

TRANSPORTATION FACILITIES.

THEIR EFFECT ON COMMERCE.

AUSTRALIA'S PROBLEMS.

AN INTERESTING ADDRESS.

A gift by the late Mr. Joseph Fisher to the Adelaide University some years ago made it possible for the authorities to arrange for the delivery of a lecture on commerce every alternate year. The 1914 lecture was delivered at the Prince of Wales Theatre on Tuesday evening by the Hon. D. J. Gordon, who spoke on the subject of "Problems of Transportation, and their Relation to Australian Trade and Commerce." There was a most gratifying attendance. Mr. J. R. Fowler, M.A., who presided, mentioned that the lecturer for the Joseph Fisher lecture had been drawn three times from Sydney, once from Melbourne, and once previously from Adelaide. Mr. Gordon was the second local man selected to deliver the lecture.

Mr. Gordon, who was enthusiastically received, said the problem of transportation was the problem of civilisation. National progress rested upon production—the full use of natural resources—and production and distribution determined trade and commerce, and profitable business ultimately regulated wages and governed the standard of living. At one time economists held that commerce made transportation and controlled it. The accepted axiom to-day was that transportation determined commerce by encouraging or checking industrial growth. Not mileage, but cost of carriage, was the true commercial measure of distance. The traders who could reach the markets of the world most cheaply controlled the commerce of the world. Railways, roads, and rivers were factors of the first magnitude in the industrial and social life of a nation, for unless transportation was available production in excess of the elementary personal needs was useless and commerce impossible. The theory of efficient means of transit was reducing the unit in the cost of production. Increased production stimulated consumption, multiplied avenues of employment, and added to private and national wealth from which the community drew daily sustenance.

Australia as a Wealth Producer.

Australia is essentially a producing country. Public credit had been pledged for money to build railways and roads and make harbors in order to facilitate the development of resources and shipment of products on such an economic basis as would meet all costs and leave the grower, carrier, and trader a margin of profit. The producer could not live in remote parts unless modern channels of communication were provided, and without the winning of wealth from the soil and the mine the country would speedily revert to the desolate conditions recorded by early explorers. In order to appreciate the national importance of problems of transportation it was essential that there should be a clear understanding of what had been accomplished by a mere handful of people in occupation of a continent larger than the United States, more than three-fourths the size of Europe, and 25 times as large as either the United Kingdom, Norway, Austria, or the Transvaal.

The Wealth of Australia.

The annual wealth produced in Australia was £114,385,000 in 1901, and £187,000,000 in 1911. The value of agricultural products increased from £23,000,000 in 1901 to £30,000,000 in 1911. Pastoral and dairy products in the same years were worth £30,000,000 and £70,000,000. In 10 years flocks multiplied from 53,000,000 to 83,000,000, and herds from 7,000,000 to nearly 12,000,000. The approximate value of plant and machinery employed in the factories was £34,680,000 in 1907. By 1911 it had risen to £31,000,000. The output of the factories in 1907 was £86,000,000, and in 1911 £133,000,000. Salaries and wages paid by manufacturers rose in the same period from £18,000,000 to £27,531,000. In 1911 the mines of Australia yielded nearly £24,000,000, bringing the value of mineral production recorded to the end of 1912 to the colossal total of £734,000,000. In 1908 Australia's total interchange was £114,000,000. It rose to £216,000,000 in 1909, and reached £234,000,000 in 1910. In 1912 the total trade was £146,000,000—a truly marvellous record for less than five millions of people in occupation of a great continent. Australia's experience had

proved (1) that the natural evolution from pastoral occupation to agricultural settlement and mixed farming could be accelerated by cheap transport methods, and (2) that the limit of industrial expansion in Australia was not necessarily a question of rainfall. The promise of future expansion due to increasing activity in the development of latent resources could not be fulfilled unless there was a simultaneous growth in railways, and improvements of roads and rivers. In other words, the commercial prosperity of Australia could not continue on its present level without increased attention being devoted to the economic influence of improved land and water carriage. That was the problem which the present generation must face—not in the spirit of spoilers concerned only in immediate exploitation, but rather with due regard for the sacred obligation of stewardship of a continent—an important outpost of a virile Empire. It was no exaggeration to affirm that the future of Australia depended upon the efficiency of its means of transportation and the wise use of natural outlets. In their bold policy of transcontinental railways the United States and Canada had provided a fine object lesson for Australian statesmen to emulate. Australia could never be regarded as a self-contained Commonwealth until south was linked up with north, and east was bound by ribbons of steel to west.

Australian Railways.

Of the total public debt of Australia more than one-half was represented in its 17,000 miles of railway, by means of which products were transported to home and overseas markets and national and private wealth was multiplied and distributed. The railways alone—not to mention other public utilities—represented more than adequate security to Australia's creditors. The length of Australian lines worked had steadily increased until the figures for 1913 had reached a total of over 17,000 miles. The train miles run in Australia were 68,168,407 in 1913, or nearly double what they were ten years ago. The total revenue received from these public services was £11,193,745 in 1904, and £19,954,073 in 1913. Allowing for all charges there had been a profit each year on the working of Australian railways since 1905, in which year the loss had amounted to £465,000. The largest credit margin had been £1,401,789 in 1911—a year of high tide in production and prosperity—but the profit had fallen to £401,164 in 1913, on account of unfavorable seasonal influences.

