MINES IN KING COUNTY.

TWO NEW DISTRICTS.

Which Have Been Developed Chiefly by Seattle Men.

MILLER RIVER, MONEY CREEK.

Two of the Mines Are Now Producing and One Is Paying Its Own Way.

Strong, Permanent Ledges—The King Solomon and Apex—The Rich Discoveries in the Coney Basin—The Brooklyn Group—Work Done in the Miller River Basin—A Rich District Which Will Produce Largely When Roads Are Opened.

Skykomish, Sept. 10.—The mineral deposits on Miller river and Money creek, both of which flow into the Skykomish river within two miles of this town, entitle King county to take rank among the great mining districts of Washington. The district already has two producing mines, one of which has paid for its own development and work is being pushed so vigorously, chiefly by Seattle men, that on one of the largest groups machine drills are now being installed. This is the second plant of the kind in the state and the probability is that the next year will see several others grinding their way through the mountains.

If any man has any doubts as to the strength and permanence of the ledges of this district, he has only to visit them and he will be convinced. The country rock on the backbone of the ridge in which these ledges are found is granite and syanite and the mineral-bearing rock has forced its way from below through fissures in these strata, only to be worn down by snow and water as it is decomposed by the action of the air, while the country rock mentioned more successfully resists decay and stands up in perpendicular walls 100 to 200 feet on each side. Thus the ledges are usually found in the beds of narrow gorges in the basins at the head of the streams or on the sides of the mountains which form the canyons, and are easily tracable from base to summit of the range. The ledge matter is generally porphyritic quartz, all so uniformly mineralized as to pay for concentration on the ground and carries pay-streaks rich enough to pay for shipment, even with the present costly means of transportation to the railroad. The ore carries iron and copper sulphides, gray copper and galena, carrying gold and silver, the pay-streaks giving usually from $50 to $60 a ton, the smelting grade ores from $10 to $20. Some of the ledges, however, are much richer; those on the King Solomon basin carrying several hundred ounces in silver and those near the summit overlooking that basin running high in copper. Further northward, towards the mouths of the streams named are dikes of disrite, in which occur ledges of pyritic ore carrying native copper and gold near the surface; also dikes of dolomite and porphyry with ledges of sulphide and gray copper ore. The ledges of pyrites are so heavily capped with magnetic iron carrying a high percentage of metallic iron as to be marketable purely as iron ore, if there were any near market for it, but if experience with similar ledges in other districts is any guide, it should also carry gold. Further down the range which bounds the Skykomish valley on the south is Eagle creek, emptying near Salmon station, on which have been found ledges of quartz running high in native and gray copper, gold and silver. On all these streams work is in active progress and preparations are being made to continue it through the winter.

It is not easy to define the topography of this district in any way except by a map and none is yet in existence. The ridge which is cut by the mineral belt extends from the main summit near the head of Cle-elum valley westward across the heads of the east and west forks of Miller river, flowing northward, and the north fork of the Snoqualmie flowing southward. Then it continues westward to where Money creek rises and flows in a northeasterly direction to enter the Skykomish within half a mile of the mouth of Miller river, while the several forks of the Tolt rise on its southern side and flow into the Snoqualmie. The lateral spurs of this ridge on both sides are richly veined with mineral and the discoveries on the Snoqualmie side may prove equally valuable with those on the Skykomish side.

A Marked Contrast.

Nothing could be more marked than the contrast between the country on the eastern and western slopes of the Cascades, if one may use the term "slope" where the mountains rise with precipitous sides from valleys which usually have a grade almost imperceptible on a wagon road. Leaving Seattle on the Great Northern railroad, you are landed in four hours at this town, 85 miles distant, where the view on all sides is shut in by a dense growth of giant timber shooting skyward and only permitting a mere glimpse of the summits of the mountains on each side. Here is no open forest shading bunchgrass hills and flowery meadows, but a jungle of brush strives vainly to absorb the inexhaustible wealth of the soil, and charred or decaying logs offer the neatest pathways to pedestrians who leave the laboriously opened trails. A white, chilling mist fills the valley at morning and is half dispelled by the sun, only to settle down again at night, the pale, blue smoke of forest fires uniting with it to obscure the air.

