

# Mining News

## AMATEUR MINERS WERE NOT IN IT

MAJORITY OF GOLD-HUNTERS WHO FLOCKED TO THUNDER MOUNTAIN WERE TYROS.

## DID NOT KNOW HOW TO GO AFTER THE RICH METALS

There is Plenty of Gold There and the District is Well Worth Exploitation—Inside Facts About New Idaho Mining Region as Seen by a Man Who Knows What He is Talking About.

H. O. Stechhan, who recently made the trip into the Thunder Mountain region is at present in Butte as a delegate from Idaho to the Mining congress. Speaking this morning of Thunder Mountain and its possibilities, Mr. Stechhan said:

"It is now one year since the first stories of the wonderful riches of the new gold field in central Idaho, known as Thunder Mountain, began to attract the attention of the whole world. Since that time many thousands of persons have gone into the almost inaccessible mountain fastnesses and though many have come away dissatisfied, a much larger number are well pleased with the prospects of the new El Dorado. The first reports being very vivid, attracted many tenderfoot gold-hunters who had expected from the reported richness of the land, to find the gold scattered around on the mountain sides; while old time prospectors have many of them failed to make rich strikes because the geologic formations in Thunder Mountain are different from those of any other mining district and when they looked for the rock that had been so rich elsewhere, they were disappointed, and naturally concluded that the district was not a gold-bearing one. But among those hardy pioneers who have been exploiting the country, there were a number of thinking ones who having found gold in new formations set themselves the task of exploiting the original conditions of Thunder Mountain and their deductions are of great interest to the world today.

The District is All Right. "The first reports told to the world that Thunder Mountain was an immense porphyry dike carrying rich values in free milling gold. Since then a number of so-called experts have said that the ore in the Dewey mine, which is the bonanza of the new district, has developed a tendency to become base, implying that the gold is not free and pure but mixed with the baser metals such as silver and copper. Amalgamation run during the present season. This claim is refuted by the results of the assay. The Dewey ore body is a zone of sedimentary formation that has been subjected to a secondary enrichment from the deposition of gold from wasting intrusive dikes.

The condition which brought about this enrichment of a formation that would not ordinarily carry gold, is an unusual one. The rocks which originally brought the gold to the surface by this process of intrusion are in constant motion. The enriched zone has a smooth, sloping surface which forms the inclined plane upon which the wasting formation slides down the hill. The soft smooth bed is a clay formed by attrition.

Prospecting World Misled. "The wasting of the true porphyry has formed a body that is falsely called porphyry. This substance is a residuum clay. The prospecting world has been misled by the application of an erroneous name to the Dewey reef. If the fact had been generally known that this reef was not a porphyry much better results would have flowed from the energy expended in prospecting this camp.

"As all porphyries are intrusive and therefore perpendicular formations, nearly all the prospectors have been looking for dikes of the Dewey miscalled porphyry. In plain words, the prospectors have been exploring for clay lodes, leads or ledges. They have been pursuing the forlorn hope of finding an inverted Dewey reef. Clay banks of identical formation are found in many portions of the camp but not all could become the sliding plane of millions of tons of wasting ore.

Very Fast Land Slide. "There is a slide one inch wide that is moving down from Thunder Mountain at the speed of five feet a year. This movement has been so constant that it has deranged the grade of water ditches every season. The movement racks and even splits trees in its progress.

"New made ridges and gulches are observed by all who pass over the surface. Trees are shaken, rocks are rolled and miniature earthquakes are often observed in this section. These disturbances re-

lease the gold from ores that are fed to this natural quartz mill from the slopes of Thunder Mountain.

"To start this great natural milling operation, Thunder Mountain seems to have been split by some convulsion and a slab of gold-bearing rock more than a thousand feet thick fell over into a lake. The vegetable matter compressed thereby formed the first lubricator which accelerated the movement down the slide. The tilted section of the mountain rested behind the retaining wall that formed the boundary long enough for the woods, under the influence of the great pressure to petrify and for the peat to carbonize. The acids liberated the gold and the natural reagents precipitated its values into silicified and carbonized substances while the great slab was at rest.

