

REPORT ON SEVEN DEVILS

RICH COPPER DISTRICT BORDERING ON THE SNAKE RIVER.

Discovery Made Nearly Twenty Years Ago—Geologic Formation—State of Development Work.

WASHINGTON, May 1.—The geological survey has just prepared a report of the copper deposits of the Seven Devils, Idaho, and in view of the great interest now centered in this locality, the paper is quite timely and pertinent. The report is in part as follows:—

The copper deposits of the Seven Devils, which have attracted a great deal of attention during the last few years, are situated among the rugged group of peaks called the Seven Devils, which rise on the eastern side of the Snake River, 60 miles north-northeast of Weiser. These peaks, which attain an elevation of about 8000 feet, overlook the deep Snake River Canyon and the lava plain and the opposite (Oregon) side of the river. The principal copper prospects are situated a few miles to the south of the Seven Devils near the head of Deep Creek, and at an elevation of 6000 feet. The mines do not directly overlook the Snake River Canyon, though a beautiful view of the canyon is obtained on the road a few miles south of the town of Weiser, the principal settlement in the vicinity. A good road about 80 miles long leads from Weiser, the nearest railroad station, to the Seven Devils. The district was visited in 1877, and a few days were spent in the vicinity. Although much work has been done since that time, and many more prospects have been discovered, the following notes may be of some value:

Geology of the Seven Devils.—The principal rocks of the Seven Devils are green porphyries of various kinds, most of them old, partly altered andesites and rhyolites, accompanied by frequent agglomerates and tuffs of the same age. In this series are embedded larger and smaller masses of sedimentary rocks, consisting of highly fossiliferous and fossiliferous shales, sandstones, limestones, and shales. Between Peacock and Lockwood Saddle is an irregular area of diorite, which, when analyzed, shows 54 per cent. of silica, 25 per cent. of alumina and ferric oxide, and smaller percentages of magnesia, soda, potash, and iron. Extending from a point south of the Peacock claim is a narrow band of highly crystalline limestone, or rather marble. This is included in the following:

Mineral Deposits.—The principal interest centers in the Peacock claim, which has been developed more than any of the others, and which shows a large ore body. This claim is situated near the head of Deep Creek, and is one of the most northerly claims in the mining district. It was the first one located, having been found by miners who were making their way up the creek prospecting for gold. A little placer work has been done just below the claim, the gold evidently resulting from the decomposition of the copper ores. The deposit is well exposed in an open cut. It shows an ore body about 25 feet wide, or perhaps somewhat more on the surface. On its eastern and northern sides this ore body is adjoined by a coarse diorite. The ore consists of borate or peacock ore, assaying from 11 to 17 ounces of silver per ton and a trace of gold. The gangue consists of yellow epidote, brown garnet, and a little quartz and calcite. There are also streaks of specularite running through the mass in various directions. The rare mineral powellite, a melolydite of lime, was found by W. H. Melville at the Peacock mine some years ago. About 20 feet south of the open cut the ore body is cut off by a mass of green porphyry, which contains only some slight copper stain. North of the cut no copper ore has thus far been discovered. No fissures or fault planes appear to separate the deposit from the surrounding rock, although the line of demarcation is quite sharp; nor are there any evidences of fissures in the ore body itself. There is no doubt that a large body of fine-grained copper ore is here exposed. A few hundred feet southwest of this claim is the South Peacock, on which some work was done in 1887. In 1887 a small shaft, sunk in coarse diorite, was noted, and in the dump some borate and malachite, as well as epidote and garnet, were found. The ore here shows more quartz than in the claim first described.

About two miles south of the Peacock a long series of claims begins, on all of which more or less copper ore has been found. In no case, however, are the deposits extensive, the most northerly of these claims is the White Monument, located several hundred feet above the road, near a prominent mass of crystalline limestone embedded in the diorite. About a mile south of the White Monument follow the Lockwood, Alaska, Queen, Blue Jacket, Helena and other claims, all of which appear to follow a narrow streak of highly crystalline limestone which is embedded in the diorite. This limestone is located about a quarter of a mile east of Lockwood Saddle, referred to above. The deposit lies on the contact between crystalline limestone or marble and diorite. Its character is that of irregular bunches of borate, malachite, and chrysocolla, with a gangue consisting of garnet, epidote, specularite, quartz and calcite. The general character of the other claims in the vicinity is similar to that of the Alaska. At the White Monument the limestone, a few hundred feet wide, is bordered by a streak of garnet on each side, along which bunches of rich ore have been found.

