COPPER IN NORTHERN CALIFORNIA

REGION DESCRIBED BY J. S. DILLER IN A PAPER READ BEFORE THE GEOLOGICAL SOCIETY AT WASHINGTON

Within the last five years Northern California has taken rank among the great copper-producing regions of the United States. In 1900 it stood fourth in the series, having produced over 1400 tons, with Montana, Lake Superior and Arizona, respectively, still far in the lead. The output is rapidly increasing, and bids fair to continue to do so with the operating of other mines and the erection of smelters now contemplated.

The copper region lies in Shasta County, among the hills about the northern end of the Sacramento Valley, and is largely embraced in the Redding quadrangle, of which the United States Geological Survey has now ready for distribution a contoured topographic map on the scale of about two miles to one inch. Upon the completion of the topographic map the writer spent two months (August and September, 1901) making a general geological study of the copper region in the preparation of a geologic map for folio publication. The work will be completed next Summer, but, in the meantime, on account of the great geological interest in the region and its economic importance, coupled with the fact that comparatively little has been written concerning it, a preliminary note may not be out of place.

The copper region contains an extensive series of sedimentary rocks, ranging from the miocene into the devonian, associated with igneous masses of various ages and kinds which have intercalated or intruded the sedimentaries. A number of mountain-building epochs are recorded by breaks already recognized in the stratigraphic and faunal succession, and others will doubtless be discovered in the detailed survey. The general abundance of fossils in the cretaceous, jurassic, triassic, carboniferous and devonian sediments is such as to render it possible to work out the structure in detail with a much higher degree of probability than is usually the case.

The ore deposits of the copper region may be conveniently considered in three groups—auriferous quartz veins, sulphides in contact zones and sulphides in shear zones.

Auriferous Quartz Veins.

Auriferous quartz veins are most abundant in the western part of the copper region about Quartz Hill and Old Diggings, a few miles north of Redding, where, although the ores are generally too low grade to pay for milling, they may be smelted with the cupper sulphides at a profit. The copper industry has thus invigorated the gold mining, which in the early placer days was the greater resource of the region.

The quartz veins have a wide range in size and position. In the National mine, a three-foot vein strikes N. 25 degrees W., dipping 45 degrees to the southwest. The Texas shows a nearly vertical vein, sometimes over five feet thick, with strike nearly north and south; while at Quartz Hill the 40-foot vein strikes N. 45 degrees E., and dips 70 degrees to the southeast. Further study may result in separating these veins into groups of different ages. They all contain some auriferous pyrite or native gold, and often chalcopyrite, but the vein matter is in most cases almost wholly quartz. Within the copper region nearly a dozen mines in this sort of deposit are active, and yet the output is comparatively small.

Sulphide Deposits in Contact Zones.

The Black Diamond mine, near Bayha, about 20 miles northeast of Redding, is an interesting example of this type. Under the management of C. Dopplestein, a small but well-equipped force is at work developing. At the Rudolph opening slaty shales occur, dipping easterly, apparently beneath the carboniferous limestone which forms the crest of the ridge. Small masses of pyrrhotite and chalcopyrite occur, also pyrite and magnetite, with limonite and other secondary minerals. The ore is associated with coarsely crystalline fibrous diopside and garnet, whose relations are not so easily perceived underground, but upon the surface are illustrated at many points in the neighborhood along the contacts of diabase dikes, which cut the carboniferous limestone. The Black Diamond mine embraces many tunnels and open cuts on both sides of the hill of carboniferous limestone, and most of them show the effects of contact metamorphism. The best exposures are upon the crest of the limestone ridge, where it is cross-cut by a number of diabase dikes running east and west and ranging from five to 100 feet in width. Along the edges of these dikes, in contact with the limestone at many points, pits have been dug into the iron-stained fibrous masses of diopside, mixed occasionally with garnet, serpentine and traces of ores. The fibers of diopside, several inches in length, are perpendicular to the contact and are conspicuous. The Roseman group of mines are near by upon the same dikes. All the openings and tunnels of the Roseman and Black Diamond mines were not examined, but as far as seen the small ore bodies of sulphides and magnetite were always associated with diopside in contact zones. The dike rock in question, here designated diabase, is composed largely of calcic feldspar, which generally has the ophitic arrangement characteristic of diabase inclosing chlorite, epidote, magnetite and quartz from the altered feldspar and pyroxenes. The amount of quartz varies, and in some cases seems a primary constituent.

