

Canadian Coals for Power Production

Super-power Stations at Coal Mining Centres to Develop Cheap Power

Canada is well supplied with water power, with the exception of the central portion of the middle West, which must produce its electrical energy and other forms of power mainly from coal or other fuel. As some of the largest coal reserves of the world are found in this and adjacent territory, however, we may anticipate that with proper organization, the power can be produced and offered to industries at rates as low as if derived from the most favourable water-power sites.

The importance of Canada's coals is pointed out in *Power in Alberta*, by James White. The author points out that "Alberta contains 87 per cent of the coal in Canada, but the estimate in *Coal Resources of the World* states that 82 per cent of the coal in that province is lignite or sub-bituminous. Practically the whole of the settled portion of the province is underlain by this valuable fuel, and the statements in the preceding paragraphs respecting the relative costs of steam-electric and hydro-electric power, indicate the desirability of investigating the economics of steam-electric power generated at super-power stations and transmitted to the municipalities within easy transmission distance, say 100 miles or more."

In *Coal Resources of the World* it is stated that southern Saskatchewan contains lignite seams, many of which, especially in the valley of the Souris river, are being mined. A seam in the Estevan field is reported to be 15 feet in thickness in places, while, north of this field, coal has been reported near Cullen, Arcola and Waupchoe. West of the Souris river, coal-seams of workable thickness are found over a very large area. It is estimated that, in Saskatchewan, an area of 11,840 square miles is underlain by coal seams.

Recently, a super-power plant has been constructed in Germany to supply electrical energy to Berlin. The energy is entirely produced from lignite. The plant, which has been designed and installed in accordance with the most modern practice, has a capacity of 180,000 h.p., which compares approximately with the size of our larger plants at Niagara Falls.

Conservation of Coal in Railway Service

The enormously increased cost of coal has induced attention to the possibilities of fuel economy in the firing of locomotives. During the year 1917 alone the average value per ton of bituminous coal at the mine increased 94 per cent in the United States and there have been further increases since. A comparison of the amount of smoke emitted by a locomotive on an English railway and a locomotive

on a Canadian or a United States line demonstrates that, on this side of the Atlantic, there is a lamentable and unnecessary waste of valuable fuel.

On the Pittsburgh division of the Pennsylvania railroad it was found that a fireman on a certain freight train of 46 cars and weight 2,490 tons, burned 1,127 shovelful of coal as compared with a fireman on another train of 50 cars, weight 2,520 tons, over the same territory who burned only 810 shovelful.

Pacific Salmon First Canned on Fraser River

The first salmon canned on the Pacific coast were put up at New Westminster in 1863, by a Mr. Annandale. His operations that year, however, were on a very limited scale. In 1864, he became associated with Mr. Alexander Ewen, who, from that date till his death in 1907, was the recognised leader in the salmon industry in British Columbia.

The first salmon canning on what may be termed the commercial scale occurred, however, on the Sacramento river in 1864. The first pack of 2,000 cases was in cans soldered by hand. It sold for \$15 per case but the high costs and the deductions for defective tins precluded any profits. In 1866, the operator, a Mr. Hume, transferred his activities to the Columbia river. He lived to see the peak in that district increase from his pack in 1866, 4,000 cases, to 656,000 cases in the "banner" year, 1884.

In 1876, there were three canneries on the Fraser and the combined pack was 9,347 cases. In 1901, there were 48 canneries on the Fraser and 25 in Puget Sound waters canning Fraser River salmon, or 73 in all. In the "banner" year 1913, the total pack of Fraser River sockeye was 2,392,000, or over 115 million pounds (57,600 tons). This represented 30 per cent of the entire world's production of canned salmon in that year. At present prices, it would be worth about \$50,000,000.

Owing to a disastrous rock slide in the Fraser river in 1913 and to the overfishing of the depleted "runs" of sockeye, the total pack of this fish in 1919 was only 74,000 cases or 3½ million pounds.

Fishing on the Skeena river commenced in 1877. To-day, owing to the eclipse of the Fraser fishery, it is the principal salmon river of British Columbia.

