

**YORKE PENINSULA.**—The directors have received advices from the committee of inspection of the company at Adelaide, with reports from the Kurilla mine, to the 7th of May last:—The Kurilla lode: The 30-fm. level is driven 15 fms. 1 ft. east of Hall's shaft; the lode, which produced paying ore for some distance from the shaft, is now comparatively poor; it is hardly likely that paying ore will be met with until reaching the cross-course 10 fms. further east. At the 67 east on the south part of the lode 4 men are driving, the lode being worth 1½ ton of ore of 16 per cent. The winze below the 55 east on the north part is holed to the 67. On driving the 67 from Hall's shaft the ore did not hold good as far east as was expected; this winze has disclosed the lode lying to the north of the drivage to be worth 2½ tons of 16 per cent. ore per fm. At the 55 in section No. 398 4 men are driving east; this drivage has passed through what may be called the middle run of ore, but has not reached the third, recently discovered at the 25, and ore may be looked for shortly; this drivage is also on the south part of the lode. The winze sinking below the 55 east on the south part is not yet holed, but will be in a few days; the lode is worth 1 ton of 16 per cent. ore per fm. Six men continue to drive the 35 on the south part eastward in 398, the lode being worth 3 tons of 16 per cent. ore per fm. At the 25, where 16 men were driving east and west of Nos. 1 and 2 cross-cuts in 398, the intervening space is driven through, and now 4 men are driving west of No. 1, the lode being worth 2½ tons of 16 per cent. ore; and 4 men driving east of No. 2, the lode being worth 2 tons of 16 per cent. ore; a considerable stretch of ore ground is laid open in this 25-fm. level. The cross-cut south from the 20 in No. 398 has intersected a branch, or counter lode, running midway between south and west; the ore is of good quality, and the yield for the short length exposed to view is equal to 3 tons of 16 per cent. ore per fm. Whether this is a new lode, or only a part of the Kurilla lode displaced by disordered strata, it as yet by no means certain. The occurrence is important, as showing the mineralised condition of the rocks in which we are mining, as well as the possibility of its being a connecting link or bar with another parallel lode still further south. I have 2 men driving south at the 10 to ascertain if this lode rises to that level. Below the 10 in 398 a winze is sunk 4 fms. on the branch discovered south of Gurner's shaft some time ago, when the water prevented sinking further. I am now driving on a branch of ore at the 20 east of the said cross-cut in No. 398 to let down the water from the said winze, about which at the 10 a considerable quantity of ore will be then available. A winze is just commenced to sink by 4 men below the 15 to hole to the 25 west of No. 1 cross-cut in 398; the winze below the 15 is holed to the rise in the 25 in 398, and the deposit laid open for stoping. The New hauling shaft is holed to the 25, and well-timbered, and the stuff is being discharged through it. Showing how vigorously exploratory work has been carried on to prepare the lode for stoping, I may mention that, up to the end of April, 52 men were kept at that work. Stoping is being done on this lode on tutwork and tribute by 33 men, a number out of proportion to the explorers; this order will, however, be reversed in the early future, and a greater advantage gained. Since the company acquired Section 398, the dead work done thereon has pressed very heavily on their furnaces; it is pleasing, however, to say that it has now become self-supporting, and will shortly yield still more ore. Operating vigorously on this part of the mine has been of the highest importance, and it will be regarded in the future as the best thing yet done by this company, to lay open an extensive mine that will be worked for many years to come; and will, if a moderately good price is obtainable for copper, pay a good interest on the money so spent, while it will help to meet the water charges, which will not increase in proportion to the length and productiveness of the lode so laid open. Morphett's lode: The driving of the 67 east of the tunnel is temporarily suspended while the men are sinking a winze from the 55, to ventilate it and increase the number of stopes. The reason for doing this is the great length of the drivage, and the impossibility of the stopers overtaking the drivers. While we have laid open a great deal of paying lode here, the best part yet lies further east, where, above the 55, the best stopes are being worked. Thirty-two men are being employed stoping on tut-work and tribute on this lode. In 398 south of the Kurilla lode, where a drivage of 8 fms. from the surface extends a considerable distance, 2 men are working on tribute at 10s. in the £; this was a discovery made a considerable time ago, and some small deposits of ore were found, but not sufficient to pay. I now think, however, that the chances of its making ore are fair and reasonable, and that it may be regarded as of value for a future day; the lode lies parallel to the Kurilla lode, and it has been traced far enough to lead to the opinion that it is another distinct and proper lode. Ore returns: There was raised, during April, 466 tons of 14½ per cent.; there were sold in the colony, 366 tons; despatched for shipment to England, 175 tons; and there remained on hand at the mine, 1,629 tons of 14 per cent.

