

There, under the stimulating influence of Hale in the encouragement of team work, not only were opportunities of a very unusual kind afforded to the members of the devoted permanent staff, but also welcome was extended to students of recognized authority from all parts of the world, to join in co-operative work.

Even in the resulting activity, Hale himself found time and energy to produce very notable scientific contributions, such as his splendid discovery (based on Zeeman's discovery of the influence of a magnetic field on spectral lines of a gas rendered luminous in such a field) that sunspots were the seats of violent magnetic phenomena and that the sun showed signs of having a general magnetic field, with poles not far removed from the poles of the axis of the sun's rotation. One of his latest achievements was the invention of his beautiful spectroheliograph for visually studying local changes of short duration in the features of the sun's surface—a study that seems likely to throw light not only on the cosmical origin of terrestrial magnetic storms and of the aurora borealis, but also on certain peculiar phenomena encountered in the reception of wireless signals, which seem to indicate the arrival of external influences (probably of solar origin) in the outer atmosphere of the earth.

Truly Hale was a leader of outstanding ability, and his influence and memory will long be cherished. His many friends will join in a deep regret that it was not given to him to live to see the completion of that huge enterprise of the 200-in. reflector, in the initiation of which he took so deep an interest.

H. F. NEWALL.

THE most prominent characteristics of Dr. Hale were his whole-hearted devotion to astronomy and his friendship with his colleagues and fellow workers. His invention of the spectroheliograph and spectroheliograph and his discovery of the magnetic field in sunspots are tributes to his mechanical genius and insight. The two magnificent observatories and the 200-in. telescope are outstanding achievements. But he had also a very catholic interest in the work of his colleagues all over the world, and was always ready to give them help. The Solar Union had Hale for father and, as wittily said by a German astronomer, Schuster for mother. He attached great value to good fellowship among astronomers, amateur and professional alike, for the advancement of the science.

I shall always remember the times I have met Hale and the complete absence of any superiority or what is vulgarly but expressively called 'side'. The last occasion when I saw him was some seven or eight years ago, when he invited Sir Herbert Jackson, Prof. A. Fowler and me to lunch, and we heard of his project for the 200-in. reflector. Another time he was passing through Edinburgh after a visit to Andrew Carnegie at Skibo Castle, and was hugely delighted at having beaten Andrew at golf and caught a bigger fish. He was a great man, and I, with many more, am proud to have been among his friends.

F. W. DYSON.

Mr. C. Green

THE death of Charles Green, chief inspector of fisheries in the Fisheries Branch of the Department of Agriculture of Eire, on February 9, after a short illness, came as an unexpected shock to his friends.

He was born in 1876, the only son of the Rev. William Spotswood Green, a well-known alpine climber and organizer of deep-sea trawling expeditions, and was educated at St. Edward's School, Oxford. After taking a degree, with a gold medal in natural science, in Trinity College, Dublin, he was, in 1900, appointed a naturalist on the staff of the newly constituted Fisheries Branch, afterwards becoming inspector and, later, chief inspector.

Though his official duties tended to direct his attention more to the legislative and administrative side of fishery affairs, of which his knowledge was extensive and profound, Green kept in close touch with recent biological research, and it was due largely to his insistence that the dictum, laid down by his predecessors, that fishery administration must have an adequate biological basis, continued to receive due official recognition. His loss will be realized most fully by his immediate friends and colleagues, for most of his work was done under the cloak of official anonymity.

Until other claims on his time became more pressing, Green often attended the meetings of the International Council for the Exploration of the Sea, first as an expert on the staff of the British delegation and later as a delegate from the Irish Free State.

He was for many years an active member of the Council of the Dublin Zoological Gardens, and was elected a vice-president shortly before his death.

G. P. F.

WE regret to announce the death of Prof. Wladyslaw Grabski at Warsaw on March 1, after a long and painful illness. He had been rector and lecturer at the Polish Agricultural College and was an authority on the economics of agriculture. After the Great War and the liberation of Poland, Prof. Grabski became a prominent statesman, first as Minister of Agriculture and later as Finance Minister. During his period in office, he founded the State Agrarian Bank and also the Bank of Poland. In 1925, Prof. Grabski retired from political life and returned, as principal, to his old college.

WE regret to announce the following deaths:

Mr. Charles Benson, formerly deputy director of the Agricultural Department, Madras, known for his work on Indian cotton and tobacco, on March 5, aged eighty-two years.

Prof. Alfred Fischel, formerly professor of experimental embryology in the University of Vienna and editor of the *Zeitschrift für Wissenschaftliche Biologie*, aged sixty-nine years.

Prof. Friedrich von Krüger, for many years director of the Department of Physiological Chemistry in the Rostock Institute of Physiology, aged seventy-six years.