

Report of Professor A. K. Eaton.

His Excellency, GREEN CLAY SMITH: Dear Sir—In answer to your request for my views with regard to the present and prospective condition of the Territory as regards its mineral and agricultural wealth, and resources, and its general adaptation to the maintenance of a large population, I would reply briefly as follows: In a Territory so far removed from the great grain producing States, the most important question bearing upon our future welfare is that as to our ability to become self-sustaining in all things pertaining to the necessities of life. If our success here is not a sufficient guaranty of our ability to raise all the cereals, root crops, &c., requisite to support a large number of inhabitants, a consideration of the geological and topographical formation of the country and its climatic characteristics, would of itself demonstrate that the soil cannot fail to furnish all that is essential to the subsistence of an unlimited population. Our valleys are very broad, ranging from five to fifteen miles in width, and made of rich bottom lands, and level or gently undulating plateaus. The mountain ranges on either side generally differ in their geological character. On one side, granite and its allied primitive rocks, by the disintegration of which the valleys have been supplied with alumina and the alkaline silicates so necessary to an inexhaustible soil. On the other, ranges of secondary limestone, sandstone, etc., that have furnished the additional constituents of a soil of unequalled richness. The want of rain to irrigate the lands is the only apparent difficulty, and nature has provided for this in the conformation of the country. Lying, as these plateaus do, nearly level, the mountain streams, which are frequent and never failing, are readily turned from their courses and made to wind along the base of the foot-hills, upon the outer limits of the table-lands, and thence distributed over almost every acre of arable land. This mode of irrigation has its decided advantages over that of the natural rain storms of regions nearer the coast, from the fact that it is wholly under the control of the farmer. In a Territory nearly four times as large as the State of New York, we have hundreds of thousands of acres of land of this description, available whenever the growth of the country may demand its cultivation. No disquisition, however, is necessary upon the character of the soil or its origin. Facts demonstrate beyond question the self-sustaining character of the Territory in an agricultural point of view. Flour to-day is almost as cheap as in the great grain producing regions of the east, and this has been brought about by the cultivation of limited patches, here and there, of these broad lands. Our table-lands and the slopes of our foot-hills, without irrigation, furnish the most abundant pasturage; the species of grass flourishing spontaneously being of the most nutritious character, and in some respects superior to the cultivated grasses of the east. The peculiarities of our climate demand a passing remark. The great wind currents that start from the distant sea-coast regions laden with moisture, deposit it in beneficent showers on their way, and reach our inland mountain regions with scarcely a drop to moisten our thirsty soil; still this deprivation proves a blessing in disguise. It gives us an atmosphere comparatively free from moisture, and makes our severe winters more endurable than even those of lower latitudes. Our lowlands are often almost free from snow during the whole season, cattle graze and grow fat on the grasses of our valleys during our long winters. The climate is indeed the most pleasant and salubrious of any that I have personally ever known; and this in a country where the altitude of the valleys is about five miles above the level of the sea, and lying between 45 and 49 degs. N. latitude. Of the common minerals of value in the arts and manufactures, there seems to be every indication of abundance, although little has been done towards the development of them. Fire clay, gypsum and coal are indicated strongly in the tertiary deposits that underlie the table-lands of the valleys and elsewhere; but they lie mostly undisturbed and undiscovered, except where some wandering prospector has accidentally come upon their out-crop. The pursuit of the precious metals has made the people oblivious to all minor considerations; but if we consider for a moment, the immense advantage that would accrue to the Territory by the opening of reliable coal beds, it would be an incentive to the greatest effort. Fuel for our furnaces and manufactures, to say nothing of our ordinary needs, will soon become scarce and dear. I believe that a small appropriation of money for this purpose, would insure the discovery and development of coal deposits in a very short time. Discoveries of new minerals and ores are occurring frequently in the Territory. Cinnabar, which is of the first importance in a gold and silver producing region, has been found, though not in place. Specimens of water-worn fragments of this mineral, found in the gulch workings of an almost unoccupied district of the Territory, were recently brought to me which proved to be of the first quality. This is especially gratifying since deposits of ores resembling cinnabar have frequently been found and much useless labor expended in their development. I have recently, and for the first time, examined true tin ore, found within our Territorial limits. This also was from gulch working. Lead ores occur in profusion, both as galenas and as carbonate of lead, in nearly all districts of the Territory. These will not be worked at present, except when accompanied by silver. All the galenas are so accompanied, and generally in paying quantities of the