Sulphide Deposits in Shear Zones.

A wide and very irregular belt of igneous rocks extends northeast through the copper region of Shasta County, from near Iron Mountain to beyond Bully Hill, and traverses a series of fossiliferous sedimentary rocks, ranging from the devonian up into the mesozoic, at least as far as to near the top of the triassic. A large portion of this mass is volcanic, embracing acid and basic lavas with fossiliferous tuffs, which show that a portion of the series, and possibly the whole, is of triassic age.

The igneous rocks and associated sedimentaries have been greatly compressed, folded, faulted and sheared. The shear zones in some cases have been mineralized, developing in spots by replacement irregular bodies of sulphide ore, ranging in size from a mere film or nodule to masses many hundreds of feet in greatest dimension. Deposits of this sort are the only ones which have been successfully mined.

The ore bodies thus far exploited have generally been found in igneous rocks (keratophyr, closely related to quartz porphyry), although, in some cases, within a short distance of sediments. The sheared keratophyr in many cases resembles shale, and is so called by the miners, but a microscopic examination readily distinguished it from the sedimentary rocks which generally contain microscopic fossils, such as radiolaria, sponge spicules and other siliceous organisms.

All of the copper produced in the region under consideration comes from two districts—Iron Mountain and Bully Hill—and these deserve special mention.

Bully Hill District.—The Bully Hill district, including also Copper City, has been developed within the last few years under the efficient management of Mr. A. H. Brown. The arrangements for mining and handling the ore to the roasting-bins, furnace and converters are excellent. Two converters were in operation last July, yielding about 16 tons of copper daily, and one or more converters have been added since, indicating a good outlook.

In Bully Hill there are a number of zones containing ore. Only two zones are of importance—one in quartz porphyry (Bully Hill quartzite), and the other in a highly altered keratophyr. Although the main ore body in places appears to come in contact with the quartz porphyry, it is most intimately associated with a keratophyr, which contains much less silica and more lime. The ore bodies mined were nowhere seen in the triassic shales, but such shales with radiolaria occur in the tunnels a short distance to the eastward of the main lode. The general strike of the shear zones in which the ore bodies occur is from nearly N. to N. 10 degrees E., with steep dip to the westward. The ore bodies are flattish, lenticular of irregular outline, and range in size from mere nodules to bodies hundreds of feet in length. The ore was seen from four to 12 feet in thickness, and the walls are often but not always well marked. Generally on the foot-wall there is a white selvage, which, according to Mr. George Steizer, contains Na_2O 20, K_2O 3.28, and H_2O 11.87, and appears to be a mixture of sericite and kaolin. It is very irregular, ranging from a mere film to 12 feet, and is used for lining the converters in the smelter.

The ore bodies are solid and composed of pyrite and chalcopyrite usually, with a greater amount of chalcocite and occasionally bornite, with traces of the carbonates and native copper. Sphalerite and barite are generally present and frequently more abundant than the other minerals. One body of ore is said to have assayed 15 per cent copper, $8 in gold and six ounces silver per ton. Where the ore is largely chalcocite, the content of copper is high, sometimes reaching over 46 per cent, but the general range is said to be about 16 per cent.

In the Cupper City mines the ores are of the same nature as at Bully Hill, but inclosed wholly in the sheared quartz porphyry. The shearing gives to this igneous rock the appearance of slate, but under the microscope the two are in general easily separated. The quartz porphyry passes into sericite schist in the shear zone, and is more or less heavily impregnated by sulphides, showing stages from partial to complete replacement.

