MINES AND MILLS

Blackbird Copper-Gold Has Notable Meeting

Stockholders Act Unanimously for First Time—Company's Holdings Are Increased.

The annual meeting of the Blackbird Copper-Gold Mining company was held in this city yesterday in the offices of the company in the McCornick block, and for the first time in the history of the company the stockholders were a unit. Of something over 1,600,000 shares of stock issued, 1,357,827 were represented at the meeting and every share present was voted for each of the directors named. These were as follows: John E. Dubois, Charles J. North, L. A. Amsden, B. N. Lehman, F. O. Frick, Carl H. Fowler and J. W. Russell.

Secretary L. A. Amsden submitted his annual report, which showed that the company has prosecuted for and obtained patents during the year for four additional claims in the Blackbird district, in Idaho, making its holdings there a total of thirty-three claims. In the Copper Gulch district, Beaver county, Utah, twenty-six patented claims have been added to the holdings, making a total in that district of sixty-eight claims.

Immediately after the stockholders' meeting the directors met and elected the following officers: John E. Dubois, president; Charles J. North, vice-president; L. A. Amsden, secretary and treasurer.

The new officers and additional directors will leave this evening for an inspection visit to the company's Copper Gulch properties, in Beaver county, which adjoin the Cactus and on which considerable development work has been prosecuted the past year.

MINING INTERESTS SOLD AT LA PLATA

Special to The Tribune.

LOGAN, Jan. 23.—Report is current here that a strike of some importance has been made in the Idaho and Utah mine, in the La Plata district, this county, but the parties are keeping quiet about it for some unknown reason. That ore is being taken out nobody questions, but to what extent and of what quality no one knows who is willing to state. It is affirmed, however, that some important announcements are to be made in the not distant future that will interest the public and turn the attention of mining men in this direction. E. W. Nelson of this city, it is learned, has sold his interests recently in this mine for $4000. The mine has a force of nine men at work all the time, the tunnel being in some 1300 feet, and a shaft is being sunk that now is nearly 100 feet down.

* * *

The Amazon people, whose property is thirty-two miles above here in Logan canyon, have been pushing work in their prospect and are very sanguine of a fruitful opening this spring, the vein having been reached before the closing occurred in the fall. Altogether, in view of the favorable indications, it would not be strange to see such mining developments in Cache as will startle our sleepy population with the opening of spring. The one thing most needed is some thoroughgoing, intelligent prospecting and development work, and the expenditure of a little money. The work of the past has been too amateur and not backed by sufficient capital.

YANKEE CON. MEETING.

Treasury Has $73,000—Dividends Will Not Be Declared.

Though the statement presented by Secretary L. A. Amsden to the stockholders of the Yankee Consolidated on Monday showed a surplus of over $73,000 in the treasury, it was decided yesterday in an informal meeting among the directors that no dividends would be declared for the present and that the policy of the management, which is, that sinking and development work shall continue until the large ore bodies of the property are disclosed, shall continue. When these are encountered and other improvement work in the properties is effected it will be time enough for the dividends.

The report of the secretary went into every detail and showed that for the period of eighteen months since the last meeting the company has marketed over 10,000 tons of ore, including second-class, for a total of over $182,000.

After paying all operating expenses and installing a compressor plant at a cost in excess of $10,000, the company still has in its treasury the handsome balance of upward of $73,000.

The officers and directors for the ensuing year follow:

John E. Dubois, president; J. E. Frick, vice-president; L. A. Amsden, secretary and treasurer, with H. W. Edwards and J. W. Merrill as the additional members of the board.

COLUMBUS CON.

Operations at Mill Suspended—Value of Concentrates Good Enough.

The mill of the Columbus Con. in Little Cottonwood has again suspended operations, though this time the management announces that it is for only a temporary period and that operations will be resumed within a short time. The cause of the suspension is due to the shortage of water, the streams at this season being frozen up and the water supply extremely limited. A scheme to pump the water back and use it the second time is in hand and may be put into execution, but the management admits that it is up against it, in a general sense, until the return of warmer weather. The suggestions offered on the street to the effect that the concentrates produced are not of sufficient value to make a paying proposition are refuted, and the fact pointed out that all the concentrates so far produced have netted nearly $22 per ton.

American Smelting Dividends.

