

or industry; the collection of evidence of the effectiveness of measures already taken to speed up the application of science in industry, or to remove hindrances to such application; and the examination of the possible results of other proposed measures. Work is already in progress and centred on two research units; one at the University College of North Staffordshire directed by Prof. B. R. Williams, and one at The Queen's University of Belfast, directed by Prof. C. F. Carter.

The chairman of the Committee is Prof. C. F. Carter, professor of applied economics in The Queen's University, Belfast. Other members are: Sir Ernest Goodale, Mr. A. C. Hartley, Dame Caroline Haslett, Sir John Simonsen (appointed by the Council of the Royal Society of Arts); Dr. T. E. Allibone, Mr. M. G. Bennett, Prof. A. J. Brown, Prof. C. F. Carter, Mr. A. C. Hartley, Prof. K. S. Isles, Prof. H. D. Kay, Prof. J. A. L. Matheson, Dr. R. E. Slade, Prof. M. Stacey, Prof. B. R. Williams, Dr. T. Wilson (appointed by the Council of the British Association); Prof. A. K. Cairncross, Dr. Barnes Wallis, Mr. A. H. Wilson (appointed by the Trustees of the Nuffield Foundation). The secretary of the Royal Society of Arts, the secretary and assistant secretary of the British Association, and the director and assistant secretary of the Nuffield Foundation attend *ex officio*.

University Physics in Great Britain

IMMEDIATELY following the annual general meeting of the Physical Society held on May 25 at the Royal Institution, Prof. R. Whiddington, the retiring president, delivered his presidential address entitled "Physics in the University and the Nation". Prof. Whiddington compared the conditions which existed in university physics laboratories fifty years ago with those to-day by referring to his own experiences as an undergraduate at St. John's College, Cambridge, and later as a research student at the Cavendish Laboratory. Conditions, he said, are very different to-day, in many respects for the better. There are more workshop, technical and secretarial assistance, more apparatus and more adequate maintenance for the research worker himself, but in one direction Prof. Whiddington thinks progress may have gone too far. The young research worker needs to learn from his mistakes; but nowadays with team-work, efficient organization and constant supervision, there is an unfortunate tendency for the research worker to be pulled up and set on the correct path before he has an opportunity of making a mistake. Turning to the present-day problem of the supply and demand of physicists, Prof. Whiddington stated that the recent rapid post-war expansion of the university undergraduate population has not drawn in any more really first-class men than formerly. There is not, as some people believe, an unlimited reservoir of high-grade brains of the academic type on which the nation can draw. The average student, the well-trained physicist, who requires close supervision and coaching rather than the suggestion and leading of the first-class man, is of great importance and value in the modern world and is in increasing demand. However, the supply of these is not getting better, but is actually now being threatened.

The basis of the danger is the shortage of physics schoolmasters and the consequent lack of good teaching in the schools. It is not possible to conjure up suddenly a supply of teachers, but Prof. Whiddington suggested that it may be possible to increase the number of available well-trained graduates by

making fuller use of reserves of teaching power. For example, it should be made possible and attractive for the older teachers to continue their work beyond normal retirement age, and to allow and encourage some of the better young physicists now fully engaged in industry or government service to devote some of their time to teaching in the schools. If, Prof. Whiddington finally warned his audience, more science teachers cannot be obtained, and if the partial remedies he suggested proved impracticable, then to ensure an adequate supply of physicists for the national needs, the universities will be forced to take a step backwards, reintroduce a four-year course and face up to the prospect of large numbers of elementary students; the consequence will be a weakening of standards and, without increased accommodation, a reduction in the annual output of graduates.

The Need for Education in British Industry

THE president of the Federation of British Industries, Sir Harry Pilkington, gave an address to the annual general meeting of members in the Eastern Region at Cambridge on May 19, in which, after stressing the necessity for a further ordered advance in the national economy of Great Britain and for keeping prices down by eliminating waste, mechanizing and creating new demands, he referred to the bearing of the shortage of science teachers on technical efficiency. We can only keep the lead in science and in research, he said, by marrying industry and education much more closely. There are still not enough trained minds for our expanding needs, and he specially stressed the importance of good teachers of science: if we cannot get them, we shall be really short of students as well as of graduates within a generation. Sir Harry urged members to give thought to the provision of personnel management, particularly at the technical level, and to the sympathetic absorption of technical recruits. One way of overcoming the shortage of science teachers could be by offering them rewarding work during the vacation; he suggested that firms might allow members of their staff to lecture in technical colleges and schools and provide short-term vacation courses for both students and teachers, and he urged the absolute necessity for education and industry to go forward in co-operation.

Institute of Professional Civil Servants

THE annual report of the Institution of Professional Civil Servants for the year 1953 (pp. 40; obtainable from the Institute, London; 1954) is largely concerned with the details of salary negotiations with the Treasury. Apart from an indication of the broad lines of evidence submitted by the Institution to the Priestley Commission on the Civil Service, set up in 1953, the major effort of which is to secure salary scales which represent a proper alignment between the professional, technical and scientific Civil Service, on one hand, and the administrative, executive and clerical Civil Service on the other, the main interest of the report for the scientific worker lies in its account of the steps taken during 1953 towards parity between the scientific classes and the executive and administrative classes. Substantial success was achieved in establishing parity between the experimental officer and the executive officer classes, but difficulty was created in pressing the claim of the scientific officer class for parity with the administrative class by the refusal of the Treasury to allow arbitration in respect of grades above the limits set