

purpose involves inevitably a technical service department for the purpose of evaluating new products and serving as a link between the potential consumer and producer. While, however, a technical service can help and collaborate in the industrial use of new products, it cannot unaided solve completely the problems arising in different fields of industrial effort. The small firm can utilize technical service just as readily as the larger firm.

Sir Edward Appleton, speaking at the afternoon session, said that the Department of Scientific and Industrial Research has given much thought to the problems of research and the smaller firm. He suggested that the industrial research associations should form the main reservoirs of knowledge on which the smaller firms should draw, stressing particularly the importance of efficient distribution of knowledge, supplemented by personal contacts, and the value of membership of more than one research association. He referred in general terms to the universities and technical colleges as the main source of new knowledge and fundamental research, and stressed the importance of having within the smallest firm those competent to assess the bearing of new knowledge on the products, processes or purposes of that industry. When facilities and staff are available, the Department of Scientific and Industrial Research will be prepared to assist a small firm by arranging to carry out special investigations into specific problems, although it is not possible to offer the same facilities as the Mellon Institute or the Battelle Institute—a statement which appears to conflict with Dr. Toy's remark that the research associations themselves are not encouraged to undertake work at cost for an individual firm.

10/6

SCIENCE IN RELATION TO THE COMMUNITY

THE Imperial College of Science and Technology has established an Inaugural Lecture to be delivered annually and with no limitation of subject. The first of these lectures was delivered on October 25 by Prof. A. D. Ritchie, professor of logic and metaphysics in the University of Edinburgh. The following is an abstract of Prof. Ritchie's remarks:

To begin with, it is necessary to distinguish between science and technology. In popular use, the term science covers both. Though one man's activities may be such as to count as both science and technology, this does not happen often. Even so, the aims of the two are always distinct. The man of science is trying to understand. His practical activities are practice for the sake of understanding. The technologist is concerned with doing something useful. Though he must understand first, his understanding is for the sake of practice. However closely connected, the two have very different social responsibilities.

The final result of scientific investigation is a body of systematic thought. The scientific worker's responsibility is towards his fellow men of science, those who are capable of judging the value of his work; as to whether it contributes to their common system of thought. Nowadays, when science has become expensive, the man of science must count himself lucky, if those who pay for his piping let him call his own tune. If ever he is not allowed to, science will die

out, and after that technology will petrify into routine and superstition.

The technologist is the servant of the public, directly or indirectly. His business is to plan or produce things which are useful and not harmful. His best efforts may sometimes be misused by other people through no fault of his own, but he has no right to assume that misuse is never his fault. An architect planning a new housing estate, who designs a built-in cocktail bar for the houses but no accommodation suitable for children, has a great deal of responsibility for the social habits of the inhabitants. He may put forward two schemes, one with cocktail bar, the other with nursery and playroom, saying both cannot be had at the price, and leaving the choice to the politicians. But in the modern world, social problems are more and more tied up with technical matters, so that the technologist can and does force the hand of the politician far more than he used to.

The social conduct of those technologists we call medical men has been governed by a definite moral code—the Hippocratic Oath—as a result of which they have on the whole used their immense prestige for the good of the community. It has been suggested that all technologists should be bound by a kind of Hippocratic Oath. The man who has to draw up such an oath is not to be envied his task. It was easy for Hippocrates, as he dealt only with the relations between individual physician and individual patient, which are always much the same and for which a general rule can be laid down. Nowadays the technologist is concerned far more with large-scale collective relations. Each new problem is different from the last; general rules may do more harm than good. Still, there is one great danger ahead, which if seen may be avoided. The tendency now is for men to become the servants of their machines, instead of the machines the servants of men. The engineer's formula of efficiency may be merely an excuse to further this tendency, unless he remembers that people come first and machines second.

23/6

FORTHCOMING EVENTS

(Meetings marked with an asterisk * are open to the public)

Monday, November 4

FARMERS' CLUB (at the Royal Empire Society, Craven Street, Strand, London, W.C.2), at 2.30 p.m.—Mr. J. G. Stewart: "Protein Food Production".

SOCIETY OF ENGINEERS (at the Geological Society, Burlington House, Piccadilly, London, W.1), at 5 p.m.—Mr. A. E. Bingham: "Modern Methods of Testing".

SOCIETY OF CHEMICAL INDUSTRY, LONDON SECTION (joint meeting with the INSTITUTE OF FUEL, at the Institution of Electrical Engineers, Savoy Place, Victoria Embankment, London, W.C.2), at 6 p.m.—Dr. C. C. Hall: "The Operation and Development of the Fischer-Tropsch and related Processes in Germany".

Tuesday, November 5

CHADWICK PUBLIC LECTURE (in the Livingstone Hall, London Missionary Society, 42 Broadway, Westminster, London, S.W.1), at 2.30 p.m.—Mr. Asa Briggs: "Public Opinion and Public Health in the Age of Chadwick".*

ROYAL INSTITUTION (at 21 Albemarle Street, London, W.1), at 5.15 p.m.—Prof. James Gray, F.R.S.: "Locomotor Mechanisms in Vertebrate Animals, 2, Transition from Water to Land; Origin of the Limb with Five Digits; Its Development for Propulsion and Support".*

INSTITUTION OF CHEMICAL ENGINEERS (at the Geological Society, Burlington House, Piccadilly, London, W.1), at 5.30 p.m.—Mr. W. F. Carey: "The Effect of Using Hot Air in Grinding Systems".

ROYAL ANTHROPOLOGICAL INSTITUTE (at 21 Bedford Square, London, W.C.1), at 5.30 p.m.—Saw Tha Din: "The Karen People".

ROYAL PHOTOGRAPHIC SOCIETY, SCIENTIFIC AND TECHNICAL GROUP (at 16 Princes Gate, London, S.W.7), at 7 p.m.—Symposium on "How Accurate is a Photograph?" (Contributions by Dr. J. L. Tearle, Mr. A. A. Ray and others).