THE TEXTILE INSTITUTE

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IN 1910 the Textile Institute, the professional body of textile technologists, was founded "to advance the general interests of the textile industry, more particularly in relation to the acquisition and application thereto of scientific knowledge". On April 4, 1952, its new headquarters at 10 Blackfriars Street, Manchester, were officially opened by the president, Mr. G. H. Spencer, at a ceremonial unveiling of a tablet commemorating the names of the fifteen founding members.

The necessity for new and more commodious premises has arisen mainly because of the remarkable post-war growth of the Institute's membership and activities. In its early days it developed slowly: when it received its Royal Charter in 1925 its membership was just over 1,000, and by 1939 this number had increased to 1,700. But since 1946 no less than 4,637 new members have joined, and the current membership of more than 5,600 is still growing at the rate of a hundred or so a month.

This rapid expansion is in part due to the growing recognition that industries in general, and the traditional industries in particular, depend very largely for their future prosperity on a more widespread application of science and the scientific method of approach to the problems of their materials, processes and organization. But it is also due to the part which the Institute itself has played in developing this climate of opinion, and to the high esteem in which its *Journal* and its diplomas have come to be held by textile technologists throughout the world. It is not, and never has been, a purely national body—a fact which is symbolized in the crest of its arms. More than a thousand of its members, including 271 fellows and associates, are drawn from overseas, and in recent years its examinations for the award of diplomas have been held at centres in seventeen foreign countries. The *Journal*, which is the official organ of publication for the several textile research associations, is universally acknowledged to be without equal in the textile field, both for the quality of the papers contributed and for its abstracts of current textile literature, which are immeasurably more comprehensive than anything of the kind published elsewhere.

Besides setting up high standards of technical literature through its *Journal*, and of professional competence through the award of diplomas, the Institute serves the purposes laid down in its charter in many other ways: by the award of scholarships and prizes; by the unification of testing methods; by the codification of textile terminology; and by the organization of conferences and lectures. In the conduct of its affairs, the Council is assisted by fourteen standing committees with their numerous subcommittees and overseas advisory panels; and as the membership has grown so also have the demands upon the Institute's resources—in offices for the expanding staff and meeting rooms for the greatly increased amount of committee work that has to be done.

Since the Second World War, the old premises in St. Mary's Parsonage, considered even in 1925 to be "none too commodious", have been quite inadequate for their purpose, and administration has had to be carried on under increasingly difficult conditions. Staff had to be accommodated wherever there was space, and serious inroads were made into such limited accommodation as had previously been available for members. In its new headquarters, the Institute now has offices which not only satisfy its administrative requirements but also make possible the restoration and augmentation of the general facilities for its members. Particularly appreciated among these are the lecture theatre to seat 165 in comfort, the handsomely furnished members' room, the dining-room, and the adequate housing of the Institute's extensive library.

The opening ceremony was performed at a convocation for the award of medals and diplomas, following which the assembly was addressed by Dr. Percy Dunsheath on the subject of "Education, Technology and Management". Dr. Dunsheath's theme was the relatively low esteem in which technological studies are held in Great Britain as compared with the United States and elsewhere. Though the situation is improving, he said, there are still far too many in a position to influence the careers of young men who are apt to look down on any sort of education that is directed to a useful end. This, he contended, is a state of affairs that must be rectified, and quickly, if Britain is to maintain itself in the forefront of industrial nations. Technological education, based as it must be on a sound foundation of fundamental science, has every right to claim a status on a par with that of any other form of academic study; and unless it is accorded that recognition, industry would fail to attract its due share of the best brains in Britain, by which alone it can survive in the face of modern world competition.

EDUCATION GROUP OF THE INSTITUTE OF PHYSICS

ANNUAL CONFERENCE

SCHOOL and university examinations in physics were discussed at the annual conference of the Education Group of the Institute of Physics, held at the Institute's House during April 17–19. The opening paper by Mr. J. L. Brereton (general secretary, Cambridge University Local Examinations Syndicate) on "The Place of Examinations in Education", explained the aims of a school examination. It is the modern equivalent of the master's criticism of his apprentice. The external examination goes further, in that it tests teachers as well as pupils, and can exert a profound influence for good on the courses of study in schools. The General Certificate of Education, which can be taken in single subjects and not necessarily from school, does not of itself imply the completion of an approved course; and only by close co-operation between examining bodies and the schools can its value be maintained. Mr. Brereton said he believes that group intelligence tests are similar in nature to conventional examinations, but at a very low level of knowledge. He had experimented with an interchange of papers with American schools, and the results so far suggested a high correlation between marks obtained in the General Certificate papers and in their objective tests. He believes there must eventually be a move towards the establishment of internal examinations conducted

by the schools under the supervision of the examining bodies.

