

Advertisement for Pure Drugs and Chemicals, featuring Campbell's Prescription Store and various medical products.

Advertisement for Pure Drugs and Chemicals, including a list of various medicines and their uses.

Advertisement for Plumbing and Heating services, including contact information for A. Shertel.

Advertisement for an interesting letter from South Africa, mentioning Albert Heald's experiences.

Advertisement for a picture puzzle, featuring a scene with a man and a woman.

Advertisement for 'PE-RU-NA NECESSARY TO THE HOME,' featuring a portrait of Prof. Talford Smith.

NEWS NOTES FROM EASTERN CANADA

Telephone Lineman Killed by Live Wire - Parkin's Trip - Six Thousand Harvesters Arrived in Winnipeg Yesterday

Montreal, Aug. 22.—An organization containing 3,500 men has just been completed in Montreal, and it will overshadow in point of numbers all other labor bodies of the city.

Harvesters. Six thousand harvesters from the East arrived in the city to-day.

Lineman's Death. Alex. T. McLean, lineman for the Bell Telephone Company, has been killed by a live wire in Fort Rouge.

Conservative Members. A party of Conservative leaders will arrive in the city on September 3rd on their way to British Columbia to hold a series of meetings.

Cuban Affairs. Loan May Not Be Floated at Present—Soldiers and Their Pay. Havana, Aug. 21.—It is doubtful if any attempt at present will be made to float the proposed loan of \$35,000,000.

Japan. The Japanese are curious like physically. Recent measurements taken of an infantry regiment showed no variation except two inches in height or twenty pounds in weight.

MOTHER'S CONFESSION.

Says She Killed Her Child—Has Been Arrested. Wilbur, Aug. 21.—Mrs. Jasper Hyatt, who yesterday accused an unknown man of assaulting her and killing her two months' old infant, to-day confessed that she herself murdered the babe.

Train Wrecked. Fort Scott, Kas., Aug. 22.—A train heavily loaded was derailed near here while running at a high rate of speed to-day.

Divine Healer Flogged. Tekarkana, Ark., Aug. 21.—A man named Perkins, an alleged divine healer and prophet, who has been posing as an angel of Christ, who, he declared, would appear in a few days, was taken out of town last night by "white-cappers," flogged, his hair cut short and then given 20 minutes to leave town.

Telegraphic Ticks. A boy named Hilderbrand, aged 16, was drowned in Irondequoit bay, New York, yesterday.

Kingfisher Coming. The new steamer Kingfisher, built by the Risdon Ironworks, San Francisco, for the New England Fish Co., Vancouver, is on her way north from the Golden Gate, and is due this evening.

Advertisement for 'He Won't Die' medicine, featuring an illustration of a man and text describing its benefits for various ailments.

Marine Notes. Messrs. Percha & Company, of No. 2107 1/2 street, Capetown, have written to the mayor of Vancouver stating that they are desirous of getting in touch with the leading salmon canning factories in this province.

Back From Fanning. The brig Galilee has arrived at Port Townsend from Fanning Island. The Galilee left San Francisco two months ago with a force of 30 men, and a large quantity of building material to establish a station for the British Cable Company.

THE SHAWMUT WAS HELD AT SEATTLE

Still another delay has detained the steamer Shawmut. She should have been here, according to advices to date, a couple of days ago, but instead of coming direct from Tacoma she went to Seattle, where she remained until 7 o'clock this morning.

Two Letters. This correspondence tells more emphatically than perhaps anything could, the perfect permanency of cures made by Dodd's Kidney Pills.

How Nice These Specialties Are for Camp Use. Don't Buy Poor Goods. ROAST FOWL, CANNED CHICKEN, VEAL LOAF, HAM LOAF.

Business Directory. BUILDERS & GENERAL CONTRACTORS. THOMAS CATERHALL—16 Broad street.

General Mercer receives his mortal wound. He died, and the Quaker maiden who nursed him.

Plumbing and Heating. When You Need a Plumber. A SHERTEL, 102 FORT ST. TEL. 620.

Two Letters. HAS NOT CHANGED HIS MIND IN SEVEN YEARS. This correspondence tells more emphatically than perhaps anything could, the perfect permanency of cures made by Dodd's Kidney Pills.

BUT SAILED FOR THIS PORT THIS MORNING

Will Be Almost Entirely Manned by Chinese—Kingsfisher on Way From San Francisco.

British Heroes' Award. Duke of Wellington Was Well Paid for His Great Services.

General Mercer receives his mortal wound. He died, and the Quaker maiden who nursed him.

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AN INTERESTING LETTER FROM SOUTH AFRICA

Albert Heald, Who Left Victoria With Last Contingent, Writes of His Experiences.

Scottish Hills, out 91 days from Port Gable for Port Pirie with lumber, remains at 25 per cent., and the Norwegian ship Vidaland, 171 days from Tampa for Adelaide, is still at 80 per cent.

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PE-RU-NA NECESSARY TO THE HOME

Professor Talford Smith, Principal Siloam High School, Siloam, Ga., writes: "With much pleasure I recommend Peruna to all who may be suffering with any trouble of the respiratory organs.

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LEE & FRASER REAL ESTATE AGENTS. FOR SALE 10 acres of good land near city...

Fire, Life, Marine, Accident and Atlantic Steamship Agency. MONEY TO LOAN ON APPROVED SECURITY...

Mortgagee's Sale. Tenders will be received by the undersigned up to the 31st August for the purchase of Sub-division Lots 8, 9 and 10...

A. W. JONES, 28 Fort Street. Agents for Mortgages. St. Charles St. We offer for sale Four Half Acre Lots...

T. N. Hibben & Co. Paper Box Makers. All kinds of Paper and Cardboard Boxes and Cartoons. Factory and Warehouse 69-71 Government St.

"White Horse Cellar" The Only Scotch Whisky used in the Colonial Club, London. W. A. WARD & CO., Sole Agents for B. C.

Salmon Trolling. They are coming now. We have all sorts of SPOONS, LINES, RODS, GAFFS, ETC. FOX'S, 78 GOVERNMENT STREET.

CITY AUCTION MART. 58 Broad St. Wm. Jones. Dominion Government Auctioneer.

BUTTER. Fresh Dairy Butter, equal to Creamery, arriving weekly by refrigerator car. J. CLEARHUE, COMMISSION MERCHANT.

MONUMENTS. BE SURE TO GET STEWART'S PRICES. Roslyn Coal. LUMP OR BUCK \$8.00 per ton...

HARD TO BEAT. Top Shirts, Tweed Pants and Overalls. J. PIERCY & CO., Yates Street, Victoria.

CARPENTERS' TOOLS. ALL KINDS OF BUILDERS' HARDWARE, PIPE, IRON AND STEEL, PAINTS AND OIL SOMETHING GOOD: IRONITE VARNISH. NICHOLLES & RENOUP, LTD.



ACRICALTURAL

WARNING AGAINST TRAP-LANTERNS.

Trap-lanterns as destroyers of insect pests have been recently much discussed in the northern and western portions of Canada...

Many kinds of insects are most active at night, and are then often attracted to light, but there are hosts of insects that fly mostly in the daytime...

Experience shows an orchardist or a grower of small fruits has no use for a "nocturnal" or "night" catcher...

As trap-lanterns can have no effect upon fungous diseases, they can never take the place of the spray pump and Bordeaux mixture...