Ruin of an Ancient Lake.

"When the ruin of the ancient lake was removed by erosion, the mass commenced to journey down the inclined plane. The gold that was released by the acids is now found in carbonaceous ores and that which was ground out by the sliding process is found in the clay that is called white porphyry. The gold found in the white formation is not the same grade as that found in the black ores. The latter were purified by the precipitation that took place in nature's cyanide tank. This fact accounts for the two grades of gold which were found in Thunder Mountain placers by the Caswell brothers.

"This is one of the greatest natural quartz mills in the world. Millions of tons of rock are grinding and molding new materials for this slide constantly. As the moving reef breaks over the steeper bluff of Mule creek it forms the placer beds. It has been published that these beds were replenished by the surface erosion of the porphyry bed rock. It is an apparent fact that the renewal of the placer gold was the result of attrition.

Report of Government Man.

"One of the first satisfactory reports was made by H. S. St. Cyr of the United States mineral survey. He said that the country rock constituting that portion of Thunder Mountain where the Dewey mine is located is a porphyritic conglomerate, containing lime, micaceous slate, scoria, andesite, rhyolite and phonite together with many other forms. The entire mass carries more or less gold with silver alloy. The structure of this part of the mountain is surrounded by higher peaks despite its altitude of 8,000 feet. The west slope of Thunder Mountain contains reef surfaces which carry gold fully one and a half miles wide by four miles long, as far as has been prospected.

"Appearances and its stratified formation which is exposed by erosion in many places, indicate that it never was an adjusting fissure, vein, ledge or lode, but a collector of precious metals in past ages when this part was buried in an inland paleozoic sea. The conglomerate represents debris from archaean, paleozoic and mesozoic ages distinctly.

St. Cyr's Theory.

"Many theories have been advanced how this portion of the mountain, four miles long and one and a half miles wide, became mineralized. Mr. St. Cyr has very interesting one which he tells in language plain enough for all to understand. He says that from the higher surrounding peaks of the famous Dewey mine on the west slope of Thunder Mountain, is found all that goes to make up this portion, but in a far different form and all there is to judge from is the component parts now cemented together and mineralized. There was no upheaval after the masses had come together, for had the mountain been formed under such conditions its traces of action could now be found about the base and would be as plain as an open book. Stratification by volcanic action is easily told. The fragmentary materials in falling through the air are sorted, the lighter and finer materials being carried farther from the center given more force than the larger and heavier, built up of tuff and breccias fallen in the condition of mucky paste, have a fine stratification. Where such metals as gold and silver are found in this formation, it is an unfailling rule at the bottom of each layer first formed and seldom if ever found throughout the entire stratification.

It is Easy to Get It Out.

"The west side of Thunder Mountain occupied a very humble position in altitude, compared with the surrounding peaks and without question was not in sight at that time, but from the present gold giving rocks there is no doubt that it was during this period that it was gathering the gold and silver from the neighboring mountains. In the tunnel of the Dewey mine, trees can be found from 60 to 90 feet from the apex of the reef and these petrifications in many instances carry gold. The theory for this is that the gold must have been in solution to have been impregnated into the wood before petrification set in. Many specimens have been found that were covered with a light coating of gold which could easily be rubbed off the rock holding it. This occurs in the small black rock that is of a porphyritic nature. Samples of this rock taken alone and given a cyanide bath will readily give up all the gold that they contain. So thoroughly does the cyanide release the gold that subsequent assays of the rock thus treated will show no trace of the precious metal."

ONEROUS FUNCTIONS OF THE ASSOCIATE MEMBER

If This Illinois Man Has His Way, the Dollar-a-Throw Man Will Not Be in It at All.

J. P. Hendricks of Illinois has introduced in the Mining Congress a resolution having as its object a change in the rules of the body. In the resolution he asks that the rules be amended in such a way that there will be three classes of members—life, active and associate. He wants the annual membership fee of the life member placed at \$25; that of the associate member, \$5, and that of the active member, \$1. If the resolution is adopted the life and active members will have the privilege of holding office in the congress and voting on all matters submitted, but the associate members will have the simple privilege of entering into the discussions and looking pleasant.

