

1886.
NEW ZEALAND.

MANUFACTURE OF PIG-IRON

(PAPER RELATIVE TO).

Laid on the Table by the Hon. W. J. M. Larnach, with the Leave of the House.

MEMORANDUM for the Hon. the MINISTER of MINES.

Re Manufacture of Pig-iron.

THE samples of pig-iron forwarded you by James Kelly, Freeman's Bay, Auckland, were too small to enable me to have sufficient experiments made with them to test their value as marketable pig-iron.

I got the different samples smelted at the Lion Foundry here, and run into bars, in order to have some idea of the character of the iron, from which the following results are deduced:—

No. 1 Sample: This is the best of the three (forwarded) for ordinary castings, but it is a good deal too hard to use by itself. It would require to be mixed with very soft iron.

No. 2 Sample: This appears to be suitable iron for casting stamp heads and bottoms, or for any work requiring very hard iron, but it is not suitable for ordinary castings.

No. 3 Sample: This is the hardest sample of the lot, and is only fitted to be used in such castings as No. 2 sample is suitable for.

No. 4 Sample: This is a sample of Scotch pig-iron, that I got cast into bars, to make a comparison with the samples forwarded by Mr. Kelly.

I am under the impression that samples Nos. 1 and 2 are both well adapted for the manufacture of steel, but, as previously stated, the quantity forwarded was too small to make sufficient experiments. If, say, 1cwt. each of the samples were forwarded, they could be cast into bars, and its tensile and transverse strength tested and compared with other iron.

HENRY A. GORDON,
Inspecting Engineer.

Mines Department, Wellington, 9th August, 1886.

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