According to New York advices yesterday, there is talk in the East of an increase in the dividends on American Smelting and Refining, though to what figure or how much of an increase is not foretold. The present dividend is 5 per cent on common and 7 per cent on preferred.

Copper Stocks Down.

Yesterday's Boston market showed all the Utah copper stocks on the decline, prices being less than for a period and trading light. Bingham Con., though lower than for some time, passed only 2055 shares.

The Semi-Weekly Tribune

Is the best general newspaper published between the Missouri river and the Pacific coast. No other weekly or semi-weekly paper covers the news of Utah, Idaho, Montana, Wyoming and Nevada so thoroughly. It reaches from one to four days earlier than the Eastern or Coast papers. Every family should have a good metropolitan newspaper and for the people of the intermountain country there is none that so completely fills the bill as The Tribune.

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THE TRIBUNE,
Salt Lake City, Utah.

STOCK MARKET FIRM.

Wabash Stronger, New York Firm, Ingot Lower, Thompson in Demand.

A total of 22,816 shares of the value of $3,499.12 constituted the transactions on the local stock exchange yesterday. There was some buying in shares that have not been active in the past week or two, notably in Ajax and Uncle Sam. Con. Mercur sold at lower figures; May Day was holding its own at the close; New York lost none of its lead of the past week, while Wabash furnished a surprise in the advance it took, selling during the day up to $2.10, with the stock held out of sight of that figure at the close. This, too, in face of the assessment of 5 cents per share, which becomes delinquent today, indicates strength, as the stock could have been taken in during the past week down as low as $1.75.

May Day sold freely, nearly 12,000 shares changing hands during the day, the prices averaging better than on the opening day of the week, and the shares closing strong. The inquiry of the stock seemed urgent and regardless of the apparently free selling there was no sign of weakness. New York did business as high as 49 cents, an improvement over Monday's figures, but slumped during the day and sold for 48, with stock in sight at one-fourth better than that at the close. Ingot was weaker than for a week and sold down to 3 cents, the best bids at the close being under that figure.

Daly Judge was weaker and a small parcel went at $6.75, though in the afternoon there was inquiry for the shares at better figures and none offered. On the other hand Thompson was in good demand at 15½ cents with no stock in sight under 17½ and no shares passing.

Following are the closing quotations:

	A. M.		P. M.	
	Bid.	Asked.	Bid.	Asked.
Ajax	$ .10¾	$	$ .10¾	$ .11
Alice	.20	.....	.37½	.....
Boston Con	$.75	.....	5.75	6.37½
Bullion-Beck	.60	.....	.60	.....
Beck-Tunnel	.....	.08	.06	.08
Butler-Lib	.13	.14	.13	.14
Carisa	.10	.11	.07	.11
Con. Mercur	.36	.40	.36	.40
Century	.10	.30	.10	.....
Creole	.....	.35	.....	.....
Daly	2.00	2.10	2.50	.....
Daly-Judge	6.67½	7.50	6.65	7.67
Daly West	.....	16.00	.....	16.00
Eagle & B. B.	.....	.....	.71	1.00
Grand Con	3.12	.....	.....	.....
Horn Silver	1.20	.....	1.20	.....
Ingot	.02	.02¼	.02⅞	.02¼
Jim Butler	.....	47½	.....	.50
Joe Bowers	.....	.....	.....	.03
Little Bell	.....	1.00	.....	1.00
Little Chief	.03½	.03¾	.03	.03½
Low Man	.11	.18	.12	.20
Mont Ton	2.00	.....	2.00	2.17½
Mammoth	1.30	1.35	1.30	1.35
May Day	.07¾	.07¾	.07½	.07¾
Martha W	.....	.....	.....	.00½
MacNamara	.24	.....	.....	.....
New York	.48½	.48¾	.....	.49¼
Ontario	3.50	4.50	3.50	4.20
Petro	.06	.10	.06	.10
Rocco-Home	.50	.50	.....	.03
Sunshine	.....	.01½	.....	.32
Swansea	.20	.33	.....	.....
S Swansea	.....	.03½	.03½	.....
Sacramento	.10¼	.11	.10	.10¾
Silver King	55.50	60.50	.....	60.50
Star Con	.15	.14	.....	.14
Silver Shield	.06	.07¾	.....	.....
Tonopah	10.75	.....	10.75	12.00
Tonopah Bel	.68	.80	.68	.80
Tonopah Ext	4.00	.....	4.00	.....
Tonopah Mid	.50	.....	.50	.54
Tetro	.17¾	.19¼	.17¾	.19¼
United States	22.00	.....	21.50	22.50
Uncle Sam Con.	.20¼	.22	.20½	.....
Utah	.35	.41	.....	.....
Victoria	1.95	2.02	1.95	2.00
Victor Con	.03	.05	.....	.....
Wabash	1.80	2.05	2.01	2.12
Yankee Con	36½	37½	36¾	37½