The lode at Copper City runs N. 50 degrees E., and the lenticular bodies range in thickness from a mere film or nodule in the fissile schist to five feet or more in thickness and many feet in length. Sphalerite and barite are as abundant in the ores of Copper City as at Bully Hill.

Iron Mountain District.—The largest and most important district of the copper region, as far as known at present, lies west of the Sacramento River and extends from Iron Mountain a few degrees east of north for nearly 20 miles to the Shasta King, near Kennett. The Iron Mountain mine is under the management of Mr. Lewis T. Wright, who has with diamond drill done more than any one else to get an accurate idea of the ore bodies and their distribution in the district. The Iron Mountain mine is marked upon the surface by a prominent gossan of limonite, which in the early days was mined for gold and silver. In places the gossan extends to a depth of over 100 feet, changing abruptly from the oxides to the sulphides, but upon the steep slopes bordering the canyons the gossan has been removed and the bodies of sulphides lie nearer the surface.

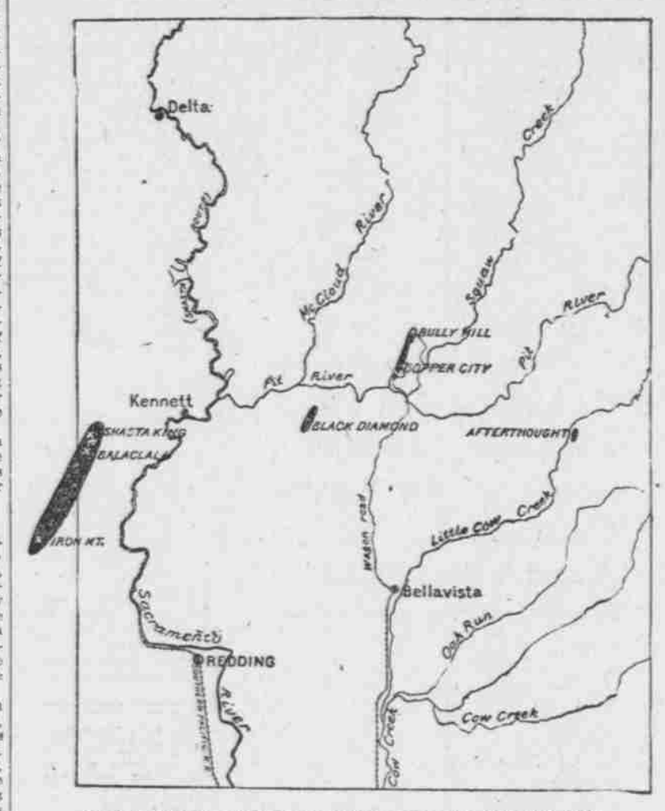
In the Iron Mountain vicinity thpre are two principal bodies of ore—one the Iron Mountain and the other the Hornet. The Iron Mountain body is now being mined, and the large Hornet body has been thoroughly prospected. The ore appears to be wholly pyrites carrying copper, with an admixture of chalcopyrite. The dark sulphides so common at Bully Hill are practically absent in this body, although at certain points in both the Hornet and Iron Mountain ore bodies there is considerable zinc, and the arrangement of the zinc in streaks gives the ore a schistose structure, which is referred to on the one hand as evidence that the bodies are true vein deposits, and, on the other, that the structure comes from the replaced schist. Quartz is often present. Barite is absent.

The ore bodies are cut by small transverse faults, their sides occasionally polished by movement since the ore was deposited. In the Iron Mountain district the ore separates easily from the wall-rock and at many points there are considerable masses of sericitic selvage, but none so large was seen as in the Bully Hill mine. The wall-rock on both sides of the Hornet is quartz keratophyr, which, according to Hillebrand's partial analysis, contains 5.16 per cent Na_2O and only .40 per cent K_2O, with .015 per cent BaO and 74.52 per cent SiO_2. It looks quite like quartz porphyry, but differs especially in containing more soda. It seems to be related to the soda rhyolites described by Palache, near Berkeley. Over 700 tons of ore yielded an average of 7½ per cent copper, with a range of 1 to 20 per cent copper.