latter metal. Copper lodes are abundant, showing at the surface, ores ranging from 15 to 60 per cent, of metallic copper. These when located near the Missouri river may be immediately made profitable. Copper ores in the eastern market, probably command to-day about five dollars for every per cent, of copper contained; 15 per cent, ore would be worth \$75 per ton, and 60 per cent, ore \$300. Thus, long before we shall be extensively engaged in smelting these ores, our copper lodes may prove largely remunerative. The silver lodes of the Territory which at present attract much attention, are, in part, silver bearing galenas. These range by practical working from \$20 to \$300 per ton. The present cost of labor and fuel precludes the working of the poorer of these ores, but eventually all will be worked profitably. The cost of smelting this class of ores cannot at present be put lower than \$35 per ton, and in some localities would exceed this estimate, still there is an abundance of argentiferous galena that can be worked with great profit at the present prices of material and labor. Another class of silver lodes is found in the country which carry no lead or other base metal to interfere with the successful working of the ores by amalgamation. It is from this class of ores probably that the first remunerative results will be obtained, owing to the simplicity of the machinery required. Mills are now being erected for working ores of this character. The great abundance of veins of this nature of the most promising appearance justifies the expectation that a short time will show large returns of bullion from this source. The placer mines of the Territory which have thus far been successfully worked, are those only which from their favorable location with reference to water &c., could be easily worked without the previous expenditure of capital by single workmen or by small parties. Gulches already worked out by this wasteful method, will be re-worked perhaps as remuneratively as at first, by the aid of capital. Ditches for the further supply of water, bed-rock flumes and hydraulic apparatus are essential to the successful working of the majority of gulch deposits, and when capital flows in that direction, many thousand acres can be worked most profitably, which to-day, individual effort cannot touch successfully. That which has proven one of the most serious obstacles to successful mining in the Territory has been the profusion of gold bearing veins showing temptingly at the surface. Nature is never so lavish as she in this case appears, and in the light of general mining experience, we have no right to expect more than a small percentage of true, strong, and uniformly rich veins from this great surface display. Thus it is that several failures may precede one great success in the development of mines. There can be no doubt in the mind of any one making the country a careful study, of the boundless wealth that is hidden in its bosom. Indefatigable energy, and untiring perseverance will alone reveal its full magnitude. A large number of mills for the working of gold ores, have been erected in the Territory, and few of them with more than partial success. The reason is obvious and in their partial failure, mining history only repeats itself. Some of them are of that untried character of which it may be said that whilst they show in construction some new features and some good ones, unfortunately the new things are not good, and the good points are not new. Novel inventions, even if capable of success elsewhere, are inevitably destined to failure in a new country. The principal difficulty, however, has been in the imperfect management of these different enterprises, arising sometimes from the incapacity of agents, but more frequently from the impossibility of anticipating in a country, new and undeveloped, the exact requirements of the case. One great error has been made by almost all. It has arisen from the over-anguine belief that quartz could be mined in quantity without preliminary expense in development. The mills are erected, the money and patience of the proprietors exhausted, and with untold wealth the machinery is left to rust and rot for want of ore. To-day nearly every mill in the Territory could be worked most profitably by the expenditure of a few thousand dollars in the thorough opening of the mines belonging to them. Excuse me sir, for referring to the embarrassments under which we are laboring. It is only by looking our errors in the face that we can find the way to success. It is the fourth year of my residence in the Territory, and I can assure you that my confidence in its great mineral wealth, is stronger than ever, and notwithstanding the discouragements that we have been compelled to meet, we may say with pride that no new Territory has made such rapid advances in so short a time as this. The working of many thousands of tons of gold ore in different parts of the Territory varying from \$15 to \$75 per ton by actual working, is a sufficient indication of the probable average of our gold bearing rock. The lowest of these limits pays a profit even at the present price of labor, in a mill of any considerable capacity. The expense of the importation of machinery has diminished to almost half since the first mills were erected here. The Union Pacific Rail Road is every day bringing us nearer to the sources from which we draw machinery and capital. Foundries and machine shops are springing up in our midst, and we are in all directions fast becoming self-sustaining. With agricultural resources unexcelled; with a climate most inviting; with mineral wealth inexhaustible, we may, with reason feel assured that Montana will take the highest rank among the gold and silver producing States. Very respectfully, yours, A. K. EATON.