There are instances in which trap-lanterns may prove useful, such as where some light-loving insect becomes a pest in green houses...

The outcome of all the experiments made every where renders it doubtful if these aids help enough in our insect war...

A LVELY CORPSE. An amusing story about M. Coquelin is going the rounds in Paris...

STUMBLING WRECKERS.—Undone and overdone! Discouraged and despondent! Emaciated nerve wrecks!

IN HEART DISEASE IT WORKS LIKE MAGIC.—For the past several years I was afflicted with Heart Disease...

The Annual Garden Party. OF THE CHRISTIAN ENDAVOR SOCIETY OF ST. PAUL'S CHURCH...

Household Effects, Books, Carpets, Etc., I will sell, under a warrant of distress, at public auction...

Public Auction. I will sell, under a warrant of distress, at public auction...

Public Auction. I will sell, under a warrant of distress, at public auction...

Purity, Accuracy, Skill. JOHN COCHRANE, CHEMIST, N.W. Cor. Yates and Douglas Sts.

WORK OF POLICE IN SOUTH AFRICA. CONSTABULARY WELL LIKED BY THE BOERS.

They Are Grateful for Protection—Many Late Staats Artillery Officers Apply for Posts.

A recent dispatch to the London Times from Johannesburg, dealing with the work of the constabulary...

One cannot help being sorry for men who, after serving through the campaign in South Africa, are for some reason or another sent to India instead of England...

The constabulary are divided into four divisions—Western Transvaal, Northern, Eastern, and Orange River Colony...

General Baden-Powell recently visited the Banterton and Pilgrim's Rest districts. At the latter place the farms were found practically intact...

MRS. IDA L. ROSER. Brand-Niece of Ex-President James K. Polk, Writes to Mrs. Pinkham Saying:

"DEAR MRS. PINKHAM:—I have been married for nearly two years, and so far have not been blessed with a child. I have, however, suffered with a complication of female troubles and painful menstruation, until very recently."



"The value of Lydia E. Pinkham's Vegetable Compound was called to my attention by an intimate friend, whose life had simply been torture with inflammation and ulceration, and a few bottles of your Compound cured her; she can hardly believe it herself to-day, she enjoys much blessed health..."

districts are divided and subdivided into wards, and troops of 100 men are distributed so as to cover the whole country...

Boers Are Applying. Many of the late Staats Artillery officers have applied for posts in the constabulary...

In conclusion, it is worth noting that the constabulary form a self-contained community, possessing their own 'architects, builders, bricklayers, printers, saddlers and transport departments, and hospitals...

ARMY DRILLA. Veterans From Africa Put Through the Old Routine Again.

One cannot help being sorry for men who, after serving through the campaign in South Africa, are for some reason or another sent to India instead of England...

The following extract from a soldier's letter on this subject is worthy of notice: "After my experience that has been gained in South Africa one would think the common sense would at last begin to play a part in the instruction of a soldier; but one finds some regulations still sticking to the ideas that were in vogue twenty years ago..."

It is some comfort to know that there has just been a change of command in the constabulary, and this shining light is giving instruction, and that the new commanding officer comes straight from South Africa...

THE CHARM OF BRESCIA. The sun lay heavily on Isaac; and the railway journey taken to Brescia left in my brain a golden dangle of heat. It was refreshing, and reaching Brescia, I was struck by the old town, where the roofs almost met and there is always a blessed air of shade to walk in. The climate in Italy is much cooler than the constabulary circles around the open squares. In Brescia the effects of light and shade thus produced were almost Oriental in their vividness; the rough stucco surfaces gilded with intense sunlight bringing out the depths of the blitting shadows...

Brescia is at all times a delightful place to linger in. Its chief possession, the bronze Victoria, and the women with black-veils over their heads slipping along under the projecting balconies and porches like flying fragments of the show...

STUMBLING WRECKERS.—Undone and overdone! Discouraged and despondent! Emaciated nerve wrecks! Not one of you is too deep down in the mire of disease but the story of such potent remedy as South American Nerve can reach you and let you back to good health...

IN HEART DISEASE IT WORKS LIKE MAGIC.—For the past several years I was afflicted with Heart Disease, from which I was cured by Dr. E. J. Bennett's Nerve and Blood Purifier...

VICTORIA, B. C., SATURDAY AUGUST 23, 1902.

THE GREAT AWAKENING OF THE FERTILE ISLAND OF VANCOUVER

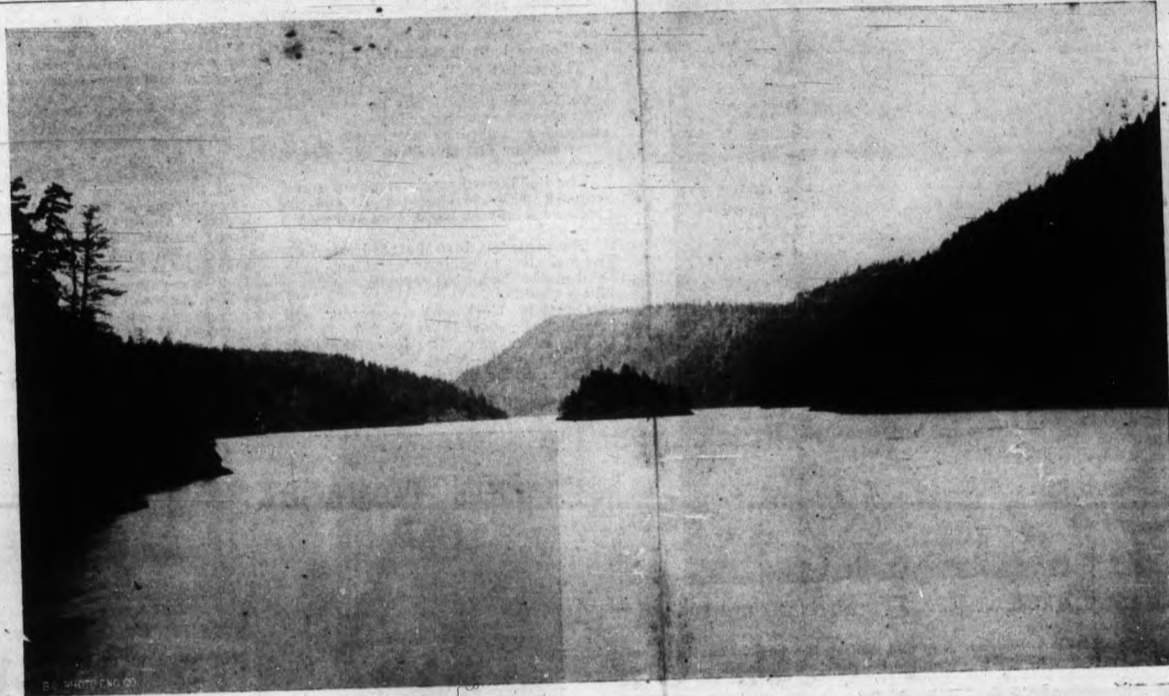
The Blowing-in of the Northwestern Smelting and Refining Company's Smelter at Crofton and the Mining Activity of Which It is the Index—Varied Resources of the East Coast District Tributary to Victoria—A Description of Some of the Camps, and How They Are Reached.