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## NEW MEXICO DELEGATION AND WHO ALL ARE IN IT

Good News a Black Hills Man Receives Causes Him to Step Into a Swearing Room and Then Hustle for the First Train East—Some Invitations and Courtesies Extended Delegates.

A R. Gibson of Santa Fe, N. M., is chairman of the New Mexico delegation, which consists of nine men from all parts of the territory, one having come from Colorado, in the Black Range country. Mr. Gibson is president of the American Consolidated Copper company, which is operating in the Burro mountains, Lordsburg and Shakespeare, the latter being about 10 miles from Lordsburg. He is also manager of the Gibson Development company, which is opening up mines in Arizona and New Mexico.

Mr. Gibson says the companies with which he is connected are doing more development work than any other company or individual in New Mexico, but have good ground and will realize on the outlay of money. He is heavily interested in both corporations and is an enthusiastic representative of his section of the country.

Neighed for Mercy in Vain.

John Blatchford, one of the Black Hills delegates in the congress, received a telegram from Lead last evening stating that the lower workings of the Sundance mine, one of the group owned by the Golden Reward Mining company, were on fire. The message also stated that the fire started in the stable at the 500-foot level and smothered all of the horses used in the mine. All of the men, however, escaped. Mr. Blatchford is superintendent of the property, and on receiving the message made arrangements to start for home on the first train. A later message stated that the fire had been extinguished. The Golden Reward company has been mining about 300 tons of ore per day.

Stewart Kennedy, superintendent of the Sheridan Coal company, operating near Deliz, Wyo., and C. N. Deitz, president of the company, are delegates in the congress. The former is representing Wyoming and the latter Nebraska, as he makes Omaha his home. Mr. Kennedy says his company is mining 3,200 tons of coal per day and is supplying the Burlington road locomotives with fuel from Newcastle west.

The company also ships a vast quantity into Deadwood and Omaha, and by the first of next month will be shipping a portion of the product of its mines into this city. The coal, he says, is hard, resembling that of the Rock Springs district, and will be sold here at about \$6 per ton.

And a Couple of Arteries.

The company has five veins, each of which is more than 12 feet wide. The ground is developed to a depth of 150 feet. Deitz contains about 1,100 persons, and is located about four miles northwest of Sheridan on the line of the Burlington road.

All of the delegates have had the free use of the long and short distance service during their stay in the city and will continue to enjoy the hospitality of the Bell Telephone company while they remain.

The Missouri River Power company has extended the delegates an invitation to inspect the plant of its works near Canyon Ferry before departing for their respective homes. The Overland club has also given them free entry to their rooms at all times during their sojourn.

## Screenings.

J. C. Sherman of Deadwood, who is attending the congress, is a first cousin of E. H. Sherman and Thomas J. Sherman of this city. He had not seen his Montana relatives for 27 years until yesterday.

E. W. King is the only delegate from Fergus county. Mr. King is heavily interested in the King-Barnes, Gilt Edge and Kendall mining properties of Fergus, which are now yielding \$120,000 per month. Mr. King says the district in which the properties are located is adding about \$140,000 in gold per month to the output of the state.

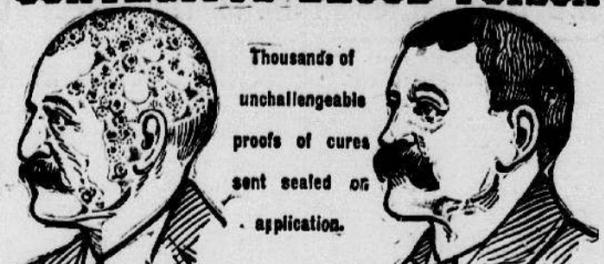
Joseph A. Holmes, chief of the department of mines and metallurgy of the St. Louis exposition, which department is to be a distinctive feature of the Missouri show next year, is a delegate in the congress. Before leaving for the East he will arrange with mine owners in this section for an exhibition of their ores at the exposition.

Mexico and London, England, are represented in the congress. The representative of the former read an interesting paper in the body yesterday. It related to the mineral possibilities of his country.

