

NEWS AND VIEWS

The World at War

It is one of the conditions of the existence of a group of individuals as a society that certain rules for the guidance of the individual be obeyed. This applies as much to nations in their association with other nations as to individuals. A fundamental rule in international relations is that no nation should carry out an act of war against another without giving notice of its intentions. In spite of all the facilities of modern means of communication, Japan has thought fit to ignore this elementary procedure in its attack on the United States, thereby aligning its foreign policy even more emphatically with those of Germany and Italy in its total disregard of international law. It is yet another demonstration of the Nazi 'new order' of the supremacy of armed force, and of the worthlessness of any pretensions on the part of the totalitarian nations of conceding any rights or liberties to other nations. Japan is a relatively young nation which choose deliberately to model its future on that of the Western world. She has chosen bad mentors, and it must be a source of grief and despair to those Japanese men of science of international reputation like Honda and Yukawa, as it would have been to those of the older generation such as Kitasato, Noguchi, Omori, and Jogi Sakurai, that the nation should have allowed itself to be carried away by the machinations of the military party.

With the extension of war to the Pacific, Japan's so-called "China incident" becomes now a part of a vast conflagration which has girdled the earth. The greater part of Europe, Africa, Canada and the United States, most of the States of South America, the myriad isles of the Pacific in the hands of the United States, Great Britain, Australia and New Zealand, the eastern sea-board of Asia from Siberia to Singapore, the Dutch East Indies, Australia and New Zealand—all are directly involved; and it is safe to add that no nation or people at present at peace is unaffected. When the totalitarian powers have been finally broken, the Allies, who are pledged to democracy and freedom, must go forward with a world programme for reconstruction, the fundamentals of which will be based on the Atlantic Charter. President Roosevelt put the position bluntly in his radio address on December 9: he said that Americans "must begin by abandoning once and for all the illusion that we can ever again isolate ourselves from the rest of humanity . . . there is no such thing as security for any nation, or any individual, in a world ruled by the principles of gangsterism. . . . We are now in the midst of a war not for conquest, not for vengeance, but for a world in which this nation and all this nation represents will be safe for our children. . . . We are going to win the war, and we are going to win the peace that follows."

Dr. V. K. Zworykin: Rumford Medallist

THE American Academy of Arts and Science has awarded the Rumford Gold and Silver Medals to Dr. V. K. Zworykin for his invention of the iconoscope and other television devices. Dr. Zworykin was born in Russia, and educated in Petrograd, Paris and Pittsburg. Since 1929 he has been connected with the Radio Corporation of America and has been associate director of the research laboratories of that Corporation since 1934. Zworykin's name is world-renowned for his far-reaching researches in electronics and photo-electric cells, culminating in his invention and development, with a group of associate workers, of the iconoscope or 'electric eye', which forms the basis of the television system adopted in Great Britain and still in active development in the United States.

The iconoscope is a special form of cathode ray tube in which the fluorescent screen is formed of a mosaic of tiny photo-electric cells, on which is focused the television picture to be transmitted. The electron beam of the tube is caused to scan this screen, and the resulting fluctuations of potential, depending upon the relative illumination of different parts of the screen, are used as the source of the picture modulation signals for the television radio transmitter. Zworykin's work has also led to the electron-multiplier, for amplifying the signals produced by a photo-electric cell, and to other devices used in television transmission and reception. All this work is described in a number of papers by him and his co-workers published principally in the *Proceedings of the Institute of Radio Engineers*, New York, and in the *Journal of the Institution of Electrical Engineers*, London.

Training of the Disabled

AN interim scheme for the training and re-settlement of disabled persons, which is for the benefit of women and girls as well as of men and boys, is described in a leaflet issued by the Ministry of Labour and National Service. In addition to members of the Fighting Services, the Merchant Navy and the Civil Defence Services disabled on war service, the scheme is intended to cover civilians injured through air raids, factory accidents or in other ways, and is open to all persons above the age of sixteen. Some degree of preference may be given to those whose disablement is due to war service or to enemy action, but foreigners who have been disabled since the beginning of the War are also eligible. Training will be given in occupations connected with munitions work such as draughtsmanship, fitting, instrument making, machine operating, welding, inspecting and viewing, and for this purpose the courses of training will be similar to those in the existing schemes of the Ministry, but modified to suit disabled persons or particular types of disablement. It also will be given in other

occupations specially authorized for the scheme. The training will be provided at certain Government training centres administered by the Ministry of Labour, at special centres with experience in training disabled persons for industry, at technical colleges and similar institutions and at works. A maximum period of twenty-six weeks training will probably be sufficient. Throughout the training, in addition to proper medical supervision, weekly allowances varying from 42s. to 17s. for men and boys and 33s. to 15s. for women and girls will be paid, and each trainee will also receive a dinner meal or 5s. per week in lieu, daily travelling expenses, when necessary, and dependants' allowances. These allowances will be independent of any pension or other payment the trainee may receive in respect of his or her disability.

