

SUBSCRIPTION RATES.

One copy 1 year, in advance, \$2.00
One copy 6 months, in advance, 1.50
One copy 3 months, in advance, 1.00
One copy 1 month, in advance, .50
Single copies, 10 cents.

The circulation of the TRIBUNE in Northern Montana is maintained and extended by the publication of the TRIBUNE in the Territory.

Address all communications to the TRIBUNE, GREAT FALLS, MONTANA.

GREAT FALLS TRIBUNE.

VOL. 1.

GREAT FALLS, MONTANA TERRITORY, THURSDAY, MAY 14, 1885.

NO. 1.

ADVERTISING RATES.

Table with 10 columns: Day, 1 week, 2 weeks, 1 month, 3 months, 6 months, 1 year, 10 lines, 20 lines, 30 lines, 40 lines, 50 lines, 60 lines, 70 lines, 80 lines, 90 lines, 100 lines.

Business notices in reading matter, 25 cents per line. The news notices 15 cents per line for first insertion, and 10 cents per line for each subsequent insertion of same matter.

ABOUT MONTANA.

The Diversified Resources of the Territory. The Misapprehension as to the Climate.

It is about sunny Montana that I wish most particularly to write in this letter. Verily, this is the paradise of the sportsman, and the finest stock country in the United States.

As to game, the noble elk, the grand moose, deer of all varieties, mountain sheep, and wild fowl are so plentiful that some of the zest of "hunting" is lost, as you can not well avoid finding it. It is no misnomer to call Montana the land of sunshine. In 1882, the meteorological summary of the weather, etc., at Helena, for the year, shows 129 clear days, 162 fair days, and 74 cloudy days. Rainfall, 11 inches; mean temperature, 42.7. The highest temperature was June 29th, 94 deg.; lowest, January 19th, 24 below zero.

There are but few cold days in Montana. Occasionally blizzards come in January and February, lasting three days, and then the Chinook wind from the Pacific coast comes sweeping through the passes and canyons of the Rocky Mountains, the snow disappearing like magic, leaving no trace of it in mud, as in the east, and restoring the air to an Italian temperature.

There is a widespread misapprehension as to the climate of Montana, it being so far northwest that many people look upon it as an Arctic region, not considering the comparative low altitude of the Territory and its position on the western divide of the Rocky Mountains, subject to the warm winds from the Pacific ocean. And even with the thermometer twenty below, the climate of Montana is immensely more comfortable and healthful than at zero anywhere east of the Rockies. The air is dry, pure and laden with health.

No malaria here, except that which comes from poor whisky.

The average altitude of the valleys and plains of Montana is much lower than any of the regions crossed by the Rocky Mountains. Official reports show that the average altitude of Montana shows an level in 1000 feet, of which 5,000, of New Mexico, 5,600 of Wyoming, 6,000, and Colorado, 7,000. The snowfall in Montana is not more than one-third as much as in Utah or Colorado. Cattle in Montana are on all the ranges during the winter without a particle of shelter, and do well. Any Chicago daily paper will show Montana cattle to average more in weight and price every business day in the year than those from any other State or Territory west of the Missouri river. All further argument as to Montana's claim to be the best stock country in the United States is unnecessary.

She expects in the near future to rival and excel Kentucky as a nursery of fine horses. Several of her thoroughbreds have this year been winners in the east, even as far east as Coney Island. Large investments in blooded stock have been made by breeders in the Territory the past three or four years, and in all cases the investment has been profitable. Montana bunch grass I believe to be superior to the blue grass of Kentucky, because, unlike that grass, it cures on the stalk and is not so coarse. The atmosphere and soil conduce to perfect wind and perfect feet, both of which are essential to the success of the horse.

Now our territory has not only become self supporting, but has horses to sell. It is true we are still receiving large consignments of stallions and mares for breeding purposes and will continue to for some years yet to come, but we are in position to grow work horses cheaper than than any other portion of America, and the superiority of the animals grown over that of other sections is a sure guarantee of a steady and reliable market.