Leaving Skykomish, you go for a mile and a half along the tote road built by Shepard, Henry & Co. parallel with the route of the Great Northern when that line was under construction. Though four years old, it is still in good repair except in occasional spots and is the chief thoroughfare of the upper valley, where no country road has been built. This road will soon be replaced by the wagon road which J. A. Bailey is building from Skykomish to the centers of the Miller river mining district, a distance of six miles according to survey. At the mouth of Miller river is the house of cedar shakes which was one of the stopping places for the teamsters who went up the road with supplies when the railroad was under construction. Near it several other houses have grown up, and houses with small cultivated spaces at intervals along the valley show the quickening of life the railroad on settlement. But before this point is reached, the trail turns off from the tote road and cuts through the forest-covered flat to Miller river. Around are strewn many charred and blackened logs in a tangled maze, among which the trail winds. A short distance further you plunge into the interminable forest of cedar, fir and hemlock, under which the vine maple, salmonberry, devil club and other underbrush grow in restlient luxuriance. A mile up the river by the wagon road bridge being built by L. C. Mattan for the county. It is a solid structure of timber, almost finished, and is high enough to clear the now diminished stream at its highest. The trail crosses by a foot-log to the left bank and then follows that side of the stream for the rest of the way. It is up to the average of mountain trails, though of course rough with rocks as it climbs higher, and projecting roots require constant watchfulness. As it ascends the stream, the canyon narrows, the mountains enclosing it soar higher, with summits seemingly as sharp as a knife-edge, cleaving the sky, and are riven by canyons and gorges strewn so thick with boulders that the brush can scarcely find root-hold. As the head of the river is approached, houses of logs with shake roofs, or tents, are found at intervals of a mile or so. Then comes Coney creek tumbling over a granite bed, among boulders of the same rock, into Miller river, a high ridge dividing the canyons of the two streams. It ends its course in a series of falls, at the foot of which stands the powerhouse for the Coney basin group. The trail then climbs the mountain to the right of Coney creek by a switchback, crossing swampy spots on stretches of corduroy, and thus comes to the Coney basin camp on a narrow, comparatively level spot on the bank of the creek. The trout have been unable to climb the falls below here, but the miners have transferred some of them to the deep pools near the cabin and expect thus to propagate them close at hand.

Where the Riches Lie.

From the camp the trail extends for another mile through the timber and over a granite rockslide to the mine. The last half mile is a climb among great rectangular rocks up the steep slope of the basin, which would command the admiration of the most blase mountain climber. It is a semi-circle of mountain similar in form to the half of a basin. The upper walls are perpendicular cliffs of granite and are at least 1,000 feet high. The curve of the basin is broken by gorges filled with piles of rock broken from the heights above and from the walls to right and left, the dividing spurs running to a point with cliffs at each side smooth as an artificial wall, cracks in the granite running both horizontally and vertically. The small level spots above these cliffs are tufted with dwarf timber, much of it Alaska cedar, and brush grows in every cranny and patch of soil. As the eye traces the curve around at each side the walls show fewer fissures and are almost solid from the bed of the canyon, where the broken and smaller brush ends, up the gradually steeping slope to the vertical, tree-crowned cliffs at the summit. Far up the basin, near the base of the cliffs and near the center of its curve, is the tunnel driven into the Coney ledge. To the right, looking upward, is a deep canyon splitting through the wall, in which the Brooklyn ledge runs up and over the summit.

Returning to the mouth of Coney creek and climbing over the tail of the mountain dividing it from Miller river, you come to an embryo camp of tents and log houses. A newly cut trail leads up the mountain through the timber and turns to the right up the bank of King Solomon creek. Then it turns over a pile of great granite blocks which have tumbled from the cliffs above and among which brush, dwarf Alaska cedar and fir and bracken maintain a struggling existence. Here the trail disappears and the guide, F. D. McNaughton, strikes up the rock slide and clambers up the gorge through which the creek flows to the cliff on the opposite side. That cliff is one of the walls of the King Solomon ledge and across the gorge the other wall stands up perpendicularly for 150 to 200 feet. The gorge was formed by the wearing away of the decomposed quartz between those walls and, by looking upward along its course, you can trace the ledge to where it cuts the summit. The walls have been broken into high steps near their base and the mineral in the gorge is in many places covered by blocks of syenite broken from them. The summit of the basin is broken into jagged peaks by steep gulches and among them the ledge cuts through and runs on to the headwaters of the Snoqualmie's north fork, which has its source in two small lakes overlying the ledge. This summit, 5,000 feet above the sea, is almost level, and from it the Sound is visible in clear weather. Above the rim of the basin is a bed of snow, sweeping crescent-shaped above it and from this a water fall slides over the face of the cliffs, 2,000 feet, into the valley. As you descend, other falls appear at intervals along the great semi-circle. Looking down from the gorge, it appears as though a huge gouge had scooped a hollow in the mountains and the regularity of the curve had been broken by the sliding of rock from right and left. In the distance are high timbered ridges terminating in two peaks, one evenly rounded, the other split in twain at its summit. The nearer view is a succession of spurs with timbered sides interlacing in the center of the canyon. The west fork of Miller river rises in the snowsheds above the rim of a similar basin, and here too are mineral ledges which have been forced up from below, only to be worn down from above, leaving depressions in the mountains which make their course easily traceable.

Money Creek's Towering Heights.