City Taxes.

THE warrant for the collection of the City Tax assessed for the municipal year eighteen hundred and sixty-seven, having been this day placed in my hands, all City tax-payers are required to call at my office and pay their taxes, to save costs. E. S. CALHOUN, City Treasurer. Virginia City, Nov. 13, 1867.

PEN AND SCISSORS.

From the West. We find the following in the Denver Tribune:—The Western Union Telegraph Company have sold to the Government their wire from Julesburg to Fort Fetterman, eighty miles west of Fort Laramie—the line between the latter point and Salt Lake having been abandoned for several months, on account of hostile Indians. The possession of an independent wire by the government will greatly facilitate military operations in that region, and will demonstrate how cheaply wire can be worked in this country by a party whose object is not to make money. It is also understood that Gen. Auger will extend the wires to Fort Russell, and probably to other isolated posts in the North-west. The entire California and eastern business is now done on the single wire built last season from Denver to Salt Lake, on the Wells, Fargo & Co. stage road. A branch from this wire, and tapping it at Park station, is being built to Cheyenne, and will be completed to-day or to-morrow—when persons in the latter place can communicate with this western metropolis whenever so disposed. From Cheyenne eastward, the company will extend their lines to Julesburg this winter, or early in the spring, which will give them two wires from Omaha to Park station, and affording our Denver business, eastward, much better facilities for prompt transaction. The Owyhee Avalanche of the 2nd, says—Mrs. Denoile has been undoubtedly murdered by the savages. A soldier in from Camp Lyon yesterday reports that the scouts found what they deem positive evidence of the fact, and that she was burned to death about 15 miles down Sucker Creek from where her husband was shot. At an old camp where a fire had been built, long flaxen hair corresponding to Mrs. Denoile's was found, and human bones. We have no other particulars—indeed, these are enough. The Colorado Times says:—The Washington Lodge of Free and Accepted Masons was instituted at Georgetown by Henry M. Teller, Grand Master, last Tuesday. The following officers were installed: Andrew Mason, W. M.; Jairus W. Hall, S. W.; Dubois Tooker, J. W.; W. W. Ware, Treasurer; Matt. France, Secretary; James A. Burdick, S. D.; Demetrius Hill, Tyler; F. C. Johnson, H. K. Pearson, Stewards. In the evening the event was celebrated by a banquet at the Austin House. Rev. Rev. says:—There were shipped from this city, through Wells, Fargo & Co., during the month of October 223 bars of bullion weighing 15,073 pounds, and valued at \$238,075 58. Of this amount \$23,449 39 were shipped by the First National Bank and \$53,462 19 by John A. Paxton & Co. The Editor of the Idaho Statesman is on a visit to San Francisco. He writes back to the "temporary" as follows: "Dear Boys: How yer gettin' long. I'm doin' swell's could be 'spected un'er cir'stances. Havin' 'lorious time. M'm'er dasherways. Don't drinker drop. I shipped cider press an' whole lot or ether type up on steamer Ben [sic] Lamkin which sails for China nex' week er guess. Pennsylvania's gone fer 'ho on Indiana, n' all er rest Sta's do same thing fore long. Good news haint it? Be home about Christmas, spect. Tell Jud be er good boy n' stick to 'er water tank [sic] til git home. Can't write many more now—too much business, yer know."

