

on the Carrick :—The Heart of Oak, the Star of the East, the Elizabeth, the John Bull, the Young Australian, the Caledonian, and the Colleen Bawn. Of those the two first-mentioned have yielded the most gold. Here again water is the chief motive power, and, as a consequence, work this season has been much retarded. At the Carrick, there is no reason I can see for being so dependent on water, steam-raising coal being quite convenient to the mines.

The only branch of gold mining remaining to be mentioned is dredging on the Molyneux River. There has been a considerable revolution in the mode of dredging. The constant flow and accumulation of tailings has rendered it impossible to do any good with the spoon dredge. The great object to be attained was, when the wash was reached to keep it from being immediately covered up with tailings. Pneumatic tubes have been tried, and with success; and if sufficient means are adopted for the speedy elevation of the wash, this mode will be generally adopted, particularly in the gorges, where very rich pockets are believed to exist. The advantage of this system is that ocular examination of the river bottom is enabled to be made. Allied to the system of the tubes is the submarine boat, which is also on trial. A steam dredge, similar to those used in harbours, is in course of erection, some miners believing that the payable nature of dredging depends entirely on the quantity of stuff to be got through, which no doubt is the case in the more placid reaches of the river, where the gold has got more uniformly distributed; in such places only could such a dredge work. This winter it is expected there will be four or five different sorts of dredges at work in the neighbourhood of Clyde and Alexandra, almost all worked by steam.

Agricultural settlement in this district makes very slow progress, chiefly owing to the very limited area of land suitable, and such as there is depending so much on irrigation, to do which large capital is required.

I have, &c.,

W. LAURENCE SIMPSON, Warden.

The Under Secretary for Immigration and Public Works,
Gold Fields Branch, Wellington.

No. 19.

Mr. Warden STRATFORD to the UNDER SECRETARY for GOLD FIELDS.

SIR,—

Warden's Office, Arrow District, Otago, 31st March, 1873.

In compliance with your circular memorandum of the 12th of February last, I have the honor to report on my district as follows :—

1. That the original Warden's District of Arrow, for some years under the charge of Warden Lowther Broad, was annexed to the Queenstown District, and became a division under Warden Beetham's charge in August, 1868. And that on the 24th of July, 1872, it was again classed as a separate district with its original boundaries—viz., on the west by an imaginary line from the junction of the Hayes Creek with Kawarau, along the western shores of Lake Hayes, and from thence north-west to the Coronet Hill; from thence north through Fox Peak to the Canterbury boundary; along that boundary until the source of the Kyrleburn bears due south; from thence by an imaginary line to the source of the Kyrleburn; then down the course of the Kyrleburn to its confluence with the Kawarau; from thence along the south bank of the Kawarau to the starting point. Within these boundaries there are eight distinct mining settlements, which I will detail in order according to their importance—namely, Cardrona, Macetown, Arrow River, Matatapu, Cambrian Flat, south bank of Kawarau, Whitechapel Flat, Bracken's Gully, and Roger's Gully.

The increase of population, more permanent settlement, and the more continual travelling to the out-districts demanded of the Warden at Queenstown, were the principal causes of the reconstitution of the Arrow District. And as the Government has expended during the past six months considerable sums of money in cutting and improving mountain tracks, more especially up the Arrow River; in connecting Macetown with Roger's Gully, in the heart of the northern ranges of Otago; and from the former place to Matatapu, which is daily becoming more favourably known,—I believe the district will become more important every year. The population, though not increasing much, is more settled, and the revenue greater and less fluctuating. Having classified the mining localities, I will briefly report on each. At Cardrona, there are about 100 European and 350 Chinese miners. When the agricultural leaseholders have worked out their ground (their leases having yet two or three years to run), we shall have room, with present prospects, for 50 more Europeans at least. At Macetown the ground is pretty well worked out, but through the liberality of the Provincial Government an opening by way of a track has been made, and the gold is being traced in payable quantities towards the Upper Shotover on the west, and the Motatapu in a north-easterly direction. The population (all told) there is about 300, including 200 Chinese. On the south bank of the Kawarau there are from 90 to 100 European and about 25 to 30 Chinese people. The Cambrian Race Company, with their race of 20 heads (permanent supply), have just commenced sluicing at a point known on the map as Nevis Bluff. This race commands five miles auriferous ground, and I hope to be able to report far more favourably of this locality after the winter has passed. Whitechapel Flat and Crown Terrace are places that have afforded a living to about thirty persons for many years past, and a race recently cut by the Arrow River Water Race Company is now discharging a good flow of water on payable sluicing ground. The quartz reefs of Crown Terrace and Arrowtown, it is believed generally, will be worked when wages are lower, and men are willing to work hard and earn £2 to £3 a week as highest returns. Roger's Gully is comparatively untried—has to be abandoned in the winter; but the Macetown miners speak highly of the prospects in that direction.

Bracken's Gully is a snug isolated basin or pocket of gold for about twenty-five to thirty people, who have hitherto had to pack with difficulty their provisions from Arrowtown. The Government track up the Arrow River will obviate this, and render the people more comfortable who have settled there. I do not anticipate any farther discoveries in that direction, for it has been well tried and proved. The farmers in the district are prospering considerably. The land and climate could not be