

CHAPTER I.

GENERAL SURVEY OF THE COAL INDUSTRY IN NEW ZEALAND.

	PAGE		PAGE
1. Coal Resources, Output, and Consumption	3	5. Organization of Coal-production— <i>contd.</i>	
(i.) Chief Coalfields	3	(iv.) Specialization or Division of Labour	19
(ii.) Classification of the Coals	3	(v.) Methods of Working	19
(iii.) Some Geological Features	4	(vi.) Haulage	20
(iv.) Amount of Coal Resources	5	(vii.) Wages and General Conditions of Work	20
(v.) Probable Duration of the Coal Resources	5	(viii.) Housing and General Social Environment	21
(vi.) Amount of Coal mined	6	(ix.) State Aid in Mining	21
(vii.) Rate and Amount of Consumption ; Exports and Imports	9	6. Organization of Coal-distribution	22
(viii.) Ownership of Coal-sites	15	7. Some Characteristic Features of Coal and the Coal Trade	22
2. Historical Note	15	(i.) What is "Coal" as a Commodity ?	22
3. Capital in the Coal Industry	16	(ii.) Price Comparisons	22
4. Labour	17	(iii.) Friability	22
5. Organization of Coal-production	19	(iv.) Proportion of Stock to Total Supply	22
(i.) Localization	19	(v.) Costs for Different Kinds	23
(ii.) Scale of Production	19	(vi.) Factors determining Price	23
(iii.) Development Work	19		

1. COAL RESOURCES, OUTPUT, AND CONSUMPTION.

DURING the process of its investigations the Board visited the chief coal-mining fields of the Dominion. These fields are widely distributed in well-defined areas.

(i.) CHIEF COALFIELDS.

(1.) *The North Auckland Field.*—The chief mines producing at present are those of the Hikurangi Coal Company (Limited), and the Northern Coal Company (Limited), near Whangarei. The coal is of good quality, and is largely used for steam-raising purposes, for which it is well adapted. The coal from this field is usually classed as pitch, glance, or semi-bituminous.

(2.) *The Waikato Field.*—The chief mines are those of the Taupiri Coal-mines (Limited), the Pukemiro Collieries (Limited), and the Waipa Railway and Collieries (Limited), producing brown coal, near Huntly and Ngaruawahia.

(3.) *The West Coast Fields.*—These fields are developed mainly in the Grey Valley, the Paparoa Range, and the districts between Westport, Mokihiui, and Karamea. The coals are chiefly bituminous, though there are also valuable seams of semi-anthracite in the Paparoa Range. The chief mines now worked are those of the Westport Coal Company (Limited), the Blackball Coal Company (Limited), the Westport-Stockton Coal Company (Limited), The Tyneside Proprietary (Limited), the Paparoa Coal-mining Company (Limited), (in liquidation), and the State Mines near Greymouth. On the Inangahua Coalfield, extending from the Buller River to Reefton, there are a few minor collieries producing a superior pitch-coal.

(4.) *Canterbury.*—There are a few comparatively small mines producing brown coal in the western foothills, the chief being that of the Homebush Brick and Coal Company (Limited), and the newly opened mine of the Mount Torlesse Collieries (Limited) at Avoca on the Midland line. Isolated deposits of anthracite are found in the Malvern Hills.

(5.) *The Kaitangata Field.*—This field contains a superior type of brown coal, as well as lignites, the chief mines being those of the New Zealand Coal and Oil Company (Limited) and the Taratu Coal-mines (Limited).

(6.) *Nightcaps*, about forty-five miles from Invercargill, producing a superior brown coal and lignites. The chief mine is that of the Nightcaps Coal Company (Limited).

(7.) *Central Otago and Southland*, where there are numerous small mines producing lignites.

The mines in the Mokau, North-west Nelson, and North-east Otago districts were not made the objects of special investigation, since they are as yet comparatively unimportant or present no features of peculiar interest.

(ii.) CLASSIFICATION OF THE COALS.

The coals mined in New Zealand are extremely varied in character and quality. A common classification is into hydrous and anhydrous coals, the former containing a high percentage of water in chemical combination, the latter a very small percentage. These classes may be further subdivided into five clearly marked kinds :—

(1.) *Anthracite* coal, which is anhydrous, contains a very high percentage of fixed carbon (over 85 per cent.), and is non-coking. Patches exist in Canterbury, in the Paparoa Range near Greymouth, and near Charleston. As yet the supply is of very little economic importance.

(2.) *Bituminous* coal, anhydrous (containing usually under 5 per cent. of water). "The only point in which, as a class, these coals are different in any of the characteristics which are laid down as requisite for a perfect steam-fuel is in the solidity and toughness which enable the coal to withstand the constant attrition it must experience from frequent handling. This defect is, however, comparatively insignificant, and is more than compensated for (except in a few instances) by the purity of the coal, its tendency to cake, and the facility with which complete combustion can be