Not coming back in good time an inventory was taken of the contents of his trunk left in the sanctum which foots up Three empty Scheidam Schnapp bottles, two pairs long blue stockings, worn through at the heels; deck of cards; lady's chignon; one pair tweezers; bottle of Martha Washington Hair Restorer; one glass eye; pair of red drawers; old gentleman's night cap, with frills; lady's night gown, edged with lace at the neck; pair of spectacles; three false teeth; string of dried corns; and old coffee mill; box of Russian salve; bottle cilician hair dye; a roll of unpaid China wash bills; box of tooth powders, and about two dozen dirty shirts. These were to be offered at public sale on the 25th of Oct. In case nobody purchased we suggest a contribution a la Mrs. — The Owyhee Avalanche has the following additional particulars of the massacre. W. L. Burnham and J. McCourt, who were of the party of six men that went out on Wednesday to the scene of the massacre, between Camp Lyon and Reynolds creek, have just returned. They found the body of Denoile which was partly stripped but not mutilated. They are of the opinion that Mrs. Denoile was carried off alive. They found a ribbon apparently belonging to a lady's hat, a German bible, portions of a woman's dress and sixty dollars in greenbacks. Some of the articles were five miles apart. The Indians went towards Owyhee, and Col. Coppinger and command are after them. Colorado Transcript, says:—Thos. Knox, Esq., the well-known journalist, who will be remembered as one of the associate editors of the Mountaineer, published in this town in 1860, has invented a machine for telegraphing maps, diagrams, &c., which has been patented. He has already received several very flattering offers for the right from newspaper proprietors. Send us one, Tom, for old acquaintance's sake. The Salt Lake Telegraph has recently been issuing on paper the color of which is a cross between hemlock and oak tan, and leather. The Vedette, squirts at it thus:—A Houston newsboy died of yellow fever on the 3rd. His last words were: "Here's your Daily Telegraph."

A San Francisco dispatch to the Register, date Oct. 29th, says—Leader Williams and W. Smith had a desperate fight last evening at the Four Mile House. Williams struck Smith with a stick of wood, and Smith stabbed Williams repeatedly in the back with a pocket knife, inflicting wounds that it is feared will prove fatal. The Vedette in noticing the engagement of Mr. Pannecorh by Mr. Langrishe, says: He will shortly appear on the boards of the Virginia theatre, where the actors act their roles, not going through the farce of reading them as is frequently the case here.

The Owyhee Avalanche, of Oct. 26, says—News came in late last night that the Indians had "cleared out" Boise valley the night before, driving off almost every head of stock therein. It appears they crossed Snake River below Fruit's Ferry, and went towards the Owyhee. Forty-six citizens from Boise crossed the river yesterday afternoon in pursuit of the marauder. The California Glove Company commenced operations in San Francisco about three months ago, and are turning out about 500 dozen monthly. At present they manufacture only buck-skin gloves, but it is expected that they will eventually produce other varieties. Their gloves are made from genuine deer skins, and are said to be of as superior quality as all other California manufactures. The Salt Lake Vedette of the 4th, says: A very distinct shock of an earthquake was felt in our city last night about half past eleven. The shock was preceded by a noise like distant thunder, followed immediately by rumblings like those caused by heavily laden wagons or artillery passing over a bridge. We have not as yet heard of any damage. The Vedette has the following from Sweetwater—Charley Harris informs us that the Dith Company have at last got fairly to work, and are taking out \$40 per day to the hand. Judge Carter and brother have laid out a new road to the mines shortening the distance some fifteen or twenty miles. Lisle Leslie, who has been giving successful and highly complimented dramatic readings in Idaho, is announced to appear at Salt Lake City, after fulfilling her engagements at Virginia City, Nevada. Gov. Low of California has offered a reward of \$500 for the arrest and conviction of Nrrato Ponce, who shot and killed W. J. Joy, at Hayward, on the morning of the 3d inst. The Dallas (Oregon) Mountaineer says that Lieutenant James Pike, who accidentally shot himself some time ago, when out after Indians, has since died from the effects of the wound, which produced lockjaw. Lieutenant Pike's relatives live at Hillsboro, Ohio, where his father is editing the Gazette. The Denver Gazette of Oct. 25th, says: Messrs. vanaugh and Chilcott, in company with Gen. Wright and Dr. LeComte, left by the Wells, Fargo & Co. coach on Sunday evening.