FORENOON SALES.

Daly-Judge, 10 at $6.75.

May Day, 500 at 7½c, seller thirty days; 3100 at 8c, 500 at 7¾c, seller thirty days; 3000 at 7¾c.

New York, 1500 at 49c, 300 at 48½c, 100 at 48¾c.

Ingot, 2000 at 3¼c, 4000 at 3c.

OPEN BOARD.

Ajax, 500 at 10¾c.
Con. Mercur, 50 at 34c.
May Day, 200 at 8c.
Uncle Sam, 250 at 21½c.
Wabash, 100 at $2.00.

AFTERNOON SALES.

Uncle Sam, 50 at 21c.

OPEN BOARD.

May Day, 4000 at 7¾c, 400 at 8c.
New York, 1000 at 48c.
Wabash, 100 at $2.10.

San Francisco Mining Stocks.

SAN FRANCISCO, Jan. 24.—The official closing quotations for mining stocks today were as follows:

Alta	$ .04	Lady Wash Con	.02
Andes	.31	Mexican	2.15
Belcher	.22	Occidental Con	.36
Best & Belcher	1.05	Ophir	6.75
Bullion	.28	Overman	.26
Caledonia	.47	Potosi	.14
Challar	.28	Savage	.53
Confidence	.95	Sag Belcher	.06
Con Cala and Va	1.70	Sierra Nevada	.46
Con Imperial	.01	Silver Hill	.66
Chown Point	.19	Union Con	.67
Exchequer	.50	Utah Con	.19
Hale & Norcross	1.40	Yellow J	.25
Justice	.15		

NEW YORK MINING STOCKS.

Adams Con	$ .20	Little Chief	.06
Alice	.60	Ontario	3.75
Breece	.20	Ophir	6.50
Bruns Con	.10	Phoenix	.11
Comstock Tun	.09	Potosi	.13
Con Cal and Va	1.85	Savage	.37
Horn Silver	1.55	Sierra Nevada	.45
Iron Silver	2.00	Small Hopes	.27
Leadville Con	.02	Standard	1.50

BOSTON MINING STOCKS.

Adventure	$ 6.75	Mohawk	51.50
Allouez	19.00	M C and C	4.37½
Amal	72.87½	Old Dom	26.00
Am Zinc	12.25	Osceola	92.50
Atlantic	17.25	Parrot	28.50
Bingham	30.25	Quincy	106.00
C & H	$660.00	Shannon	7.87½
Centennial	20.00	Tamarack	126.00
Cop Range	65.62½	Trinity	7.75
Daly West	15.25	U S Min	21.50
Dom Coal	60.00	U S Oil	104.25
Franklin	11.00	Utah	40.75
Granby	5.25	Victoria	5.00
Isle Royale	25.00	Winona	11.25
Mass Min	9.50	Wolverine	106.00
Michigan	11.25		

U. S. Lead Smelter.

Manager Fitch of the United States Mining company yesterday announced that the lead smelter at Bingham Junction was gradually taking in the ores of the character for which it was designed and that the policy was to go ahead with the purpose of affording a steady reduction, rather than to take on everything that is offered. Under this policy it is expected that all of the furnaces will be blown in before the end of the week, and under contracts that are now in process of execution some of the big silver-lead producers of the State are expected to be handling their product through this agency.

Boston Copper Market.

Special to The Tribune.