The copper deposits of the Seven Devils as described above are typical copper deposits, formed by the chemical action of the diorite on the limestone when the former was intruded in a molten state into the sedimentary series. Especially intense, naturally, was the metamorphic action on smaller fragments of limestone torn loose from the main mass by the intrusion. The garnet, epidote, specularite, etc., which form the typical gangue of the deposits are the characteristic products of contact metamorphism of limestone. The copper sulphides were certainly formed at the same time as the garnet and the epidote, and their origin must be sought in the intrusion and the way from the cooling magma, which evidently was in a state of aqueous fusion.

The origin of the copper ore is, therefore, pneumatolytic. It is by no means unlikely, however, that normal veins may be found in the vicinity.

Similar Deposits Elsewhere.

It is well known that many iron and copper deposits similar to this occur on the contact of granite rocks and limestones. There are some noted deposits of this kind in the Old World, and there is no lack of them in our Western country along the Cordilleran Mountains, where intrusive granitic rocks are so abundant. I have noted similar copper deposits in California in several places, though as a rule they are not economically of great importance. All are characterized by a gangue of garnet, epidote, and quartz, and are apparently always borate and chalcocopyrite. None of them seem to be connected with fissures or fault planes. One of these deposits is found near the road from Colima to Pilot Hill, Eldorado County; another in the canyon of the Middle Fork of Cosumnes River, three miles northeast of Fairplay, also in Eldorado County. Still another is found in Happy Valley, Alpine County, and is known as the Barnes mine. According to reports, there are many other deposits which may be referred to this class; thus, for instance, the copper prospects near Houston, in East River Valley, Idaho; some deposits on Boundary Creek, in British Columbia; and others on Texada Island, in the same province. From the reports of the provincial mineralogist there cannot be much doubt as to the character of the last-mentioned deposits. Mr. Ordoñez mentions the occurrence of similar deposits from several places in Mexico, where intrusive diorites come in contact with crystalline limestones. Here, as in many other cases, these contact deposits appear to carry some gold.

Other Mining Districts.

A road from the copper mines leads down into the Snake River Canyon at Little Bar crossing, thence over into Oregon. Two miles above Little Bar are the Ballard copper claims, the principal of which is the River Queen. These were not visited. About six miles south-southwest of the Ballard claims, and eight miles northeast of Bear Postoffice, is the Placer Basin district, from which gold quartz veins are reported. Similar gold quartz veins are found in Lane Peak Gold, about four miles west of the copper smelter on Indian Creek. Many prospects have been lately reported from the head of Rapid Creek, which drains the Seven Devils on the northern side, and empties into the Little Salmon River. The principal districts here are the Hildbrand and the Summer. Gold quartz veins are reported to occur in both, as well as many copper prospects. Some 24 miles south-southwest of the Seven Devils copper mines is the Heath district, situated a few miles northwest of Ruthburg. To judge from accounts given of these, they are contact deposits in character similar to those described above, carrying borate in a gangue of garnet and quartz. Near Ruthburg, about 18 miles northwest of Salubria, are many prospects showing the existence of silver veins, containing much lead and carbonate near the surface. Other veins in this vicinity contain principally silver, the ores consisting of native silver, horn silver and silver glance, together with a small quantity of lead and carbonate. None of these mines is worked at present.

AN EVOLUTION.