At the request of the Territorial Board of Stock Commissioners Governor Carpenter has issued a quarantine proclamation, requiring a quarantine of ninety days on live stock coming into Montana from the following States, namely: Massachusetts, Connecticut, New York, New Jersey, Pennsylvania, Maryland, Delaware, District of Columbia, Virginia, West Virginia, Kentucky, Tennessee, Texas, Arkansas, Missouri, Illinois, and from Indian Territory, and requiring an inspection of live stock arriving from all other States and Territories.

The past winter, although severe, has been the most favorable for range stock for years. It is thought the calf crop will exceed last year's by 25 per cent.

Subscribe for the TRIBUNE.

OUR PRECIOUS METALS.

The Neihart, Barker and Montana Districts.

A Trenchant Description of the Principal Mines.

The Accessibility of Great Falls to the District.

The Only Practical Supply Point For the Eldorado.

Erection of Reduction Works Here Assured.

In the range of mountains called the Little Belt mountains, which are located in Menger county, Montana Territory, and are a spur of the main range, there are a few mining districts of great merit and promise, among the number being the Montana, Barker, Belt Park and Snow Creek districts.

MONTANA DISTRICT.

This district has had a struggling life of about four years, the first discoveries and locations being made in the year 1881 by Messrs. Neihart, O'Brien, Harley, Carothers, Kane, Lambert and others. Following these there have been others made of as great importance. The leads of this camp are true fissures, the formation being a porphyritic granite, the walls smooth and regular and their course a trifle east of north and south. The mineral belt is from two to five miles wide. None of the leads of the camp have been developed very extensively, the locators and owners not being able to do much more, have done each year's assessment work and as much as possible, but have held on, waiting patiently for the investment capital to develop and bring their claims to the front where it belongs. The leads were very promising on the surface and each foot of development has been very encouraging to the owners. With but few exceptions the ore of the district can be classed as high grade smelting ore, containing 10 to 15 per cent of silver and some copper and carrying from 50 to 100 ounces of silver and from 15 to 20 per cent of lead. Some very rich grades of the class has been found, specimens assaying from 1,000 to 25,000 ounces of silver per ton. The other ore produced has been a very high grade milling ore, assaying very high in silver and carrying scarcely any lead. The principal or best developed mines of the district are the Mountain Chief, Queen of the Hills and group, Montana Bell and group, Fitzpatrick, Fred Mann, Massachusetts, Oregon, Texas, South Carolina and Sampson.

MONTANA CHIEF.

This claim was located among the hills by Messrs. Kane, Carother and Lambert, and was held and developed until two years ago when it was located to the Hudson Mining company for \$18,000, the bond expiring September 1, 1884. This company took the property under the bond and have worked it continuously ever since in a very careful and economical manner, and now have it sufficiently developed to warrant them in erecting smelting works for the treatment of their ore product. They are now building and preparing for their plant which is on the road, part of it being about twenty miles of the camp. They have a large quantity of choice ore on the dump, and their shaft, tunnel and levels expose still greater quantities which will be easily and cheaply stopped down.

The ore of this mine is of the high grade smelting class, averaging from 50 to 100 ounces of silver per ton. Some of the choicest specimens found in the camp have been taken from this mine, some assaying as high as 25,000 ounces of silver per ton. The Hudson Mining company is an eastern company with their head office in Boston, Mass., and some of the stockholders are capitalists of that city. Operations in the camp are under the personal direction of their intendant, Mr. C. E. Barker, who probably employ a large force of men this season.

QUEEN OF THE HILLS AND GROUP.

This group of mines located about the same time as the Montana Chief, by Mr. Neihart and others, and still owned by them, consists of the Queen of the Hills, Homestake and O'Brien, all on the same lead. These have been developed principally by tunnel, one tunnel on the Queen not less than 300 feet long and carrying a continuous body of mineral the whole distance, the shaft being 2 to 6 feet wide. The face tunnel shows a vein not less than 5 feet wide, containing about 5 solid ore which assays well in silver and is a choice smelting ore. Some of the wire silver here

been taken from this mine. I do not think the ore of this mine averages less than 50 ounces in silver per ton, and the location is such that it can be mined by tunnel on the lead at a very reasonable figure. This is regarded as one of the most valuable properties in the district, but as yet it has not changed hands.

