

SCIENTISTS' INTEREST IN AUSTRALIA.

In his presidential address to the ethnological section at the Science Congress in Melbourne on Friday Dr. Ramsay Smith mentioned that when he was in America recently a large statistical table in the Health Exhibition at Washington showed an Australian State at the bottom of the list in infant mortality, and the United States were very much interested to know the reason. The doctor continued:—"We discussed the care of State children, begun here before their birth, children's courts, the relative advantages of the systems of boarding-out and of orphan institutions, the legislation on children's rights and occupations, the value of representative councils of men and women as an aid to State departments in all administration in which social and moral questions are involved, our compulsory military system, what it is and how it promises to work, inebriates legislation, old age and invalid pensions, women's property Acts, women's labor, women suffragists and their influence, eight hours and early closing legislation, tropical conditions and white labor, Food and Drugs Acts in the medical and commercial aspects, health administration, wages boards and industrial legislation generally, conciliation and arbitration courts, Workmen's Compensation Acts, and suchlike; and the Americans wondered at the confidence we expressed in the keystone of the whole—the integrity of our law courts and legal institutions. Their questions and conversation on these subjects showed the living interest they took in race problems, immigration (the annual immigration to New York City exceeds the birth-rate), matters that influence race culture, and our social experiments and experience in matters that affect the life-blood of the American people. Their chief ground of complaint was that we did not let more be known in the outside world about our infant Commonwealth, that we don't advertise ourselves."

THE SCIENCE CONGRESS.

NEARING THE END.

IMPORTANT PAPERS.

Melbourne, January 13.

At the Science Congress to-day, Mr. F. W. Eggleston, in a paper on the development of Imperial relations, said the attitude of the most typical Imperialists had been vitiated by the fallacy that they had only to show the dangers to be faced and the machinery to cope with them could be created by a wave of the hand. The one factor common to the whole of the self-governing Empire was the factor of a common nationality. Only an organic remedy could solve the difficulty. The federal idea would supply the means by which national interests could be segregated, but at the present time such a solution would be premature. A federal organization could only grow out of actual forces and conditions.

Old Age Pensions.

Mr. C. H. Wickens, of the Federal Bureau of Census and Statistics, read a paper on national old age pensions. He said although there were probably great advantages to be derived from the introduction of a system of compulsory social insurance to cover sickness, accident, invalidity, and unemployment, the provision for old age was one of such an exceptional nature that the so-called non-contributory system of old age pensions furnished the best practical solution. The various systems of specific contribution led to anomalies and unsatisfactory results without appearing to reach any better solution than was furnished by the contributory method. The fact that the Treasurer had to make provision annually in his estimate for the funds necessary to pay pensions would help to check any tendency to increase pension payments to fancy rates.

The Cape Barren Islanders.

In a paper on Cape Barren Islanders, Mr. L. W. G. Buchner, F.R.A.S., said there were now only the remains of extinct Tasmanian aborigines on the Cape Barren Islands, 150 persons in all. The result of close intermarriage was shown in the degenerate children attending the Government schools, declared Mr. Buchner. This contention, he pointed out, was the direct opposite to that of Dr. Ramsay Smith, who affirmed that cousin marriage in Fiji was productive of the finest peoples. The islanders of Cape Barren were indolent, listless, and extremely improvident.

A Dying Race.

Mrs. N. Roberts read a paper on Victorian aborigines. So few children had been born of recent years, she said, and so many people had died among them, that the total number alive did not now exceed 133. In a few years the Victorian would share the fate of the now extinct Tasmanian aboriginal. Two causes of great mortality among the blacks were, first the mistaken idea, prompted by kindness, that the habits of wild and nomadic people could be changed to those of a civilised race; and secondly, contact with unscrupulous whites. Tuberculosis was making great havoc among Victorian blacks.

Training Youths for Trades.

An examination of the methods in use in most of the technical colleges for the training of youths in trades related to engineering in New South Wales and Queensland, has shown very little attempt at systematic organisation on the part of the central authorities and a partial appreciation only of the true function of trade classes in their relation to the industrial needs of the community. This was the declaration of Mr. Alex. J. Gibson, professor of engineering at the Queensland University, in a paper on industrial training in technical colleges. Serious consideration, said Mr. Gibson, had been given to the question of the proper correlation of primary, secondary, and University education, but technical colleges stood apart, hobbled by institutions, with their work indifferently organised and in many cases trying to carry out work for which they were not properly equipped, and for which students were not intellectually fitted. Some good work was being done in these institutions, but much of the training in trade work was quite illusory. Three things were necessary—(1) Organisation of a system of instruction and inspection; (2) provision of efficient instructors and proper equipment; (3) confidence of both employers and employes.