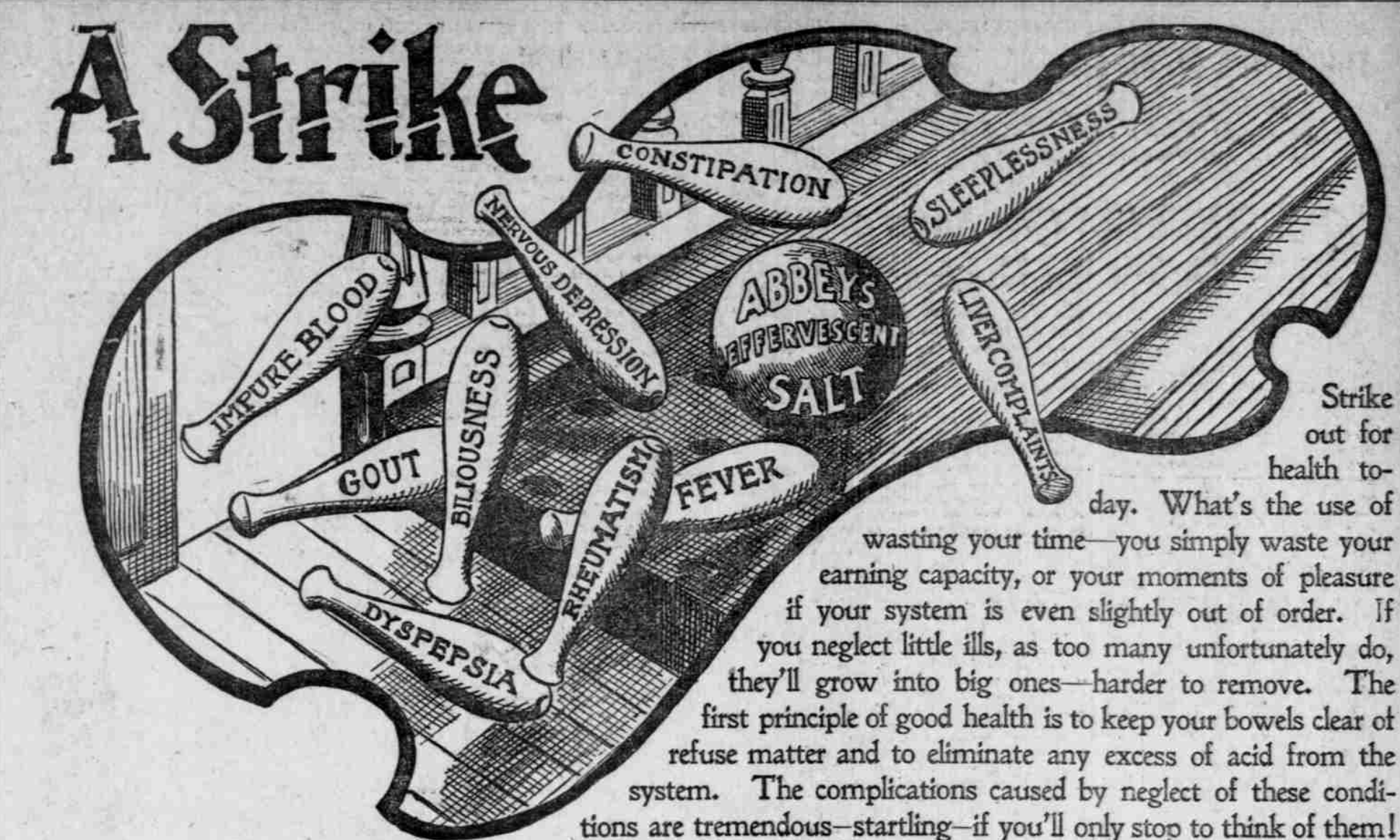
Democratic Hodge-Podge and Inconsistencies Too Much for Him.

BALLSTON, Or., May 2.—(To the Editor.)—As a pronounced free-trader, my opposition to the Republican party has dated back some 25 years. But I have lived to see a far greater prospect of the ultimate adoption of free trade by the Republican party than by the Democracy. This is the logic of Mr. Blaine's reciprocity idea, and of the almost universal demand of the Republican masses for free trade with Porto Rico. I was one of the hundred who helped to loudly cheer the free-trade expressions of Hon. William L. Wilson in his speech in Portland some years ago. But the repeal of Grover Cleveland's tariff on Cuba was distinctly disappointing, for, as ex-Speaker Moore has well shown in your columns, the Wilson bill on a fair system of averages had a higher schedule of tariffs than the McKinley bill! Furthermore, as a follower of Peter Cooper I have lived to see a scheme almost identical with his interconvertible bond theory advocated in your columns by an avowed Republican and ex-Senator Corbett.

This is the evolution of Republicanism; but what do we find in the Democratic party? A hodge-podge of every political theory under heaven that bears upon it, foreboding the label of discontent and disorder: A gathering of the clans of militarism and anti-militarism; of state socialism and highly disguised anarchy; of Bryan-baiters and Boer-lovers; of those who glory in the suppression of negroes in the South (vide Tillman), and how for the exaltation of Tagala in the Philippines, and who would call for such a little later on in regard to the negroes in the high mountains are yet covered with snow and the work cannot be prosecuted, except in the foothills and gulches. There are several prospectors in the city waiting for the snow to disappear, and a little later on will be prepared to put in the entire summer in the hills.