MONTANA BELLE AND GROUP.

This group of mines located on Baldy Mountain, all on the same lead, consists of the Montana Belle, St. Julien, Maud S., Minnehaha and Dickens claims, which are owned by Chamberlain, Bell, (deceased) MacKintosh, Sanborn and Wells, who located them. These mines have a splendid record. The owners have worked them considerably, shipping the ore produced under great disadvantages to Omaha, which paid a handsome profit over all shipping and treatment expenses. These mines have paid for development and paid the owners a good profit from the proceeds of the ore.

This group of mines located on Baldy Mountain, all on the same lead, consists of the Montana Belle, St. Julien, Maud S., Minnehaha and Dickens claims, which are owned by Chamberlain, Bell, (deceased) MacKintosh, Sanborn and Wells, who located them. These mines have a splendid record. The owners have worked them considerably, shipping the ore produced under great disadvantages to Omaha, which paid a handsome profit over all shipping and treatment expenses. These mines have paid for development and paid the owners a good profit from the proceeds of the ore.

THE OTHER MINES OF THE DISTRICT.

The other mines of the district which I have mentioned, all of them, are of good ore, and are developed by shaft or tunnel, probably none less than 50 feet. The Massachusetts has a shaft of 110 feet and a short tunnel, both openings exposing a good strong vein of high grade smelting ore. The Fitzpatrick is developed by a long tunnel on the lead which shows up a nice body of high grade milling ore. The facilities for working the mines of the district are good on account of their location; they all cross the gulch, affording good site for tunneling in on the lead and the mountains are of such height that the miners as a rule gain good depth in tunneling. And the facilities for treating ore in this district are excellent, there being a plentiful supply of wood, water and all necessary fluxes for smelting are convenient. The portofice of the district is located down in the gulch in a little town of about 200 inhabitants, which is called Neihart after one of the pioneers of the camp. Neihart has tri-weekly mail connections with Fort Benton and Clendenin on the north and White Sulphur Springs on the south, and will undoubtedly have mail connection with Great Falls soon, as the natural outlet of the camp is down Belt river—which stream the town is located on—the Missouri river points, Great Falls and Ft. Benton.

The distance from Neihart to White Sulphur Springs, the county seat, is about 50 miles, and is about the same distance from Great Falls. Benton, the head of navigation on the Missouri, is 85 miles from the camp. The road to White Sulphur Springs is over a high divide and quite impassable except during a few of the summer months, while the road to Great Falls and Benton is down the river bottom and is always hard and passable.

BARKER DISTRICT.

This district was the first galena district of these mountains, being almost two years older than the Montana district and was worked quite extensively by the Clendenin Mining and Smelting Co., and was a good, lively camp until November of 1883, when the failure of some of the company's principal stockholders in the east brought on the closing down of the company's works in Barker, and since then it has been idle the most of the time. But this camp contains some very good leads, among the number being the Silver Bell, Four Aces, May & Edna, Wright & Edwards, Barker, Meeks, Keystone, Tiger and T. W. The formation and course of leads here are the same as in Montana district, with the addition of some limestone. The Silver Bell, Four Aces and May & Edna leads are in limestone and are blanket leads, the ore being a carbonate and found in a hori-

zontal position and in chambers or rooms of various sizes, some chambers being quite large. Outside of these leads all others are in the other formation and are true fissure veins from two to six feet wide, all carrying from 20 to 40 ounces of silver and from 15 to 50 per cent lead. The ore of Barker district is more base than that of Montana, but the carbonates found in such large quantities and so cheaply mined and treated pay good profits. The high grade and possibly milling ores of this camp come from the Meeks, Tiger, Keystone and T. W. claims, samples assaying as high as 150 to 5,000 ounces of silver per ton, and the leads sampling as high as 150 to 200 ounces of silver per ton. Though this camp is idle now and a smelting plant is here doing nothing, I do not think it has seen its best day. It is bound to come up again, especially when the country is afforded cheaper transportation. Barker is located on the Dry Fork of Belt river at the mouth of Gold Run creek and is 13 miles from Neihart by trail and about 25 miles by wagon road. The name of its postoffice is Clendenin.