### CORRESPONDENCE.

[We do not hold ourselves responsible for the Opinions or Statements of our Correspondents.]

#### MINING ON THE GOLD COAST.

To the Editor of "THE MINING WORLD AND ENGINEERING RECORD."

SIR,—I have just heard of the death of Mr. Hoskings. My correspondent's comment is:—"The climate is an awful one without doubt." This I emphatically deny. Mr. Hoskings died at Tenerife, on his way home, of "exhaustion, caused by hard work and dysentery." Now all overwork, especially sudden "spells," are dangerous, and often fatal, in almost every tropical country. The first two or three months after landing should be devoted to "seasoning," by mild exercise both of body and mind. Even hardened "Africans," like Cameron and myself, must pay fines for over exertion; in our case, however, the result was fever, not dysentery—a very different matter. The only treatment for dysentery, which often arises from hepatic complications, is a precipitate "bolt" on board the first ship, steamer, or sailer.

I note a curious feeling which has lately arisen in mining circles, and which is making rapid headway. It is nothing more or less than the conviction that honest assays and analyses are not to be obtained in London. Sundry instances have been reported to me, and some are really scandalous. A first-rate London firm declared that certain quartz specimens averaged a comparative trifle of gold-ore; when a provincial

house extracted from the same 5 *ozs. per ton*. In another case 5 dwts. was the amount returned, when less known men produced 18 dwts., and even 1 oz. Capt. Cameron wants me to try Viennese assayers. I can get fair and honest work done in Trieste—but who in England would trust to it?

More about "hydrauliclicking." A friend writes to me as follows:—"The incline, I can quite understand, can be done without, in forcing the water; but I do not understand how you can do without it when the water has done its work, carrying away thousands of tons of fallings. If you do not get rid of these, you will be immediately choked and work in a swamp."

I explain. In California, as I have seen, hills were washed down into valleys and ravines, producing level ground, which proved excellent for growing fruits and cereals. Cameron writes to me:—"I want to make reservoirs of all the valleys, wash down all above the water line, and dredge below." It is to be hoped that the first process, even before the washing begins, will be to work all the rivulet-beds thoroughly by means of steam-navvies, with pumps to keep out the water. In all these lines I should expect to find nuggets and heavy pebbles rich in gold. After exhausting these beds, the hill sides could be washed down into them, and the result would be (as in California) to obliterate the basins and to convert the hollow into a plain. None of the self-styled "miners" on the spot seem to have thought of excavating the nullah beds. I hear of nothing but quartz reefing, which is simply beginning at the wrong end. It will be time to do this when the surface is removed, washed, and exhausted. And if the permeable gravels and the tenacious clays be not "hydrauliclicked," the effect will be "wet mines," with endless difficulties and expenses in unwatering.

Cameron writes me a long and most interesting letter in the highest spirits, believing himself to be on the eve of a "brilliant success." He has discovered the native workings at Ingotru, and he reports that many trees have been blown down. Talking of disforestation, an Austrian officer, Lieut. Zabovitz, has just invented a detonating shell, which is reported to be safe enough, and which, placed under the largest tree, would tear it from its roots. In such places I should again expect to find nuggets.