BOSTON, Mass., Jan. 24.—The Boston market opened quietly and without feature reflecting only slight irregular changes from the closing of yesterday. These prices were maintained until the noon hour and then selling orders made their appearance and prices began to tumble. The selling orders appeared to come from all directions, and at times the demand was somewhat limited, but the pressure continued until the closing, which was heavy and at the lowest. There is no news to account for this selling movement other than the unsettled condition abroad, which is causing people to let go of their stocks. Hornblower & Weeks, brokers, 53 State street, Boston, and 10 Wall street, New York, furnish the following quotations:

	Sales.	High.	Low.	Close.
Amalgam	3256	$72.62½	$72.87½	$72.00
Bingham	2170	32.25	30.25	30.50
Boston	110	6.00	.....	.....
Mercur	900	.35	.....	.....
Daly West	275	15.75	15.50	.....
Utah	1133	41.75	41.00	.....
U. S. Mining	2855	22.12½	21.50	.....

Metal Quotations.

In the metal market yesterday silver was quoted at 60⅞ cents per ounce; copper at 14½ cents per pound, and lead at $3.50 local and $4.60 in New York for desilverized.

Newhouse Resigns as Managing Director

Retires From the Boston Con., Effective April 15—Other Business Needs Attention.

Samuel Newhouse, who is so thoroughly identified with the development of Utah coppers, yesterday tendered his resignation as managing director of Boston Consolidated.

The information reached here in a special wire to James A. Pollock & Co., and aside from the fact that other personal interests demanded his time, Mr. Newhouse assigned no reason for his action.

Locally the announcement is regarded as a sure indication that Mr. Newhouse will accept the managing directorship of the Majestic company, which was tendered him last week and which was on Monday, by the action of the Majestic directors in New York, left open to his option.

Mr. Newhouse, if his resignation is accepted, will retire from active connection with the Boston Con. on April 15, and will drop his duties earlier if that company can release him.

GREAT MINING ACTIVITY IN LA SAL MOUNTAINS

Special to The Tribune.

BASIN, La Sal Mountains, Utah, Jan. 24.—Word has been received here from the Eastern office of the High Ore Mining company that all arrangements have been perfected for starting work on the High Ore tunnel into Mineral mountain on the first day of June. It was intended last fall to begin this work on the first day of January, but the final arrangements have been held back by some legal complications in perfecting the titles to certain interests to be included in the merger of twenty-two claims on Mineral mountain.

L. N. Rocow, a mining man of Philadelphia, recently visited this section for the purpose of starting work in February, but the unusual fall of snow in the Basin district makes it impossible to get in the necessary supplies at present.

This important project is said to be backed by some of the largest holders in Philadelphia and Pittsburg. The plan is to run a tunnel into Mineral mountain to a depth of 1200 feet, starting in Miners' basin, on the south side, at a point low enough to come out on the north side on Castle creek. In its course the Golden Scepter, Skylark, Double Standard, Green Mountain, Corsair and High Ore veins will be cut at an enormous depth and the principal claims in the auriferous-copper belt opened up. At a depth of 900 feet they will have cut the Golden Scepter vein, which is practically the same as the Corsair, and from surface indications they cannot help but start out with a shipping property, especially valuable in copper.

This project has been engineered through by Hon. Thomas Crawford of Denver and has been under negotiation for over a year. All the necessary machinery for systematical mining work is to be installed at once, and when anything of value is encountered before reaching the High Ore vein, the former owners are to have the privilege of leasing the property for a period of time so agreed by the company. George W. Hepburn and William Price, owners of the Golden Scepter, are the first under consideration. It is said that the company is now prepared to spend fully $100,000 before changing their programme.

* * *

The prospects are very favorable for the long looked for reward that awaits the Basin placer operators on their bed-rock tunnel up Basin gulch. They have now reached a depth of 1100 feet and are getting pay gravel from the breast of the drift, with good indications of striking bedrock any day. Should they find gold in paying quantities on bedrock, it would demonstrate conclusively that there are rich gold mines yet to be opened in the contact formation of Gold hill and Grouse mountain. They have now a vertical depth of nearly 300 feet in the wash in Basin creek gulch.

Work is going ahead by a small force on the Beaver basin properties, owned by the old Dirigo-La Sal company, now known as the Boston-La Sal Gold and Copper Mining company. As early as is practicable in the spring, Manager Heath will be here and immediate arrangements made for work on a large scale. They are at present getting the Chimney Sweep property in shape for production. Mr. John McCrystal of Salt Lake is to have full charge of the property, and the company has announced that a long tunnel is to be run into Pilot mountain from the Beaver basin side, to thoroughly undermine the old International ground, of twenty-two mining claims, while other development work will be done on the original Dirigo properties in Deep creek.