General Items. Broad street, Philadelphia, is eleven miles and a half long in one straight line, and 13 feet wide, extending from League Island, on the Delaware river, to the northern boundary of the present city limits. At its present rate of improvement it will require only a few years to make it the most magnificent thoroughfare in the world. An American has invented a novel sort of programme for the French theatres. The paper of the play bill is represented by a light, agreeable crust of pastry, which is chocolate paste. The advantage of the invention is, that when the spectator has mastered the contents of his bill, he eats it. During performance of "Romeo and Juliet" at the Haymarket Theatre, a portion of the tomb of the Capulets fell in and a candle ignited the scenery. The Count de Paris, although just killed, jumped upon put out the fire, but Romeo and Juliet did not stir from their position. The Washington Lincoln Monument Association have contracted for a monument of white marble, to be thirty-six feet high, including the statue of Lincoln, which is to be eight feet high and of Italian marble. Over \$7,000 have been collected for this purpose, almost entirely in Washington. The monument will be placed in front of the City Hall. An applicant for an M. D. at the University of Bonn, threw a bomb-shell among the faculty by enunciating the opinion that the art of the physician ought not to be employed to prolong a life of no use to a patient or the State. How many of our public men would trust themselves in his hands? We learn from a Richmond paper that a Steiwall brigade man says he marched \$6,243 1/2 miles during the war. This would be somewhere in the neighborhood of 20 miles a day. The fraction complicat's the calculation. The following piece of sententious conceit, taken from a Parisian guide book, is almost worthy of Boston: Paris is the pivotal city on which hereafter the world will turn. Palermo has science, Paris thought; Constantinople is nearer the sun; Paris nearer civilization.

The system of breach-loading fire-arms renders necessary for the soldier to carry a dable amount of ammunition. Ninety rounds is now the regular number in the British army. An experimental house, 11 stories high, is being built in Paris. It will have no staircase, and the tenants are to ascend a hydraulic elevator which goes up and down once a minute. The French government has ordered 800,000 waist belts, each having attached to it a small medicine box. The latter will contain whatever is necessary to give in a rough way, a first dressing to a wound, or stop dysentery. The Morning Post (Washington) says that General Grant has expressed to Dr. Lieber his apprehension of a greater national crisis than that which ended at Appomattox Court House. The nation has no apprehension as to the General's ability to meet the one as well as he met the other. Ear-rings are to be worn very long and extremely slender. We saw one the other evening reaching to the shoulder, and made of silver nearly as slender as fine wire.—N. Y. Sun. A German professor says that a drop of human blood magnified twenty million times, would show specimens of every kind of animal that ever existed on the face of the earth. An Elria doctor recently experimented with rheumatic patient by blowing morphia in his veins. The experiment was successful. The man died in an hour. It has been independently discovered by three several astronomers, that a new crater has appeared in the moon, and an old one filled up by the eruptions from it.

The portraits which gleam forth in the fashion plates in the tailors' windows, are taken from life generally. There is quite a rivalry among certain young men to be "taken" for fashion plates. The largest ox in America has just died in Manchester, N. H. He was seven years old and weighed 5,000 pounds—two tons and a half. England boasts of 800,000 lawsuits a year. There are over 4,000 billiard tables in New York. Personal. Old Madame Rothschild, mother of the mighty capitalists, attained the age of ninety-eight; her wit, which was remarkable, and her intellectual faculties, which were of no common order, were preserved to the end. In her last illness, when surrounded by her family, her physician being present, she said in a suppliant tone to the latter, "Dear doctor, try to do something for me." "Madame, what can I do? I can't make you young again," "No, doctor, I don't want to be young again; but I want to continue to grow old."

