

New Alburnia Company.—This company promises to be one of the principal gold-producers on the field for the ensuing year. The mine is well opened up, and arrangements have been made to lease the Saxon battery to crush the quartz. A great deal of the stone cannot, however, be termed free-milling ore. Some of the tailings were recently operated on by Mr. Pitcairn, the manager and agent for the Lührig Concentrating Company, which showed that a considerable saving would be effected by the use of their machines, as the ore is adapted for concentration, as will be seen from his report to the Alburnia Company on the treatment of $10\frac{3}{4}$ tons of ore, as follows:—

"I have the honour of submitting the following report on the parcel of ore sent to the Norfolk Battery for treatment by the Ore Dressing and Gold Extraction Company's plant. The general dirt sent amounted to six railway loads, or seven cart-loads, or, approximately, 10 tons 15 cwt. (dry). The ore was crushed in the ordinary five-stamper box, a punched screen, 250 holes to the square inch being used. The pulp was passed over amalgamated Muntz-metal plates, three in number. Immediately below each plate there is a small ripple, each of which was cleaned out at regular intervals. The material obtained, "skimmings" or "rippings," was ground in berdan pans in charges. The remainder of the pulp was passed *directly* into the Lührig pump, and delivered to the classifier for classification prior to concentration on the concentrators. It must be mentioned "no blankets" were used, hence no blanket-washings were forthcoming for grinding in the berdans. This fact, of course, reduces the percentages of saving effected by the berdans in treating this parcel. Underwritten is the tabulated result of the crushing:—

		Value per ton.			Total Values in Material treated.			
		£	s.	d.	£	s.	d.	Per cent.
"Crude ore, $10\frac{3}{4}$ tons	...	3	14	$6\frac{1}{2}$	40	1	4	100.00
Received from plates 6dwt., value	...				0	15	8	1.95
Received from skimmings, 7oz. 7dwt.	...				19	2	2	47.69
Concentrates, $3\frac{3}{4}$ tons	...	5	2	$0\frac{3}{4}$	19	2	9	47.76
Tailings, 5 tons...	...	0	3	4	0	16	8	2.07
Unaccounted, loss	...				0	4	1	.50
					£40	1	4	99.97

The berdan tailings are taken from the settling-pits, and concentrated, and of course added to the concentrates. In a mill properly arranged this could be made to work automatically. From the above result it is noticeable that by the present battery system on the Thames the percentage of saving is equal to 49.64 per cent., whilst by the addition of a simple concentration process 47.76 per cent. more of the original assay-value is recovered, *i.e.*:—

		£	s.	d.
"Value of ore treated	...	40	1	4
Present battery process yields only	...	19	17	10
Loss	...	20	3	6
Of this loss concentrators save	...	19	2	9
Loss reduced to	...	£1	0	9

The concentrates from this parcel of ore consisted of iron-pyrites, which appeared semi-decomposed and porous. Their appearance was quite dull, and lacked the lustre of rich pyrites; indeed, there is a great difference between their value and those from the late crushing, yet it may be considered as payable for concentration, and subsequent extraction of the bullion."

Mr. Park, the Director of the School of Mines, Thames, made assays of samples of crushed ore taken from the splash of the screens about every quarter of an hour, during the time this company was crushing 27 tons of quartz at the Cambria Battery. These samples were all put into a tub and forwarded to the School of Mines, where they were thoroughly mixed and assayed, the result being that the value of the quartz was £33 4s. 6d. per ton; or the total value of the 27 tons was £897 1s. 6d. Of this amount, the value of the bullion recovered from the copper-plates was £30, or 3.3 per cent.; and from the berdan, £432 15s. 5d., or 48.2 per cent.; making the total saving 51.5 per cent. This shows a loss of 48.5 per cent. of the value of the bullion in the ore. Mr. Park made these assays free of charge in order to give the managers of the mines accurate information as to the actual percentage of the bullion they were saving. During last year this company had sixteen men employed on wages and eight men on tribute, and crushed 349 tons of stone for themselves, which yielded 215oz. 10dwt. gold. They also crushed 222 tons for the tributers, which yielded 220oz. gold.

Dixon's Extended Company.—This company work the whole of their claim on tribute, eight men being employed; last year 2,560 tons of stone was crushed for a return of 628oz. gold. The stone is easily got, and is sent down to the battery which is erected at the side of the Tararu Creek by an aerial tramway.

New Whau Company.—This company has been fairly successful last year in carrying on its operations. It had four men employed on wages and five men as tributers, and crushed 1,800 tons of stone, which yielded 590oz. gold.

Grahamstown.

This is the low-lying portion of the field, and where the people in the district wish to have the deep leads tested. It includes the whole of the ground on the flat, taking in the Big Pump shaft, the ground held by the Victoria, Saxon, and Queen of Beauty Companies. The falling-off in the yield of gold on this part of the field last year has been greatly felt by the business people in the town, and has given the appearance to the Thames District of being in a more depressed state than