Though Money creek enters the Skykomish river only half a mile from the mouth of Miller river, it rises eight miles distant and the easiest way to go there from the Miller river basin is to come back to Skykomish and make a fresh start. This trip was made on horseback and it was a slow one, for the trail is all up and down hill and the horse was reluctant to go. Charles F. Reitze, who came down the day before the writer started, grew sarcastic at the expense of that trail and said that the men who made it went up one side of a mountain so that they might have an easy trip down the other. But this is a slander emanating from a man who had lubricated the trail with sweat. A man on horseback can form a more impartial judgment, as everybody knows. The trail strikes into the forest near the old Miller homestead and, after traversing level ground among burnt logs for a short distance, starts up a steep mountain and courses along its face, then down the other side, across a gulch, up another mountain on the other side and so on like a continuing fraction. While there is little but up and down hill about this trail, that is no fault of the men who made it, but is due to the way the country was built. Supposing the whole country to have been originally on a level with the mountain summits, it is as though some giant with a huge cleaver had made one great gash along which Money creek flows and had then cut the smaller gash at right angles which are occupied by its tributaries. Up and down these lateral gashes, picking its way among roots, rocks and logs, splashing through miry spots and slipping among boulders in fords, the horse goes, its only relief being where the canyon bed widens enough to allow room for the trail on its gravel bars. Then comes a climb worse than any yet, to the right of the main creek, ending on a timber-clad bench where the apex ore-shed stands. Now comes the worst climb of all. Beyond the bench is a mountain wall, up which stretches a trail like a broken flight of stony stairs. It goes up with the same terrific grade on numerous switch-backs for 1,000 feet vertically, to the great disgust of that horse, which at times seemed to meditate suicide rather than attempt it. At last a level space covered with dwarf timber is reached and in the basin below is the camp, consisting of two log houses. Right ahead it is in another semi-circle of granite cliffs with a ring of snow on the slope between them and the higher rim of cliffs beyond. Below the cliffs is a rockslide, half hidden by two long drifts of dirty snow. To the right and left the slide sweeps around the curve, the tunnels of the Apex mine opening on it to the right, with a narrow space leveled off on the dump in front of each. Trails have been made along the rocks to the lowest and second tunnel and a train of twenty-four submissive-looking pack horses is being prepared to take ore down to the railroad. In the bed of the basin is a tiny lake fed by the melting snow, with scrubby grass and heather on its shore. A small stream issues from it and leaps down a gorge between lofty cliffs, 100 feet above a level the bench below. More of this gorge anon.

Questions of Distance.

A man traversing these trails for the first time, particularly if he be on foot, completes his journey with the firm conviction that the distance has been grossly underestimated and, after two or three experiences, makes up his mind that the prospectors have concentrated all their powers of prevarication on this subject of distance. They call it eight miles by the trail to the Coney basin camp and the same distance to the Miller river camp, but when one has panted and perspired for several hours over the trails, he is disposed to swear by all that is holy that the distance is twice as great. But it must be remembered that in this section distances are reckoned along section lines, while the trails are very crooked. Thus, for all practical purposes, each mile consists of about 3,000 yards. Then again there is a great difference between a mile on the level and a mile up hill, leaping over logs, roots and rocks.

The Pioneer Prospectors.

Prospecting in this district began while the Great Northern was under construction in 1892, but it was a long time before the patience of the pioneers was rewarded by the incoming of capital sufficient to develop the mines on a large scale. The first comers were W. L. Sanders and Archie Williamson, who each started out separately and met accidentally on Miller river. In that year Mr. Sanders located the Lynn No. 1 and No. 2 on a ledge running down a canyon on the left bank of the river, about five miles above the mouth and cutting across the stream. The ledge runs a little west of north and east of south, and is from three to six feet wide, with a 16-inch paystreak of sulphide of galena ore, with streaks of gray copper. The ledge has been uncovered and traced for 2,000 feet and the paystreak is exposed for 800 feet. In the same year and on the same side of the river, two and a half miles above the mouth, Mr. Williamson located the Mona on an iron cap 60 feet wide, between walls of lime and porphyry. The ledge carries iron and copper pyrites, bearing gold and silver, two assays from near the surface giving, respectively, 7 and 30 per cent. copper, $35 and $7 silver, $5 and $8 gold. Two tunnels, 28 and 60 feet, have been run into the ledge, but have not cross-cut it.

The King Solomon Ledge.

In the same year Mr. Sanders and Michael Conway discovered the King Solomon ledge, which has one of the greatest surface showings in the district, and probably in the Cascades. With the walls rising directly from it on each side to a height of 150 feet, the vein runs 40 feet wide up a gorge to the summit and thence across into the Snoqualmie country, having been traced about four miles. They made two locations on it and had assays made, but these were so disappointing that last year they abandoned them. On January 1, 1893, George A. Pratt and F. D. McNaughton relocated the ledge, taking up the King Solomon group of six claims on it, with the Cataract and Shipper No. 1 on a 7-foot ledge in the next gorge to the north, which has been traced 3,000 feet, and the Baltimore in the one beyond on five feet of ore, the Cataract ledge running into the King Solomon near the summit. On the hanging wall of the King Solomon is a four or five-foot paystreak of solid antimonial silver and gray copper, an average sample of which assayed 368 ounces silver and $10 gold. Several other paystreaks are found across the width of the ledge, and average samples from different parts of it assayed $35, $46 and $107 in gold and silver. The ledge matter is porphyritic quartz, much decomposed on the surface, and carries enough low-grade iron sulphurets to make it paying concentrating ore. The owners are about closing negotiations which will enable them to develop the property and intend to work on it throughout the winter. They will tap the ore chute at a depth of 150 feet and drift both ways to the walls, then tap it again at a depth of 600 feet.