Memory Training.

Mr. W. Gray, M.A., in a paper on some experiments in memory training, said the professional training of the teacher should secure, above all else, an attitude of observation of the scholar on the part of the teacher. The principle underlying discipline and methods of instruction should be built up by the student from notes taken by himself in the practising rooms and corrected in the lecture-room by comparison with the notes of others. There was need in Australia that educationists, as well as students, should work towards the building up a body of knowledge on various aspects of education. The series of experiments submitted was designed to show the part that repetition played in securing permanency of impression in the mind.

Forestry Committee's Resolutions.

The committee on forestry carried the following resolutions:—"In view of the supreme importance to the community of the proper maintenance of our present forest reserves, and of the pressing necessity for their further extension, this committee recommends the Australian Forest League, now in process of establishment in all the States of the Commonwealth, to the collective and individual interest of the council of the A.A.A.S." "Recognising the confusion existing in the nomenclature of plants, this committee suggests that a committee be appointed to select and define for use in the description of our vegetation such terms as would seem most suitable for the purpose." A committee was appointed for the purpose.

Labor Statistics.

In a paper on labor statistics, Mr. Gerald Lightfoot, of the Federal Statistical Bureau, drew attention to the need for an extension of certain official statistics in Australia, and to explain the work being carried out by the labor and industrial branch recently organized by the Commonwealth Statistician.

SCIENCE CONGRESS.

LAST DAY FOR PAPERS.

MELBOURNE, January 13.

To-day was the last day of the Science Congress to be devoted to the reading of papers, for to-morrow will be occupied by the committees in considering the recommendations of the various sections, and with the final meeting of the general council.

—Improvement of Wheat.—

During the course of a paper on the subject of "Improvement of wheat," Mr. A. H. V. Richardson, M.A., B.Sc., said that the improved methods of grain culture had placed the wheat industry of the Commonwealth in a secure position. The aim in wheat improvement should be to secure the varieties of wheat which would give the maximum yields the climatic and soil conditions would allow. There were two general methods by which improved and new varieties of wheat might be obtained—by selection or by crossbreeding. All possibility of improvement rested on the individual variation. In order to effectually apply methods of crossbreeding it was necessary to have a clear conception of aid in wheat improvement, knowledge of the unit characters of the different varieties, and of the laws governing the inheritance of those characters. The production of drought-resistant varieties was likely to be successful if the growers used as foundation stocks those varieties which had been grown for generations under the very direct conditions. In the course of generations those qualities of resistance to arid conditions might be expected to become hereditary.

—Imperial Relations.—

A paper on the development of Imperial relations was read before the social science section by Mr. F. W. Eggleston, in which he made an attempt to ascertain, on scientific lines, the factors—political and social—at present in existence, capable of affecting the development of Imperial relations. The one factor common to the whole of the self-governing empire was the factor of common nationality. The need for political organization, and the incompetencies of political institutions to deal with Imperial problems were the fundamental dilemma of Imperial problems. This was met by several suggestions:—1. Imperial preference to encourage the growth of mutual relations, so that political organization would become simpler. 2. Voluntary co-operation. 3. Imperial federation. Only an organic remedy could solve the difficulty. The Federal idea would supply the means by which the national interests could be segregated. At the present time such a solution would be premature. Federal organization could only grow out of actual forces and conditions. There must be a more Imperial life. Each of the dominions must face its own problems first, and then when it was actually strong enough to cope with them, the unity of the problems would become manifest, and the central organization would become possible.

—National Old-age Pensions.—

Mr. C. H. Wickens, of the Commonwealth Bureau of Census and Statistics, devoted his attention to "National old-age pensions." It was pointed out that under the contributing system an eminently safe method of making the necessary provision was that of requiring each person brought within the scope of the scheme to pay annually, or at shorter intervals, such premiums as would furnish a deferred annuity at the pension age. In conclusion it was stated that the various systems of specific contribution lead to anomalous and unsatisfactory results, without appearing to reach any better solution than was furnished by the non-contributive method.

—Industrial Training.—

In a paper on the subject of "Industrial training in technical colleges," Professor Gibson, of the Queensland University, said that the prime function of trade instruction in technical colleges should be to ensure the turning out of competent craftsmen. To obtain skilled artisans from the trade classes in technical colleges three things were necessary:—(a) Organization of a system of instruction and inspection; (b) provision of efficient instructors and proper equipment; (c) confidence of both employers and employes in the trade under consideration.