

elevator. This simple appliance has solved a difficulty experienced in the early days of mining on the Shotover River, and has enabled holders of claims to sluice the bed of the river where such is wide enough to allow of the stream being temporarily diverted when the river is low.

DREDGE-MINING.

This branch of the gold-mining industry may now be said to have settled down after the excitement of the "boom." As predicted in a former report, several claims which were taken up for dredging purposes, and in some instances equipped with dredges, have been found unsuitable for this class of mining, with the result that the system of hydraulic sluicing and elevating has either been reverted to or adopted in preference to dredging. On the other hand—and entirely apart from dredging in river-beds—considerable areas of auriferous land which cannot be worked by the method of hydraulic mining, owing to the absence of a sufficient volume and pressure of water, are being successfully worked by dredges.

The following summary shows the number of dredges returned for each district at the end of the year 1902:—

District.	Working.	Standing.	Building.	Under Removal.	Wrecked.	Total.
Marlborough and West Coast	50	16	15	...	...	81
Southern ...	151	36	8	14	2	211
Totals	201	52	23	14	2	292

Owing to the number of fatal accidents which have occurred in connection with boating-work, such as is incidental to the working, moving, and coaling of dredges on deep or swift-flowing streams, it has been deemed advisable that dredgemasters should be men of experience in boating, &c. Provision was therefore made in the Mining Act Amendment Act of 1901 for the masters in charge of dredges working in such streams as may be classed by the Inspector of Mines or Warden as "deep or swift-flowing" being certificated. Certificates of service have been granted to those persons who have acted in the capacity during a given period, and all future certificates will be granted after candidates have passed the required examinations and given proof of their sobriety and general good conduct.

For general information it may be stated that up to the 31st December last the rivers and streams mentioned below have been scheduled as deep or swift-flowing streams within the meaning of the Mining Act and its amendments, and that masters of dredges working on these streams must hold certificates either of service or by examination. Some of the streams enumerated may not come within the literal meaning of the term "deep or swift-flowing" in dry weather, but in times of heavy rains are perfect torrents; hence the necessity to class them as streams of the character named.

Marlborough and West Coast District.—Wakamarina, Wangapeka, Aorere, Lower Matakītiki, Inangahua, Buller, Ahaura, Totara, Nelson Creek, Grey, Teremakau, Lower Greenstone, Hokitika, Mikonui.

Southern District.—Pomahaka, Clutha,* Kawarau, Shotover, Manuherikia (lower end only), Dart, Maitai, Waiau.

It is much to be regretted that nine fatalities occurred during the year to men employed on dredges—viz., four in the West Coast district, and five in the Southern district. Of these, two were in connection with machinery, the others being boating accidents. It is to be feared that workmen are not nearly careful enough in the use of boats, and also that many of them are not sufficiently experienced. The industry has grown so much of late years that it is not an easy matter to man all dredges with experienced hands, and a further difficulty lies in the fact that dredges in the very rapid rivers, and especially on gorge claims in those rivers, can only work during portions of the year; consequently experienced and competent men will not rely on them for employment, and more casual or less experienced men have to be engaged. I need hardly say that it is in the working of dredges so circumstanced that the greatest risks have, as a rule, to be run, and the necessity for having the most perfect safety appliances always ready for use, as well as untiring vigilance on the part of the man in charge, is obvious.

The Inspectors of Mines report that the majority of dredgemasters now appear to realise their responsibilities, and are doing their utmost to promote the safety of their employees. There are, however, exceptions yet to be found, and repeated visits of inspection have in some instances been necessary to educate such dredgemasters to a sense of their responsibilities.

It may not be out of place to remark that penalties are provided for in the case of violations of the special rules which have been framed for the promotion of safety in connection with dredge-work; also that the observance of these special rules is incumbent on employees as well as employers, and it is the duty of the latter not only to comply with the rules and regulations themselves, but to enforce compliance by the former.

* This river is often erroneously called "Molyneux" for a portion of its course.