

on the linear-leaved North American species of *Potamogeton*, Section *Axillares* (1932), and on *Draba* in temperate north-eastern America (1934). But the tremendous grip of his understanding and experience lay on almost every group occurring in his area, and woe betide the young student who rushed into print with ideas that did not work. At the same time, he held balanced, scholarly views on questions of nomenclature and orthography, such as well became him as an upholder of the conservative tradition of the Gray Herbarium. Fernald was a 'character', with strong convictions which made him a ready and voluminous writer, even by American standards. Fortunately, he was one of the really great systematists of our time. All his taxonomic knowledge is suitably gathered together in his great book, the eighth (centennial) edition of Gray's "Manual of

Botany", which appeared not long before his death (forty-two years before, with Robinson, he had revised the seventh edition). He was honoured by many societies in the United States and northern Europe, and was honorary vice-president of the recent International Botanical Congress at Stockholm.
N. Y. SANDWICH

WE regret to announce the following deaths:

Dr. R. S. Clark, formerly director of the Scottish Home Department Marine Laboratory, Torry, Aberdeen, and naturalist on Shackleton's Antarctic Expedition of 1914-16, on September 29, aged sixty-eight.

Mr. C. E. C. Fischer, formerly of the Indian Forest Service and the Kew Herbarium, on October 19.

NEWS and VIEWS

Nobel Prize for Physics for 1950: Prof. C. F. Powell, F.R.S.

PROF. C. F. POWELL, Melville Wills professor of physics in the University of Bristol since 1948, who has been awarded the Nobel Prize for Physics for 1950, was educated at Judd School, Tonbridge, and Sidney Sussex College, Cambridge. Following upon a first in physics in the Natural Science Tripos, he worked under C. T. R. Wilson on the condensation of steam. From Cambridge he went in 1928 to Bristol, in the first place as research assistant to Prof. Tyndall, where he was jointly or independently the author of papers on the mobility of gaseous ions. But it was afterwards as lecturer and reader that he initiated experiments to which he brought high technical skill and which have gained him wide recognition. In 1938, having built a Cockcroft generator to start work in nuclear physics, he tried an old method of observing the tracks of particles by shooting them into a photographic emulsion. Contrary to the opinion then held, he showed that under properly controlled conditions the method could be made to give quantitative data on nuclear processes and at an enhanced speed. Attempts to secure special emulsions were interrupted by the War; but when these were later available, the method forged ahead rapidly. In particular, Powell made a concentrated attack, from plates exposed at high mountain altitude, on the problem of the primary cosmic rays. In his laboratory, with its team of trained women scanners and collaborators like Occhialini and others, a stream of publications has issued. Of these, his discovery with Occhialini and Lattes of the heavy π -meson is perhaps one of the most important in its influence on present trends. But even more so is the instrument itself, a combination of a photographic emulsion and a microscope which he has fashioned and perfected into a tool of precision and the widest application in nuclear physics.

Nobel Prize for Literature for 1950: Earl Russell, O.M., F.R.S.

THE award to Earl Russell of the Nobel Prize for Literature in 1950 is an event at once gratifying and revealing. Over the years, men of science, and the general public no less, have come to regard him as seer, savant and expounder; unique perhaps in his power to achieve high place in the grand debates of our age. But this is the Bertrand Russell of the Reith

Lectures and kindred accomplishments, both here and overseas. The other—and maybe the real image rather than the virtual image—is the distinguished part-author of "Principia Mathematica", the Cambridge scholar at the height of his powers, driving, as it were, piles into the foundations of thought, to make the whole edifice not only more stable but also more beautiful. It is this æsthetic quality in his writings that makes him fit so appropriately with his fellow-prizemen in literature. The Nobel Foundation does not provide specifically for outstanding contributions in mathematics and philosophy; but if it did, the inclusion of Bertrand Russell's name in such a universe of discourse would scarcely escape anomaly, in view of his labours to reduce mathematics to logic. Possibly more by chance than by design, he comes to be in the right place. The theory of types and the clarification of paradox place their author well and truly among those who have created great literature, and in that category (but not excluding others) he is assured of universal felicitation upon his latest honour.

Tribute to Dr. J. A. Murray

THE Royal Microscopical Society conferred an honorary fellowship on Dr. J. A. Murray in April 1949. In the June issue for 1950 of the *Journal of the Royal Microscopical Society*, a foreword by the president, Dr. R. J. Ludford, pays tribute to his friend and former teacher who, as the second director of the Imperial Cancer Research Fund, guided the activities of that organization through an early critical period. The contents of the *Journal* consist of seven papers by former colleagues of Dr. Murray who are, or were at one time, members of the staff of the Imperial Cancer Research Fund. The very high standard of these papers, and in particular the beautiful illustrations that accompany them, is an appropriate tribute to one who has done so much for the science of microscopy. It is not the purpose of this note to attempt to summarize the several papers; but the two papers by Ludford and Smiles seem to call for special comment, as they illustrate in the most striking and convincing way the relative merits of ultra-violet and of phase-contrast microscopy. Both techniques are superbly illustrated and justify in a remarkable way the well-tried techniques of fixation and staining for revealing minute cell structures.