

two 22 in. diameter pipe-lines, fitted with automatic hydraulic valves (by A. and T. Burt, Dunedin), are laid in position, awaiting the arrival of nozzles from California. The company are determined to spare no cost in making this property a *bond fide* and up-to-date concern. Twenty-two men are employed. No accidents were reported.

Prince of Wales Claim.—Sluicing operations are suspended pending the flotation of a dredge to work the ground.

WAIHO.

Waiho Hydraulic Sluicing Company (M. Nicholas, mine-manager).—(24/3/1900): The development-works carried out on this property are substantially built and systematic; but, unfortunately, the main bottom dips from the present workings, which necessitates a large expenditure of labour in cutting down the tail-race so as to give free exit for the tailing *débris*.

Duffer Creek.—(24/3/1900): This once famous gold-producing district gives employment to two Europeans and six Chinese.

Lake Ianthe.—There was no person at work on Allon's sluicing claim.

Waiho Forks.—Two men employed bringing up a tail-race.

Wataroa.—One man at work on this creek.

When this district was visited a large number of miners had made all necessary arrangements to migrate from the gorge during the winter months.

ACCIDENTS AND FATALITIES.

Greymouth.—(17/10/1899): John Sketch, aged sixty-seven years, and Robert Marchant, aged eighteen years, were both killed by suffocation in the bottom of a shaft, situated four miles north from Greymouth.

DREDGING.

Wakamarina River.—The Imperial is the only dredge at work on this stream.

The McKenzie was considerably damaged about nine months ago, and the repairs necessary to place her in working-order have not been completed.

Buller River.—The Buller No. 2 dredge is fully equipped with the most modern machinery and safety appliances, in order to cope with the heavy gravels peculiar to our West Coast streams.

Three-channel Flat, Buller River.—The Consolidated is the original Cocksparrow, which was bought and overhauled by the present company. The machinery is not of the up-to-date type and many stoppages are incurred to working operations.

Totara River, Ross.—This dredge is owned by an Auckland syndicate, and holds a first place on the Westland waters as a finished and up-to-date machine. Length, 75 ft.; breadth, 30 ft.; depth of hull, 6 ft.; and well-hole, 6 ft. 6 in. in width.

Mahinapua Lake.—The Mahinapua dredge has not yet resumed operations.

No dredge accidents are reported.

GENERAL REMARKS.

The success which the gold-dredging industry has attained in the southern mining district has opened fresh fields for development and enterprise. Hidden possibilities await the mining engineer's skill to unearth the gold from the vast auriferous deposits which have been carried down and distributed by the agency of rivers. Viewing the natural resources of the West Coast mining areas from unbiassed and practical data, safe and profitable investment may be assumed if guided with judicious care and forethought on the part of the speculator; but it is to be regretted that wisdom does not always sit in high places in mining ventures.

From registered returns to hand, dredging areas have been applied for and granted on nearly every stream and river-flat, and in some cases terraces. Some of the dredge experts consider that the fine gold hitherto lost by hydraulic sluicing can be dealt with more successfully by the modern dredge, and a higher percentage of the gold saved. Be this as it may, it is not the province of this report to discuss the subject. Practically the most suitable dredging-ground is generally known as "wet areas," and these are being prospected by boring and shaft-sinking. But, as a question of accuracy, where air-lock cylinders can be applied with convenience, samples of the gold-bearing stratas could be tested as sinking proceeds, and more reliable results obtained.

In dredge-building for the West Coast streams the first and most practical principle of economy to be observed is strength in all parts of construction, as the gravels vary in size and weight, and large trees are imbedded in the upper alluvial drifts. These may be anticipated as continuous enemies.

The extensive black-sand deposits peculiar to the West Coast beaches await the scientist's skill to discover some practical and economical process of extraction, by which the sands can be treated profitably in large quantity, as working-conditions—viz., water and fuel—are within easy access where these sands abound.

I have, &c.,

R. TENNENT,

Inspector of Mines.

The Under-Secretary, Mines Department, Wellington.

Mr. E. R. GREEN, Inspector of Mines, to the UNDER-SECRETARY for MINES, Wellington.

Office of Inspector of Mines, Southern District,
Dunedin, 10th May, 1900.

SIR,—

I have the honour to present the following report on the gold-mines visited by me up to the 31st March, 1900:—