

## Dr. G. Placzek

DR. GEORGE PLACZEK, of the Institute of Advanced Study Princeton, who died at Zurich on October 16, was born in 1905 in Brunn (now Brno, Czechoslovakia). After studying theoretical physics in Vienna and Prague, he moved around Europe, working in Utrecht, Leipzig, Copenhagen and Paris, among other places. He spent a year at the Hebrew University, Jerusalem. In 1938 he went to Cornell University, and later worked on atomic energy at Cambridge, Montreal and Los Alamos. After two years in the research laboratory of the General Electric Company at Schenectady, he joined the Institute for Advanced Study in Princeton in 1948. He married in 1943.

Placzek's earliest major work was on the theory of the Raman effect, on which his review article became a classic. This led to a study of molecular rotational states, then a fruitful tool for determining nuclear spins. Later he turned to neutron problems. With O. R. Frisch he first proved that resonance-levels for neutron capture have extremely low energies. In collaboration with others, he helped to clarify the dispersion formula for nuclear reactions. Then came a study of the slowing-down of neutrons, which was started for its intrinsic interest, but proved of great importance for work on atomic energy. This led to study of the integral equations of neutron multiplica-

tion summed up recently in a book he wrote with K. M. Case and F. de Hoffmann. Since the end of the Second World War, his main interest has been in the scattering of neutrons by solids and liquids, which is important both for its contribution to neutron physics (it made possible the interpretation of experiments on neutron-electron interaction) and for its application to the study of solid state.

In each field his work was characterized by a penetrating thoroughness. He would not leave a problem so long as there was an important difficulty unsolved or a major relation not thought out. He always used simple techniques where possible, and usually used symmetry principles and classical laws for results where others might have tried much more elaborate methods.

His standards were high, and he had no patience with slipshod arguments either in his own work or

in that of others. He did not suffer fools gladly, and this is probably why he had no enthusiasm for teaching, and had only a few pupils. But to those, and to others on his own level, discussions with him were always inspiring.

But what will be remembered of Placzek above all was his personal charm, his width of intense interest and his erudition, his understanding of people, and his integrity. He would have no more patience with slackness of moral principles than with sloppy mathematics, and he would not pay attention to the effect his principles would have on his personal convenience.

In his later years he was much troubled with ill-health, and for much of the time he would not have been able to keep his work going but for his iron determination, and for the care, and the vitality, of his wife.

R. E. PETERLS