VICTORIA has never lacked a rich territory from which to derive her sustenance and on which to base her development. Half a century ago when population was sparse her aggregate trade was derived from an exceedingly wide territory. To her warehouses came the sealskins of Behring Sea, the heaviest of lumber and trappers as far north as the Arctic, and to her traders were forwarded the precious mineral rocks out of the sands of the streams of Cariboo. The only city of consequence in the province, she was the commercial entrepot, as well as the political capital of the country.

The growth of other cities on the coast, and in the interior of the province circumscribed somewhat the limits which had previously marked the boundaries of trade. The wealthy merchant, who depended upon the winter visit of the northern miner to fill a year's order for the inland camps, found that he must pay more attention to that gentleman, who had now a nearer source of supply, and that even with added attention, his custom was hard to retain. The marvellous growth of southern British Columbia deprived the Victoria merchant of still another market, and gradually he found himself driven back by competition to those fields which lay nearer home. The discovery of gold in the Klondike and the rush of population there, for a time revived the old times and the old customs, but better means of transportation soon minimized the exclusive benefits which that discovery at first conferred on the place. Gradually it has been forced in on the wholesaler and retailer alike of the capital, that they can no longer look for a monopoly in any part of the Mainland of British Columbia or of the Northwest Territories. There, henceforth, they must fight the battle of trade with keen, alert captains of commerce who have equal advantages with themselves.

This discovery has not been relished, and has sometimes been almost resented by the Victorian merchant. But, like the sculptor in the legend who sought the world over for a spotless clay, to

Mount Brenton, Mount Richards, Cowichan lake and Alberni canal—all within a short distance of Victoria—are springing up camps which seem as full of potentiality as those of Rossland or of Boundary. At Nanaimo, at Wellington and Extension enormous coal mines



THE SAANICH ARM—FROM E. & N. RAILWAY.

the immediate vicinity of the capital. One of these is the salmon fishing trade which has hitherto flourished on the Fraser and on northern streams. The sharp competition of the American trap fishermen, however, is working such a hardship on the salmon canners of British Columbia who have been forbidden the use of traps that the advisability of licensing this form of fishing has recently been made the subject of a commission by the Dominion authorities. Should trap fishing be legalized, the shores of Vancouver Island in the immediate neighborhood of the city will become the site of the canning industry of the province, the run of salmon for coast prior to the schools crossing the Straits to the United States side.

The second, namely, the smelting industry, is already practically established within a few miles of the city. At Crofton, three hours' travelling from town, the Northwestern Smelting and Refining Company have erected a six hundred ton smelter, which competent experts pronounce the finest equipped of its kind on the continent. Further up the coast, at Ladysmith, a smaller smelter has already been commenced for the Tree Company at Mount Sicker. The blowing-in of the first named, minimizing as it does the cost of treatment for the ores of the island, is such an important event that the Times has considered it an occasion worth signaling by the issue of a supplement in which this and auxiliary industries will be pictorially described.

The existence of all these within a short distance of the city would, however, benefit little were not good transportation facilities provided for bringing this territory into immediate touch with the city. For years the Esquimalt & Nanaimo railway has furnished an

avenue of traffic to and from the Cowichan valley, and the timber and coal belts above mentioned. But the opening of the mines on Mount Sicker, and the establishment of a smelter and town at Crofton have brought in their wake improved shipping and railway media. The Victoria Terminal railway has now a daily railway and steamboat service to Crofton, Chemainus, Nanaimo and the Islands, while at Crofton connection is made with the narrow gauge railway built by Mr. Croft to the mines. All of these are described in detail in the succeeding pages.

VICTORIA TERMINAL RAILWAY.

A LEADING ARTERY OF TRADE WITH THE RICH DISTRICTS OF THE EAST COAST.

Any description of the industries of the East Coast and their relation to the city of Victoria must first take cognizance of the Victoria Terminal railway and its steamboat connections out of Sidney. This short line has, since its construction in 1893-1894, served as a valuable feeder to the city tapping as it does the rich Saanich peninsula, one of the most fertile of the many productive valleys of British Columbia.

The line was projected in 1893 by Robt. Irving, Julius Brethour, Peter Dewdney, Maynard Cowan and E. G. Tilton, all excepting the second named being residents of Victoria. A charter for it was obtained, the city guaranteeing 2 per cent. on \$300,000. The first train run over the system in the fall of 1894, Mrs. Le Poer Trench being the first lady passenger. The road was actually constructed by T. W. Paterson, of Victoria, who bought the charter from the

original promoters, and continued as general manager of the road until it was taken over by the Victoria Terminal Railway Company.

In 1897 Mr. Paterson had the steamer



TRESTLE OF SWITCHBACK RAILWAY OVER E. & N. TRACKS.

Iroquois built for service in connection with his road among the Gulf islands. This stout little steamer secured a mail contract for the islands, many of whom had practically been without such facil-

ties previously, and on May 1st of the year mentioned she made her initial run, and has been on the route almost continuously ever since. Under the management of Mr. Paterson this short line became extremely popular with the farmers who patronized it, and with the merchants of Victoria, who found it equally advantageous for pleasure or for business purposes. In Jas. Anderson, who assumed the management upon the resignation of T. W. Paterson, the company have found a serious and energetic officer who loses no opportunity of pushing the interests of the corporation with which he is identified.

In 1901 an agitation began for the extension of the Victoria & Sidney railway system on the lines originally contemplated in the De Cosmos scheme. This was to prolong the railroad to Swartz Bay, transport cars by steam ferry across the Gulf to the mouth of the Fraser, and continue the rail service up through the rich valley of the Delta to connect with the Great Northern railway system, and with other railways which penetrate that country. Actively identified with this proposal were a number of gentlemen, of whom E. V. Bodwell, K. C., was the principal, and in November, 1901, these parties who had incorporated as the Victoria Terminal Railway Company took over the Victoria & Sidney railway.

In December of the same year a by-law was passed by the city of Victoria of which the principal provision was the granting of a bonus of \$15,000 yearly to this company for a period of twenty years. In consideration of this bonus the line was to be extended into the city, making its depot in the market building, for which a lease was granted for twenty-five years for the sum of \$400 yearly. On the completion of its undertaking the city was to remove the fire department from the market building and to receive \$7,500 therefor.

Not only was the line to be extended into the city, but a suitable steam ferry was to be placed on the Gulf, transporting passengers, and freight in bulk, across the Gulf to the mouth of the Fraser, and there connecting with the Great Northern railway system. This

ferry is to be capable of carrying four hundred passengers each trip, and carry not less than eight loaded freight cars. The ferry is to be capable of a speed of fourteen knots. Contracts were to be made with the Great Northern for the carriage of unbroken Great Northern freight into the city. The passenger rate was limited to \$2 each way. In the city, connection was to be made with the E. & N. railway system.

This arrangement is now in process of being carried out, and already the service by the road has been greatly improved. The steamer Iroquois was purchased by Mackenzie Brothers from T. W. Paterson, and with the little steamer Mystery, also purchased by this firm, was placed under the house flag of the Sidney & Nanaimo Transportation Company. The big barge Georgian was bought and fitted up at a cost of \$7,000, and strengthened so as to carry twelve ordinary freight cars. Towed by the Mystery this barge forms the forerunner of the regular steam ferry system which it is proposed to install, and for which the contract shortly to be let. Ferry slips were constructed at Sidney, while the Great Northern built a slip at its terminus at Liverpool, on the Fraser river opposite New Westminster. From this slip Great Northern cars are transferred to the Georgian, and carried not only to Victoria, but to Vancouver, where a slip has been built at False creek. The Terminal city thus reaps the advantages accruing from Victoria's enterprise. Another slip is to be built at Chemainus so that lumber and timber can proceed East in bulk from this great mill.