Shasta King.—At the northern end of the Iron Mountain district is the Shasta King mine, which is rapidly developing, and about to erect a smelter. The ore body is in the form of a sheet with its greatest dimension north and south, dipping gently to the westward in strong contrast with the other ore bodies of the district. A selvage of sericite, from a mere trace to nearly a foot, generally separates the ore and country rock. At one point upon the upper side the ore appears to be "frozen to country rock," but this is exceptional. Near the surface a well-marked gossan of limonite, like that of Iron Mountain, prevails, but is less extensive, on account of the steep slopes.

The ore is almost wholly pyrite and chalcopyrite, with some sphalerite.

Balaclala.—A short distance south of Shasta King and 1000 feet above it is the Balaclala. In both cases the rock appears to be keratophyr, generally quartz-bearing, and the ore bodies strike nearly parallel; but at Balaclala the dip is steep to the west. The ore body, which consists chiefly of pyrite with some chalcopyrite although irregular, is large and dips nearly parallel to the slope of the ravine so that short tunnels reach the ore. Gossan is rare on the steep slopes, but further northeast, where the mine was first opened, on a gentle slope east of Shasta King, gossan rich in limonite is prominent. Upon the borders of the ore bodies small nodules more or less lenticular occur in the schistose quartz keratophyr, and appear to illustrate in a small way the relations of the large ore bodies. They are composed of pyrite and they have no selvage. King Copper, Spread Eagle and a number of other claims in the same district are actively developing. In the Bully Hill and Iron Mountain districts great depths have scarcely yet been reached, but enough is known to suggest that secondary enrichment has played an important role in these deposits.



MAP SHOWING COPPER DEPOSITS, SHASTA COUNTY, CAL.

LEADS IN COAL PRODUCTION

United States Furnishes One-Third of World's Supply of This Fuel.

OREGONIAN NEWS BUREAU, Washington, July 23.—Since 1899, the United States has been the leading coal-producing Nation in the world. Up to that time, Great Britain took the lead. Today, the United States mines about one-third of all the coal burned in the world. Great Britain mines almost as much, and the other third of the world's supply comes from the rest of Europe, India, Japan, Australia and Chile.

At the mouth of the mine, American coal is valued at nearly $350,000,000 annually, $100,000,000 in excess of the value of the iron ore produced in 12 months. It takes all of the gold, silver and copper mined in the United States, together, to equal the American pig iron in value. Petroleum and natural gas must be added to bring the figures up to those for coal. Practically all of the anthracite coal mined in the United States comes from a few counties in Northern Pennsylvania. Coal is found in 27 states and territories, besides Alaska, and out of the 282,240,758 tons mined in 1901, 67,471,067 were anthracite. Yet the anthracite fields cover only 1709 miles, approximately, while the entire coal fields cover an area of 280,379 square miles, exclusive of lignite in Montana, Wyoming and Dakota, and in five Southern States.

Soft coal, at the mouth of the mines, brought from 71 to 99 cents during the decade ending with 1899. For the next two years it brought a few cents more than $1. This, of course, is the average of the whole country and for an entire year at a time. In certain limited localities the cost of mining has given rise to marked exceptions. In 1900 Oregon got $3 74 for each of 58,884 tons; California got $3 05 for each of her 171,708 tons, and Idaho $5 for each of 10 tons. Anthracite sold for $1 55 to $1 70 a short ton in the last dozen years. The value of hard coal mined in the United States last year is estimated at $112,504,620, and of soft coal $236,309,811. To get an idea of the actual cost at the seaboard, there must be added the cost of transportation. In mining anthracite coal in 1900, 144,206 men were employed for an average of 166 days in the year. The soft-coal industry represented 304,975 men, each of whom put in an average of 234 days.

