3 C.—2.

On the Reefton Goldfield the Progress Mines have maintained their yield, having declared in dividends £34,375 as a result of treating 59,100 tons of ore for a return of £91,200 during the year. The mines of the Consolidated Goldfields of New Zealand (Limited) have also maintained their position, declaring £12,119 as a result of treating 19,401 tons of ore for a return of £36,307 during 1906. The Keep-it-Dark Mine still maintains its reputation after thirty-three 'years' successful operations, having recently declared its one hundred and seventy-seventh dividend. During the year £9,000 was declared in dividends as a result of treating 13,300 tons of ore for a return (including £5,686 from the cyanide plant) of £18,887.

The reefs which were discovered during 1905 in the Upper Blackwater district by a party of prospectors, who were subsidised by the Government, have been recently acquired by the Blackwater Mines (Limited), an English company, and

development operations on a considerable scale have been commenced.

On the other quartz-mining fields operations are not at present being conducted

on any considerable scale.

As developments proceed, satisfactory promise of the future prosperity of the quartz-mining industry is obtained. At the Waihi Mine the Martha and other reefs are maintaining their values with depth; at the Talisman Mine 1,500 ft. vertical has been proved on the vein, and the dividends declared are increasing in value; on the Thames field payable gold has been obtained in the May Queen Mine at a depth of 720 ft.; and at the Waiotahi Mine development work at the lower levels is meeting with success. At Reefton a depth of 1,700 ft. has been attained, and dividends are still forthcoming at one mine after thirty-three years' successful operations. In the State of Victoria reef mining is now being carried out profitably at a depth of 4,175 ft., and from the evidence the above mines supply it may reasonably be anticipated that the strong quartz-veins of this country will prove as permanent as those now worked in Victoria.

## HYDRAULIC AND ALLUVIAL MINING.

These systems of mining are confined to the goldfields of the South Island, the principal centres being in the Nelson, Westland, and Otago Provinces, where it is to be regretted a diminishing output of gold annually takes place. This is due to the exhaustion of the shallow deposits by the large fleet of dredges built a few years ago, and to extensive hydraulic sluicing operations; also to the absence of water in the more remote auriferous localities.

The Tamaiti Gold-mining Company, which received a subsidy from the Government, has introduced a novel principle of working auriferous gravels. The water is raised from the Tuapeka River to a height of 30 ft. by means of a dam, and from that elevation operates a turbine and pump, giving a discharge of five heads on the terrace 150 ft. above river-level, the waste water being returned to the Tuapeka River. This comparatively inexpensive and efficient system of jobtaining power for hydraulic sluicing might be advantageously applied in other parts of the colony.

The future of alluvial mining depends upon the working of the lower grade and the more inaccessible deposits, which have been neglected or overlooked by the earlier miners, or else have defied them by reason of the conditions under which

they occur.

## DREDGE-MINING.

The most extensive dredging-fields are situated in Otago and Southland, where, although a small falling-off of output has to be recorded for 1906, the continuance of successful operations for some years to come is assured. On the West Coast dredge-mining cannot be considered in a flourishing state, the working of flats having often proved a failure owing to the difficulties encountered in working or the absence of payable gold.

The number of dredges at work at the end of 1906 was 167, a decrease of eighteen as compared with those operating at the corresponding period of the preceding year. The sum of £103,722 was paid in dividends by fifty-seven dredges, the property of registered companies. The profits of privately owned dredges are considerable, as

these number 110, but the amount paid by them is not available.