But the most notable addition to the company's fleet is the stern wheeler Stranacoda recently acquired from the Hudson's Bay Company, and put on the direct run from Victoria to Nanaimo, with Crofton and Chemainus as ports of call. This fine steamer has provided a daily service to and from the Coal City. At Sidney a new wharf has been built



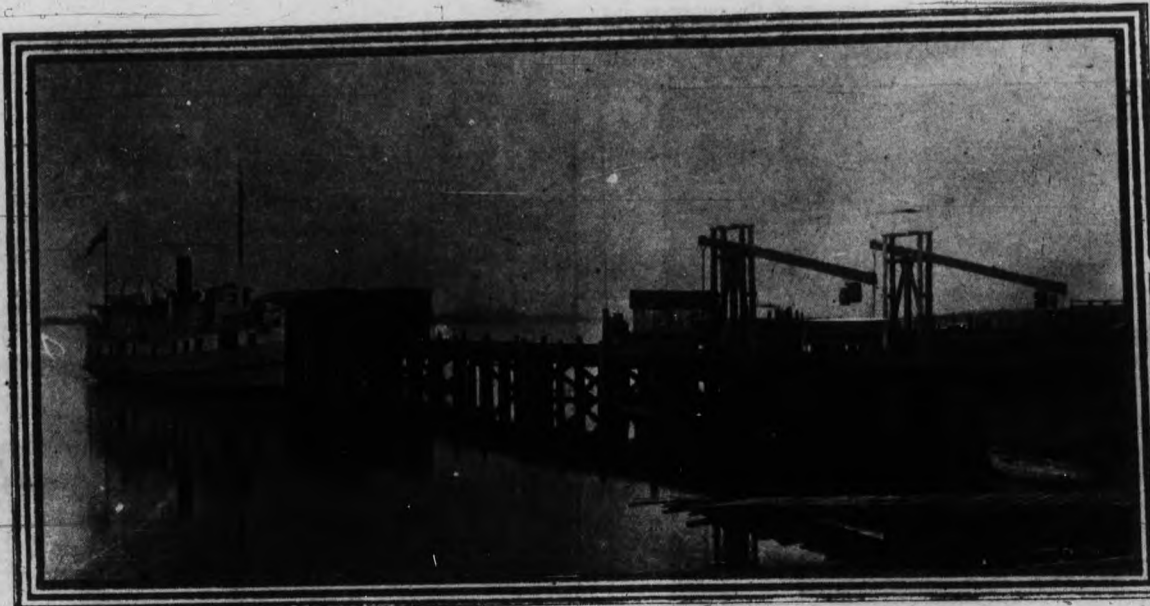
DUMP OF LENORA MINE, MT. SICKER.

find it at last under his own hearthstone, the Victorian merchant has found that close at hand lie avenues of trade which would excite his envy if they were further afield. Perhaps because of their very nearness he has been disposed to despise their possibilities. But while the hardy prospectors have been uncovering the rich lodes of the Klondike, rocking out the glittering metal in Omineca and Cariboo, striking rich quartz claims in Kootenay and Boundary, his species has not been altogether idle on Vancouver Island.

Its wealth of timber, its fisheries, its coal and gold, silver and copper, virgin soil and delightful climate, all these have allured pioneer and prospector alike, while its valleys have beckoned those who prefer the profits and the contentment of a more bucolic corner. The result is that while certain markets have been slipping away from the Victorian, others have been springing up under his very feet, which if he will but exploit he will find quite as remunerative as the greener fields which beckoned him from the distance.

Within a radius of one hundred miles of Victoria, industries have been developing for a quarter of a century until now they are representative of almost every department of activity in British Columbia. Throughout the Saanich peninsula, the Cowichan and Comox valleys, and at numerous other parts agriculture has been industriously wooed, until to-day these districts have become among the most famous of the whole province. Chemainus is the basic source for a lumber and timber industry which includes in its miles of the finest timber in the world. The islands of the Gulf, and the agricultural belt already referred to, nourish orchards where everything from the hardy apple to the exotic peach and prune flourishes in abundance. On Goldstream mountain, on Mount Baker,

furnish the means of support to a large and desirable population. In addition to the industries mentioned there are two others which from present indications will find their seat in



WHARVES AND SLIP OF V. T. RAILWAY AT SIDNEY—STEAMER IROQUOIS AT DOCK.

270 feet in length, while \$4,000 has been spent in improving the road-bed of the line from Sidney to Victoria. Contractor T. Brydon is just completing a fine double tracked car shed at Hillside avenue, 200 feet long and 28 feet wide, with a capacity of twelve coaches.

The railway has been extended to the city market, a distance of one mile and an eighth. This has been made expensive by the necessity of purchasing considerable property as a right of way, the whole expense of acquiring property being in the neighborhood of \$20,000. At Crofton a fine new wharf has been built 470 feet in length, by the Townsite Co., and on this the company has laid standard and narrow gauge rails for their own cars and for the cars of the Lenora and Mt. Sicker railway.

A new engine has been bought from the Victoria Lumber Company, while the company is now completing an order for two new coaches.

The Great Northern has so far recognized the advantages of the system, that they now quote Victoria as one of their terminals, and insure all cars crossing by the Gulf ferry to this city.

THE CROFTON SMELTER.

DESCRIPTION OF THE FINE ESTABLISHMENT WHICH WILL BE BLOWN-IN IN A WEEK OR TWO.

In about a week's time an event will take place at Crofton, situated about 40 miles from the city, which is pregnant with promise for the Island, and an

borne Bay in the shadow of the smelter buildings. To-day, too, the smelter is practically complete, and Vancouver Island can boast of a seven-hundred ton smelter, one of the most thoroughly equipped and up-to-date in the country.

From the sea, as the steamer approaches Crofton, the buildings present a most imposing sight. But it is when the visitor passes through them and examines the massive frames, the ponderous machinery, and the complete plant which is being installed, that some estimate is formed of the importance of the work undertaken. It is estimated that the machinery alone will cost \$250,000, not to speak of the building itself, and accessories.

Ore coming either by rail or steamer will be landed at a wharf 750 feet in length, with sufficient depth alongside for an ocean liner to dock, and with wide and ample access from the sea, while at the same time protected from storms. It is then conveyed in cars to the top of the receiving bins into which it is dumped.

There are six of these bins, each with a capacity of 300 tons. Each is fitted with two doors or gates at the bottom, operated by a lever from the outside. Through these gates the ore is fed to the large Blake crusher, from which it is carried by a bucket elevator 85 feet to the top of the mill, and fed to the first sampler.