Pennsylvania is by all odds the most abundant producer. Last year that state, in round numbers, mined 67,500,000 short tons of hard coal and 83,000,000 of soft coal. These two combined represent over half of the output of the whole country. Illinois holds second place as a coal producer, with 27,000,000 tons. West Virginia comes third, with 24,000,000, and Ohio fourth, with 20,000,000 tons. Alabama ranked sixth for a few years, but last year moved up one notch, her production having reached 9,000,000 tons in 1901. West of Kansas, the largest production comes from Washington, which mined 2,500,000 tons last year.

Not the First Case on Record.

VANCOUVER, Wash., July 25.—(To the Editor.)—A special to The Oregonian from Guthrie, O. T., under date of the 23d inst., states that Judge Haines, of the Federal Court at Pawnee, had granted Spah-Paw-Bear a divorce from his wife, Mad Bear, both being full-blood Indians, and claimed that was the first case on record wherein Indians had been divorced. This claim is unfounded in fact, as Sarah Winnemucca Lane, nee Princess Sarah Winnemucca, a full-blood Piute Indian woman, was divorced from her husband, Joe Lane, a full-blood Wascopum Indian, by Federal Judge John P. Hoyt, at Vancouver, Wash., in 1879. I was employed by Captain John Smith, Indian agent at Warm Springs reservation, to defend his ward, the said one-eyed Joe Lane, and interposed a demurrer to the jurisdiction of the court and a number of motions; but the court, after considering the same, with hesitancy overruled both demurrer and motions, maintaining that the court had jurisdiction, and heard the testimony and granted the said Sarah a divorce from her said husband, Joe Lane, on the ground of general worthlessness. As I now remember the testimony, there was no evidence to show that the parties were ever legally or otherwise married, so the Spah-Paw-Bear case is not the first case on record where full-blood Indians were divorced.

G. H. STEWARD.

COMMUTATION TICKETS TO THE COAST.

The O. R. & N. Co. has made a $15 rate for individual five-ride, round-trip commutation tickets, Portland to North Beach and Clatsop Beach points. These tickets will be good any time from date of sale up to October 15, 1902, and will be honored in either direction between Portland and Astoria on the boats of the Oregon Railroad & Navigation Company, the White Collar Line, the Vancouver Transportation Company and on trains of the A. & C. R. R. Tickets now on sale at O. R. & N. office, Third and Washington.

Thousands of people praise the medicinal merits of Hood's Sarsaparilla to their friends.

MORE LUMBER CHARTERS

SCHOONER TRANSIT WILL LOAD AT PORTLAND FOR HILO.

Steamers Aberdeen, Robert Dollar, Sequoia and Eureka Arrive for Lumber Cargoes—Marine Notes.

The schooner Transit, a 600,000-foot carrier, has been chartered by the Charles Nelson Company to load lumber at Portland for Hilo. She is now at San Francisco, and will sail north today or tomorrow. The lumber fleet en route and in port is increasing in importance so rapidly that it promises to soon share honors with the grain fleet in distributing dollars along the water front. The shipments by water from the Columbia this month have already exceeded 8,000,000 feet, and there are a number of vessels now in the river, which will finish loading before the end of the month. Two more steam schooners of large capacity, the Aberdeen and Robert Dollar, arrived in yesterday to load lumber, making four steamers now in port loading, in addition to four schooners and a barkentine.

The capacity of this fleet is something over 5,000,000 feet of lumber, and the list of vessels now en route or under charter, exclusive of the steam schooners, includes vessels with a carrying capacity of over 8,000,000 feet. This booming lumber trade is livening up the water front at a season when it is usually the dullest, and logging camps, towboats, stevedores, longshoremen and all kinds of business are profiting by it.

EUREKA IN PORT.

Lake Steamer Whose Skipper Is More Interesting Than His Ship.