During the morning session of the congress yesterday the mayor of Anaconda extended the freedom of the Smelter City to the delegates today. He said he would feed and stall them, if necessary, and see to it that their time in the city was well spent.

The New Mexico delegates to the congress are: M. W. Hoyle of White Oaks, Jefferson Reynolds of Los Vegas, T. H. Jenks of Bland, A. R. Gibson of Santa Fe, J. L. Ferry of Colorado, E. F. Pierson of Hillsboro, Captain Jack Crawford of San Marcial, C. J. Dold of Elizabethtown and C. T. Brown of Socorro. Mr. Gibson is manager and a large stockholder in the Gibson Development company, operating in Arizona and New Mexico, and is also manager of the American Consolidated Copper company, the properties of which are located near Lordsburg, Shakespeare and in the Burro mountains of Southern New Mexico. He says his company is now doing more development work and spending more money in the operation of its properties than any other corporation in the territory, but its ground is rich and good results will be obtained.

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NOTICE TO CREDITORS. Estate of Mercy G. Hartwell, deceased. Notice is hereby given by the undersigned, executor of the estate of Mercy G. Hartwell, deceased, to the creditors of and all persons having claims against the said deceased, to exhibit them, with the necessary vouchers, within four months after the first publication of this notice, to the said administrator at the office of Lewis A. Smith, Room 4, Silver Bow Block, Butte, Montana, the same being the place for the transaction of the business of said estate, in the County of Silver Bow, State of Montana. EARNEST E. WRIGHT, Executor of the Estate of Mercy G. Hartwell, deceased. Dated Butte, Montana, this 2nd day of September, 1902. LEWIS A. SMITH Attorney for Executor.

MINING APPLICATION No. 4548. United States Land Office, Helena, Montana, August 14, 1902. Notice is hereby given that James H. McDonald, whose postoffice address is Butte, Montana, has this day filed an application for a patent for 1,500 linear feet, the same being for 350 feet in an easterly and 1,150 feet in a westerly direction from the point of discovery on the Rising Sun lode mining claim, situated in Independence (unorganized) mining district, Silver

Bow county, Montana, the position, course and extent of the said mining claim, designated by an official survey thereof, as Survey No. 6645, Township No. 3 north, Range No. 8 west, a notice of which was posted on the claim on the 22d day of July, 1902, and being more particularly set forth and described in the official field notes and plat thereof on file in this office, as follows, to-wit: Beginning at the southeast corner, a quartzite stone, 6x8x18 inches, 14 inches deep, with mound of earth alongside, and marked 1-6645 for Corner No. 1, from which the one-fourth section corner to Sections 21 and 22, Township 3 north, Range 8 west, bears south 75 degrees 44 minutes west, 565 feet, and running thence north 79 degrees 19 minutes west, 1458.5 feet to the Southwest Corner No. 2; thence north 3 degrees east, 136 feet to Corner No. 3; thence north 20 degrees 21 minutes east, 431 feet to the Northwest Corner No. 4; thence south 79 degrees 11 minutes east, 1499 feet to the Northeast Corner No. 5; thence south 20 degrees 21 minutes west, 564 feet to Corner No. 1 and place of beginning, containing an area of 10.14 acres, of which 3.37 acres are in conflict with Survey No. 4840 and is not claimed, leaving an area of 15.77 acres, claimed by the above-named applicant for patent. The location of this mine is recorded in the office of the recorder of Silver Bow county, on Page 417 in Book R of Quartz lodes. The only known adjoining claim is on the Northeast Survey No. 4840, the Carrie lode. FRANK D. MIRACLE, Register. JOSEPH H. HARPER, United States Claim Agent. Date for first publication August 15, 1902.

LAST CHANCE TO SEE THE PARK THIS SEASON. On September 5 the Northern Pacific railway will run another popular excursion to Yellowstone part at rate of \$39.00 for the round trip, which includes all necessary expense. If you contemplate making the trip leave your name at the office of the Northern Pacific railway, corner Park and Main streets, so that accommodations may be reserved. W. H. MERRIMAN, Gen'l. Agt., N. P. Ry.

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