BELT PARK AND SNOW CREEK DISTRICTS.

These districts should really be classed in Montana district, they are so short a distance from it. Belt Park district is at the head of Carpenter creek, a distance of Montana district of about five miles and contains some very choice galena and smelting ore leads, such as the Uncle George, Hughes, De Lorier, Whipoorwill, Croff & Russell and others, all of which are true fissures, with good smooth, regular walls and have the same formation and course as the leads of Montana district. The leads are developed by a shaft or tunnel, none less than 50 feet, and all show a body of ore from two to five feet wide, assaying across the leads 25 to 50 ounces of silver and 50 to 75 per cent of lead per ton.

There are prospects of a small smelter on Carpenter creek this summer for the treatment of the ores of this and Snow Creek districts. The postoffice for this district is Snow Creek.

The Snow Creek district, located near the head of Carpenter creek, is about four miles from Montana district and about two miles from Belt Park district, and contains some very choice leads of gold and silver bearing quartz, which is free milling. Among the leads of this camp are the L. X. L., O. K. and Green & Weather-wax, and there are several others with equally as good showing on the surface. These leads are all very promising for the work done and no doubt some bonanzas will be developed out of the number. The ore of this district is mostly a honey-combed quartz, assaying all the way from 50 to 1,000 ounces in silver per ton and some carrying as high as two ounces of gold, and it is all about free from lead. The leads are of good width, running 1 to 4 feet and the formation, course and dip are good.

As this vast wealth of minerals should find a market and be treated where the best results can be obtained, Great Falls would be a desirable location for the property.

It is probable no industry in Montana today which pays the profit on the amount of capital invested as the sheep business. The outlay of money in the start depends upon the number of sheep purchased, as a matter of course, but a man with from \$3,000 to \$5,000 can make a fair start in the business, and if endowed with ordinary common sense can make from 25 to 40 per cent yearly on the capital invested. The business is absolutely safe, and no industry in the territory pays the corresponding profit. It is calculated the clip pays all expenses, and the increase is the net profit.

THE SAND COULEE COAL.

Their Area Exceeding all Others in the Territory.

The Whole Field Underlaid With Two Veins of Iron.

Practical Tests Prove its Excellent Coking Qualities.

Inseparable Connection Between Them and Great Falls.

The Construction of a Certain...

The coal deposits of the town of Great Falls are located by competent judges, and are also in quality, another field yet prospected or developed in the Territory. The boundaries of the workable area have not at the present time been fully determined, but the constant location of new mines prove the coal field to be of vastly greater area than was originally supposed. It is now known that the Mesozoic deposits of this locality are the great geological feature of this section. Without exception they excel all other coal areas in the Territory by the accessibility of the vein, the regularity of the deposits, and the marked absence of thick bands of shale inter-lining the coal so characteristic of other places. This would signify a deposition little disturbed by terrestrial or other causes, and in place of abnormal thick deposits of impure lignite we find solid bodies of bituminous coals near the upper part of the vein, an excellent article of steam coal in the center, with bituminous coal again below.

The thickness of the vein has become known by numerous tunnels in various parts of the field, many of them being miles apart, and the quality has been tested with highly satisfactory results, by the conclusive evidence of practical use, and by the more severe and exact trial of the scientist's laboratory.

The scientific tests were to determine the amount of moisture, sulphur, volatile matter, fixed carbon and ash. The practical tests were very successful, showing there existed a thick body of coal adapted for the three first uses, and the whole vein for domestic use.

The scientific reports gave results which would have been deemed satisfactory by some of the best coal fields of Pennsylvania, and displayed its admirable adaptability for the manufacture of coke. The coal field at the present comprises three areas, viz: Sand Coulee, Belt River and Smith River. This is caused by each place being a nucleus for location of mines, but all three places possess the same vein, the same characteristics of deposits and are connected regularly together, the outcrops of the vein being practically continuous the whole distance.