The second session, on "School Examinations", was opened by Dr. T. L. Ibbs (University of Birmingham), who agreed with many of the points in Mr. Brereton's paper. He regretted some of the recent alterations in school examinations, particularly the abolition of the distinction mark, which had been a help to universities in selecting entrants although it reflected the proficiency of a school's coaching as well as the promise of a candidate. Mr. E. W. Tapper (Dulwich College) described the organization of the internal examinations at Dulwich, which are conducted in the atmosphere of a public examination and give the pupils some training in examination technique—an art that can and should be taught. Mr. W. B. Chivers (King Edward's Grammar School, Aston, Birmingham) spoke on practical examinations. He urged that separate papers should be set for 'advanced' and 'scholarship' candidates, that the marks should be assessed apart from the theory papers, and that the result of the practical examination should be recorded on the certificate. Many boys have outstanding practical gifts, and little aptitude for theory; there is a demand for these gifts in many industrial careers, and the certificate should state them. The difficulties of staging a practical examination for many candidates, with limited space and resources, were recalled with great good humour.

Prof. W. E. Curtis (president of the Institute of Physics) opened the discussion on these papers. He felt that there is little difference, as affecting university entrants, between the General Certificate of Education and the older form of examination, and endorsed Mr. Chivers's suggestions for improving the practical papers.

University examinations for honours students were the subject of the third session. Prof. Curtis said that the usual written examination lays too much stress on memory, and leaves too little time for thinking; it also leads the undergraduate to adopt wrong methods of study aimed at forecasting likely questions. He described the system used in the University of Durham at King's College during the honours course for developing and testing the student's powers of original thinking, and resource in practical work. Dr. J. G. Wilson (University of Manchester) said that the final honours examination tests a man's fitness to enter the profession of physics. Apart from the qualities mentioned by earlier speakers, one important skill is his ability to communicate his knowledge. Many good students have a poor command of English; is this a matter to be rectified at school, or at the university? Little originality can be expected in specialized branches of physics; but students ought to be able to apply their knowledge of the elementary ground-work of physics in an original way, and examination questions could be framed so as to test this ability.

The discussion centred first on Dr. Wilson's point about the low quality of written English prevalent among science students. Mr. R. Stone (Manchester Grammar School) said that this is a matter for the universities; the good scientist is often a 'late developer' in English, and can quickly be trained in this when the time is ripe. Dr. H. R. Lang (secretary of the Institute of Physics) said that the real need is a command of functional English, an ability to write clear and concise reports. Returning to the main subject, Dr. J. Topping and Dr. R. Fürth spoke of the Continental system of oral examinations as perhaps a better way of assessing candidates but less favoured by candidates themselves.

University examinations also occupied the final session. Dr. W. H. Taylor (University of Cambridge) described the aims and organization of the practical examinations in physics for the Natural Sciences Tripos, and Dr. A. J. Woodall (Military College of Science, Shrivenham) spoke of examinations in physics for the non-specialist, quoting some very simple questions which could be set to test a candidate's grasp of elementary principles, and which did indeed cause his hearers some moments of hard thinking.

All the speakers were concerned with the use of examinations as a part of the technique of education, and this positive and constructive attitude was evident throughout the discussions. A valuable feature of the conference was the exchange of views and experiences between teachers and examiners of physics at all academic levels. G. R. NOAKES

ASLIB AERONAUTICAL GROUP

CONFERENCE AND ANNUAL GENERAL MEETING

THE Aslib Aeronautical Group held its first conference and annual general meeting at the College of Aeronautics, Cranfield, during April 5–7. The forty-eight delegates represented many aircraft and accessory manufacturers, airlines, experimental establishments and other bodies interested in the supply and use of aeronautical information. They were welcomed to the College by Air Chief Marshal Sir Edgar Ludlow Hewitt, chairman of the board of governors, and Air Marshal Sir Victor Goddard, principal of the College.

The programme included a talk by Mr. P. L. Taylor on electrical engineering as applied to aircraft, and Mr. A. H. Holloway (Technical Information Bureau) and Mr. J. G. Ogg (Central Radio Bureau) outlined the scope and functions of their respective departments in the Ministry of Supply.

The Group was fortunate in having as its guests Dr. A. C. de Kock and Dr. R. Timman, both of the Nationaal Luchtvaartlaboratorium, Holland, and co-authors of the N.L.L. scheme for the analytical cataloguing of wind-tunnel and other empirical aerodynamic data (NLL Report *F*64). One of the three working parties recently formed by the Group had been asked to examine the scheme in detail, and at the meeting it presented its interim report. General reactions were favourable: it was agreed that normal library classification systems are unsuitable for this special purpose, and the Dutch index cards, each giving an illustrated analysis of one scientific report, would be generally acceptable provided that minor improvements can be made in the physical process of selection. It was suggested that edge-notched or punched cards might be used.

The working party dealing with abstracts, in its interim report, outlined the steps taken to ascertain requirements for aeronautical abstracting services. This has been done by distributing with *Index Aeronauticus* seven hundred copies of a questionnaire. Replies indicate that present needs can be met by some improvement in the *Index Aeronauticus* itself rather than by the initiation of a new venture.