Commencing in 1878, with a pack of 8,159 cases by two canneries, the Alaska fishery increased till, in 1918, 134 canneries put up 6,678,000 cases. Overfishing, however, has created a situation which demands drastic changes in the regulations. (Condensed from *History of the Pacific Coast Salmon Industry*, by Mr. Henry Doyle at the Vancouver Fisheries Convention).

Protecting Residential Areas

Residents should be Secured against Encroachment of Business Interests

The following advertisement recently appeared in a Halifax paper:

"Notice is hereby given, that application has been made to the Building Inspector by the undersigned for permission to erect a shop on west side of Elm street between Chebucto road and Oak street. Any person objecting to the erection of this building within the residential district, should lodge a copy of said objections with the Building Inspector, City Hall."

The City Council of Regina, Sask., has before it for consideration an amendment to the fire limits bylaw, which, if passed, will prohibit the opening of business places in the residential districts of the city.

This legislation is in harmony with the efforts of the Town Planning Branch of the Commission of Conservation, which, for the protection of residential areas, has consistently advocated the zoning of towns and cities.

Unless a property owner has some guarantee that his investment will be safeguarded, there is little inducement to build or improve a home, even in the best residential districts, in most of our cities. In an eastern city, a permit was recently issued for the erection of a wood-working factory in the heart of a residential section. Although the residents formally protested against such construction, urging that the area was purely residential and that the insurance rates on adjoining property would be considerably enhanced, the permit was not revoked.

All building laws in cities should contain provisions to protect residential areas and for the securing of neighbourhood assent to the erection and operation of business properties which were considered undesirable by those resident in the locality.

Under the amended bylaw in Regina, it is proposed to provide for such conditions by requiring the signatures of a substantial proportion of the property owners in any block, in which it is proposed to operate business premises, before permission will be given by the city.

The requirement that proposals to erect such structures in a residential district be publicly advertised before a permit is issued also seems to be a desirable public safeguard.

Annihilation of the Whale

A century ago New Bedford, Mass. and other Atlantic ports, sent out a fleet of whalers and fortunes were made from their operations. As whales became scarcer trips involved more distant voyages, and many of these New

England vessels found their way into Pacific waters. To-day the California Gray whale, the Right whale, the Sperm whale, are almost exterminated, and the Humpback species is rapidly following. In 1911 the pinnacle was reached in whale fishing, over 21,000 of these slow-growing animals being destroyed that year. To-day the Finback whale, a species formerly considered unworthy of notice—is the principal object of pursuit, and it too bids fair to soon follow in the pathway of the more valuable species. Future generations have a poor chance of utilizing the whale, save as museum specimens.—Mr. Henry Doyle at the Fisheries Convention, Vancouver, June 4, 1920.

Conservation Means Development

The service that the Commission of Conservation has been endeavouring for over a decade to render to Canada is that of studying the facts in regard to the extent and use of our natural resources, so that public opinion and action in regard to them may be founded upon conditions as they actually exist. The Commission has never subscribed to the narrow interpretation which has often been placed upon the word "conservation" and which has given many business men a decided prejudice against the conservation movement. Unfortunately, the ranks of conservationists have not been free from the scaremonger, who is constantly seeing blue ruin and doing more harm than good. He preaches such extremes that the business man, devoting his brains, energy and capital to the development of our resources, concludes that the average conservationist is merely a faddist who, if he had his way, would lock up resources and kill development. Let it be unmistakably understood that such is not and never has been the attitude of the Commission of Conservation in regard to any resources.

It has been the guiding principle of the Commission that the only proper way to conserve any resource is to develop it to the point of highest productivity, and to use every means to maintain its productivity at that pitch. To withhold any natural resource from use under proper conditions—whether it be a fishery, water-power, timbered area or any other resource, is waste in the grossest form. The person who preaches any other policy under the guise or label of "conservation" is misrepresenting and injuring the real policy for which that word stands.

The sole purpose of the Conservation Commission is to seek to conserve our natural wealth against avoidable destruction—not against development. The crying need in Canada, to-day and for years to come, is to increase the use of our resources, and the efforts of the Commission in the past have been directed primarily to that end rather than toward hampering or restricting exploitation.