

one to Australia in September and October this year. Awards have also been made to thirty-two university teachers and postgraduate research workers as follow: Australia, 11; India, 2; New Zealand, 7; Pakistan, 3; South Africa, 6; United Kingdom, 3.

### Industrial Output of the U.S.S.R.

HIGHLY compressed, a paper of twenty-seven pages is nevertheless the only comprehensive statement available to the student of industrial output within the Soviet Union during and since the Second World War ("Industrial Development in the U.S.S.R.", Bull. 1 (May 1949). *Bulletin of Soviet Economic Development*, Faculty of Commerce and Social Science, University of Birmingham). It has become obvious that until similar schools of economic inquiry mature the authority of the Department of Economics and Institutions of the U.S.S.R. under Dr. A. Baykov remains unchallenged in its field. Hitherto, Soviet statistics of economic output have been considered unreliable; but the standing of Dr. Baykov as interpreter, inevitably enhanced by the high quality of this Bulletin, now provides a standard to which we may confidently appeal.

The summary of the industrial destruction wrought by the Germans is a terrible document, perhaps incomprehensible to those inexperienced in total war. In five months after invasion at least three-fifths of the output of coal, iron ore and steel was, in each case, lost to the U.S.S.R., though according to Dr. Baykov's calculation more than twenty-four million Russians were saved by evacuation from the very territories which formerly produced these major contributions of economic wealth. Less than one year after the invasion of European Russia the Asiatic region had attained an output in their war industries equalling the total output of these industries in 1940 for the entire Soviet Union. The Bulletin is to a large extent a close examination of the rapidly growing contribution of the Eastern lands. Much of the argument is unfortunately unintelligible without carefully selected maps, and the aid of a cartographer is demanded.

### Pest Infestation Research

DURING the period from 1927 until the outbreak of the Second World War, Prof. J. W. Munro devoted a great part of his energies to building up in the Imperial College of Science and Technology an organisation for the scientific study and development of applied entomology in the special field of stored products. The Empire Marketing Board supported this enterprise, and so did sections of the trade which handled such products as dried fruit, tobacco and cacao. A great deal of valuable work was done; but the main section of the industry, that dealing with cereals, was not interested. Only in 1938 were industrial interests sufficiently concerned to approach the Department of Scientific and Industrial Research and to share the cost of a survey to discover as much as possible about the facts of infestation in Great Britain. The results of this survey were such as to result in 1940 in the establishment of a Pest Infestation Research Laboratory by the Department of Scientific and Industrial Research, which took over in large part Prof. Munro's premises and staff at Slough. Rapid expansion followed during the War and post-War years. The history and achievements of the laboratory have now been set out in a pamphlet entitled "Pest Infestation Research 1947" (London: H.M. Stationery Office, 6d. net). This is in effect the

first report from the Pest Infestation Laboratory. It gives a most interesting account of the research that is being carried out on the biology of the pests of stored products, notably on the use of carbon dioxide production as a measure of infestation in grain, on the application of fumigants to stored products in barges and warehouses and silo bins, on the use of insecticidal dusts and sprays under warehouse conditions, on the protective impregnation of sacks with insecticides, on the development of spraying equipment and many other matters. It is evident that the Department of Scientific and Industrial Research is pursuing an enlightened policy of carrying out research at all levels, from the fundamental to the applied, in its own laboratory.

### County College Problems

IN an address to the 1949 annual general meeting of the British Psychological Society, Sir Philip Morris attempted to forecast some of the problems which will have to be considered when county colleges are established. His remarks have now been published in a recent issue of *Occupational Psychology* (23, No. 3; July 1949). Sir Philip believes that there will be an insufficient understanding of the main aim and purpose of county colleges among all people concerned with them, particularly among the young people themselves, the employers who have so much influence over them and the parents. Another main problem is that county colleges will have only partial and in some respects ill-defined aims on which to base their initial plans. For the young people themselves the degree of influence of the county college will comparatively be very much smaller than the degree of influence of any form of compulsory schooling now known. The employer's attitude to county colleges will be governed by the fact that in many cases boys and girls are being employed between the ages of fourteen and eighteen years in ways which do not necessarily bear any obvious relationship to their adult employment. The novel features of a large turnover of students in relation to accommodation at the county colleges as well as an extremely short 'exposure' of boys and girls to the influences of formal education may lead to a squeezing out of the curriculum of those activities which are more time-consuming than others—for example, practical work as opposed to arithmetic. The challenge of these problems may have the effect of giving a new turn to the attitude to education in Great Britain.

### Work and Leisure

IN an interesting article (*J. Inst. Personnel Management*, 31, No. 304; July-August 1949), Mr. Guy Hunter discusses the subjects of apathy, energy and the use of leisure. Among the subjects considered are whether the leisure of a manual labourer differs from that of a filing clerk because a different kind of energy is left over from the job, and whether there is a correlation between the interest and excitement, or boredom and half-activity, of the day's work with the subsequent use of leisure? Hunter tentatively suggests that if all the powers of human beings are denied expression in the day's work, the result is a feeling of disgruntlement which, in common experience, makes it harder to start any creative activity. Conversely, the more these powers are used, the more the enjoyment of that use will lead on to further activity. The energetic thus become more and more energetic, and the dissipators become more