A Mine That Has Paid.

While Messrs. Sanders and Williamson were prospecting up Miller river, Alexander McCartney was working up to the head of Money creek, and on August 18, 1892, discovered the ledge which has gained local fame as the Apex, and has produced an increasing quantity of ore every year since its discovery. He made the discovery near the lower end of the gorge of Milwaukee creek, the same gorge which has been mentioned, the creek flowing into Money creek from the south. He traced the ledge up the gorge between perpendicular walls of syenite up the west side of the basin, where the camp now stands, and 2,000 feet over the summit, to the headwaters of the middle fork of the Tolt. He located the Milwaukee at the lower outcrop, with the Pomona, Apex and Campbell on the extensions up the mountain. G. R. Proctor has a one-eighth interest; Edwin Stevens, formerly of Everett, an eighth, and Miss Fanny Stein, of Everett, one-quarter. At the point of discovery the ledge was 13 feet wide; at one point in the gorge it widens to 40 feet, and at its narrowest point, up the side of the basin, where the first tunnel was driven, it is four feet. In the year 1893 a trail was cut up the creek and a short tunnel was driven on the ledge on the Apex claim for assessment work. In the following year another tunnnel was driven 87 feet on the ledge, about 1,000 feet below the upper rim of the basin. This summit is 1,500 feet above the divide, between the Tolt and Money creeks, there being a pass at that point only 2,200 feet above the sea. In the second tunnel a streak of high-grade ore, varying from 7 to 20 inches in width, was struck, carrying galena, steel galena, antimonial silver, gray copper, fibrous iron sulphurets and oxides of iron and lead, these last minerals occurring not only on the surface but far in the tunnel. In 1894 10½ tons were shipped to the smelter and returned $32.60 in gold, silver and lead, $38 of the value being gold. In 1895 the mine was leased to Charles Stein, father of Miss Fanny Stein, who stoped out the ore from the second to the first tunnel, and took out and shipped over 100 tons, which averaged about $53. He also started another tunnel about 120 feet below and drove it 190 feet, running 50 feet through the rockslide before striking the ledge, which was there about five feet wide, with a 8-inch paystreak on the footwall. The owners took the mine back in December, 1895, and have since been continuing the tunnel, which has now penetrated about 300 feet, in ore all the way. They have stoped up 65 feet for a length of 50 feet, and are working double shifts. They have shipped about 90 tons of high-grade ore, which has returned about $52, usually from 1¼ to 2 ounces gold, 20 ounces silver and 6 per cent. lead, and have 40 to 50 tons on the dump ready to ship. They have several hundred tons of second-grade ore on the dump, from the ledge outside of the paystreak. This carries $10 to $20, and will pay to concentrate on the ground. So far, the ore shipped has paid for development, cutting a trail seven miles, erecting camp and all other expenses, and the mine is clear of debt. This is in face of the fact that packing to the railroad cost $13 a tons and railroad freight $2.60 more. With a wagon road to the mine the cost of packing could be reduced to $2 a ton.

Seattle Men set to Work.

Prospecting and development both languishing in 1893 and 1894, during which year the law requiring assessment work was suspended, but in that latter year another great discovery was made by George A. Pratt and F. D. McNaughton on the Coney basin. In a canyon running into the basin from the right they found the Brooklyn ledge and traced it over the summit. They sold an interest to Andrew Hemrich, D. N. Baxter and Dexter T. Sapp, of Seattle, for development work to be done, and in the following year, 1895, rich ore was found in the Coney vein, to the left of the Brooklyn, about the center of the basin, and made seven new locations, in all of which they found good ore. These later discoveries proved that there were three parallel main veins, running diagonally up the basin to the summit, ten, seven and six feet wide, the Coney being only a spur, and three claims were located on each vein. Two of the main veins unite on the summit in an ore body 100 feet wide, and all three have been traced across to the north fork of the Snoqualmie. The ledge matter is porphyritic quartz and the ore is galena and iron sulphides, carrying equal parts of gold and silver.

In September, 1895, a tunnel was started on the Coney vein, which outcropped five feet wide, and 40 feet from the mouth an ore chute was struck which extended 30 feet and was five feet wide. Another ore chute 14 feet wide, of which half was high grade ore, was struck 80 feet further in and in that year 16 tons was shipped which returned $58.70 over treatment charges. The tunnel is now in 200 feet and 800 feet further will cut the first vein at a depth of 800 feet, the second vein 150 feet further at a depth of 1,000 feet and the third vein 300 feet further at a depth of 1,200 feet. As each vein is struck drifts will be run on it and the extensions of the main tunnel will give a depth of 2,500 feet below the highest point.

