

by the use of it in alloy with steel to increase the strength and quality of the latter. Experiments have been made in France and Germany, which have all been successful, and some very important experiments have also been made at Annapolis, U.S., more particularly with reference to the use of nickel steel for cannon and armour plate, which seem to have successfully established the superiority of nickel steel for these purposes. Further tests made at Pittsburg showed that the elasticity and tensile strength of nickel steel were almost double the limits reached in the best grades of boiler plate steel, and the new metal seems likely to be used, not only for armour plate, but for hulls and engines of ships, and indeed for all purposes where a high grade of steel is now used. It is also said to be much freer from both corrosion and fouling, for hulls of ships. As a result of the experiments, the United States Government have decided to make use of nickel steel armour plates, and the contract for their manufacture has been awarded, so that the prospects for this industry round Sudbury are very promising, and a market should grow up for this metal at remunerative prices.

Petro-
leum.

479. Petroleum has been found in Quebec, Nova Scotia and New Brunswick, and particularly in the North-West Territories, where it seems certain there is an immense unexplored oil region, but it is in the county of Lambton, Ontario, whence most of the oil has been and is obtained, Oil Springs and Petrolea, in the township of Enniskillen, being the largest oil-producing districts, the oil being obtained at a depth from 370 to 500 feet. The first flowing well was struck on the 19th of February, 1862, and before October in the same year, there were no less than thirty-five flowing wells. As there was no accommodation for the storage of this enormous flow, there was a frightful amount of waste, and it is calculated by one authority that between the dates mentioned no less than five million barrels of oil floated off upon the water of a neighbouring creek. Means were taken after a time to stop this waste, and, though no exact particulars are available, the annual output for some years has been about 600,000 barrels.

Number of
refineries.

480. There were 12 refineries in operation in Ontario in 1890, employing about 250 men, and it was estimated that there were 3,500 wells pumped.

Produc-
tion of pe-
troleum,
1890.

481. Exact figures of the total production of oil cannot be obtained, but, as far as returns are available, it would appear that in 1890 the amount approximated very closely to 695,000 barrels, of a calculated value of \$820,100, while the value of the production of the 12 refineries was \$1,638,420.

Produc-
tion of oil
in Canada,
1881-1890.

482. The following table contains the only reliable statistics of Canadian production of oil that are available, and these figures do not