My friend continues, writing from Invicta, Axim:—"I have been toiling on the road and the dam. The latter is a heavy piece of work, the extreme length being 132 feet, the central height 17 feet, and the top width 9 feet 6 inches for a roadway. The latter is no easy matter, as to get breadth enough for the engine, huge trees had to be felled, and their roots cut out; and in many places large boulders had to be removed, so as to make hollows for the torrent-beds. These I have filled up with logs and stones, so that water can pass, and then covered them up with corduroy and swish. The whole of the stream valley before the Bugia (Apatim, 'see book') is now in hand, and we shall have ample water-supply. With more money and men I should have finished work long ago. Every day proves to me more and more the necessity of importing Chinese or other coolies. These negroes sham sick, stay away as long as they please, and come back as if nothing had happened. The only thing one can do is to fine them, and their pay is so very much in excess of their work that fines are a farce. They are fed by us, and a shilling a month clothes them; all the rest they gain goes in debauchery." "I have got the engine most of the way up already, and I hope to have her in place next week." (Early May.) "I could work a small dredger to advantage in my reservoir even now, and that will be the way to treat the bottoms. . . . Each time I make a dam and wash down a hill, I shall let the latter form a new dam to hold water, and I shall wash down the heights beyond the first one attacked. The whole thing is very simple, and washing and dredging will go on for a long time. Stamps may come when the reef is open for quarrying; these, or pulverisers, will be required for the pebbles from the bottom which, in nearly all cases, show 'free' gold without sulphur, iron or other disturbers. I shall wash the mud away and save the pebbles for future treatment, as they should yield several ozs. The sand and mud will give heavy profits; I estimate the average per ton at 2 to 3 dwts." (Each 3s. 6d.)

A friend has favoured me with many papers concerning the Transvaal Gold-fields. There, at any rate, exists no pig-headed aversion to "hydrauliclicking" because it is new, and because humdrum mining engineers "don't like it." One writer says:—"By the process of hydraulic washing on such banks it is ascertained that a grain of gold (value two-pence) will pay well. None of the samples which I brought home showed less than 2 dwts. to the ton, or over 7s." Apparently this correspondent does find hydrauliclicking a "doosid easy matter." I will answer for the fact that the Gold Coast is just as rich.—I am, &c.,

R. F. BURTON.

P. S.—Readers of my letter of May 26th will kindly turn "400 tons" into "4,000 tons." Also (June 2nd) Capt. Cameron wrote, "I never feel seedy," which under the printer's hands became "I now feel seedy," and caused some anxiety to his friends.

#### COPPER MINES OF CHILL.

SIR,—While so many persons are seeking for sound investments, which will give them a large return with a moderate amount of risk, it is surprising that the shares of the two principal Chilean copper mining companies should not have attracted more attention.

The Panulcillo shares do indeed command a premium of 62½ per cent., but as they pay 15 per cent. on their par value, viz., 4½, the premium is inadequate to represent the return which an investor obtains on his money.

The Copiapo shares, 3½. 10s. paid, are, however, quoted at 3½, or actually at a discount.

The profits of this company for the year ended June, 1881, were 17,271*l.*, and for 1882, 19,733*l.*

The earnings for the nine months ended March, 1883, were 16,236*l.*, as against 12,133*l.* for the corresponding period of the previous year.

In addition to these profits, the company works a large agricultural estate, from which it has during the past two years derived a further income of about 2,500*l.* per annum.

The dividend paid to June, 1881, was 8 3-16 per cent., and to June, 1882, it was equal to 16 per cent.

In order to increase their working capital, the directors last December disposed of 2,450 shares, which were forfeited in the early days of the company, at 4*l.* each, the public being then eager buyers at this price. As only about 5,500*l.* of the proceeds of this sale belonged to capital, the balance, some 4,000*l.* odd, will be applicable to revenue or reserve at the end of the current financial year.

The fall in the price of copper, and difficulties of impecunious holders,