Last July Baltimore parties were interested in the Coney group of nine claims and they joined with the Seattle parties named in the organization of the Baltimore & Seattle Mining and Reduction Company with $1,000,000 capital stock. In return for a half interest they are furnishing capital to erect an air compressor with three Ingersoll-Sargent drills and to drive the main tunnel 1,250 feet further, to a point under the main summit. A power-house has been erected at the foot of Coney creek falls, which have a total fall of 116 feet, and a pipe has been laid to carry the water to a Pelton wheel, which will drive a 20-horse power dynamo. From here the current will be conducted, over wires already stretched, to the tunnel in which an electric motor will run the air compressor, this part of the machinery being inside the tunnel 100 feet from the mouth. A telephone wire will connect the mine and powerhouse. The machinery was packed in on horses and set up under the direction of T. F. Townsley, of Seattle, who was appointed superintendent last July, and is now almost ready for operation. A contract for the main tunnel has been let, providing that it is to be completed within eight months after the machinery starts, and a tramway will be built to the wagon road when this is completed. All preparations are being made for a vigorous prosecution of work through the winter and this will be greatly aided by the construction of the wagon road. The latter will reduce the cost of transportation to the railroad to $2 a ton and is an incentive to the development of other properties in the district. While the machinery in the Coney group is being set up, stoping above the tunnel continues on the Coney stringer, which is two feet wide with two 6-inch streaks of high grade ore.

The Brooklyn group of 13 claims on the right side of the Coney basin is owned by Messrs. Hemrich, Baxter, Sapp and Pratt and is on two parallel ledges 25 and 10 feet wide, in which are streaks of high grade ore two and four feet wide with smaller streaks all through the gangue matter. The ore is iron and copper sulphides and assays 8 to 12 per cent copper, $10 to $20 gold and silver. These locations extend along the ledges over the summit and down the Snoqualmie side, where development is in progress on other claims.

Many Other Good Ledges.

On eastward extensions of the Coney basin ledges are the Tornado, Cyclone and Monarch, owned by Frank Campbell, with whom George M. Bonney holds an interest in the Cyclone. They have six to twelve pay-streaks similar to that on the main group. The owners are building a trail and will employ four men the remainder of the season in sinking a shaft on the Cyclone and tunneling on the ledge on the other two claims.

Last July S. J. Margins, of Skykomish, and Albro Gardner, Jr., of Seattle, located the Unicorn and Unicorn Extension on a ledge of sulphides and gray copper six eight feet wide north of the King Solomon on the same basin. It has been traced half a mile with clearly defined walls. South of the King Solomon, Mr. Marquis early in August located the Sphinx on a lead which has been traced to a width of 20 feet with only one wall in sight, and the Ironsides on a 12-foot ledge. On the extension of the King Solomon ledge up the summit Dr. L. M. Lessey, of Seattle, and A. S. Nickerson have taken the Romeo and are preparing for work. An assay gave about $80 in gold and silver, mostly the latter. On a 20-foot ledge on the summit further south they have the Juliet and Black Bear and on another, eight feet wide, extending over the summit, they have the Queen of Sheba, Connecting Link and Temple. This ledge has a 14-inch pay-streak of galena and sulphides. Towards the end of August T. F. Townsley and J. W. Perkins located, the Etta on a 40-foot ledge of porphyritic quartz and spur between walls of granite and diorite on the left side of King Solomon basin. It shows six feet of copper sulphides and white iron. T. A. Woodworth and Al Eurich located the King David on September 5 on a ledge of sulphide ore 2,000 feet above the King Solomon, which is eight feet so far as traced. On a ledge crossing King Solomon creek W. L. Sanders, with E. B. Palmer and H. S. Phinney, of Seattle, has the Sunday and Minnacaduca. There are several streaks of pay ore aggregating a foot in width on the surface, divided by granite horses and which carry antimonial silver and gray copper. Two assays have shown respectively 50 and 77 ounces silver, $10 and $16.40 gold. Mr. Sanders is preparing to move camp to these claims with a view to tunneling on them and shipping ore this season.

A Great Body of Copper Ore.

One of the greatest showings in the district is a ledge varying from 60 to 200 feet wide running along the summit above Miller creek basin, a little below the summit. On this J. B. McLain, of Snoqualmie, who discovered it four years ago, has located the General Grant, General Sheridan and General McClellan. The ore is principally valuable for copper, which it carries in Chalco-pyrite and sulphides with a little gray copper, assays having never gone below 6 per cent and run as high as 56 per cent copper, with about $5 gold and 75 cents silver. Mr. McLain has cut a trail down the basin, has run a drift on one claim, made an open cut on another and started a tunnel on the third, having already quite a quantity of ore on the dump. The ledge will probably be cross-cut from the lower basin, as this will give great depth. On the east side of the same basin 900 feet further down the mountain, Henry Nute has the Bodie and Bodie Consolidated on a parallel ledge and on another ledge on the other side of the basin the Belcher and Old Belcher, both being recent locations.

