his presidential address.

Association of Teachers in Technical Institutions.

THE twenty-second annual conference of the Association of Teachers in Technical Institutions was held at Manchester during the Whitsuntide holiday. On Whit Monday the Association was accorded an official welcome by Alderman F. J. West (ex-Lord Mayor of Manchester and a member of the Government Committee on Education for the Engineering Industry), Dr. Stanley Hodgson (Chairman of Governors, Royal Technical College, Salford), and Alderman J. Smith (Chairman of the Bury Education Committee). On the same day the retiring president, Mr. H. A. Norman (of Bury), inducted the president for the coming year, Mr. H. Ade Clark, who delivered

Those who expected Mr. Clark to deal with the matter of salaries (notice has been given that the present scales of salary for technical teachers will be terminated on Mar. 31, 1932) were disappointed. He insisted that the question was one for the Association's representatives on the Burnham (Technical) Committee, and said that whatever the outcome of negotiations might be, the Association could not lose sight of the problems which it had to face in company with the Board of Education, the local education authorities, and those engaged in the country's industry and trade. Those problems, he said, had been well summed up by one of his predecessors in office, Mr. A. E. Evans, in a paper to the last North of England Education Conference: "Soon after the War it became apparent that, hitherto unchallenged, or feebly challenged, commercial and industrial supremacy of Britain was likely to experience a fierce onslaught from other nations. It was recognised by those engaged in our technical institutions

that one of the weapons of defence would be a system

of education which would provide men and women

tialities of this country and its associated Commonwealth as one of the great manufacturing, carrying, and

exporting civilisations of to-day. To determine these

potentialities and how best to educate men and women

-whether as leaders or as led—who realised the poten-

for their development was of vital importance." With these points in mind, Mr. Clark surveyed the rapid developments of technical education, and, in indicating the Association's work in connexion therewith, he showed that it was not in Britain alone that the work of technical education was becoming recognised. The Association was in touch with the Technical Instructors' Society of Australia; it was linked to the great American continent through the English-Speaking Union; its views had been sought and given to the World Conference of Education Associations at the Geneva meeting, and its representatives had formed part of the English delegation which attended, last summer, the International Congress on Technical Education held at Liège under the auspices of the Belgian Government, when twenty-two nations were

In spite of this development of national and international opinion, however, Mr. Clark indicated the difficulties which technical education had still to face.

If a scientific approach were to be made towards the solution of our problems of education and industry, it was clear that a small national co-ordinating committee would be necessary to bring together the information secured by local bodies which were forming machinery to draw together educationists and industrialists. The Board of Education was not yet prepared to admit the necessity of such a committee.

Frequently, too, those responsible for local educational administration seemed, "like the tradition-loving schoolmaster, unable to view problems except through academic spectacles. They . . . fear to face the implications of the changing needs of the kaleido-scopic industrial and commercial civilisation in which we live. . . . If rationalisation means the application of organised knowledge, the importance of technical education has to be realised by educationists as well as industrialists. The latter are by no means the only people clinging to ancient methods and conceptions."

To show that those who may be powers in public life also needed convincing, Mr. Clark referred to a recent speech of the Right Hon. Sir Herbert Samuel, M.P., who said (as though to show the superiority of university to technical education) that although technical colleges may be useful and necessary, nontechnical institutions gave something better. Men, he said, are not content with obtaining the means of getting a living; they want to live; and the most powerful events of our time do not turn upon economic issues. In such thinking, Mr. Clark suggested, there is a lack of clarity. "Does not a university provide technical education? What sort of doctors, lawyers, architects, would we have if it did not? And do technical colleges not teach the art of living? there any better way that such an art can be taught than by the relationships of men (social, industrial, and commercial) made through the work they have to perform in the world? Where would our art of living be without our engineering, our chemistry, our building, and our domestic science? And is there any art or ideal or joy that is not ultimately dependent on economic issues?

Among the resolutions dealt with by the Conference was one asking for a review of the conditions of entry into various branches of industry. It stressed the desirability of remission of some period of apprenticeship for ex-full-time pupils of senior and junior technical schools, the need for an extended provision of opportunity for all entrants into industry to pass into the ranks of skilled workers, and the need for further provision of part-time day courses for apprentices and learners. Considerable discussion was also centred upon a resolution which included a declaration that a knowledge of biology is part of a sound general education, and that more experts are needed in biological subjects for the proper development of agriculture and industry.

In connexion with the Conference, an excellent exhibition of books and apparatus was provided by a number of publishers and apparatus manufacturers.

Organisation of a Locust Campaign.

THE locusts constitute one of the oldest known plagues of agriculture, but the efforts to study them have always been sporadic and local, while the problem is a very wide one. It is very gratifying to learn, therefore, that the Empire Marketing Board, acting on the recommendations of the Committee on Locust Control of the Economic Advisory Council,

has made a grant of £2720 towards the organisation of exhaustive investigations on locusts. The grant represents one half of the estimated cost of investigations during the first year, the other half being covered by contributions from the various British territories participating in the scheme.

The investigations are being conducted by the

Imperial Institute of Entomology, where a special section has been formed for the collection and summarising of all the available information on locusts. Regular reports on the appearance and movements of locusts are being received in the Institute, where they are analysed and correlated, so that a clear picture of the situation is obtained and deductions can be drawn as to the possible source of each invasion. Data of this kind make it possible to draw conclusions as to which areas can be suspected as the probable permanent breeding grounds of locusts.

