

among individuals, and a sense of responsibility for giving an all-round training as was done by the ancient trade guilds, this was not supported by the other contributors to a somewhat disappointing discussion.

The impression left by the papers and their reception was that Great Britain can deal successfully with the education and training of the technician and the general run of professional engineer, the classes who form the backbone of industry. There is a strong partnership between the technical colleges and the engineering industry, and, though there is plenty of room for better equipment and more generous treatment of teachers in the colleges, they are doing good work and will continue to do this and even better so long as they have the determination to develop their own methods and do not ape the universities. The problem industry has not solved is how best to treat the product of the university. No one denies the urgent need for a steady supply of these highly educated men, and everyone at the Conference agreed that the universities in their undergraduate courses should concentrate on the fundamentals of general engineering science; but this is less than half-way to making the men engineers able to use all their talents. Something more is needed than a two-year graduate apprenticeship followed by the usual haphazard and extravagant method of obtaining experience. The only certain way a young man now has of being given a real chance to develop fully is to be born the son of an engineering magnate. This is a restricted class, and unless leaders of industry and the professions are prepared to 'adopt' more young men from the universities rather than just to use them, then fewer and fewer of the best products will turn devotedly to engineering, ignoring the easier paths open to other scientific workers and the attractions of other professions where the training is better organized and the rewards and social standing are higher.

## OBITUARIES

### Mr. László J. Havas

LÁSZLÓ JENŐ HAVAS died on June 9 at Colmar, in Alsace, after an operation. He was born in 1885, of Hungarian nationality, and studied at Budapest and at several other universities; he also worked at Rothamsted Experimental Station. He was a man of wide culture, and an excellent linguist. The problem which primarily interested him was the relationship between plant and animal cancer; and many of his publications testify to his interest in tumours and other plant abnormalities induced by *Bacterium tumefaciens* and chemical agents. It is not widely realized that Havas was the first to apply colchicine in such investigations (*Nature*, 139, 371; 1937); and it was while he was in Brussels in A. P. Dustin's laboratory that he discovered the effect of colchicine on cell-division that has had wide repercussions in genetical work. This was announced at the Congress of Anatomists held at Marseilles in March 1937. (An account of early researches with colchicine has been given by J. M. Krythe and S. J. Wellensiek, *Bibliographia Genetica*, 14, No. 1, 1; 1942).

Havas regarded as his principal paper that on the gradual evolution of polyploidy and other changes in

*Pelargonium zonale* (*Bull. Acad. Roy. Belgique*, (5), 28, 318; 1942); but with this also he was unfortunate. Published during the German occupation of Belgium, it attracted little notice except from the Nazis, who destroyed all reprints. Havas suffered under two despotisms, and lost all his belongings in Brussels and Budapest, including his library. After the War he found asylum in France and existed precariously on grants; but his Belgian-born widow is left unprovided for. There were no children.

HUGH NICOL

### Dr. I. E. Balaban

ISIDORE ELKANAH BALABAN, head of the Pharmaceutical Research Department of the Geigy Company, Ltd., Manchester, was killed on May 23 when he fell between a train and the platform on alighting at London Road Station, Manchester.

Dr. Balaban showed an early aptitude for scientific work. During the First World War, he served with the Manchester Regiment and later the Special Brigade, Royal Engineers. He then returned to the College of Technology, Manchester, and after graduation, became research assistant to Dr. F. L. Pyman. He worked on glyoxalines and took his M.Sc. and Ph.D. degrees. On Pyman's recommendation he secured a temporary post at the National Institute for Medical Research, Hampstead, where he collaborated with Dr. Harold King in problems of chemotherapy involving the preparation of analogues of Bayer 205 and a study of their substantive properties, glyoxalines containing arsenic and gold compounds.

Balaban then entered on an industrial career, joining first of all the staff of May and Baker, Ltd., under Dr. A. J. Ewins, and ten years later he left to take up a post in the research department of Imperial Chemical Industries, Ltd., at Blackley, thus fulfilling a desire to return to his native city. While in Manchester he was awarded the degree of D.Sc., and he joined the Geigy Company, Ltd., in 1941 to develop the pharmaceutical side of the firm's activities. During these years in commercial firms, Balaban published a number of scientific papers, all having a bearing on chemicals of potential use in pharmacy or medicine.

Balaban was a keen worker in the field of medicinal chemistry and avidly kept in touch with all the latest developments. Of unassuming nature, he surprised his most intimate friends by his love of ornithology and horticulture; thus he thought nothing of paying a visit to St. Kilda to see the sea-birds in their natural surroundings. He will long be remembered by his friends and colleagues for his enthusiasm and honesty of purpose, and many will mourn his untimely end.

WE regret to announce the following deaths:

Prof. R. St. A. Heathcote, formerly professor of pharmacology in the Welsh National School of Medicine, on May 19, aged sixty-two.

Prof. F. Marguet, *correspondant* for the Section of Geography and Navigation of the Paris Academy of Sciences, and formerly professor of astronomy in the Naval School of Brest, at Villeneuve-Loubet, on June 2, aged seventy-six.

Mr. G. Udney Yule, C.B.E., F.R.S., formerly University lecturer and reader in statistics, University of Cambridge, on June 26, aged eighty.