On Miller River Basin.

On three ledges, four, twelve and four feet in width, all within 200 feet of one another, on the west side of the basin 1,200 feet below the head, D. A. McKenzie, D. E. Durie and W. W. Easter, of Seattle, located the Easter and Captain about August 1. One of the smaller ledges runs into the large one and the ore is copper and iron pyrites and white iron. Samples have been taken to Seattle for assay by Mr. McKenzie, and Mr. Easter has begun work with another man. He has drifted 12 feet on the Easter main lead, showing four small pay-streaks in which the ore is improving. Adjoining these claims on the south, the same parties have the Highlander and Mountain Goat on four ledges running east and west, one being four feet, another three feet and the others about 18 inches wide. The ore is gray copper, copper sulphides and antimonial silver, and all the ledges have strong walls, standing seven feet above them at one point. Work is in progress here also.

William Garrard, of Seattle, has bonded a group of claims on the basin on which he is beginning work with four men. On the west side he has the Clarak, on which is a ten-foot ledge between walls of granite and porphyry, with a ten-inch pay-streak on each wall. Three-fourths of a mile north of this he took up the Grand Central and Mount Rainier a month ago on a six-foot ledge showing a six-inch pay-streak, while on the other side of the river he took up the Seattle and Tacoma on a 30-inch ledge in which is a six-inch pay-streak. He has built a trail to the Clarak and is prospecting the ledge and is preparing to work on the Grand Central.

Passing on down Miller river, there are on the north side the Mountain Gem and Condor on an eight-foot ledge carrying sulphurets, owned by G. W. Morley. This ore gives an average assay from the surface of $20 gold, $4 silver. On another parallel ledge about the same size and carrying ore of the same grade Mr. Morley has the U. P. and Grand Central. On the south side of the river, under an iron cap 50 feet wide between walls of granite and syenite, he has a body of low grade pyrites carrying gold and copper, on which he has taken the Jumbo and is doing assessment work.

Half a mile above the mouth of King Solomon creek, on the west side of Miller river, Frank Campbell, G. M. Bonney, Pat Campbell and Hat Wilkinson have the Bobtail and Bobtail No. 1 on a six-foot ledge with a pay-streak eight to sixteen inches wide of the same grade of ore as the King Solomon, the whole ledge being rich enough to concentrate. A quarter of a mile further down Frank Campbell, R. K. Anderson and John Corrigan located the Aus Up a few days ago on an eight-foot ledge with a 15-inch pay-streak of similar ore and are preparing to work on it through the winter. About 200 feet below the mouth of Coney creek, Henry Nute has the Katie, Andes and Gold Stripe on a four-foot ledge, in which is a pay-streak eight to ten inches wide of galena and sulphides with a little gray copper carrying gold and silver. He has made an open cut and is about to tunnel on the ledge. Four miles above the mouth of the river W. L. Sanders, Frank Wardschneider and John Schlegel have the Triune on a ten-foot ledge in which is a 14-inch pay-streak, on which they have driven a tunnel 40 feet and have several tons sacked for shipment. One assay showed 59 ounces silver, 36 per cent lead and a little gold, and another $22 gold and 11 ounces silver.

On Great Falls creek, which flows into Miller river from the west, three miles above the mouth, A. Williamson and Justice William Timpe have the Lone Star group of four claims on a 12-foot ledge running northwest and southeast between walls of granite. It has four streaks of rich ore aggregating from 15 to 21 inches of sulphides and gray copper, which assays $57 silver, $10 gold, while the whole ledge would pay to concentrate. A tunnel is in 32 feet on the footwall and will give ample depth if extended. Winter quarters are being erected for a continuance of work. The ledge is washed by a waterfall where the creek crosses it, just beside the tunnel, and across the stream on the south extension James Dougherty and Hugh McIntosh have located the Mina, while William Lee, — Bayliss and A. Williamson have the Spider and James Dougherty and William Lee have the Markley on the north. On two ledges two and four feet wide, adjoining the Lone Star, Mr. Williamson has the Double Stamp with four and six-inch pay-streaks. On a parallel ledge to the west H. S. Phinney and E. B. Palmer, of Seattle, recently located the McKinley with five feet of ore and a pay-streak three or four inches wide. On the south extension of the Mona, Duncan Graham, J. J. Ferguson, James Dougherty and A. Williamson have the Orphan Boy and on the north extension Messrs. Williamson and Dougherty have the Orphan Girl.

Big Ledges of Pyrites.