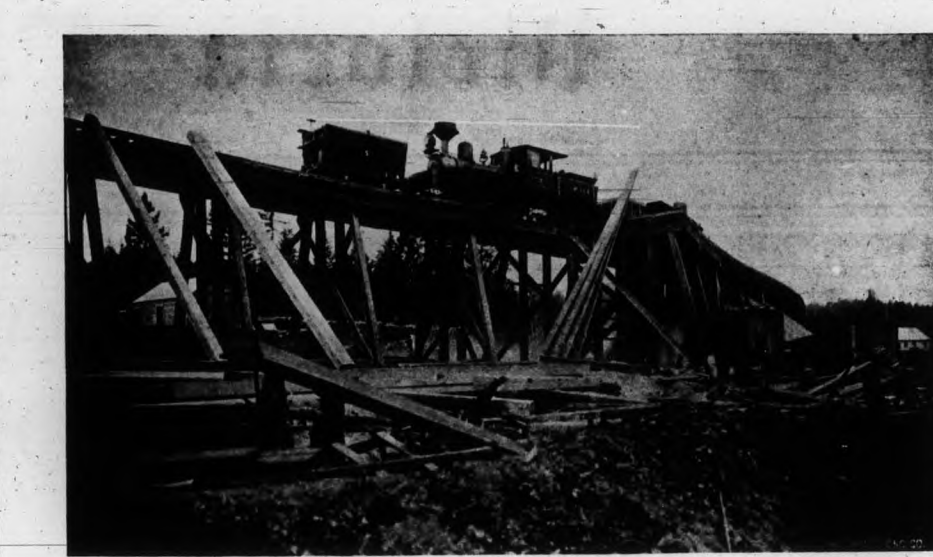
The sampler cuts out about a fifth of the stream of ore falling on it, and feeds to the secondary Blake crusher; the product from this is again sampled, and the sample goes to the rolls, where it is crushed still finer and passes once more through the sampling process. This last sample is then ground to pass

fluxes, is fed into the furnaces, and these smelted by means of an air-blast forced in through the tuyeres close to the bottom of the furnaces. This air is furnished by two Connersville blowers supplying 150,000 cubic feet of air per minute, driven by an 18x42 inch Corliss engine, so fitted that at any time it can be compressed if more power is required. From the blowers the air passes through a 5 inch main to the furnaces.

The smoke and waste gases from the furnaces pass through the down takes to the dust line, a brick tunnel 300 feet long, 12 ft wide, and 10 feet high, so fitted with doors that any fine ore or flux dust which settles in it can be taken out in cars, and resmelted. Further provision for the recovery of fine dust is made by an expansion chamber 40x20x20 feet similarly fitted with doors. This chamber communicates with the large brick stack 120 feet high, and 45 feet in circumference at the base. This by the way is one of the largest and best constructed stacks in British Columbia.

To return to the furnaces. The ore in the form of slag and matte flows out of the furnace into the water jacketed receiver, where the matte is settled out, the slag while still molten flows into a running stream of water, and is granulated and carried away like sand.

This matte contains about 50 per cent. copper, with the gold and silver of the ore together with iron, sulphur and other impurities. This is the product which most of the smelters ship to the East, but the N. S. & R. Co. are installing a converter plant and will treat their own and other mattes. Immediately below the furnace build-



ORE TRAIN ON TRESTLE LEADING TO BINS.

ings, the converters to the feed floor is also hydraulic.

The hydraulic power is furnished by a large Smith-Vaile pump and accumulator located in the engine room, which is 75x40 feet. Here also is the compressor furnishing air for the converters, the Connersville blowers, and the main and electric light engines. Steam for these is brought from the boiler house to the north, a building 60x40 feet, in which are three 200 horse-power return tubular boilers built in Victoria.

The plant has its own water supply. A flume over a mile long discharges into two 100,000 gallon tanks on a rise 180 feet above the smelter, whence it is piped through an eight-inch main, giving ample pressure for fire protection and general uses.

The buildings throughout are of wood, covered with corrugated iron, and are built as solidly as wood, iron and masonry can make them. The plant has been designed especially with a view to enlargement at any time, and can be doubled in capacity with very little trouble.

Complete blacksmith, carpenter and machine shops are being erected. The assay office is one of the most complete in the West.

The sampling mill is already in opera-

point of business upon laboring men, it is singularly exempt on the one hand from instances of extreme poverty, and on the other from cases of marked affluence. In contrast with most of coal mining towns, the population is largely a settled one. Most of the miners have their own homes and look forward to spending their lives in the city.

Situated in the midst of rich mineral resources, the city seems destined to some day be the centre of great industrial activity. Coupled with this is the marked advantage which it possesses of being located on a harbor second to none on the east coast of Vancouver Island, a harbor which requires little attention in the way of dredging to keep its waters deep enough to float the largest of ocean-going vessels. It lies in the middle of the great coal deposits of the eastern portion of the Island, while the mountains almost immediately behind the city contain rich deposits of copper and iron. The work of prospecting these mountains has as yet been carried on only in a desultory manner, but enough has been done to prove in some measure the treasures which lie hidden with an easy reach of the city. About twenty-five or thirty miles from the city, at Green Mountain, a local organization, the Jubilee Company, has carried on

seeking such investments.

The present uncertainty respecting the effect of fuel oil upon the coal trade may yet be found to have been a blessing in disguise, and the necessity of seeking means for utilizing the coal out put in close proximity to the mines rather than depending, as formerly, entirely upon foreign markets, may lead to the building up of local industries which, in addition to affording a ready means of disposing of the coal production, will also give the city the advantage of a variety of inter-related industries. In the past it is true sufficient attention has not been given to fostering such works, but under present conditions this will probably be much more closely watched and advantage will be taken of any opportunities presenting themselves.

Few points offer to the tourist the advantages which Nanaimo does. To the lover of angling the mountain streams and lakes within easy reach of the city abound with fish. The harbor and surrounding waters also at seasons are very well supplied with salmon, herring, cod and other salt water fish. At no season of the year does the angler lack an opportunity to find enjoyment in his favorite pastime. The harbor during the salmon run and again during the herring season presents a very pretty picture.



CROFTON SMELTER FROM BAY, SHOWING HOTELS OSBORNE AND CROFTON TO RIGHT.

event of the greatest significance to the whole province. This is the blowing-in of the new smelter, just completing for the Northwestern Smelting & Refining Company. The erection of these works is the first serious attempt made towards treating Island ores on the Island, and the products of the mines hitherto having been transported by rail and steamboat to similar smelters on the American side of the line.

With the phenomenal development of the mines on Mount Sicker, the attention of mining men was naturally attracted to Vancouver Island as a site for smelting and converting works. Among those whose attention was thus enlisted was Messrs. James Breen and H. C. Bellinger. The first named gentleman has a continental reputation acquired in connection with his successful work on the Northport, Trail and Butte smelters. Among mining men, his action in investing in Vancouver Island is a sufficient indication of the wealth of the country, for he is properly rated as one of the shrewdest and brainiest men in the business to-day. Associated with him in the enterprise was H. C. Bellinger, who had been of with Mr. Breen in the works mentioned as metallurgist, and on whose shoulders fell the work of personally superintending construction work on the new buildings. Mr. Breen is the president of the Northwestern Smelting & Refining Company, and its general manager, while Mr. Bellinger is the assistant manager and metallurgist in charge.

These gentlemen having selected a site for their works at Crofton on Osborne Bay, immediately started work on the buildings, and so rapidly have they rushed construction work, that in the course of a week or fortnight, in spite of vexatious delays owing to strikes, lock-outs, etc., in the States, they will be ready to blow-in their smelter. An event so auspicious has been deemed an appropriate one for the Times to signalize by the present issue, describing not only the smelter works themselves, but the riches of contiguous districts.