Neglect of Geographical Outlets.

In general terms, it could be affirmed that in Australia production had kept ahead of the means of transportation, and that trade and commerce had suffered because of the absence of modern facilities of carriage on the one hand, and the congestion of traffic on the other, due to the crime of centralisation. The neglect of geographical outlets in Australia represented an enormous waste. Australians unanimously concurred in condemning centralisation, but did nothing to stop the waste of effort and wealth that was going on. The policy of centralisation should be abandoned in favor of utilising natural outlets, thus saving the cost of unneces-

sary haulage; but before that could be accomplished the "Federal sentiment" would have to be developed from an illusive theory into a practical, commonsense, tangible thing. A question that called for reply was: "Are we, as a community, employing defective methods of transportation, and paying so much for services that the profits on our staples depend too little on the actual cost of production, and too largely on the cost of carriage?" If so, the producer carried a heavy burden, trade and commerce suffered, and the loss to the community represented a waste of national wealth.

Curves, Grades, and Gauge.

A constant source of anxiety to Australian railway managers and of cost to producers and traders and consumers were the curves, grades, and variety of gauges—ruinous legacies of previous generations of legislators and engineers. On a recently-constructed railway in South Australia the first grade reduced the haulage capacity of the engine to 120 tons. After a certain point was passed the haulage power was doubled. That involved the departure of two sets of trains with working staffs, in order to make up one load at the nearest station to the point where the heavy grade was reduced. On another system the grades fluctuated so rapidly that the train was raced on the down grade in order to give sufficient impetus to climb the incline across the narrow valley! Such a system of construction was false economy, representing, as it did, a constant drain on the resources of the department and a

heavy tax on the traffic. No consideration of the problems of transportation and their relation to Australian trade and commerce would be complete without reference to the colossal national waste represented by the variety of gauges. The Railways Commissioner of South Australia, in evidence before a Royal Commission, stated that the break of gauge "hung like a nightmare over railway construction work in Australia," and the general traffic manager described it as "a curse and a calamity." Railway officials, legislators, traders, and the people generally condemned the system, but the unanimity of public opinion made for nothing but delay and a steadily accumulating loss and liability. The issues involved were tremendous in their consequences. The official estimate of converting the 4 ft. 8 in. lines of New South Wales to a gauge of 5 ft. 3 in. (including alteration to rolling-stock) was £4,260,000 in 1897. In 1913 the same work would have cost £19,310,000, or nearly five times as much! All the 5 ft. 3 in. gauge lines in Victoria and South Australia could have been changed to a gauge of 4 ft. 8 in. in 1897 for an expenditure of £2,360,000; to-day the cost would be £7,295,000. The longer this national work was delayed the greater would be the ultimate cost.

Rivers as Highways of Commerce.

In the Murray Australians possessed one of the largest rivers in the world, and, with its tributaries, the longest inland waterway system in King George's Dominions! It was not creditable to Australia that navigable streams of such magnitude should have been neglected for so many years. Navigation on rivers could not be destroyed without abrogating the Federal Constitution, and the Commonwealth Government had given proof of a desire to cooperate in a reasonable settlement of the riparian rights as affecting three States of the Union. The basin of the River Murray and its tributaries comprised 414,233 square miles, an area double that of France and a little more than twice the area of the Ohio River basin in the United States. The length of the Murray between Albury and the mouth was 1,366 miles, while the navigable lengths of its principal tributaries—the Murrumbidgee and the Darling—were 1,180 miles and 666 miles respectively—a total navigable distance of 3,212 miles. It was essential, as part of a solution of the pressing problems of transportation, that there should be created a broad, liberal, progressive policy in favor of improving the natural waterways of this country.

The locking of the Murray and the bringing together of the river boats and oversea steamers would mean a big saving in the carriage of wheat, wool, and other riverine produce. An equally important consideration was that Darling River wool would not be left in the sheds for sometimes two years, owing to low rivers preventing transit to markets. Experience in America and Europe had shown that the most economic transportation was only secured by maintaining railways and rivers at the highest point of efficiency in order that full advantage could be taken of geographical outlets. In several Continental countries State-owned railways were forbidden to quote rates as low as river and canal charges. In Australia, Government railways had been employed to destroy the economic value of natural waterways! The policy of other countries where the railways were owned by the State was that those public utilities existed for the purpose of facilitating trade, not monopolising and then penalising it. The biggest monopoly in Australia was the Government-owned railways, and with few exceptions those State agencies had acted in restraint of trade, and, therefore, had proved harmful monopolies, wherever they had touched the river system. It had been found necessary in the United States to employ Federal law to control private railway companies. The exercise of Federal powers might yet have to be invoked in Australia to prevent the destruction of natural waterways, which were and should continue to be national highways of trade. Australians had not hesitated to pledge the national credit to the extent of £171,000,000 in order to provide 17,000 miles of railway—the annual upkeep of which meant an enormous outlay. They were proud of that accomplishment; but the same people collectively hesitated to spend £3,000,000 to provide 3,000 miles of navigable rivers, and simultaneously provide water for productive purposes! No sane person would think of destroying a railway system. Why, then, should it be regarded as something incompatible with sanity to advocate the conservation of the inland waterways of a country for purposes of production and transportation?