At present the Red Sea littoral of Africa, the northern provinces of Kenya, and certain areas in Arabia are marked down as deserving a close investigation, and two field entomologists will be sent shortly to the Sudan, and one to Kenya, to study the conditions on the spot. It is hoped that the field entomologists will be able not only to locate the breeding areas, but also to study the natural conditions which make them favourable for locust breeding. Thus, the first year's programme of work consists mainly of a preliminary ecological survey of the breeding areas. The whole scheme is planned to cover a period of five years, and it is proposed to establish a field laboratory for studying locust bionomics on the spot and for experimenting on natural factors which may be responsible for controlling locusts or encouraging their multiplication and the transformation into the swarming phase. Knowledge of this kind would make it possible to suggest methods for preventing outbreaks, or at least to forecast outbreaks, which alone would mean an enormous saving.

The investigations were proposed originally to include only British territories, but lately certain foreign governments have expressed their readiness to cooperate in the scheme. Such a concerted attack on the locust problem has never been attempted before, and valuable results can confidently be expected.

University and Educational Intelligence.

CAMBRIDGE.—The report of the General Board in connexion with the scheme for the employment of the Rockefeller Endowment for Scientific Departments recommends that the following posts be established as from Oct. 1: a University lectureship in cytology in the Department of Agriculture; a University lectureship in plant physiology and a University lectureship in mycology in the Department of Botany; an additional University lectureship and an additional University demonstratorship in the Department of Biochemistry.

In a series of reports, the General Board recommends that readerships in the University should be created for the following: Mr. F. T. Brooks, of Emmanuel College, in mycology; Dr. A. D. Imms, of Christ's College, in entomology, and Mr. James Gray, of King's College, in experimental zoology. The following posts will also be created: a curatorship of the Sedgwick Museum in the Department of Geology; a senior curatorship and a junior curatorship of the Museum of Zoology.

the Museum of Zoology.

At Clare College, Dr. H. Godwin, research fellow of the College and University demonstrator in botany, has been appointed to an official fellowship. At Trinity College the following have been elected to research scholarships: J. C. Jaeger in mathematics, W. G. Thompson in physics, E. F. Warburg in botany, and P. Ullyott in zoology.

EDINBURGH.—Dr. Walter Smith Kay, who died on April 22, has bequeathed to the University the sum of £5000, subject to Government duty, the annual income to be applied towards aiding research in mental diseases or psychiatry in such manner as the University Court and the professor of psychiatry shall think fit.

The Senatus has intimated that Prof. Sydney Smith is appointed dean of the Faculty of Medicine, in succession to Prof. Lorrain Smith, who died on April 18.

London.—Dr. C. R. Harington (pathological chemistry) has had the title of professor conferred on him in respect of his post at University College Hospital Medical School; Mr. James Fairgrieve (education, with special reference to methods of teaching geography) has been appointed reader in respect of the post held by him at the London Day Training College; and Dr. R. C. J. Howland (mathematics) has been appointed reader in respect of the post held by him at University College.

The title of emeritus professor of experimental pathology in the University has been conferred on Sir Charles Martin, and that of emeritus professor of biochemistry in the University on Dr. Arthur Harden, on their retirement from the Lister Institute of Preventive Medicine.

OXFORD.—In view of certain statements in the Report of the Library Commission, by which it appears to be contemplated that the part of the Old Ashmolean Museum at present occupied by those engaged on the Oxford English Dictionary shall be "retained as a first provision for large co-operative enterprises" such as the Dictionary of National Biography, the Association of Friends of the Old Ashmolean, at its annual meeting held on May 29, adopted a resolution strongly advocating the restoration of this historic building to scientific purposes akin to those for which it was originally founded. At the same meeting it was pointed out that there is still a confusion in the minds of many persons as to the relations existing between the two museums known as the "Ashmolean" and "Old Ashmolean" respectively. The Ashmolean Museum exists for the purpose of illustrating art and archæology; whereas the Old Ashmolean was intended for scientific studies, and has been intimately associated with the natural sciences ever since 1683.

THE Scientific Club of Winnipeg has awarded its Research Prize of 250 dollars, for the most meritorious investigations conducted by a post-graduate student in the University of Manitoba during the last three years, to Dr. P. A. Macdonald. The researches of Dr. Macdonald, which were carried out in the Department of Physics, consisted of studies of the senses of temperature, pain, vision, touch, and hearing, with particular reference, in the last three, to the validity of the Weber-Fechner law.

A NUMBER of studentships in relation to cotton growing, not exceeding eight in all, will be awarded in June next by the Empire Cotton Growing Corporation. They will be of two kinds, namely, specialist studentships and agricultural studentships. The first-named are intended to enable graduates, who believe that they have a leaning towards research, to equip themselves for posts in which work of that type is required. Successful candidates will, in general, be required to take a course in agriculture during the tenure of their studentship if they do not possess an adequate knowledge of the subject. The Agricultural Studentships are intended to enable men to receive such specialised instruction as their previous qualifications and experience show to be most desirable in order to equip them for agricultural posts in cotton-growing countries wherever opportunities for employment may present themselves, whether in government agricultural departments, with commercial cotton-growing companies, or under the Cotton Growing Corporation. Forms of application, returnable by, at latest, June 10, can be obtained from the Secretary, Empire Cotton Growing Millbank House, 2 Wood Street, S.W.1.