

Although he always retained his active interest in flame, Payman transferred his attention in the early 'twenties to a more pressing problem, one aimed at ensuring the safe use of explosives in coal mines. Little was known regarding the intrinsic safety of the 'permitted' class of explosives when fired in contact with firedamp, nor of the means whereby gaseous mixtures were ignited by explosives, whether by contact with flame, hot gases or incandescent projected particles or by adiabatic compression in the shock wave. He set out with characteristic vigour and determination to study these possibilities, while at the same time approaching the problem more directly from its practical aspects. In this work he was aided by a team of research workers whom he imbued with his own enthusiasm and whose judgment and ideas he valued. These researches are described in the *Proceedings of the Royal Society*, in papers of the Safety in Mines Research Board, and in various mining journals. Payman's individual and original researches were recognized by the award of the D.Sc. degree by the University of Manchester in 1929.

Payman believed strongly in the value of fundamental research in the study of practical problems. His resuscitation and development of *Schlieren* photography due originally to Töpler were mainly responsible for its extensive modern usage, and many of the photographic techniques developed by Payman and his co-workers have been duplicated in other countries. Much of the mining research carried out by Payman and his co-workers was interrupted in 1939 and remains unpublished; even so, he contributed more than sixty papers to the scientific and technical press. He was also joint author with Prof. I. C. F. Statham of a monograph on "Mine Atmospheres". He achieved international recognition in 1938 when he was appointed president of the Explosives Section of the Congress of Applied Chemistry held at Nancy. He was also for some years secretary of the informal Explosives in Mines Research Committee of the Safety in Mines Research Board.

It seemed fitting that the main effort of the explosives section of the Board's staff should be diverted during 1939-45 to war-time problems, and it was here that Payman was at his best, directing with unflagging energy a variety of researches con-

nected with the Service use of explosives, and serving on committees of the Ministry of Home Security and of the Scientific Advisory Council of the Ministry of Supply. It is too soon to write in detail of this contribution to the national effort and much will inevitably remain unpublished; it is sufficient to say that Payman derived an intense personal satisfaction from his efforts and those of his staff, from whom he received loyal support. The end of the War found Payman replanning for the Safety in Mines Research Board the organisation of his section to cope with a full renewal of its peace-time function in addition to a continuation of some of the war-time researches; these plans were coming to fruition when illness intervened.

Despite his aptitude for experiment, Payman gained greater satisfaction from co-ordinating and guiding the researches under his control; he had the rare ability of controlling without interfering, and his quiet manner quickly won him the confidence of those with whom he dealt. This was evident both in technical committee and during talks with the many large parties of miners, sometimes sceptical of the experiments they were witnessing, who visited the research station at Buxton. It may truly be said of Payman that his work was his life. His confidence and his friendship, not lightly given, were valued highly by his friends and colleagues, many of whom were associated with him during more than twenty-five years of joint effort to achieve safety in mines.

F. V. TIDESWELL

WE regret to announce the following deaths:

Prof. M. Camis, formerly professor of physiology in the Universities of Parma and Bologna, on August 28, aged sixty-eight.

Mr. H. J. E. Peake, president during 1926-28 of the Royal Anthropological Institute, on September 22, aged seventy-eight.

Dr. Hassan Suhrawardy, during 1939-44 adviser to the Secretary of State for India, formerly vice-chancellor and dean of the Faculty of Medicine of the University of Calcutta, on September 18, aged sixty-one.

Mr. George Tickner, an authority on British birds, aged seventy-eight.

NEWS and VIEWS

Atomic Scientists' Association: International Contacts

THE desirability of setting up an international federation of atomic scientists was discussed at the conference held by the Atomic Scientists' Association at Oxford during July, at which foreign men of science were present. Because of the diverse forms in which atomic scientists were or might be organised in different countries, and of the difficulties of getting one central body to speak on behalf of scientific men scattered over the world, it was decided that it was not warranted at present. The need for international contacts, however, was stressed, and one man of science from each of the foreign countries represented (France, Holland, India, Norway, Sweden, Switzerland and the United States) volunteered in a personal capacity to be responsible for liaison and for the exchange of published literature between the Atomic Scientists' Association and any bodies already exist-

ing or which might be set up with similar aims in their own countries. To extend this, a letter setting out the aims of the Association—"To maintain in Great Britain an informed public opinion about atomic energy, in order that all possible steps shall be taken to secure, in the words of the Washington Declaration of November 1945, international control to the extent necessary to insure its use only for peaceful purposes"—was afterwards sent to the academies of science and various scientific men in countries not represented at the conference, with a request that it might be brought to the notice of the scientific workers of their country and, if possible, a correspondent be appointed with whom the Atomic Scientists' Association can keep touch. The countries circularized were the Argentine, Australia, Belgium, Brazil, Canada, China, Czechoslovakia, Denmark, Yugoslavia, New Zealand, Poland, South Africa and the U.S.S.R.