Some of the new prospects that are being developed are the Esmeralda; Trail Creek, Black Bell, Summit, King, Jita group, Tamarac, Hardscrabble, Hurricane, Orofino, Mermall, Navajo and Agnes. All of these are in various stages of development, but all bid fair to become big paying properties.

The original incorporators of the Co-operative Gold Mining Company have taken up the bond on the claims of that company and deeds have been made to them. A directors' meeting will be held at which it is said some changes will be made in the board and matters put in shape for the development of the property. The mines of the company show up well, and experienced mining men say they only require intelligent treatment to put them on a paying basis.



Abbey's Effervescent Salt

Strike out for health to-day. What's the use of wasting your time—you simply waste your earning capacity, or your moments of pleasure if your system is even slightly out of order. If you neglect little ills, as too many unfortunately do, they'll grow into big ones—harder to remove. The first principle of good health is to keep your bowels clear of refuse matter and to eliminate any excess of acid from the system. The complications caused by neglect of these conditions are tremendous—startling—if you'll only stop to think of them!

A standard English preparation, used and recognized by the public of Great Britain, Europe, India, Canada and the United States, will relieve you of these annoying ills. It is good to take at all times. It is made from the salts extracted from the juices of Fresh Fruits. As a Spring medicine there is nothing in the whole world of medicine to equal it. It's an honest remedy—claiming to do only what it really can do—and vouched for by physicians the world over. Abbey's Salt keeps the system clean by eliminating all impure matter.

Constipation, Dyspepsia, Biliousness, Flatulency, Kidney and Liver complaints, Sick Headaches, or any ills caused by a constipated condition or impure blood are unknown where Abbey's Salt is used. If your blood is pure you have good health. Get a bottle of Abbey's Salt and health to-day.

DR. L. M. RIGGLEMAN, Brooklyn, N. Y., states: "I have prescribed Abbey's Salt in the most obstinate cases of Gout, Rheumatism, Gastric Catarrh and Torpid Liver. In each and every case the results have been most gratifying. The patient has not, in a single instance, complained of a bad after effect. I find it pleasant and agreeable to take, and effective and lasting in its results. There is not a day that I do not prescribe it with great satisfaction to myself and patients."

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All Druggists. 25c., 50c. and \$1 per bottle.

PROSPECTORS START OUT

MOVE FOR THE HILLS TO BEGIN THE SEASON'S WORK.

Development Work on Recently Located Claims—Promise of Many More Productive Mines.

BAKER CITY, May 4.—The favorable conditions of the past week, caused by the late weather, has started prospectors to leave for the hills. Almost every day six or eight well-equipped packs are sent out, most of them going in the direction of the Greenhorn District, and containing grub enough to last their owners for several months. Prospecting can hardly be said to have more than begun, as the high mountains are yet covered with snow and the work cannot be prosecuted, except in the foothills and gulches. There are several prospectors in the city waiting for the snow to disappear, and a little later on will be prepared to put in the entire summer in the hills.

Some of the new prospects that are being developed are the Esmeralda; Trail Creek, Black Bell, Summit, King, Jita group, Tamarac, Hardscrabble, Hurricane, Orofino, Mermall, Navajo and Agnes. All of these are in various stages of development, but all bid fair to become big paying properties.

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RICH ORE IN GOLD STANDARD.

Other Discoveries and Developments in Southern Oregon.

ASHLAND, Or., May 4.—There is considerable excitement over recent rich finds of the Gold Standard mine, and D. B. Frost, of this city, have gone to that section to examine some claims from which exceedingly rich rock has been taken.

The Big Yank Mining & Milling Company is still increasing its plant and adding to the extensive improvements that have already been made on the property. A 20-stamp mill has been ordered, together with ore cars and tracks, and a large amount of pipe for ventilating purposes.

A shaft 70 feet deep is being sunk on the ledge north of the entrance to the tunnel of the Reeves & Williams mine, on Galice Creek. The ledge itself reveals a pay chute 70 feet long, the south of the opening. A very fine body of rock is now on the dump of the mine.