* * *

C. E. Finley is pushing work on his property near Castleton, and has recently opened a new ore body, higher up the hill, where he will not be bothered with water. The old workings will be equipped with pumping machinery early in the spring and the present work continued until then to demonstrate the extent of their mineral territory along the Horse mountain zone. The ore now being taken out very much resembles the rich Wilson mesa rock.

* * *

The Grand View company have announced that they will begin operations on the first of March. Mr. L. W. Dutro, president of the company, and postmaster at Nashville, Tenn., will be here at that time to make all arrangements and start the work. It is proposed by them to start a long tunnel at the foot of Horse mountain and thoroughly cross-cut the contact formation. The work will probably be placed in charge of Mr. C. E. Finley.

* * *

A company is now being organized by Fort Wayne, Ind., capitalists to take hold of the Gold Hill group of properties adjoining the Iowa property on the west. Mr. G. W. Weir, the promoter, is expected here next week, on his way to Panama via San Francisco, to consummate the necessary arrangements for starting work on the first of May. They are to run a 500-foot tunnel into Gold Hill to tap the big flourine vein that shows up so finely on the Iowa property. En route west Mr. Weir will stop in Salt Lake to arrange for purchase of provisions and a car and track for the company. This is one of Gid. R. Propper's promotions that promise to make the Basin district pretty lively the coming summer by good substantial development operations.

* * *

The deep snows has caused a sudden stop to operations on the Gold Basin mill, for the present. The machinery, however, is being hauled in and dumped at Castleton until such a time as the road can be broken for sledding.

* * *

The prospects now are very encouraging for a prosperous year in mining operations in this country, and the fact of the hardest and most severe part of the winter coming on now is a good indication of an early spring.

Conditions at Uncle Sam.

Secretary W. M. Thompson of the Uncle Sam, who has recently visited that property, reports that two leases in Humbug ground are in ore and that the outlook for a promising development in both of them is exceptionally good. Both lessees are now extracting a high class of ore and every indication points to the enlarging of the deposits that are disclosed.

In the Uncle Sam the management is continuing its sinking after the chute from the May Day and from the face are indications of a change which in that district always presages ore.

Sierra Madre District and the Santa Maria of Utah.

That at least one mining camp of Utah is not disturbed by the boom cries that came from Goldfield, Tonopah and Bullfrog is evidenced by the fact that at the Santa Maria and other properties of Sierra Madre mountain the working force has been increased and more energy shown in development than was ever before known in that district. No doubt the cause of this new faith and increased energy is the fact that during 1904 it was proven by the best expert evidence of our country that Sierra Madre district constitutes one of the great copper zones or centers of America.

It was this quiet discovery that caused the organization of the Napoleon and Maghera company in Epidote canyon, and a little later that bore as fruit the purchase of three separate groups and uniting of the same into one body, now known as the Santa Maria of Utah. These united groups are now the property of the Santa Maria Gold and Copper Mining and Reduction company, on Sierra Madre mountain. There are numerous mineral lodes, many of which, prior to the year 1904 were unknown, and doubtless within the year now beginning other extensive veins will be discovered in areas already partly prospected. A considerable part of the west side of the mountain is inaccessible, so that prospecting and exploration is out of the question. This refers largely to the northwest part of the district. In that part of it where the most extensive mines have been discovered fortunately approach is much easier. The Santa Maria is a wonderful property, wonderful in its mineralization and in the magnitude of the lodes which are now being opened. For the purpose of enlightening the very many persons east, west, north and south who for the past four months have written desiring information relative to the peculiar features that exist around these mines I will here give as accurate a pen picture as time and space and limited brain power will allow.

Many Inquiries.

