

the servant of industry, aiding the consumption and production of goods, the first is the abolition of the Gold Standard and of any gold basis for the issue of money, since it is goods and not gold which give value to our money. It is suggested that under a policy of National Dividends, a man unable to find work would still be able to live in reasonable comfort without being a burden on others and he would be able to help the man at work by being in a position to buy his goods. It would still pay a man to get work if he could, as wages would be paid extra to National Dividends and a natural check to living on National Dividends would operate because their amount depends on the country's production of goods.

Japanese Institute for Science of Labour

IN view of the importance which labour is commonly regarded as possessing in Japanese competition, the annual report of the Institute for Science of Labour, which was transferred from Kurasaki to Tokyo at the end of 1936, is of considerable interest. The report indicates that much of the work of the Institute follows the lines of work of the National Institute of Industrial Psychology in Great Britain. Among a number of completed researches mentioned in the report are those on the clothing of farmers, syphilis morbidity in villages, psychological qualifications for textile workers, an examination of vocational testing methods, studies on manual dexterity and on the physical fitness of employees, studies on motions and positions in working, on repetition work, psychological differences between skilled and unskilled workers in a weaving factory. Some of the physiological work is on lines similar to that pursued by the Industrial Health Research Board in Great Britain as, for example, the investigations on environmental conditions, such as climate, the effect of occupational activities on basal metabolism, the metabolism of heavy muscular labour or the physiological studies on walking, but in addition the Institute has completed a preliminary research on the daily protein requirements of the nation. Occupational diseases and the prevention of accidents have also received attention, and it is interesting to note from abstracts of publications of the Institute included in the report that scientific workers in Japan are now advocating on scientific grounds raising the minimum age of juvenile labour to at least fourteen years, with special protection up to eighteen years of age.

National Research Laboratories, Ottawa

THE National Research Laboratories at Ottawa now employ about 190 workers organized in five divisions: agriculture and biology; chemistry; physics and electrical engineering, mechanical engineering including aeronautics; and research information, with which is associated a national scientific library service. A review of the year's work recently issued for the National Research Council of Canada stresses the increasing service which is rendered to industry; much of the work carried out in the Division of Biology and Agriculture forms part of large co-

operative research projects, mainly in collaboration with the Department of Agriculture but also with the universities and similar organizations. A low-temperature laboratory has been equipped, and physical conditions for dechilling boxed poultry without condensation have been established. Research on malting barley is being carried on in co-operation with industry, and a comprehensive review of the literature on chemical weed killers is being published as a guide to research in this field.

THE Division of Chemistry is in organized relations with the laundering and dry-cleaning industry, the asbestos industry, the manufacture of basic refractories, and to a slight extent the woollen and sugar industries. In an investigation on the chemical principles in certain groups of wild plants native to Canada, a method of synthesizing certain plant hormones which stimulate plant growth, including root formation on cuttings, in a remarkable way, was discovered. An extremely efficient distillation column was built in the laboratories during the year and its application in the oil-refining and synthetic chemical industries, the coal tar industry, etc., is being investigated. The snow resistance of aircraft skis has been thoroughly investigated by the Division of Mechanical Engineering, as well as the stalling of heavily tapered wings on modern aircraft. A new heating system for refrigerating cars has been developed, as well as a new machine for converting aerial photographed information into a map. Radio methods in weather forecasting are being investigated, the Physics and Engineering Division is also giving a considerable amount of attention to the development of new or improved methods or instruments for measuring sound absorption, gauges, voltage in X-ray work, grading of colours for fastness, etc.

Educational Research in the United States

EDUCATIONAL research in the United States proceeds on a scale never hitherto approached in that or any country. Some idea of the volume of work in this field may be gathered from a "Bibliography of Research Studies in Education, 1934-35", issued from the United States Office of Education (Washington: Govt. Printing Office. 25 cents). Herein are listed 2,971 studies reported by 145 institutions, including 384 doctors' dissertations, 2,368 masters' theses and 219 studies reported as faculty research. An introductory note mentions the following as "especially timely topics" of some of the theses; apprentice training, business depression, correlation of school subjects, crime prevention, exploratory courses, leisure-time activities, open forums, orientation courses, teachers' strikes, rehabilitation of the disabled, traffic schools, new systems in several foreign countries. Another favourite subject for educational research in America is the technique of reading. Fifty-two of the studies listed deal with investigations such as the measurement and improvement of silent reading among college freshmen. It seems to be not unusual for a reading test to form part of the college entrance examination, and it has been found that