The Globe Navigation liner Eureka, which arrived up early yesterday morning to load lumber for Topolobampo is in command of Captain "Johnny" O'Brien, one of the best-known skippers that ever sailed the seas. Way back in the "seventies," when Portland was in its swaddling clothes, Captain O'Brien was sailing out of this port on the old Alden Besse and Coloma, whose yearly trips afforded about the only direct transportation to the Orient. With the decline of the sailer, O'Brien drifted into steam, and in February, 1884, while First Officer of the steamship Umatilla, was the hero of one of the most remarkable salvage cases on record. The Umatilla, in command of Captain Worth, was en route from San Francisco for Puget Sound, and during a blinding snow storm struck on Flattery rocks. She began leaking and was hurriedly abandoned by her master and all of the crew except O'Brien and two sailors. The three got on a raft, and, after waiting developments for a few minutes, and finding the ship was still intact, Captain O'Brien decided to make an effort to save her. They climbed aboard, and after some difficulty got her sails set and headed her off shore.

With his crew of two Captain O'Brien made pretty fair offing before dark, but as the ship was still making water, he signaled the steamer Wellington and was towed into Esquimalt harbor, where she sank the next morning. The steamer was subsequently raised and is today one of the Pacific Coast Steamship Company's regular liners. Captain O'Brien received handsome remuneration from the underwriters and owners, and world-wide notoriety, as the feat was something remarkable in the history of shipwrecks. Captain O'Brien was afterwards master of the Canadian Pacific Navigation Company's steamers, and until about a year ago was marter of the Rosalie, Dolphin and other steamers on the Alaska route. In 1892 Captain O'Brien was master of the whaleback steamer C. W. Wetmore, which he lost off the Oregon coast.

Two years ago he was sent back East and brought out the steamer Dolphin, and while coming through the Straits of Magellan was attacked by Patagonian cannibals, who attempted to set fire to the ship, but were repulsed with heavy losses. Captain O'Brien has many friends among the old-timers in Portland, and spent a pleasant day yesterday renewing old acquaintances.

HELD FROM THE CANADIAN.

Big Railway Company May Operate Line of Fast Steamers.

LONDON, July 25.—The announcement from Montreal that the Canadian Pacific Railway had, at the request of the Canadian Ministers now in London, offered to establish and work a weekly fast service between Quebec and Liverpool in the Summer, and between Halifax and Liverpool in the Winter, with a good freight service, is causing considerable stir in England, where it is hailed with delight as being an offset to J. P. Morgan's shipping combine. The evening papers have flaming cards, reading: "English combination to fight the American trust," etc.

The officials of the Canadian Pacific Railway here deny that they have any such intention; but they, as well as others, believe that the long-desired Canadian fast freight service is fast approaching completion. The fact indicating this is the offer of the Canadian Pacific, made at the request of the Canadian Ministers now here, and they were fully aware of the conditions the Imperial government is prepared to accede to. Lord Strathcona and Mount Royal, the Canadian High Commissioner, in an interview today, said:

"While I am unable to add to the information already published, the terms seem reasonable and probable. The members of the Dominion Government some months ago were authorized by the Canadian Parliament to offer a subsidy of £150,000 for this purpose. So far as known, this offer has not been increased. The reported subsidy of £200,000 shows an advance over the original offer, but it has always been understood that Great Britain will supplement Canada's offer, though I am not saying to what extent."

One of the Canadian Pacific Railway directors confirmed the report of the Associated Press in every particular of the Canadian Pacific's offer to build and operate a subsidized line, and both he and others interested were confident that the object would be accomplished. The chief requirements of the imperial government would be that the steamers shall become auxiliary cruisers, the same as the Canadian Pacific Railroad's Empress (Pacific) liners. The principal points on which the Canadian Government will insist relate to refrigerating plants, speed and cargo capacity. It is admitted on all sides that the present movement has been hastened by, if it was not the immediate outcome of the formation of the American shipping combine.

Joseph Lawrence, member of Parliament for the Monmouth district, has informed the Newport Chamber of Commerce that Liverpool is practically certain to be the terminal point of the new Canadian service, and that no Bristol channel port will be chosen.

FOR COCOS ISLAND.

