

After Competition, What?

In dealing with the transformation of competition, Dr. Mercer, the Bishop of Tasmania, said the peculiar feature of present day industrialism was the growth of group competition, which arose when individuals sank certain of their liberties of action and bound themselves under conditions of association for the attainment of common ends. The tendency was as marked in the case of capital as in that of labor, and afforded significant evidence that competition was crumbling to pieces by its own weight. What was ahead? "It is hard to prophesy," he answered. "But apparently we have to face a further development of group competition. This sinking of individual interests in loyalty to the group introduces a new aspect of the competitive impulse, and gives us the paradoxical result that self-interest is generating its own antithesis. Competition has taken an upward curve in the past. Why should not the upward movement continue until self-interest is transmitted into the general emulation of enlightened citizenship?"

The Aboriginal Problem.

Recommendations for the protection of the aboriginals have been drawn by the committee appointed at the Sydney congress in 1911 to draft a scheme for submission to the Federal and State Governments. The committee reports that, according to moderate estimates, about 75,000 or 80,000 aborigines still survive, mostly in the northern part of the continent. The aboriginal problem will be more effectively solved when all that is left of the race is made a single national responsibility and cared for on a national system. This national control might be brought about by the ultimate appointment of a permanent native Commission. This Commission should consist of representatives of the Federal Government and of the States, and should have conferred upon it by Act of Parliament all the general powers necessary for the exercise of the functions delegated to it. It was urged that the Federal Government should be communicated with on the subject, and that, pending the appointment of a permanent commission the system of reserves should be widely extended in all the northern parts of the continent; that the training of the blacks in pastoral pursuits and in simple mechanical arts, such as carpentering, blacksmithing, &c., should form part of the reserve system; and that at some later stage of development some simple form of agriculture should gradually be introduced. It might be desirable to exempt from the operation of the above scheme the small number of aborigines who survive in New South Wales, Victoria, and South Australia, since they are already well cared for by their respective Governments.

The Magnetic Survey.

Mr. Edward Kidson read a paper to the physics section on the magnetic survey of Australia. A plea was made for detailed surveys in Australia by the local authorities. Similar work had been done in recent years by almost every other civilized country.

The East Wind.

The results of enquiry into the origin and character of the east wind, in the light of recent observations of the circulation of air in the cavities of the earth, were summarised by Mr. H. Jacob, in a paper read to the astronomy, mathematics, and physics section. He said the character of the east wind, which invariably accompanied a falling barometer, was mainly due to the vitiating effect of air exhaled from beneath the surface of the earth.

Mathematics.

Professor H. S. Carslaw read a paper to the mental, science, and education section upon the working of the international commission on the teaching of mathematics, in which he is the representative of Australia. He had been asked by the central council, he said, to draw up a report on the teaching of mathematics in Australia. He suggested it would be well if a small committee of the section was appointed to co-operate

with him in putting his report into a final form.

Tuberculosis.

In a paper on, "Our knowledge of the relations of human and bovine tuberculosis," read before the sanitary science and hygiene section, Dr. Guy Griffiths outlined the history of bacteriological work on the tuberculi bacillus and its varieties."

Beet Sugar.

"Engineering problems peculiar to the beet sugar industry" were dealt with by Mr. G. S. Dyer, Government Expert at the Maffra beet sugar factory, in a paper read before the engineering section. There was no reason, he said, why the culture of the beet should not attain as high a position in maintaining the fertility of Australian soils as it had in reclaiming those of Europe and America.

The Progress of Chemistry.

Professor C. E. Fawsitt (Sydney), in his presidential address on the progress of chemistry, said there was now an advance being made all along the line. It seemed to him that the most important development of chemistry in this generation was the gradual but sure development of order out of chaos, and the advance made in the direction of reducing chemistry to the position of an exact science. In his paper he pointed out that there were certain of the artesian waters in New South Wales which were specially corrosive to iron and steel castings. All these waters had been analysed, but acidity and alkalinity determinations were not included. In the Government analyses of late the reaction of many bore waters to various indicators had been determined, but he was informed that the chemist in charge only found noticeable corrosion of the bores with the same acid reactions. The corrosion of iron had occupied attention for many years, and was still being largely investigated. In support of the so-called electrolytic theory the author had pointed out that corrosion of iron took place in aqueous solutions of sodium carbonate. Until the passivity of iron was more thoroughly worked out the corrosion problem was not likely to advance much.