Evaluation of Individual Adjustment

"AN Evaluation of Adjustment based upon the Concept of Security" by Mary D. Salter has been published in the University of Toronto Studies (Child Development Series No. 18. Toronto: University of Toronto Press; London: Oxford University Press, 1940. 3s. net) as the first part of a larger study designed to provide an evaluation of important aspects of an individual's adjustment by means of a series of scales based upon the common concept of security. The technique used in this investigation utilizes the principle of internal consistency to construct an extra-familial and a familial scale of security designed to throw light on relations outside and inside the family, respectively. The results indicate that social insecurity appears most frequently with those who are dependently secure in the family and with those who are insecure and independent in the family. Tolerance is much more frequent with independence than it is with dependence, both for the socially insecure and the socially secure groups. Those who are socially secure and dependent tend to intolerance and familial insecurity.

Familial security in the early stages is of a dependent type and forms a basis from which the individual can work out gradually, forming new skills and interests in other fields. In its absence the individual is handicapped by the lack of a secure base from which to work, and at the college age such insecurity is at least partly due to friction on the issue of emancipation. Independence of the family is true independent security if the individual has formed requisite skills and dependencies outside the family without being involved in conflict with the family. Continued dependence on the family may make for inadequate adjustment if it seriously interferes with the development of skills in other fields. Extra-familial security is based partly upon social skills and partly upon dependencies on friends, both apparently being necessary and interrelated. Insecurity is due to a lack of skills or of friends or of both. Intolerance is a common form of compensation which may contribute to social security during the acquisition of skills, and is most effective if the individual has dependent security also or at least a fairly satisfactory basis of skills already formed. Lacking both these,

compensation either becomes ineffective resulting in insecurity, or must be exaggerated to avoid insecurity, leading to the unusual forms of behaviour which characterize serious maladjustment.

University Staffs in the British Empire

THE "Yearbook of the Universities of the Empire" is an invaluable reference book, the last issue of which is dated 1940. In view of the numerous changes, probably mostly due directly to the War, which have occurred during the past eighteen months or so in the staffs of universities, this issue quickly lost much of its value. When, however, the Universities Bureau had to consider the preparation of the issue for 1941, it was found that, on account of the destruction of the Bureau's premises, the delays in obtaining information from overseas and the shortage of paper, it was possible to prepare only a Supplement to the existing volume (Supplement to the Yearbook of the Universities of the Empire, 1940. Published for the Universities Bureau of the British Empire. Pp. xxxi+255. London: G. Bell and Sons, Ltd., 1941. 3s. 6d. net). In this book, which is of the same format as the well-known Yearbook, the officers are given for each university followed by a list of changes of staff. The list is carefully set out to facilitate easy reference, and there is an index of names at the end of the volume. The Yearbook for 1940, with the Supplement, provide as up-to-date a record of university staffs in the British Empire as is feasible in these times. The Bureau is to be congratulated on its enterprise.

Tar Oil Washes

THE introduction of tar oil washes in Great Britain about 1921 resulted in the greatest advance in the control of fruit pests that has been made during the present century. With extension in their use came the demand for their standardization, as differences in source and process of manufacture had led to uncertainty in their performance. After a study of the insecticidal properties of the various components of the washes and their behaviour under different conditions had been made both at the research stations and the research departments of insecticide manufacturers, a small joint committee of representatives of the Association of British Insecticide Manufacturers and the Ministry of Agriculture was set up to consider the available information, and, if possible, to prepare specifications. After still further investigation, specifications and methods of analysis for both the miscible oil (black fluid) type and the stock emulsion (mayonnaise) type were successfully drawn up, which have been accepted by the Association and the Ministry, with the concurrence of the Government Chemist. The full data are available in Bulletin 122 of the Ministry of Agriculture (H.M. Stationery Office, 6d.). Members of the Association and most of the manufacturers of tar oil washes have agreed that their products shall conform to these standards, and purchasers are strongly advised to take advantage of this by requiring that any washes they obtain shall comply with the specifications.