It was on the 10th of February of the present year that the first sod was broken for the smelter, which is illustrated in this number. Almost immediately a town began to spring up about the site, until to-day, little more than six months later, a pretty little settlement clusters along the shores of Os-

borne Bay, and nearer the bay is another corrugated building. This is the converting department and is 120 feet by 40 feet. Here are the converters—immense barrel-shaped affairs into which the white hot matte is tapped and there "blown" by means of compressed air furnished by a large blowing engine. This results in burning out the iron, sulphur and other impurities of the matte, leaving a product known as black copper, or "blister."



ORE TRAIN ON SWITCHBACK RAILWAY.

The furnace building, 120 feet by 50 feet, is covered with corrugated iron. It is here that the ore from the storage bins is brought to be smelted. There are three furnaces—two large water-jacketed furnaces of 350 tons capacity and one 20-ton concentration cupola furnace, thus giving a total smelting of 750 tons per 24 hours.

The ore, with the necessary coke and

containing 98 or 99 per cent. copper, together with the precious metals. This is cast into moulds and when cold is loaded on the cars right at the door and shipped direct by ferry to the Mainland and thence to New York.

The handling of the converters and mould carriages is accomplished by hydraulic gear. The large platform hoist



A VIEW OF THE MAMMOTH STACK.

tion, having been started over a month ago, while 4,000 tons of Lenora are being roasted as an experiment. The whole output of the Lenora mine is contracted for, but the company expect to treat ores from British Columbia, Alaska, and from South America as well.

NANAIMO CITY.

THE CENTRE OF THE GREAT COAL INDUSTRY OF VANCOUVER ISLAND AND OF A RICH MINERAL BELT.

Nestled under the shadow of Mount Benson on a sheltered rock-bound bay, forming a perfect harbor, about eighty miles north of Victoria, is situated the city of Nanaimo, a city dependant in

very considerable development work on their claims. Over \$10,000 has been spent in this work, and the company feel that the future of their mines is assured, and that with transportation facilities to attract the attention of capital the mountains lying round about will become a second Mount Sicker camp and a great copper producer. Within the past few months representatives of the Jubilee Company have discovered on Mount Butler, a spur of Green Mountain, copper ore pronounced as rich as any ever found on the Island. The samples brought to the city looked almost like solid copper. Local companies have also claims located in the region of Cameron lake. Throughout the region intervening the mountains are known to have both copper and iron deposits. Lying in such close proximity to the vast coal deposits that exist about the city, the opportunities for immense smelting works are likely to attract the attention of capitalists

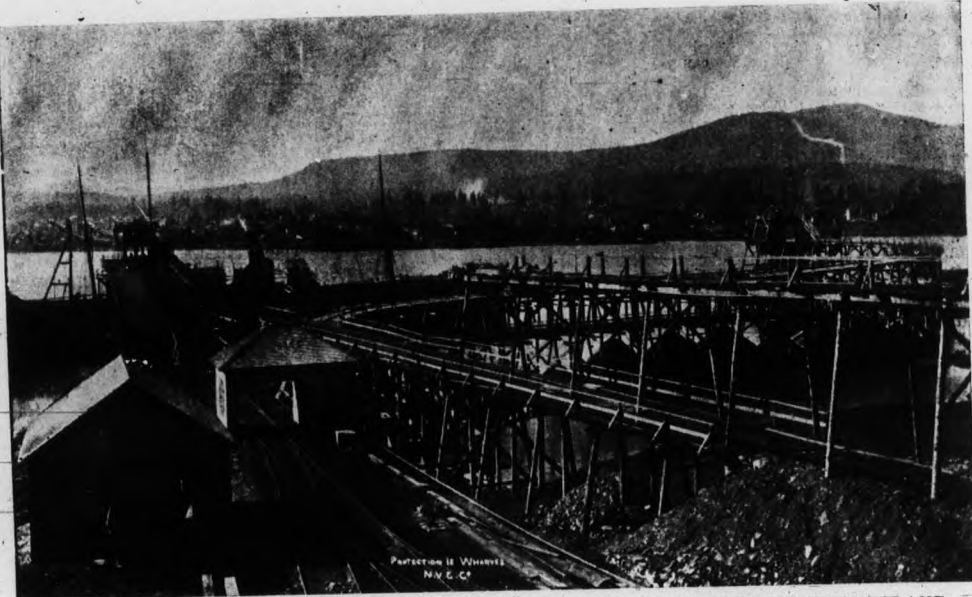
being every evening closely dotted with boats, the occupants pursuing this fascinating sport.

To the hunter the opportunities for getting almost whatever game he chooses within very easy reach of the city makes it an ideal place to choose as the headquarters for the hunting season. An early start in the morning brings the hunter to the snow-clad mountains about twenty-five miles back from the city by noon. Among these the largest of game may be found, and he who loves to number bear among the victims of his rifle has here splendid opportunities of securing them.

The situation of the city itself is a most picturesque one. Viewed from the water as the entrance to the harbor is made, the city proper rises gradually from the water front to the summit of Hospital Hill. Mt. Benson, which forms the background, is made to appear even closer than it really is, and appears to



VIEW FROM REAR OF SMELTER LOOKING SEAWARD.



VIEW OF NEW VANGOUVER COAL CO'S WHARVES AND SHAFT AT PROTECTION ISLAND.

of lighting, including both electric and gas lights, are in use, while connection by telephone is had not only throughout the city but by means of the long distance line with Victoria and all intervening points on the island.

The great industry of the city has ever been coal mining. From the days when it was, but a Hudson Bay fort up to the present time coal has been the mainstay of the place. While other industries are now being developed in the

not a mining company, but, on the contrary, was more interested in other lines of trade. They therefore disposed of their coal measures in 1862 to the Vancouver Coal Company, who at once pushed the work vigorously forward. This company has ever since had the conduct of the business, although in 1889 a re-organization took place and the company extending its operations became known as the New Vancouver Coal Mining & Land Company. By business ability,

tails in itself a very considerable amount of work.

The works maintained above ground are necessarily very great in order to provide the power utilized in working such an extensive system of mines as exist in connection with No. 1 shaft. Engines of 500 horse-power are provided to do the hoisting, which is accomplished by cables. There also is close at hand the first essential of a coal mine, the great fan which creates throughout

are in use. These afford every facility for the quick filling of coal into the carriers which call regularly. In addition to these bins have latterly been provided which are very convenient, lacking, however, the perfection of the bunkers. On the opposite side of the harbor, on Protection Island, bunkers and bins of nearly as great capacity exist.

With the increasing demand for sack coal for the northern trade the New Vancouver Coal Company have made



GENERAL VIEW OF BUSINESS SECTION, NANAIMO CITY.



OLD H. B. BASTION, Nanaimo.

similar works. The foundry has on hand a consignment of Texada pig iron which has been smelted at Iroindale. Tests of this iron for the purposes for which it is required are being carefully carried on in the works, so that ultimately a very considerable amount of the iron used in the works may be derived from that source.