I do this to save labor of replying to so many letters. For example, I have here near me a pile of inquiries. One party in Massachusetts desires me to draw a picture of the Santa Maria workings; also as to where the buildings are situated and how far from the mine. A college professor in Kentucky desires a carefully selected lot of specimens from the various rock formations over the property, a gamesis of same, and also a carefully selected lot of vein specimens, each marked with assay values and the amount and character of the minerals associated with the metallic quantities. An eminent geologist desires knowledge along the same lines, only in an increased measure. And about one hundred others ask to be shown in a carefully worded description a picture of the Santa Maria mines as they appear to me. They ask me to describe it in a plain way, so that they can form an idea of how the mine of mines would look to them if they were enabled to stand in the center of the property and look around and over and up and down every canyon and gulch and cliff and peak of the property.

This is a difficult thing to do; that is, to describe the Santa Maria property so that a casual reader may easily understand to such an extent as to enable him or her to sit down and personally draw a picture equal to a photograph and all based on my worded description.

In the first place I will state that all men of mining experience who may be classed as men of knowledge in the genesis and mineralization of veins pass upon this group of lodes as among the most wonderful and extensive recently opened anywhere. The following description will throw some light on the country wherein they exist.

The base rock of Sierra Madre mountain is gneiss that carries up to an altitude of about 3000 feet above the valley; the older quartzite forms a contact with this gneiss and that this contact in Santa Maria basin there is a tremendously strong mineral lode, the values of which run in copper, gold and silver. From this contact vein three grand fissure veins break out to the westward through the gneiss. These are the Santa Maria fissure, New York and North Copper veins, each of which breaks into the gneiss for a distance of from two to five thousand feet; these veins are again faulted by a huge diorite dyke that in itself carries fairly good values in copper. This dike will average fifty feet in width, and where it faults the veins the ore values of the veins show much higher than elsewhere along the surface, save it be at the contact of the quartzite with the gneiss.

Description of Veins.

These lodes or veins are only a few hundred feet apart, and although the distance between them is not great and the formation in which they exist shows no change in its make up from one vein to another, notwithstanding this fact there is a wonderful difference in the filling of the veins themselves.

In one we have very smooth walls, with talc casing the vein matter at the surface, an oxidized quartz with inclusions of porphyry, and as depth is gained in this the Santa Maria vein proper copper, with high gold values, begins to appear. This copper occurs first as a blue and green silicate, changing with depth to chalcopyrite and chalcocite ores, that usually constitute the chief value in all the world's great mines. Of the other veins, one is very conspicuous in having tremendous quantities of black manganese oxide associated with copper silicates, and below copper sulphide runs through a spongy quartz filling, and the third, or New York lode, shows its gold and copper values running through a clay like filling that seems to be largely made up of a hornblendic matter reduced by water, heat and pressure to a powdered state, through which we find disseminated a copper sulphide ore that occurs near the surface in a somewhat granulated form, but which with depth seems to concentrate itself into extensive lenses or inclusions of high-grade copper, carrying fairly good values in gold.

Almost all copper regions possess each, some distinct mark or feature, peculiar to itself. The copper lodes of the Santa Maria group have as a remarkable feature a most peculiar dyke or lode of rhyolite in width about sixty feet, and through this we find millions of granulations of garnet and epidote each about the size of a pepper corn. This also carries a small percentage of copper in the form of chalcopyrite. This would no doubt pay for concentration, but in the face of the other lodes existing here where higher values occur, no immediate attention will be given to this dyke or vein.

What They Contain.

In each of these lodes above noted we find considerable quantities of calc spar that seems to have been brought to the surface by water, and in some cases the value in copper carried by this spar is considerable. This spar is most abundant where each of the fissures joins the contact at the quartzite.

Leaving the older rocks and going up in the quartzite measure, there exist numbers of small fissures wherein silver chloride occurs in small quantities at the surface. Yet as but little work has been done on these we can give but limited remarks upon them. The limestones that cap the mountain and rest on the quartzite at the eastern side of the Santa Maria group, it is in this limestone measure that we find the silver-lead ores abounding in a vein which seems to be an extension of the Eldorado lode that has been opened some distance to the north of this property.

