DREDGING.

Although dredge-construction makes satisfactory progress in point of volume, it unhappily occurs that the variable ratios of success, as indicated by the number of suspensions and liquidations officially catalogued in the mining returns, definitely show that the factor of profit in favour of the investor cannot be regarded as either universal or constant; but, speaking impartially on the merits of our best-designed and most-fully-equipped West Coast dredges, it is gratifying to state that the returns obtained therefrom compare favourably with those in other

parts of the colony.

A study of the various causes and conditions of recent failures that have come directly under our notice suggests a few practical precautions useful to the mining investor as a means of protecting him against the evils of haphazard speculation, tending also to minimise loss in future operations, and quite indispensable if gold-dredging is to figure as a legitimate industry in the mining records of New Zealand. These requirements are as follows: (1.) Prior to dredge-construction it is essential that the deep and coarse auriferous-gravel deposits peculiar to our river-bed and lake-bed formations should be systematically prospected by shaft-sinking in preference to the undesirable system of boring hitherto practised. (2.) It is also necessary to provide an increased ratio of strength in steam-power and working mechanical parts, combined with greater gold-saving-table capacity, with effective clean-water supply, as the shortage of these essentials not only involves the most ruinous monetary results incidental to the industry, but incurs extraordinary expenditure in repairs and loss of time, which, with properly equipped dredges, would otherwise go into the pockets of the investor.

It is pleasing to note that the bonus of £2,000 promised by the Hon. the Minister of Mines,

It is pleasing to note that the bonus of £2,000 promised by the Hon. the Minister of Mines, with the object of encouraging the invention of such appliances as will successfully save gold from black sand in New Zealand, has already stimulated scientific research in this direction, and that samples of these sands sent from the Charleston Mining District have been forwarded to eminent Continental schools for experimental treatment. If the results are economically successful, it will

be the means of inaugurating a new era in the history of New Zealand mining.

With regard to the working-conditions of modern dredges, comfort and safety to workmen have received the engineer's attention, and the strict observance with respect to the equipment appliances and fencing, in compliance with Regulation 83, have minimised the risk of accident. Nevertheless, six accidents—two of them fatal—have been reported from this district; but all of these except Stringer's case, which was a pure accident, were clearly due to rashness and carelessness on the part of the persons injured.

ACCIDENTS AND FATALITIES.

QUARTZ-MINES.

Taitapu Golden Ridge.—(27/3/1901): Patrick Ryder (miner) had his leg broken by a falling prop in the working-face.

Golden Fleece Mine, Reefton.—(3/6/1901): Whilst Adolph Peterson (miner) was working on No. 2 stopes he sustained serious spinal injuries, which terminated fatally on the 14th September.

DREDGING.

Fatal.

Mokoia.—(22/4/1901): William Tomitily, transport boatman, was drowned while crossing the river with Tobin and King at change of shift, the boat capsizing by some unknown cause. Verdict, "Accidental death."

Golden Point, Wakamarina.—(9/9/1901): A watchman named Martin Eliott was dragged round the main driving-shaft and killed. Verdict, "Accidental death; no blame attachable to any one."

${\it Non-fatal.}$

Waipuna.—(23/2/1901): Alfred Ahearn (not an employee) lost two fingers by the winch cogwheels.

Mokoia,—(20/5/1901): William King had his leg broken by jumping into a coil of rope while it was being tailed out. Blame was not attachable to any person.

Wareatea.—(30/10/1901): Alfred Stringer had his leg broken whilst hauling in a large stone off the buckets.

Pactolus, Nelson Creek.—(29/11/1901): Whilst James Smeaton was climbing up the gantry he overbalanced and grasped the ladder-line while it was in motion, severely crushing his left hand in the block, and necessitating amputation of three fingers.