Adjoining the Lone Star is the Little Una group of eight claims located by W. L. Sanders, who has sold one-third to M. L. Ransom, of Toledo, Ohio, in consideration of enough development to put the property on a paying basis. The group has three iron cap ledges, two parallel ones varying from 30 to 60 feet and cross ledge 20 feet. The mineral is iron pyrites with some copper and the ore chutes are 15 to 20 feet wide and assays give $3 to $11 gold on the surface and all the way from $2.50 to $62 gold at greater depth. A cross-cut tunnel is being run to tap the ore chute on the Little Una. On another iron cap, not yet defined, Mr. Sanders and John Schlegel have the Le Roi and War Eagle and across the river from the Little Una group have the Alice group on a similar ledge. The Hawkeye No. 1 and 2, San Juan No. 1 and 2 and Belle No. 1 and 2 are another group owned by Messrs. Sanders and Schlegel, on three parallel ledges, of which the Belle is believed to be an extension of the Lynn, the San Juan a stringer running into it, and the Hawkeye a cross ledge. The Hawkeye is 12 feet between walls with a four or five-inch pay-streak of $24 ore carrying copper, lead and sulphides and the San Juan has six to eight inches of ore running $11 gold and silver.

More Mineral on Money Creek.

In addition to the Apex group at the head of Money creek, Messrs. McCartney, Proctor, Stevens and Stein have the Damon and Pythias claims on another ledge of about four feet of similar ore about 1,000 feet further north. On Goat basin, four miles above the mouth of Money creek, they have the Sockless and Solomon on a ledge seven or eight feet wide, with 20 inches of high grade ore similar to the Apex, which assays $17 to $60 in gold, silver and lead, chiefly gold. A 40-foot tunnel on the ledge shows good ore all the way. On the east fork of Money creek H. H. Darot and W. M. Lee have the Vandalia on a seven-foot ledge, in which is a 20-inch pay-streak carrying gold and a little silver, running about $23. A tunnel 25 feet deep shows the ledge to widen. Last June Joseph Pomeroy, of Seattle, located the Bonanza Queen on a ledge of gray porphyry 15 feet wide, veined with quartz carrying copper and iron sulphurets. There is a 12-inch vein on the hanging wall, of which the other veins appear to be feeders. The ledge crops out under a cliff of blue lime with white lime for the footwall and is cut by the creek, being tracable by oxidized iron up each bank. The creek pours down a precipitous gorge from among a cluster of sharp, lofty pinacles of granite, and opposite the outcrop on which a tunnel is being driven rises a smooth-faced cliff at least 500 feet high. A trail has been cut from Money creek and winter quarters have been established.

One of the strongest showings on Money creek is that the Chicago group, owned by C. W. Frisbee, Malcolm McFees and Mike Earles, of Seattle, A. D. Smith, a railroad contractor now in the East, and Joseph Rudderham, who made the discovery in 1893. This is four miles from the mouth of the stream, opposite the creek which cuts the Bonanza Queen, extending to the summit of a mountain 1,500 feet above Money creek. The first discovery was a great deposit of magnetic iron in the rocky peak at the summit and in a gorge down the slope and it was proposed to mine the ore for the iron, a tunnel being run 40 feet on it. Peter Olson, in doing the assessment work a few days ago, started a tunnel higher up the mountain and ran into a body of fine copper and iron pyrites carrying flakes of native copper and some peacock copper. The outcrop is in a ravine between high walls of diorite and is fully 15 feet wide. On this ledge are the Washington, Crosby and Illinois claims, while on another similar ledge, across a lateral canyon, is the Boston, owned by the same parties.

Two miles above the mouth of Money creek, on the right bank, is a spring of delicious soda water, which has been taken up by Mr. Leque, auditor of Snohomish county. — McGowan, of Snohomish, G. J. Anderson and John Malling, of Seattle. Those who have tasted this water say it is equal to that of the Napa and Shasta springs.

A Natural Tunnel.

In the basin at the head of Eagle creek, three and one-half miles southeast of Salmon station, Henry Olsen has discovered a natural tunnel running 40 feet into a wall of porphyry, in which was a 12-foot ledge of talc and quartz. He is now extending this natural mine and has driven 18 feet further, showing a two-inch pay-streak which carries $54 gold and 35 per cent copper. C. J. Ingram, of Skykomish, owns a half interest with him. A mile further down the same creek, Messrs. Ingram and Olsen and Roy Emerson have located the Copper King on an eight-foot ledge, with a pay-streak eight to ten inches wide of crystallized talc carrying 19 per cent copper, $8 gold, $8 silver, the value being mainly in gray copper. A tunnel is being driven on the ledge and is in 23 feet. The same parties have the Whistler and Eagle's Nest on extensions of this ledge, which is tracable for 1,000 feet. A number of other locations have been made in the same vicinity.

The most urgent need of the mining districts is roads and all the miners hope that the beginning made by the county in building the road up Miller river will be followed wherever a sufficient showing of mineral and of the disposition to work it is made. Development would have gone much faster on Money creek if that section had had a road, for the difference between $2 and $13 as the cost of transportation to the railroad is too serious to be overlooked by investors and in many cases would eat up all the profits. The Money creek miners rejoice that their friends on Miller river are to have better means of transportation and look forward to an equally favorable consideration of their claims by the county commissioners.

L. K. HODGES.

Pierce County Fair

Will be held at Tacoma September 14 to 19, and for that occasion the Northern Pacific will sell tickets Seattle to Tacoma and return at rate of 70 cents.