At present development work is being pushed with vigor on the Santa Maria group, the work being done directly on the main Santa Maria vein. The contact is just 518 feet from the point where the present tunnel begins. It is being driven on the vein. The fissure and the contact are at right angles. The same conditions control at the north copper vein that runs parallel with the Santa Maria. The present Santa Maria tunnel gains depth rapidly; when the contact is reached it will be at a point about 600 feet beneath the surface exposure of the veins. When the tunnel shall have reached the contact it will turn at right angles with the contact vein and be carried forward to the north copper vein, some hundreds of feet to the northward. A second development and exploration tunnel will be started during the coming spring at a point farther down the canyon. This tunnel will crosscut the three main veins 900 feet lower than the Santa Maria tunnel proper thus enabling the removal of ore to considerable depth and also to drain the property down to that level.

The Work Done.

Work of opening up the Santa Maria mines did not begin until late in December of 1904, but since then work has been energetically pushed. A stone house was erected in the pine grove; near the mine terraces for holding up the ore bins constructed, and a blacksmith and machine shops built, the mouth of the tunnel timbered to protect it from snowslides, and all things put into good working order. The present contract is for 600 feet to be followed by another to run to the north copper vein and as before remarked, the lower tunnel will start on its course in the early spring and be continued until it is carried beyond the New York vein to the northwest, thus crosscutting at considerable depth the entire system of veins.

The exploration and development of the Santa Maria group mark an epoch in the history of copper mining in Utah. It is the initial step in opening a new copper-bearing zone that in its area and richness gives promise of becoming one of the most profitable, interesting and long lived of any ever opened in our country. Moreover, the natural advantages that its situation possesses are such as to render its exploration and development very easy, tunnels only being required to gain a depth of almost 1500 feet, which can be driven upon the exposure of the main veins within the property; and from the main workings to the railway station the distance is only about two miles, with a down grade the entire distance.

Promises Great Things.

That the Santa Maria is about to become a great mine there is no question. Already the nature of its mineralization and values in gold, silver and copper is sufficiently explored to prove it a wonderful property, but the problem yet to solve is to learn as to how far down will these go before they reach their greatest strength in values from wall to wall, and a question going beyond this, how far will we penetrate in these older rocks before an increased temperature interferes with simple workings? The length of the copper mineralized district in Sierra Madre district is about six miles in total, and about two in breadth. Prospecting and development work on numerous strong veins still hold the solution of the merit of many veins that have recently been discovered. There seems to be a close association between the veins of the Napoleon and Maghera group and those of the Santa Maria. The same contact vein runs through both properties, as does also the great garnet and epidote dyke; and various classes of ore taken from the one are identical with those taken from the other.

Capacity of Production.

As to the capacity of ore production that the present development of the Santa Maria will allow, very conservative estimates place it at 500 tons every twenty-four hours from the workings of the Santa Maria vein alone, and from the three chief veins when opened there can be by proper management 1000 tons daily removed. And this same value thus handled with less expense than from any other mine now being worked within 1000 miles of the Santa Maria.

All that has been here touched upon is the merest epitome of the natural conditions at this property. Work, and work well directed, will alone prove to the world the magnitude of the wealth contained in these veins. That the work now being carried forward for the year 1905 will do very much to expose much of the wealth of this mine there is no doubt, and thus place it among the strong producers of Utah.

DON MAGUIRE.

Mining Notes.

Dr. V. U. Withie will leave for Goldfield and Bullfrog the last of the week.

The Wabash assessment of five cents per share, equivalent to $15,000, is due today.

The Horn Silver yesterday reported on the local market with five cars of concentrates.

Foreman James Dugan of the Henerine mine, near Stockton, is taking a vacation in the city.

Manager L. Hanchett of the Newhouse Mines and Smelters is back from a trip in the Northwest.

Col. John Meteer, formerly of Sevier county, but now mining in Tooele county, blew in from Stockton yesterday.

Another car of high grade concentrates from the mill of the Stockton Gold Mining company is on the market.

President C. L. White and General Manager Duncan McVichie of the Bingham Con., were out at the mines yesterday.

M. M. Johnson of the Newhouse staff and superintendent of the Cactus, left last night for a professional trip to Spokane.

The Taylor & Brunton sampler yesterday received two cars of Tonopah ores, two of Tintic, one Bingham and five Frisco.

Lars H. Qutzen, president and general manager of the Annie Laurie extension at Gold Mountain, is in the city and reports prosperous conditions down there.

Manager Roscoe H. Channing of the Utah Consolidated has returned from his trip East and announces an advance in the wages of smelter men in the employ of his company, ranging from 5 to 20 per cent.

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