

“WAVERLEY” TURBINE WATER-WHEEL.



As turbine water-wheels are so largely used in mining operations, some observations relative to the exhibit here illustrated, made at the recent Engineering and Metal Trades Exhibition at the Agricultural Hall by Messrs. Duncan Bros., engineers, of 32, Queen Victoria Street, London, may not be without interest to persons engaged in the practical operation of mining. Great pains have been taken to construct this turbine on scientific principles, and particularly to so arrange its parts and its working that there shall be no waste of power. The following points are of special importance in noticing this turbine:—The turbine is not only of a very high efficiency at “full gate,” but, unlike other wheels, it nearly maintains its percentage of efficiency when using only a small portion of its full supply of water. This is, of course, of great importance in countries subject to summer droughts, where, with an ordinary turbine, the serious fault is experienced that just when the supply of water is at its smallest, and consequently most precious, the wheel is most wasteful. These wheels being designed to run at very high speed, are very convenient for driving most classes of machinery, as they dispense with all heavy gearing, &c., &c. They are very light, small, and compact for their power, which not only allows of their being produced at very low prices, but renders them very convenient for transit up country and in mountainous district. The motion is steady and regular, and the wheels can be used for a variety of operations, such as thrashing, grinding, and sawing. It is an advantage that the purchaser can order the size of wheel best suited to his wants. This turbine, as shown in the Exhibition, attracted a good deal of attention, and, we understand, received general commendation.

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,—My news from Capt. Cameron is excellent, save in one point only. He tells me: “We are nearly ready to work the engine, and then Apatim will be able to go on on its own bottom. The troughs are now starting for the mine, and I must have a man at each place (to prevent stealing). The ‘Tom’ is at work on the rich reef; but more surveillance is wanted. You know what frightful robbers these negroes are. Old Chief Sensensé has lent me three of his wives to wash for gold; and in this way I hope to prevent part of the plundering. Mr. Smith, of the Cankim Bamoo, who is the best practical miner I have met out here, approves of my preparations for hydraulicking. I shall have over 700 feet of flumes and under-currents, and there will be a good fall for tailings into the Ancobra swamp.”

A correspondent finds this intelligence, as he well may, “very satisfactory.” It has already influenced, he tells me, certain shareholders who were disposed to be refractory—and no wonder!

The only unsatisfactory part of Cameron’s letter is that his hard and solitary task has begun to tell upon his strength and health. I wrote begging him to come home without delay, especially as a Mr. Lowman has, I am told, sailed to relieve him. He has done more in nine months than all the managers put together have done for years, and his work in West Africa is by no means finished. Of the future of the Gold Coast I have no doubt; the only question is “when?” And if we do not wish to see the working practically deferred till the Greek Kalends, we must thoroughly understand that the happy day can be brought near only by means of men like Cameron, who work more for honour than for profit; who are incapable of misrepresentation and exaggeration; and who have the genius and the knowledge, as well as the strength and energy, to carry out their projects.

I shall do my best to meet my friend and fellow-traveller in London. While he cannot, I can tell the public all he has done for West Africa.—I am, &c.,

RICHARD F. BURTON.

Trieste, July 26th, 1883.

P.S.—Apparently, the negro workmen are not the only “hands” who want surveillance. There is a very ugly rumour about a manager (name not given), who is said to have been playing a foolish and ruinous game. He is charged with buying gold and with sending it home as mine-produce. And this reminds me that, taking into consideration what fatal failures the so-called “managers” have made on the Gold Coast, I undertook to supply you with an idea of my own.

Some reviewers were cross when I wrote in the Gold-book as follows:—“Remains to be seen if England has still honesty and public spirit enough to work this old-new California as it should be worked. I will answer for its success if the home workers will avoid over-exclusiveness, undue jealousy and rivalry, stock-jobbing and the rings of ‘guinea-pigs’ and ‘guinea-worms.’” I should have added, “If the home workers will take the trouble and will show the common-sense to send out qualified employés.” The history of the last year has been a “caution.” To relate the bare-faced roguery and dishonesty, the drunkenness and debauchery, the cowardly funk of the climate, the backbiting and mischief-making, the persistent misrepresentation of the unfortunate wretches entrusted with the highest interests of their companies, would be a most unavailing task. Moreover, it is uncalled for, as most of these “mean whites” have succumbed to the charms of *La Dive Bouteille*.

My idea is simply to send out not professionals but gentlemen. We all of us have a number of young cousins, and perhaps nephews, who, disappointed about professions, are willing to emigrate or to serve abroad. They are ignorant of mining, but they would not ruin themselves with drink and native women; gamble away, waste, and sell the valuables entrusted to them; speculate in buying ground for selling to their employers, and attempt to “convey” bodily the whole mine into their own pockets. Each would be accompanied by a steady old miner, to whose experience the practical work could be left, and the only thing expected of the youngster would be to keep the miner and the accountant straight, and to report ill-conduct.

As yet honesty has been the one thing needful, and, I regret to add, the one thing wanting on the Gold Coast.

R. F. B.

EAST WHEAL ROSE.

SIR,—In a contemporary of 28th ult. a writer, signing “Taffy,” asks for information as to the prospects of the above mine.

Had he when at Truro gone to the mine he would have learnt how gratuitous and worthless the opinion of his engineer friend was; and, as I can speak authoritatively, having several times visited the mine, I may add that in a very short time he will have to bless his friend for his misleading advice.

