

(works general manager responsible for Calder) compared the time scales for commissioning the first Windscale pile with those for Calder. Despite the much greater complexity of the latter, the work had gone remarkably smoothly. This, together with the fact that the operating figures were very near the

design figures, convinced him that he had a very satisfactory plant to operate.

On this note of mixed satisfaction with the present and high expectation for the future, Sir John Cockcroft closed a highly successful and possibly historic conference.

## OBITUARIES

### Prof. C. A. Chant

WITH the death of Clarence Augustus Chant, professor emeritus of astrophysics of the University of Toronto, on November 18, in his ninety-second year, Canadian astronomy has lost the one who has often been referred to as its 'dean'. He was the founder of the Department of Astronomy at the University of Toronto and of the David Dunlap Observatory and editor for fifty years of the *Journal of the Royal Astronomical Society of Canada*. More than anyone else, he had been responsible for the growth of that Society from a small Toronto group to a nation-wide society which is truly representative of all Canadian astronomy, both professional and amateur.

Chant was born near Toronto on May 31, 1865. Educated in country schools, he was a school teacher for a year before entering the University of Toronto. After his graduation as an honours student in mathematics and physics in 1890, he was appointed in the following year to the teaching staff in physics at the University. During his early years there he experimented with Hertzian waves and is credited with transmitting the first wireless message in Canada.

By 1904 Chant had become engrossed in astronomy, had become president of the newly chartered Royal Astronomical Society of Canada and had won recognition for astronomy in the creation by the University Senate of a teaching department and of a graduating option of the mathematics and physics honours course. Under his enthusiastic leadership, the Royal Astronomical Society of Canada, then restricted to Toronto, expanded to include centres all across the country and embarked upon publication of its *Journal* and annual "Handbook", both of which were edited by Chant from their inception in 1907. At the same time, he expanded the teaching of astronomy at the University, and among his students were numbered nearly all the Canadian astronomers who were to develop observational astronomy in Canada during the first half of the century—at Ottawa, at Victoria and later at Toronto. Chant himself felt hampered at Toronto by the lack of an observatory, and as early as 1912 he began to strive to acquire for the University a major research telescope. It was not until 1928 that these efforts promised to come to fruition, when Mrs. Jessie Donalds Dunlap offered to present to the University, in memory of her late husband, an observatory to bear his name. Chant devoted the next seven years to the plans for this observatory and its 74-in. reflector, which was built to his specifications in Britain by Sir Howard Grubb Parsons and Co., Ltd., the first of a series of similar instruments made by that firm. The David Dunlap Observatory was opened on May 31, 1935, and Chant, its first director, retired at the age of seventy.

During the years when he lacked adequate observing facilities in Toronto, Chant made a

number of visits to American observatories and led five solar eclipse expeditions. The most successful of these was an expedition to Australia for the 1922 eclipse; he and R. K. Young obtained at that time one of the first verifications of the Einstein prediction regarding the deflexion of starlight by the Sun's gravitational field. He also had success as a writer of popular science articles, of school and college physics text-books and of an excellent popular astronomy book, "Our Wonderful Universe", which was published in Canada, in Britain and in five foreign language translations.

Chant's degrees included a Ph.D. from Harvard and an honorary LL.D. from Toronto. He was Fellow of the Royal Society of Canada, of the Royal Astronomical Society in Britain, of the American Physical Society, and member of the Société Astronomique de France and of the Astronomische Gesellschaft.

Since 1935 Chant had lived in retirement at Observatory House near the David Dunlap Observatory. Until a few weeks before his death he had maintained an active interest in the work of the Observatory and had continued his writing and his editorial activities. His mind remained alert and occupied with the many things that interested him, but especially with astronomy, the science to which he had devoted his long life. J. F. HEARD

### Lady Flinders Petrie

By the death of Lady Flinders Petrie on November 23, the archaeological world has lost a striking personality. As a girl, her interest naturally turned to geology owing to the friendship between her family and that of Prof. Seeley, the geologist, and this interest remained with her all her life. But after her marriage she devoted herself to her husband's work. She accompanied him in all his expeditions to Egypt, to Sinai, to Palestine, enjoying the sense of freedom which camp-life gives.

When working with her husband she did not take part in the actual excavation, but helped in the measuring of buildings and in the drawing of the finds. She always called the roll of the workmen as they came at sunrise to the excavation, she visited the work at intervals during the day, and in the evening, when the workmen brought the day's finds to the camp to be inspected and their value assessed by Petrie, she kept tally of the amount due to each man. She was present at all the spectacular finds—the jewellery of the First Dynasty, the treasure of Lahun, and that dramatic moment when Petrie identified an apparently worthless broken mud figure as an ivory statuette, the only known portrait of the builder of the Great Pyramid. She did two excavations herself: the first when she and I together opened up the Osireion at Abydos, and in the fol-