Experience has shown in this Territory that mines of low grade ore, with costly transportation, do not pay. The advent of railroads, giving a radius of exploration, has opened up the Sand Coulee is nearest the town of Great Falls, the distance from the nearest mines to Black Eagle Falls being about seven miles. The Sand Coulee mines have been well developed the past season, and the result has been to show permanency of thickness of vein and a marked improvement in the character of the coal.

The ultimate destinies of Great Falls and the Sand Coulee coal mines are inseparably connected. The vast water power of the former place is shortly to be utilized in the movement of countless tons of machinery required for the production of the various manufactures for Territorial use, and the purchase of which has hitherto been such a drain on the floating capital of Montana. This, together with the incoming of more than one or two trunk lines to the town, will make a demand for three things, viz: coal, iron and lime. Building stone of unrivaled quality, and the best of material for brick already exist at Great Falls, and the three requisites mentioned above can all be found in Sand Coulee within a short distance from town. The grade for the whole of the distance is so small and the country so little broken by ravines or coulees that with the modern appliances of railroad builders, a railroad could be built from Great Falls to the coal mines in about two days.

It is seldom indeed that coal, iron and lime are found in any quantity together. It was the presence of these together that created the towns of

Birmingham and Sheffield, in Alabama, and what was the result? In a few years a town of over 20,000 people. In Sand Coulee the amount of coal is pretty well understood by the general public; but possibly the iron and lime are not. The whole coal field is underlaid with two veins of chalybite, or argillaceous carbonate of iron. It consists of carbonate of iron with clays, and when broken has a grey, stony look with little indication of the iron it contains, except its weight. This ironstone is in two bands or layers overtopping and underlying a soft, gray shale. In England this kind of ironstone is the principal source of the supply of pig iron.

As regards the limestone, the quantity is unlimited, and is of the finest description, being the sub-carboniferous limestone and remarkably free from lead and other impure constituents so often present in mountainous regions. In several places in Sand Coulee the cliffs are precipitous and the limestone can be seen 30 to 70 feet thick at the base, superimposed by the coal measures containing the iron bands and the coal in their regular order. The whole can be seen at a glance—truly a marvelous combination! There is the iron, the lime to flux it, and also the coal to melt it with. The belt range of mountains in the vicinity also have enormous deposits of magnetic iron, easily available; and, as is well known, no ore is superior to this for the production of iron.

Underneath the coal is a valuable bed of fire clay in some places attaining a good thickness. This, however, has not been examined with that attention which it will in the near future.

A glance at the map of Montana will at once show the central position of Great Falls. Possessed of the greatest known water power in the world, enormous supplies of the best coal in the Territory within a few miles, vast deposits of iron and lime yet untouched within the same radius, what results will this have in the future? The utilization of the water power in this region, for the production of various descriptions into operation, that can be done by large machine shops will be an actual necessity. In an economic view this in its turn will render necessary the construction of blast furnaces for the production of iron from the ore; this, too, not dependent on precarious supplies of charcoal from mountain forests now being rapidly denuded, but being fed with an excellent quality of coke from the Sand Coulee coal mines. This, combined with the large amount of coke the railroads will necessarily require, will call into construction long banks of coke ovens, employing many men. The beneficial effect upon the country at large can be imagined, as it will give a home market for agricultural products. These are a few of the vast results which will take place.

The most prominent of the future industries, however, will be the reduction of the various gold, silver, copper and other ores of the largest part of Montana. Experience has shown in this Territory that mines of low grade ore, with costly transportation, do not pay. The advent of railroads, giving a radius of exploration, has opened up the Sand Coulee is nearest the town of Great Falls, the distance from the nearest mines to Black Eagle Falls being about seven miles. The Sand Coulee mines have been well developed the past season, and the result has been to show permanency of thickness of vein and a marked improvement in the character of the coal.

