

Babcock and Wilcox type, nominal horse-power 100; the other is of underfired multitubular type, horse-power 90. The boilers will be heated also by waste gas from the blast furnace. Slag from the furnace will be granulated by means of water and flushed over the hillside. As a guard against possible blockage of the race, or inability to granulate owing to failure of water-supply, an endless-rope haulage, with slag-pot on bogie, is also being installed. In front of the furnace is situated the cast-house, covering a sand-pig bed where the molten metal will be flowed into pig form, and from there it will be lifted by a 5-ton overhead crane and carried to the stockyard. For supply of water an open race 60 chains in length, and a pipe-line 40 chains in length, have been provided. A considerable number of hutments have been erected for housing the employees, and the company has also provided a comfortable mess-house where the men will get their meals at a reasonable price. An up-to-date laboratory has also been erected. For the bringing of the ore from the quarries to the plant an aerial ropeway, about a mile in length, has been erected. This will deliver both the limestone and the crude ore into large ferro-concrete bins, whence the charge will be raised to the feed-floor by means of an hydraulic lift. The charges are expected to approximate  $2\frac{1}{2}$  tons of ore, 15 cwt. limestone, and 20 cwt. coke. The average iron content of the crude ore is expected to run from 45 to 48 per cent. This, less the moisture, 12 per cent., is expected to bring the iron content empirically to from 51 to 53 per cent. The character of the ore will, however, no doubt vary considerably during the working of the deposits. Up to the end of the year a sum of upwards of £25,000 has been spent in the erection of the plant, &c. No attempt will be made for a time to produce anything but a soft, highly siliceous pig iron, of which it is estimated 10,000 tons are used yearly for foundry purposes in New Zealand.

#### ASBESTOS.

*New Zealand Asbestos Company (Limited).*—This is the only property in the district that has turned out any asbestos for the year, and the quantity was small, being only 5 cwt. of cobbled mineral, valued at £50.

#### PROSPECTING FOR PETROLEUM.

*Kotuku Petroleum Prospecting Syndicate.*—This syndicate, whose property is situate at Kotuku, on the Greymouth-Otira line, was the only one in the West Coast Mining District to carry on active operations. Under the supervision of Mr. J. A. Davis, a driller of American experience, a well was sunk to a depth of 930 ft., but no indications of either mineral oil or gas were noted, and it has now been abandoned. The site for a new well has, however, been selected, and the ground will be further tested. Six men were employed.

#### Accidents.

No accidents of any kind were reported, except at the alluvial claim at Ahaura worked by the Hochstetter Goldfields (Limited), where, on the 3rd August, a man named Edward Murphy, aged fifty-seven, single, met his death.

#### SOUTHERN INSPECTION DISTRICT (Mr. A. WHITLEY, Inspector).

##### Quartz and Alluvial Mining.

##### WAITAKI COUNTY.

*Livingstone and Maerewhenua.*—The Mountain Hut Race, which was the principal source of the water used in the alluvial claims at Maerewhenua, was badly damaged by a flood in the month of October. As repairs have not been effected, mining is practically at a standstill. Returns from this district show that seven men were employed, producing 178 oz. 17 cwt. gold, valued at £744.

##### TAIERI COUNTY.

*A. C. Buckland (The Reefs).*—150 tons of ore from open cuttings on the Barewood reef yielded 17 oz. 15 dwt. gold, valued at £73 11s. 2d.

##### TUAPEKA COUNTY.

*Gabriel's Gully Sluicing Company (Blue Spur).*—This company completed treating the tailings that had been deposited in Gabriel's Gully by former companies and miners who were operating on the Blue Spur cement for many years, and a start has been made to sluice the cement remaining in the solid. Water under a pressure of 600 ft. is available for breaking down and elevating. Since the company was formed in 1907 gold valued at £56,754 has been produced, and dividends paid amounting to £15,615.

*Lawrence Sluicing Company (Blue Spur).*—The sluicing and elevating plant has been shifted from Munro's Gully to Kitto and party's old paddock in the cement, where payable returns were obtained. The yield of gold for the year was valued at £1,287.

*Golden Crescent Sluicing Company (Weatherstone).*—Sluicing and elevating have been steadily carried on during the year. A jack-hammer drilling plant was installed to assist the high-pressure water in breaking up the hard portions of the cement. Gold valued at £1,938 10s. was produced, and dividends were paid amounting to £437 10s.

*Sailor's Gully Sluicing Company (Waitahuna).*—Operations were confined to the Norwegian section of the company's claim, where a paddock about 1 acre in area and 15 ft. deep produced 500 oz. gold. Sinking has been commenced in the cement, which gives good prospects and is expected to yield payable returns.

*Havelock Sluicing Company (Waitahuna).*—This company is working shallow ground near Waitahuna Township with payable results. Gold valued at £1,645 was produced, from which £400 was paid in dividends.

*Waipori.*—Six sluicing claims were in operation during the year. Thirteen men were employed, and the production of gold amounted to 756 oz., valued at £3,290.

*Teviot Molyneux Gold-mining Company (Roxburgh).*—Eight men were employed, and the yield of gold amounted to 151 oz., valued at £740.

*Murchison Bros. (Fourteen-mile Beach).*—This party has installed an elevating-plant to work a beach in the Clutha Gorge between Coal Creek Flat and Alexandra.

##### MANIOTOTO COUNTY.

*Naseby.*—Twenty-four miners were employed in this locality. The gold produced was valued at £5,192.

*St. Bathans.*—Only two claims, employing eight men, were worked. The Scandinavian Water-race Company produced 457 oz., valued at £2,209, and the United M. and E. Water-race Company 145 oz., valued at £662. The former was elevating from a depth of 102 ft.

*Cambrian's.*—The Vinegar Hill Sluicing Company suspended operations at Vinegar Hill, and shifted the sluicing-plant to new ground on the south-east side of Morgan Bros.' claim. A pipe-line one mile and a half in length has been laid from the company's water-race to the claim. The yield of gold amounted to 164 oz., valued at £709. Morgan Bros. were engaged in prospecting the south-eastern portion of their claim, with unsatisfactory results.

*Patearoa.*—Two claims, employing five men, were in operation. The production of gold amounted to 196 oz., valued at £878.

##### VINCENT COUNTY.

*Matakanui.*—The Undaunted Tinkers' Gold-mining Company, elevating from a depth of 57 ft., produced 241 oz., valued at £1,069. Seven men were employed.

*Nevis.*—Graham and party's claim at Upper Nevis continues to yield payable returns. 553 oz., valued at £2,677, were won during the year. The output of gold from the sluicing claims in this locality amounted to 1,288 oz., valued at £6,029. Thirty-two men were employed.