There is no resuscitated mine in Cornwall in a more forward and prosperous state—promising to revive its former celebrity—and I venture to say that before the end of the year “Taffy” will have to congratulate himself on his “foolish” speculation.—I am, &c., A SHAREHOLDER.

WHEAL CREBOR.—A CORRECTION.

SIR,—Although you made some humorous remarks about the proceedings at the Crebor meeting, held on the 14th July last, you appear to have forgotten that a dividend of 2s. 6d. per share was declared, payable on the 31st July, for you say, in your last week’s publication, “of the twenty-six copper producing mines of Devon and Cornwall, Mellanear is the only one paying a dividend.” Now what has Crebor done that she should be excluded from the dividend list, although the dividend was duly paid on the 31st July, as ordered?

I do not wish to disparage Mellanear, but I really do think Crebor’s prospects are so good, that not only will the mine continue to give profits sufficient to maintain present dividends, but that those profits will, in the future, exceed any that Mellanear will make. The next sale of Crebor ore will be 402 tons, of an average produce of 8½ per cent., and is expected to realise about 1,950l., in addition to which there will be about 100l. worth of mundic for sale, making a total produce for the two months of about 2,050l., and as the costs and dues, including the 50l. per month set aside to meet the thirteenth month’s cost, only amount for the two months to about 1,300l., there will, it is anticipated, be at least a profit of 750l. on the two months sale of ore. As, in all probability, a similar profit will be made in the next following two months, the ore now being raised being as abundant as, and richer in quality than, heretofore, I think I am not premature in predicting that Crebor will continue in the dividend list yet awhile longer, and maintain the present rate of dividend at least.

I do not hesitate to say Crebor is the best copper mine in the kingdom, and that its maximum productive capacity has not yet been nearly reached.—I am, &c.,

ARGUS.

August 3rd, 1883.

A petition has been filed for confirming a special resolution for reducing the capital of the Mortgage Company of England from 5,012,500l. to 1,012,500l.

MINERAL DISCOVERIES IN VIRGINIA.—Important mineralogical investigations have recently been made in South-West Virginia. A well-known geologist, writing on the subject in the *Scientific American*, states that within 500 miles of New York City there is a large section of country, comprising from 12,000 to 14,000 square miles, which, for the quantity and variety of its minerals, is in all probability the richest and most interesting mineral country in the world, and one not surpassed by Saxony, in Europe. This remarkable section lies on the borders of Kentucky, Tennessee, North Carolina, and West Virginia. Seventeen counties of Virginia are included in it, and to these may be added Aslie, Alleghany, and Wantanga counties in North Carolina, which form an integral part of the same geological formation and contain the same kind of minerals. In this section are to be found gold, silver, copper, lead, zinc, nickel, iron, manganese, plumbago, arsenic, antimony, limestone, gypsum, salt, barytes, kaolin, feldspar, soapstone, fire-clay, asbestos, talc, mica, amber, millstone, grit, marble, sandstone, granite, syenite, and many of the minor minerals useful in arts and manufactures.

THE ORGANOS GOLD MINES, LIMITED.—In another column will be found the latest report from this company’s mines. It will be observed that 85 ozs. of gold have been cleaned up, besides 22 lbs. of amalgam, the estimated value of both being about 550l. The cost for the month was, we learn, 363l., leaving, therefore, a profit of about 180l., to which would have to be added the value of the gold in the stamp boxes and in the Hungarian pans which had not been cleaned up. The total profit of the month would accordingly be considerably larger, and possibly double the amount we have named. The Buenaventura level, which is the principal one in the mine, continues to look well, and, it is stated, will provide a sufficiency of quartz to keep the stamps in continuous operation so soon as it is advanced beneath the “Charo” workings, which are very rich and considerably beyond the point already reached by the Buenaventura level. The above facts, and the excellent prospects of the mine, are the best reply to the animadversions of “Bears,” of the shares, of whom, unfortunately, there are a great number.

HOLLOWAY’S OINTMENT AND PILLS.—Chest and stomach complaints.—The source and centre of almost every ailment is impurity of the blood; dislodge this poison, and disease departs. Holloway’s Pills exercise the inestimable power of thoroughly cleansing each component part of the blood, and rendering this fluid fit to perform its important functions. They cope most successfully with chest diseases, stomach complaints, liver disorders, and many other maladies, which were once the besetting dangers of mankind at certain seasons in town and country. The directions for use enable every one to regulate the operations of these Pills with the greatest nicety. Chronic invalids, valetudinarians, and all whom other treatment has failed to relieve, are respectfully invited to try Holloway’s celebrated medicine which will strengthen and cure them.

sw engine. it present, would be pect when o cut the character led. ving been yesterday r. rening the 10th July, and the pany was etary has to-day is tions, and atisfactory l in favour ore about a the sub- rmation of 00l. by the the Indian ; and this algamation r the pur- Trevelyan therein ex- y, and issu- bareholders- firmed and scute, enter mts as they ement into the Indian of the said variation of nd the pro- as held at ppointed to y’s affairs. was a large rtin repre- inting Mr. airs, and a as to the l be made bareholders anticipated to meet all due to the vein which ran of the th liabilities e of which nds of the dical which faculties of engineering C.E., is to erican, and owledge so ne the less , which lie of subjects the articles e paper, as office is at Mechanics,” y. “On the Iron, in the c and other ” by F. R. ter-pressure lusive Action i. London: d from the ns:—Morris Lighting.”

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