Two More Expeditions for Elusive Buried Treasure.

SAN FRANCISCO, July 25.—Another expedition to search for buried treasure on Cocos Island is being organized in this city. Its directing spirit is August Gissler, the Lieutenant-Governor of Cocos for Costa Rica. Interest is added to this expedition by the prospect of a conflict of arms on the little island. On last Sunday the steamer Herman, Captain Brown, with a party of men from Boston, and it is said carrying a Hotchkiss gun, sailed, ostensibly for an island in the South Seas, where Japanese are supposed to have made a fortune.

Lieutenant-Governor Gissler claims that the Herman's real destination is Cocos Island. He will leave for Costa Rica by steamer on Monday with the intention of securing a gunboat from his government and heading off the Herman expedition. He anticipates trouble for the Boston party, which he says will not be allowed to land.

WHY SAILORS DESERT.

San Francisco Paper Accuses Owners and Captains of Being at Fault.

"Ten sailors deserted yesterday from the British ship Osborne, which arrived on Sunday from Australia," says the Call of July 22. They were taken ashore by "Tim" Hawkins and two other runners. At the request of the British Consul, Courtenay W. Bennett, the police gathered in the sailors and the Consul made preparations to prosecute the runners for enticing the men from the ship. The sailors, however, under examination at the consulate declared that they went ashore of their own free will and for the purpose of bettering their condition, and the Consul's opportunity to secure a conviction went a-glimmering. Bennett has undertaken to put a stop to desertions from British ships and is finding it an uphill battle. In his fight he has but lukewarm support from the owners, who lose nothing by the desertions, and no assistance from the captains, who in most cases not only profit by the desertion, but receive a commission out of the blood money paid for new men when the ship is ready for sea. By these desertions the owners gain, the captains profit, the sailor boarding-house runners and keepers make a living, and Jack, who pays the price, whose hard-earned wage is divided, does not care.

AN EASTERN THEORY.

Religious Journal Tells Why Millions Are Asked for Seattle Ditch.

The New York Christian Advocate has been investigating the Lake Washington Canal project, and reports as follows:

The City of Seattle lies between Puget Sound and Lake Washington. A canal is now being dug for the purpose of connecting the two. Puget Sound is salt and connects with the Pacific Ocean. Lake Washington is a body of fresh water. The object in the connection is novel. Familiar with the region, and having heard of the canal and the reason for it, we have looked the matter up a little, and find that it is to be a barnacle cure on a large scale.

It is well known that barnacles, a variety of marine shellfish, attach themselves to the bottoms of vessels, and, after a time, when the number becomes great, the movement of the ships becomes so seriously retarded that the vessel has to be drydocked and cleaned. This is an expensive operation, and many are the devices which have been resorted to to prevent the adhesion of the barnacles, but without success. Barnacles appear to be more prolific on the Pacific Coast than on the Atlantic, and, therefore, getting rid of them becomes even more important than in the case of Atlantic shipping. It is a well-known fact that the barnacles drop off if the ship lies for even a short time in fresh water, and the proposition to connect Puget Sound with this beautiful fresh water lake has for its end the taking advantage of this fact, so that by means of the canal the vessels may be run into Lake Washington and allowed to lie there until the barnacles drop off. These animals, like others whose native element is salt water, die after a time and lose their grip.

STRIKE MAY FOLLOW.

Steam Schooner Men Ask for Shorter Hours and More Pay.

SAN FRANCISCO, July 25.—A tie-up of all the steam schooners plying in the Coast trade is threatened, says the Examiner, unless the owners accede to the demands of their employes by granting them shorter hours and pay for overtime.

Already the steam schooner Navarro is tied up at Mission-street wharf. Not a man remains on board the vessel. The predicament of the Navarro will be shared by the steamers Brooklyn, Santa Monica, Point Arena and North Fork unless today witnesses a tendency on the part of the owners to grant the demands of the engineers, firemen and mates. The engine crews and mates employed on these vessels have submitted their resignations, to take effect at their own pleasure.