The ultimate destinies of Great Falls and the Sand Coulee coal mines are inseparably connected. The vast water power of the former place is shortly to be utilized in the movement of countless tons of machinery required for the production of the various manufactures for Territorial use, and the purchase of which has hitherto been such a drain on the floating capital of Montana. This, together with the incoming of more than one or two trunk lines to the town, will make a demand for three things, viz: coal, iron and lime. Building stone of unrivaled quality, and the best of material for brick already exist at Great Falls, and the three requisites mentioned above can all be found in Sand Coulee within a short distance from town. The grade for the whole of the distance is so small and the country so little broken by ravines or coulees that with the modern appliances of railroad builders, a railroad could be built from Great Falls to the coal mines in about two days.

It is seldom indeed that coal, iron and lime are found in any quantity together. It was the presence of these together that created the towns of

thern Montana would show an activity in production, a richness of ore and a variety of minerals the equal of the equal of which has never been seen in the west.

O. C. MORRISON.

A FLOWING WELL.

A Vein of Water Struck at Twenty-Five Feet Which Flows Over the Surface. A Stronger Vein to be Prospected.

We are glad to note that Mr. O. E. Spear is meeting with success in his work of drilling wells at this place. He was induced by Mr. Gibson to come from Minneapolis to sink artesian wells in this part of Montana. He was occupied about two weeks in sinking wells on the townsite for household purposes; but a few days ago he moved his machinery to the slope at the southerly approach to the town, and commenced work in earnest to obtain, if possible, a flowing well. At a depth of less than thirty feet he struck a strong vein of water, which rose immediately to the surface and discharged itself over the prairie, where it is now running. This is a true flowing well, and though not of such capacity as Mr. Spear expects to obtain, it demonstrates the existence of large veins of water near the surface, and on elevated lands. He will now move his machinery to another spot on the table land, and his further progress will be watched with additional interest.

The principle of drilling wells is the true one for the valleys and hilly lands of Montana. By this process pure water, and free from alkali, can be obtained anywhere on the table lands, and if we can judge by Mr. Spear's success within the past few days, splendid flowing wells can be obtained in many places. By drilling for water, all obstacles, such as boulders and solid strata of rock, can be overcome. Flowing wells cannot always be expected in any country, but under the drilling process wells of abundant and never failing water can always be obtained. With windmills and a few barrels of water, a constant flow of water can be depended upon, where flowing wells cannot be struck.

Mr. Spear having had twenty-two years' experience in the artesian well business, should receive sufficient encouragement to induce him to remain in Montana and to ship the remainder of his machinery from Minnesota to this country.

Montana Horse Industry.

The horse industry of this territory is yet in its infancy, but is rapidly coming to the front, and in a few years at most, Montana horse flesh will prove a formidable rival to America's favorite Kentucky horses. An exchange says: "It required three or four years to convince the cattle growers of Montana that their beef products could be marketed in the east, but the indications are that horsemen will not be slow in being brought to realize this fact. It has now been scarcely twelve months since the first carload of horses went forward, yet we find that there has already been more horses forwarded this way east than there were cattle for the first two years. Already, it may be said, the industry is fully established, and that there need in the future be no more carloads of horses in Montana. It is

for railroad development. No place possesses the same advantages as Great Falls for the erection of reduction works on a large scale. The power for crushing the ores and fluxes are already there, requiring no outlay whatever for fuel for this purpose after the water power is controlled. Fluxing materials in unlimited quantities near the townsite and coke of an excellent quality for the blasts, giving a hotter fire, and lasting longer than charcoal. In the refining of the precious metals a saving from loss by evaporation, caused by high altitude in other places, will be made, Great Falls being only about 3,300 feet above sea level, thus 900 feet lower than Helena and 2,400 lower than Butte. The treatment of the ores at home would save over 15 per cent which now goes elsewhere for reducing and refining.

These advantages being present, and their value being duly estimated, it will be conceded that large central works for the reduction and refining of metals at this point would be more conducive of advantage to the country generally than anything yet attempted. They ought to be of completeness similar to the ones at Newark, N. J., Swansea, in Wales, and Fraubourg, in Germany. Upon the establishment of such works at Great Falls all the mining districts of northern

The past winter, although severe, has been the most favorable for range stock for years. It is thought the calf crop will exceed last year's by 25 per cent.