School of Agriculture.

Mr. H. Pye, principal of Dookie Agricultural College, suggested in a paper for the agriculture section that an itinerant school of agriculture should be established somewhat on American lines. Amendments should be made in the degree course at the University to provide for postgraduate specialisation as well as in other directions. A knowledge of the physics of the soil was of more importance to the ordinary farmer than a knowledge of the chemistry of the soil.

Phosphates.

In a paper on the use of phosphates in Victorian agriculture, Messrs. J. W. Peterson and P. R. Scott stated that in 1898 only 7 per cent. of the cropped area was manured, but there had been a steady increase till in 1910 over 69 per cent. of the area was treated with fertiliser. Greater attention should be devoted to the effect of phosphates on dairy pastures.

Pharmacy Examinations.

In the afternoon a conference of representatives of the various pharmacy boards of Australia was held, when matters affecting the conduct and standards of examinations were discussed. Resolutions were passed recommending the different boards to adopt regulations to ensure uniformity.

THE SCIENCE CONGRESS.

INTERESTING PAPERS.

Melbourne, January 10.

The Science Congress continued its sittings to-day.

Pension Funds.

The recent experience of pension funds in the direction of increasing the rates of contributions made by and on account of members or of reducing the benefits, while keeping the contributions as before, was commented on by Professor E. M. Moore, M.A., in a paper on "The construction of pension funds." He referred to the lightness of mortality among pensioners. Recent experience had shown that it was normal, and not accidental. The pension benefit much exceeded the death benefit. Therefore an unduly light mortality rate, though a matter of congratulation to the community as a whole, was proving a source of embarrassment to the finances of particular funds. The other principal cause of the strain was the number of members who were being retired on a pension on account of permanent breakdown. This factor was more serious than was usually conceded.

Infantile Mortality.

Mr. C. H. Wickens, of the Federal Statists' Bureau, in a paper on investigations concerning a law of infantile mortality, urged that statistics should in all cases be computed as far as age five, instead of, as is usually the case, ceasing at the age of one. He said of 100,000 male children born 87,620 would reach the age of 5, according to the Commonwealth experience for the decennium 1901-10, and of 100,000 female children born the number would be 89,289.

Uniform Spelling.

Last year the association resolved that the Federal Government should be asked to take steps to provide for the uniformity in the spelling of Australian place names. There is a variation in different departments, State and Federal. The postal deputies advocated that uniformity could best be attained by the adoption of spelling of local usage.

War and Arbitration.

Professor G. C. Henderson touched on war and arbitration in a paper on "Natural and rational selection." He said it needed only a sufficient number of strong and peacefully-disposed nations to sign a treaty in order to make war practically impossible or for warlike nations to take the aggressive.

Water Tap for Schools.

Colonel R. E. Roth, of the Educational Department, New South Wales, exhibited a special attachment to be used in connection with water taps at schools. The hygienic section carried a motion suggesting that the State Education departments should have their attention drawn to the tap.

Woodman, Spare That Tree.

Mr. Elwood Mead read an interesting paper on the results of forest destruction in America. He urged that forest preservation on the head waters of the streams was therefore a matter which needed public interest and support, and nothing would contribute more to the ultimate prosperity of this Commonwealth than comprehensive and effective legislation to this end.

Advantages of Isolation.

A paper prepared by Messrs. J. Burton Cleland and G. P. Darnell Smith on the advantages of isolated areas to agricultural communities was read before the agricultural section. It was explained that the object of the paper was to emphasise the advantages of isolation in Australia of the stockowner and agriculturist. In many parts of Australia areas were being opened to agriculture and farming which were isolated, more or less, by extensive unoccupied areas separating them from neighboring settled parts. The Murrumbidgee irrigation area in New South Wales and the Pera bore were given as instances, as well as Flinders Island, in Bass' Strait.