

at the College, being granted the degree of M.Sc. in 1942. During the course of higher study he was appointed a temporary lecturer in radio and radio-physics at the College. In 1942 he joined the staff of the Director of Scientific Research, Admiralty, and was stationed for four years on H.M.S. *Excellent*, Portsmouth, where he was engaged on the development and trials of radar and gun control equipment, being particularly concerned with the development of electrical predictors. In 1946 he joined the staff of the British Iron and Steel Research Association, and in 1947 was appointed head of the Instrument Section of the Physics Department. Mr. Carlisle has been closely associated with the industry's co-operative work on instrumentation, particularly that of open-hearth furnaces, which has placed Great Britain in the forefront of steelworks instrumentation practice. He is a member of the Council of the Society of Instrument Technology.

#### Training and Supply of Graduate Teachers in Mathematics and Science

IN reply to a request in the House of Commons on January 21 for a statement on the report of the National Advisory Council on the Training and Supply of Teachers with particular reference to graduate teachers of mathematics and science, the Minister of Education, Miss F. Horsbrugh, stated that she accepts the broad conclusions of the report, and that she is consulting the other interests principally concerned to see how the needs of the schools for a better supply of these teachers can best be met. She will also be asking the local education authorities to ensure that the most effective use is made of the graduate teachers of science and mathematics available to them now and in the future.

#### Threat of Atomic Warfare

READERS of the *Bulletin of the Atomic Scientists* will have noticed that the hands of the clock which forms the distinctive coverpiece of the *Bulletin* have been moved forward so that now they stand at two minutes to midnight. This is to direct attention to the recent announcement that an atomic test involving both fission and thermonuclear reactions was conducted by the U.S.S.R. on August 12 and to warn members of all nations of the great danger of an untoward event acting as a trigger for the eruption of atomic or thermonuclear warfare. In an article in the October number of the *Bulletin* (9, 294; 1953) entitled "The Narrowing Way", the editor, Dr. E. Rabinowitch, expresses the apprehensions which many Americans feel. He considers that unless special care is taken it may only be a few more swings of the pendulum before atomic explosions strike midnight for Western civilization. In 1945 or 1946, he states, the elimination of atomic weapons from national arsenals through an international control mechanism, substituting mutual interdependence for mutual fear, had a slight chance of success, but it now has none and will not until the present cleavage of the world into two sharply opposed power camps disappears. Dr. Rabinowitch maintains that the Western countries are faced with the inevitable prospect of a "cold peace", precariously supported by a mutual threat of atomic and thermonuclear annihilation, and that in order to strengthen this peace it is necessary for the United States of America to create a powerful and universal fear of, and revulsion to, war by presenting to the world a sober account of the present, and reasonable estimate of

the anticipated, destructive capacities of the atomic and thermonuclear weapons in American and other hands. In addition, aggression must be made clearly unprofitable, and, he states, American policy must be directed towards maintaining unity and collective security in the non-communist world.

#### Linen Industry Research Association: Report for 1953

THE report of the Council of the Linen Industry Research Association for the year ended September 30, 1953 (pp. 20; from the Association, Belfast, 1953), records the completion of the post-war development programme of the Institute laid down in 1945. Membership of the Association now totals 285; but although the grant-earning income increased, the total income decreased slightly through a reduction in the grant from the Flax Development Committee and in the revenue from patents. Promising results have been obtained with a prototype stapling machine for flax fibre, of which the object is to improve levelness during preparing and dry spinning. Investigations continued on productivity in flax spinning, on the drafting of flax and rayon staple fibres on flax machinery with the object of improving the regularity of the yarns, on the elimination of shading effects in plain dyed rayon staple fabrics and on yarn friction. Advances have been made in the use of electronic irregularity testers for routine mill tests for the control of yarn quality, and of the 'Linra photoslubber' to locate the causes of faults in production. In fundamental work on the relation between yarn strength and cloth strength, tests have been completed for cloths ranging in weight from 7 to 12 oz./sq. yd. New instruments have been developed for studying the physical properties of size materials and correlating these properties with performance in the loom. Further advances have been made in producing the crease-resistant finish on linen fabrics, and bulk trials on finishing linen fabrics to improve the wearing qualities are in progress, while a wash-fast flameproof finish applied to linen fabrics has given satisfactory results under user conditions. In moving the adoption of the report and accounts at the annual general meeting on December 11, 1953, the chairman of the council, Mr. H. B. McCance, said that perhaps the greatest contribution the Association has made to the industry has been its unconscious education in the scientific approach, and he referred particularly to the flow of staff from the Research Association to member firms. The director, Dr. A. J. Turner, stressed the plea in the report for greater co-operation from member firms in putting their problems to the Association's staff. He also reported that the experimental work on bleaching linen yarn in package form has now reached the stage of industrial application.

#### Australian and New Zealand Association for the Advancement of Science

THE report of the twenty-ninth meeting of the Australian and New Zealand Association for the Advancement of Science, held in Sydney during August 1952, edited by J. F. Kefford, has been published (Vol. 29; pp. 386. Sydney: Government Printer, 1953). It includes the presidential address of Sir Douglas Copland on "Authority and Control in a Free Society", and those of the presidents of the several sections, with lists of papers read to the sections and the report of the standing committee of Sections C (Geology) and P (Geography and Oceano-