The Dry Diggins Mining Company has made its clean-up, and has shipped the product to San Francisco. This mine covers 400 acres of ground on the north side of Rogue River, and has been the scene of mining operations for a quarter of a century past, and has always paid, even when worked in a primitive way, 20 to 25 cents to the yard. Jones Creek furnishes the water power for the Dry Diggins mine, being conducted to it by seven miles of ditch and two small reservoirs. The ditch furnishes water under 200 feet of

EXPANSION IS DEMOCRATIC.

A Washington State Democratic Politician Proves It Easily.

Morning Olympia. George Hazard came in from Tacoma last night, and is at the Olympia. When he was approached by a reporter and asked regarding politics "Thank God" was ready to talk. Taking off his hat and rolling up his sleeves, he began: "Expansion is a fundamental Democratic doctrine. Of course, every Democrat in the land is opposed to imperialism, but if a man understands why he is a Democrat he is in favor of expansion. Expansion and imperialism are entirely different. The greatest Democratic President America ever had was Thomas Jefferson. See how he looked into the future. He wrote the Declaration of Independence for Abe Lincoln to free the 'niggers' upon, and he purchased Louisiana to inaugurate all the expansion which has since followed. He wanted to acquire Cuba. Every man ever nominated for President by the Democrats has been in favor of acquiring Cuba excepting Grover Cleveland. Can Mr. Bryan or any other man for him point out the way, then, to inform the voters thoroughly of the middle-road persuasion refused to ratify, and even some of the nominees wanted to be associated with one of the Republican selections. Last Saturday the Democrats and Populists met separately at Spokane. Still, both Populists and Democrats are dissatisfied, unsettled, disgruntled, dismayed and demoralized. Another citizens' meeting will be held at Salem May 8, when possibly there will be again heard the dull, sickening thud.

Many Men of Many Minds. The best friends of the Republican ticket of Marion County are the Populists and Democrats, whose actions alone are sufficient to inform the voters thoroughly of the strength and winning qualities of the Republicans. There is not exactly dilatoriness in the selection of the opposition ticket, but a great difficulty in securing candidates who will accept nomination and agreeing among themselves. At first a citizens' movement was started and a few Democrats declared the ticket. This was unsatisfactory to many of the Democrats and made the Populists feel like vomiting. Some of the nominees refused to serve and others hesitated in filing their acceptance. Their hesitation caused suspicion, doubt of success and disorder in the ranks. There was nothing hearty in the support given the ticket, and it has almost died a burning. Populists of the middle-road persuasion refused to ratify, and even some of the nominees wanted to be associated with one of the Republican selections. Last Saturday the Democrats and Populists met separately at Spokane. Still, both Populists and Democrats are dissatisfied, unsettled, disgruntled, dismayed and demoralized. Another citizens' meeting will be held at Salem May 8, when possibly there will be again heard the dull, sickening thud.

De Lamar Looking Over Sumner. SUMNER, Or., May 4.—George Klingenberg, a mining engineer and expert in the employ of De Lamar, the Idaho mining magnate, has returned from Granite. While in that country, he examined the Blue Ribbon group, Magdalen and other properties for De Lamar.

There Is Help. For the woman whose nerves are weak. There is relief for the woman who suffers with headaches, Fig. 1; sunken eyes and dark circles under eyes, Fig. 2; pale and thin face, Fig. 3; a coated tongue and offensive breath, Fig. 4; fluttering of heart (palpitation), Fig. 5; disordered stomach, Fig. 6. HUDYAN is the help. HUDYAN helps because it strengthens the nerves and nerve centers. Other symptoms of nerve weakness are dizzy spells, tendency to faint, costiveness and general weakness. HUDYAN corrects all these symptoms. Nerve weakness in women is usually due to female complaint. HUDYAN reaches the seat of the trouble. HUDYAN cures pain in back, bearing-down pains and all chronic inflammations and ulcerations. HUDYAN, you see, removes the cause, thereby making the cures permanent. HUDYAN is for weak, pale, emaciated, suffering women. It restores to such women a glow of perfect health; it cures permanently. HUDYAN is for sale by druggists—20¢ a package, or six packages for \$2.00. If your druggist does not keep HUDYAN, send direct to the HUDYAN REMEDY CO., corner Stockton, Ellis and Market streets, San Francisco, Cal.

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