Two Stock brokers in Paris have made a bet, it is said, of one hundred thousand dollars, that General Grant will, or will not, be Emperor of the United States in five years. Bostonians had an opportunity of examining some fine stock last week. Forest exhibited his mammoth calves at the Continental Theatre, Boston. Mike McCoolle has hung the gauntlet (of \$10,000) to Joe Coburn for the fist-cuff championship of America. Such illustrious enterprise ought to go to Congress. Miles O'Riley calls General Sherman a fighting man from the centre of his marrow to the tip of his moustache. Cresses are erected, candles are kept burning, and flowers are daily strewed, on the spot in Queretaro where Maximilian was executed. Gough was hissed at the Cooper Institute. He had expressed a preference for prize fighting over horse racing. General Lee writes that there are six hundred students at his college against four hundred last year. Sylvanus Cobb has written over 50 miles of stories for the Ledger, and is still at it. The history of the war which A. H. Stephens is writing, he calls "The War of the States."

Miss Salomon painted the most popular picture in the Paris Exposition. It is called "Peg Woffington's Visit to Triples." Kirby Smith is teaching an Episcopal school in Tennessee. General "Joe" Hooker is in Switzerland. Humorous. A cute young wife says: "When I want a nice snug day all to myself I tell George, dear mother is coming, and then I see nothing of him till one in the morning." "Will you lend father your newspaper, sir? he only wants to read it." "Yes, my boy, and ask him to lend me his dinner, I only want to eat it."

The correct answer to the gentleman who wrote the song, "Why did I marry?" most likely would be, "Because your wife was foolish." The nightcap would be the cap of liberty—if it were not for the curtain lectures. The Lowell Courier says: "A cool reply was that of a Major general, who, on knocking at a door and being asked who was there answered, 'It is I-Sickles.'"

Sheriff's Sale. BY virtue of an execution issued out of and by the Clerk of the District Court in and for Madison County, Montana Territory, bearing date, Seventh day of November, A. D. 1867, I have levied upon and will sell to the highest bidder for cash, in hand in front of the Sheriff's Office in Virginia Madison County Montana Territory, on the 30th day of November, 1867, between the hours of 10, A. M., and 4, P. M., of said day, the following described property lying and being in the County aforesaid, to wit: The North east 1/2 of claim No. (1) south west from discovery on the I H Lucas, Lode, also the north east fifty feet of claim No. (1) north east from discovery on the Illinois & I. H. Lucas, also the undivided two thirds of discovery claim on the I H Lucas Lode, also the undivided one half of discovery claim on the Illinois Lode; also one twenty-four stamp quartz mill with all the machinery and appurtenances thereto belonging, all situated in Summit mining District, Madison County, Montana Territory. Taken as the property of the Lucas mining Company to satisfy an execution in favor of Louis Leach. DAVID McCRANOR, Sheriff. Virginia City, Montana Territory, Nov. 8, 1867. 108 170

DAVID COWAN, Attorney and Counsellor at Law And Solicitor in Chancery. Office at Erforts & Busch's old stand, Jackson Street.....Virginia City. Errors of Youth. A GENTLEMAN who suffered for years from Nervous Debility, Premature Decay, and all the effects of youthful indiscretion, will, for the sake of suffering humanity, send free to all who need it, the receipt and directions for making the simple remedy by which he was cured. Sufferers wishing to profit by the advertiser's experience, can do so by addressing, in perfect confidence, JOHN B. OGDEN, w-143-193 No. 42 Cedar St. New York.

Notice to Jurors. ALL persons having served as Jurors in 1866, and not received their fees as such, will appear before the Board of County Commissioners on the first Mondays in November and December, 1867, and establish their claims for such and receive pay for the same. By order of the Board of County Commissioners of Madison County, M. T. GEO. W. HILL, County Clerk. Virginia City, October 29, 1867. 167-168

J. B. LORAIN, Big Hole Bridge. On the most direct route from Virginia City to Silver Bow, keeps on hand A LARGE SUPPLY OF PROVISIONS AND GROCERIES. REFRESHMENTS PROVIDED FOR TRAVELLERS. A FINE STABLE of any size is attached to my store, and horses and cattle will receive the best attention. 133

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Virginia City, Oct. 24, 1867.