The action taken by the engineers on the steam schooners now in port will be repeated on every schooner as it arrives, and a tie-up of the entire coasting fleet seems imminent.

Marine Notes.

The British ship Conway, one of the tailenders of the March grain fleet from Portland, made some amends for the slow passages of the rest of the fleet by making the run to Falmouth in 116 days. She arrived out Wednesday.

The British ship Dimsdale in tow of the R. R. Thompson left up from Astoria yesterday morning. She is deeply loaded, and is not making very fast time, but managed to get past Rainier at 5 o'clock yesterday afternoon. She will reach Portland early this morning.

Domestic and Foreign Ports.

ASTORIA, July 25.—Left up at 4 A. M.—British ship Dimsdale. Arrived at 5 and left up at 9 A. M.—Steamer Robert Dollar, from Seattle. Sailed at 5 A. M.—Steamer Lakme, for San Francisco. Arrived—Steamer Elmore, from Tillamook. Arrived at 1:30 and left up at 4 P. M.—Steamer Aberdeen, from San Francisco. Condition of the bar at 4 P. M., smooth; wind northwest; weather hazy.

Hamburg, July 25.—Arrived—German bark Bertha, from Portland.

Falmouth, July 25.—Arrived July 23—British ship Conway, from Portland.

Tacoma, July 25.—Arrived—Steamer Shawmut, from San Francisco; Norwegian bark Queen of Scots, from Port Townsend; steamer Ellen Thomson, from Vancouver; schooner William Olson, from Port Townsend. Sailed—Schooner W. F. Jewett, for San Francisco.

San Francisco, July 25.—Sailed—Steamer City of Puebla, for Victoria; schooner Melanchton, for Coos Bay; schooner Advent, for Coos Bay. Arrived—Schooner Orient, frm Port Blakeley.

New York, July 25.—Sailed—Bovic, for Liverpool. Arrived—Calebria, from Naples; Columbia, from Hamburg.

Hamburg, July 25.—Arrived—Moltke, from New York, via Plymouth and Cherbourg.

Queenstown, July 25.—Arrived—Steamer Campania, from New York for Liverpool, and proceeded.

New York, July 25.—Arrived—Lucania, from Liverpool and Queenstown.

Seattle, July 25.—Arrived—Steamer Charles Nelson, from San Francisco; steamer Nome City, from Nome; steamer Numantia, from Tacoma. Sailed—Schooner William Olson, for Tacoma; steamer Shawmut, for Tacoma; steamer Numantia, for Hamburg.

New York, July 25.—Arrived—Lucania, from Liverpool and Queenstown.

THROUGH THE COLUMBIA RIVER GORGE.

A delightful trip of a few hours will take you through the famous "Columbia River Gorge," the greatest combination of river and mountain scenery on earth. O. R. & N. train leaves Portland daily at 9 A. M. Return can be made by steamer from Cascade Locks. Special low rates for this trip. Get particulars at O. R. & N. ticket office, Third and Washington.

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I have used Pearline for eight years. Am never without it. Use it with the most delicate fabrics and with coarse things. Find it satisfactory in all things.
Mrs. Rev. G. E. L.

One of the Millions. 630

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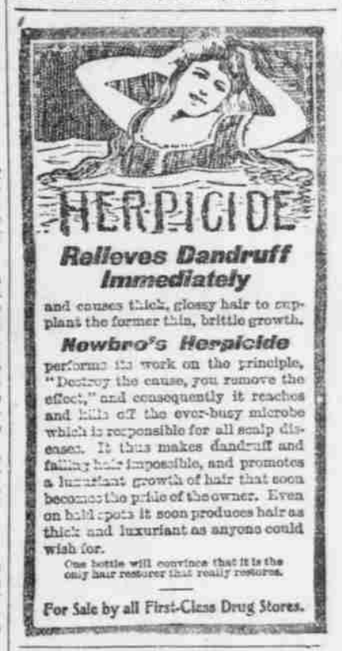

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