ABSOLUTELY FREE.

All Chronic Sufferers Invited to the Copeland Medical Institute.

The Copeland Physicians Make No Charge Whatever for Consultation and Examination, and Give a Trial Treatment Free of All Cost--The Regular Fee is the Merely Nominal One of $5 a Month, All Medicines Included.

Hope of health, like a bright rainbow across the eastern sky, is held up before the thousands afflicted with chronic diseases by the wonderful new Copeland treatment, placed within reach of the masses by the Copeland Medical Institute. There is not a sufferer from catarrh in its numerous forms; not one whose nose, ears, throat, bronchials, lungs, stomach and other organs are affected; not one whose nerves quiver with neuralgic agonies or whose limbs or muscles throb with rheumatic torture; not one whose hearing is defective or whose eyesight is being dimmed, who cannot come to the Copeland Medical Institute and have a private and full consultation and a thorough and complete examination and diagnosis absolutely free of all cost whatever. More than this, he can have a trial treatment at no expense whatever, and can learn fully just what the Copeland treatment is, and experience by actual trial its mild, soothing and curative nature. More than all this, he can be cured at the merely nominal fee of $5 a month, all medicines being supplied free; no doctor's bill to pay and no druggist's bill to settle. Five dollars a month covers all expense. The same charge is made, and medicines sent free, to those who take treatment at home by the Copeland system of treating patients by use of the mails. Write for symptom blank and have your case diagnosed free.

COPELAND FEE.

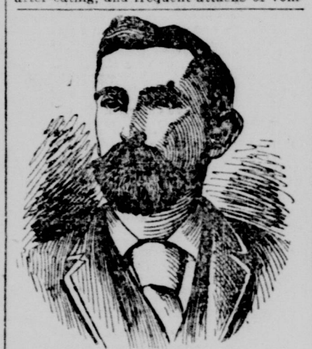
The cost of a full course of treatment at the Copeland Medical Institute is at the rate of $5 per month, whether the requisite period of treatment be three months or three weeks. This fee includes all medicines and the constant and watchful care of all patients to a final cure. Examination free.

CAN HEAR AGAIN.

Catarrh of Twenty Years Standing Cured by the Copeland Physicians, and Hearing Restored.

Mr. John Hammersmark is a farmer living on Vashon Island, where he has resided for twelve years, and is well-known to a great many people. He says:

"I was afflicted with catarrh for twenty years. I had a discharge from my nose and droppings in my throat, that kept me hawking and spitting constantly. My hearing became seriously affected, and there was a foul discharge from one of my ears. My stomach was poisoned by the secretions swallowed, and I had great distress after eating, and frequent attacks of vom-



MR. JOHN HAMMERSMARK, VASHON ISLAND.

iting. My bowels were constipated, and I lost flesh and was extremely miserable. I tried many remedies in vain, and was completely discouraged. Immediately after beginning treatment with the Copeland physicians I began to improve, and am now in splendid health again. All my bad symptoms have disappeared and my hearing has been completely restored. All this has been done for the nominal charge of but $5 a month.

HOME TREATMENT.

No one deprived of the benefits of the Copeland treatment because of living at a distance from the office.

The same wonderful and uniform success attending the treatment of the Copeland physicians in their office is found in their home treatment patients by mail. By the use of a comprehensive symptom blank they are enabled to correctly diagnose cases and prescribe for them, and by their excellent system of reports they keep a close watch upon them. Patients living in the country may in this way enjoy the benefits of their skill as well as those in the city.

CATARRH FROM CHILDHOOD.

Incredible Cruelty of Physicians in Vain Efforts to Cure Her—Completely Cured by the Mild and Soothing Copeland Treatment.

Miss Hannah Meyer lives at St. James hotel, Seattle, in which city she has resided for two and one-half years. Of her sad experience she says:

"From childhood I have been troubled with catarrh of the nose and throat. For years I could not breathe through my nose, and I had sore and inflamed eyes, often

MISS HANNAH MEYER, SEATTLE, WASH.

swollen so that I could not see. I had a severe headache constantly. I was operated on in Germany, when 14 years of age, to remove tumors from my nose. The surgeons strapped me to the table and I suffered great torture and loss of blood. This did not give me permanent relief. I have since been treated many times without result, and since coming to Seattle have been in the hands of three physicians. When I went to the Copeland physicians they quickly and painlessly accomplished what all others had failed to do, and I am now free of all the distressing symptoms that troubled me so many years."

CATARRH OF THE HEAD.

Completely and Quickly Cured by Soothing and Healing Antiseptic Inhalants.

Mrs. Marie Woodman, wife of the locomotive foreman of the Great Northern railroad at Spokane, Wash., writes as follows of her experience with the Copeland Institute:

MRS. MARIE WOODMAN, SPOKANE, WASH.

"About a year ago I noticed that my head became stopped up continuously and thought I had a bad cold. I treated myself for the cold, but my head did not seem to get any better.