

The establishment of an Iron and Steel Works will therefore effect a reduction of about £1,340,000 sterling per year in the sterling demand even in the initial stages of the industry and this amount should be progressively increased as development proceeds.

PURPOSES OF DEFENCE.

Although the matter does not lie within the normal scope of this Report, it is considered opportune to direct attention to the bearing of an iron and steel plant on the question of National Defence.

As is well known, the iron and steel industry in all countries forms the basis for the manufacture of armaments, and the steel works at Onekaka can, if desired, be utilized as an integral part in any scheme for the production of armaments in New Zealand, both as a permanent feature in the scheme of defence and to make the country less dependent on overseas communications in time of difficulty.

The steel-making furnaces proposed for installation are of the same type as those used by the producers of armament steels, and with the addition, when required, of a small electric furnace, would be capable of producing any quality of steel demanded for this purpose.

The rolling mills, without any modifications, will be suitable for the rolling of steel into rounds or squares up to 8-inch dimension. The rounds would furnish the basis for shells and rifle barrels.

With the installation of a piercing press, billets can be rolled for the production of other types of shell and with the installation of drop-stamping equipment, billets can be forged into aircraft and motor car crank-shafts, valves and other parts.

It is suggested that before the final lay-out of the works is completed, consideration should be given to the possible correlation of the steel works equipment with the needs of the Defence programme so that provision can be made, if desired, for the installation in correct sequence and without undue expenditure of the additional equipment required for such purposes. With the correlation of the steel-making capacity, the machining equipment of the engineering shops and the establishment of a filling factory, a considerable contribution could be made to meet many of the requirements of the Defence programme.

SUMMARY.

As a result of our examination, it can be assured that—

- (a) The reserves of the necessary iron-bearing materials, coking coal, limestone and dolomite, are adequate to meet the needs of an Iron and Steel Industry on the scale already proposed for a period of seventy years, and there is every indication that further exploration will establish additional resources of iron ore, for either the extension of the life of the plant or for production on a larger scale.
- (b) The location at Onekaka offers the most favourable position for the economic production of steel.
- (c) The market demand and the local conditions are such as to justify the establishment of a steel industry on a sound, economic basis.
- (d) The manufacture of steel in New Zealand will have a marked beneficial effect on the problem of employment, overseas finance and national defence.

Approximate Cost of Paper.—Preparation, not given; printing (690 copies), £17.

By Authority: E. V. PAUL, Government Printer, Wellington.—1939.

Price 6d.]