The Union Brewing Company, owned by local capitalists, does a very extensive trade. Under the management of Henry Reife, improvements have from time to time been made. A visit to Milwaukee and the cities of the east and to Germany and Austria was undertaken last year by Mr. Reife for the purpose of getting the latest ideas in connection with the brewing of beer. A cold storage plant has been installed at the brewery, which serves not only the purposes of that institution but also provides the ice supply of the city. A building specially adapted for the work has been provided for receiving produce from merchants and butchers, and at a low rate cold storage is afforded them for any articles they may require to have so stored.

Departure Bay, only three miles from Nanaimo harbor, is regarded as a superior harbor to that of Nanaimo. It was formerly the shipping point for both East Wellington coal and also the Northfield mines. It is now utilized by the Hamilton Powder Works, who have a branch of their works established there. Very considerable shipments are made by the company from these works to the Yukon of late. The two harbors of Nanaimo bay and Departure bay are connected by a channel lying between

MAYOR MANSON, Nanaimo.

rise immediately behind the city. The view from the higher portions of the city is one which changes in beauty of nearly every hour of the day. The wooded islands of Newcastle and Protection form the outer shelter to the harbor. To the southwest lies Gabriola island, while across on the Mainland the outlines of the succeeding mountain ranges every hour changing in aspect rise in view. Looking inland from Hospital Hill, the highest point in the city limits, Mount Benson and its foothills rises within a few miles of the spectator.

Below, in the intervening space, is spread the valley forming the farm of the New Vancouver Coal Company, and the Five Acre lots cultivated by the employees of the company, upon which comfortable homes, surrounded by orchards, have been built. The company themselves have about eight hundred or one thousand acres of land under cultivation, devoting it to the supplying of fodder for the horses and mules employed either about the works or below in the mines.

With a population of between 6,000 and 7,000 inhabitants a system of single tax is in force for municipal purposes. Only land values are assessed, and the holder of vacant lots is made to bear the same share in the city's current expenses as he who builds upon his lot a home for himself. In general the system has been found to work very satisfactorily, and very seldom is a murmur heard against it.

The growth of the city has been gradual. At first a Hudson Bay post, and the old bastion from which the early officers of the company protected themselves against the Indians still stands

city, yet the pulse of the commercial life of the city depends altogether upon the coal market, and the slightest tendency towards depression in connection with that market is immediately felt in the business of the city.

In a similar manner to that in which most of the coal beds of Vancouver Island have been discovered the presence of the rich seams at Nanaimo were made known by accident. An Indian is said to have first given out to employees about it is known as No. 1, and is sunk to feet in depth and from it connection is made with the Protection island workings and the Newcastle workings. The

coupled with the possession of a first class quality of coal, the company has been able to keep up a steady output during these years. While the average monthly production for some years has been kept very regularly at from 40,000 to 50,000 tons, yet the mines have at times run as high as 60,000 tons in a month.

At the present time there are employed in the mines about 800 men. The main shaft is known as No. 1, and is sunk to feet in depth and from it connection is made with the Protection island workings and the Newcastle workings. The

every place in the mines a thorough circulation of air. This fan never ceases work, and by means of intakes both at Protection and at Newcastle islands a perfect circulation is kept up and the ventilation of the mines is kept well nigh perfect.

Three miles from the city No. 5 shaft is being worked. It will be but the matter of a few months until this mine is deserted. The work of drawing the pillars is now in progress and the life of No. 5 is thus ebbing out. A connection is made with No. 4 mine, which affords a means of ventilation by allowing of a free circulation of air. This connection also affords the means of secondary escape in case of an accident occurring in the mine, as required by law.

Another mine which is being worked to some extent is Harewood. It is an old mine, having been worked intermittently for many years. It has never proved a good coal producer, though the indications are that first class coal exists there. Only a few men are employed at it, and it is expected that it too may soon suspend operations. It is connected with the bunkers and the wharf by railway.

In addition to the miners employed there is also a considerable staff of mechanics of various trades who are kept at work in the different workshops of the company.

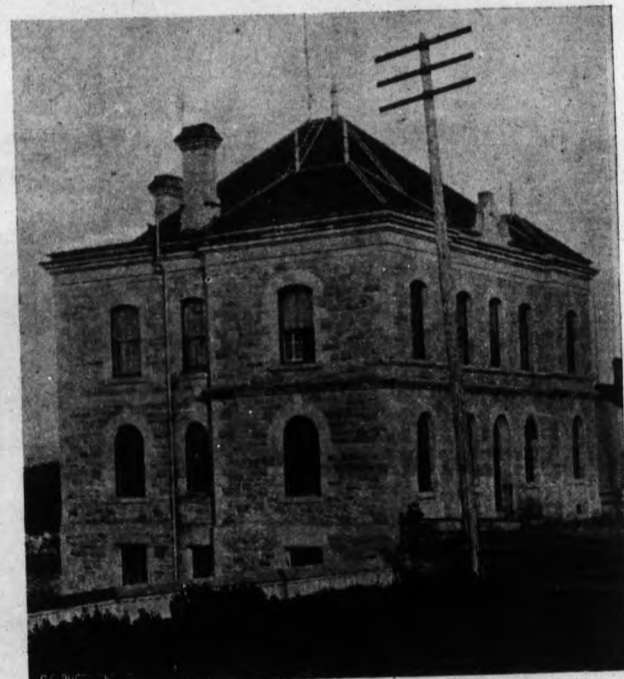
The superintendent of the mines, Mr. S. M. Robins, who has for the past eighteen years filled the trying position of watching over the operations of the mines, has ever since the organization of the Vancouver Coal Company, forty years ago, been in its employ. After twenty-two years in the head offices at London he was given the responsible position of superintendent of the mines. The remarkable success which has attended his management is a sufficient proof that the choice made by the management was a happy one. He has shown singular adaptability for the office. Between him and the employees of the company there has throughout these many years existed a singularly good feeling. He has taken a deep interest in the comfort and welfare of the men in his employ, a favor which has not been bestowed in vain, but has been repaid by the men showing a readiness to co-operate with the company in advancing the interests of the mines.

A marked example of this cordial relationship between superintendent and miners was shown in the action of Mr. Robins in calling the executive of the Miners' Union together a few days ago and laying before them the condition of the coal markets, announcing that the circumstances indicated that they would be required to work shorter time for the present. In the management of the affairs of the mines Mr. Robins is assisted by an able staff, with Thomas Russell as manager, and William H. Wall chief engineer. The directors of the company, whose head office is in London, England, are John Galsworthy, chairman; Edward Andrew, Fred Tendron, Thos. Blair-Reynold, Wm. Curtis Thomas. The secretary of the company is Joseph Ramsden, London, England.

The wharves of the company are excellently arranged. On the city side bunkers with a capacity of 10,000 tons

every provision for this branch of the business. They have proved their ability to handle this business with equal satisfaction to that of the other departments.

