassic ammonites from many parts of the world; and the knowledge gained thus and by visits abroad was incorporated in his "Jurassic Geology of the World" (1956), a critical, informed and provocative summary and discussion. He had thus brought together his considered opinions on the Jurassic system and Jurassic ammonites before his death at the age of fifty-three. Much further research had been planned.

His interests were wide, and his publications by no means confined to the Jurassic; as an example, his work in collaboration with K. S. Sandford on Palæolithic man and the Nile valley (1929–33) should be mentioned.

His prose style was clear, precise and apparently effortless, qualities which sometimes gave his adverse criticism a sharper edge than he intended. But he was quick to encourage and to praise the younger generation, and although reserved, was a good friend.

A. G. Brighton