While coal mining is its staple industry it is not the only one which Nanaimo possesses. The production of lumber is an ever-increasing trade. The Nanaimo sawmills are the property of Andrew Haslem, whose mills have a daily production of about 50,000 feet. The industry was established on a limited scale in the eighties. It is now an industry which exceeds the local demands in point of output. The log supply has been derived largely from Duncan Bay. Lately the forests of James Inlet have attracted the attention of Mr. Haslem, and he has



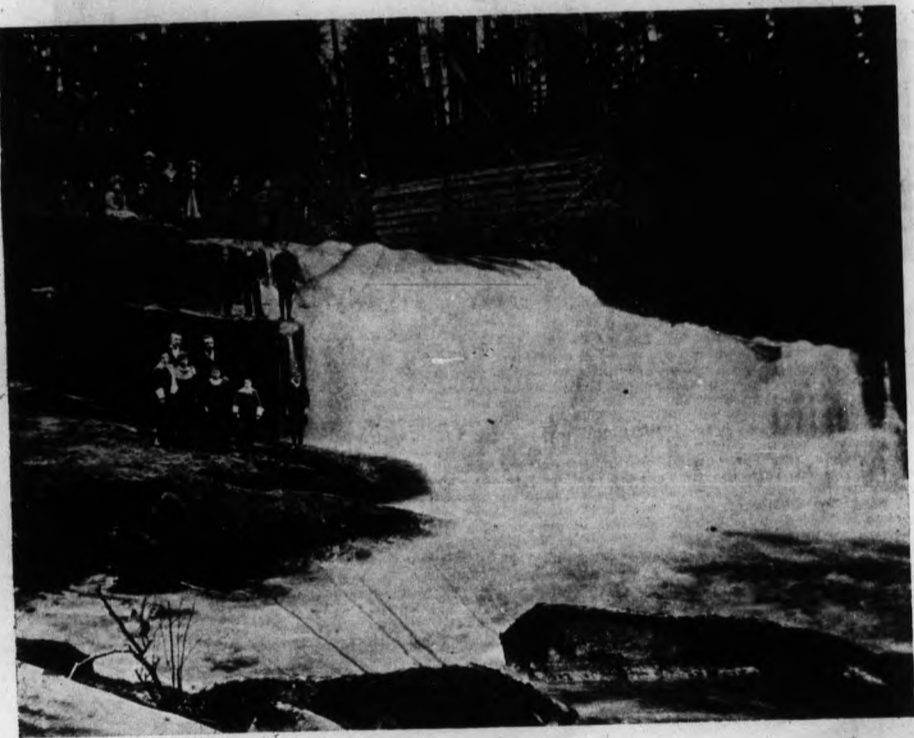
POST OFFICE, NANAIMO CITY.

towed a considerable supply of logs from that place. Work finer in quality than the production of rough lumber has also occupied the attention of the management. The finest qualities of mouldings, cornices, etc., are being manufactured, and in some instances requiring special office fixings and similar work the work turned out by this mill has been such as to compare most favorably with any produced.

The foundry, under Mr. Dobeson, has also of late extended its line of operations. It has taken up work never before attempted in the works. Among these were the furnishing of hydrants for the waterworks department, and

Newcastle island and the Newcastle townsite. This channel affords a passage for steamers and is protected from all winds.

Nanaimo's citizens are lovers of outdoor sports, and every form of game has many ardent devotees in the city. With splendid facilities for boating, it is but natural that yachting and rowing should be indulged in to a considerable extent. The presence of so many islands in close proximity is a further inducement to this form of recreation. Of late a very considerable fleet of gasoline launches has been made to form a convenient means of plying among the bays and passage ways which lie off the city.



MILLSTREAM FALLS, NEAR NANAIMO CITY.

near the waterfalls remind visitors of the fact that the historic company of the fact that the city, it has laid the foundation of a character to do credit to any city. Realizing that it was destined to be more than a mere coal mining camp, provision has been made as the years went by for permanent improvements in the city. A very complete system of waterworks which is being radically improved upon, is in use. Formerly the property of a local company, it has now been acquired by the city. The supply is obtained from the mountain streams immediately to the eastward of the city. With the late improvements a very liberal supply for household purposes and for fire protection is given the city. Modern systems

exist at Nanaimo. The development of the mines spread from this, and about 1853 the Hudson Bay Company commenced the business of coal mining on rather an extensive scale. About what is now the most populous parts of the city shafts were sunk and tunnels driven in the work of getting the coal. San Francisco early became the most important market for the product of the mines, and ever since it has remained the great consumer of Nanaimo's coal. The city of Victoria at one time became a very considerable rival of San Francisco in this way. The constant calling of vessels for the purpose of coaling made it a very large consumer of Nanaimo's output.

But the Hudson Bay Company was

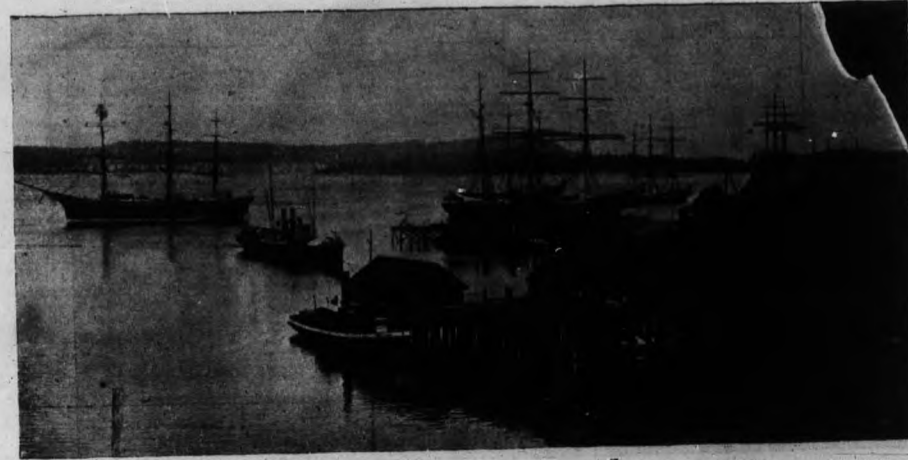
coal in connection with this system of connected workings lies underneath the waters of the harbor. As the work continues outward the seam dips still deeper. At the lowest point in the Protection island workings at which work is being carried on, the depth is about 1,500 feet below the level of the sea. According to borings and to calculations made the depth of the seam by the time it reaches Gabriola island is believed to be perhaps 3,000 feet below the level.

The workings are all on one level, and a most complete system is necessarily carried out. Two dynamos, providing 150 horse-power each, are employed by the company in furnishing the necessary power for operating the electric motors and lighting the great passage ways in the mine. There are in this mine alone over twenty-five miles of railway tracks laid for the purpose of carrying coal below ground. The entire length of passages, including all descriptions of such in this mine, would be at least 100 miles. It is conservatively estimated that at the present time work in all the workings connected with No. 1 shaft will cover an area of well on for four square miles. The thickness of the seam has ever varied considerably, running from three feet to fifteen and twenty feet in some places.

In addition to the motors used below a very complete system of mule service must be employed. There are 102 mules down in these workings. These are comfortably stabled in the mine, and are given the best of care, Superintendent Robins insisting upon every animal employed in the company's work being cared for with the greatest attention and allowing of no overtaxing of an animal's strength. These stables are well lighted by electricity, and, strange as it may seem, every comfort provided them. All fodder must be prepared, sacked and taken down the shaft to provide for these animals, which en-



CENTRAL SCHOOL, NANAIMO.



NANAIMO HARBOR, SHOWING SHIPS AWAITING COAL CARGOES.

A BIG LUMBER CONCERN.

THE VICTORIA LUMBER & MANUFACTURING CO., LD., OPERATING AT CHEMAINUS ON THE EAST COAST.

This company was incorporated April 6th, 1889, the stockholders being principally residents of the United States. Having purchased from Henry Croft and his associates the small mill and mill site then at Chemainus, soon after the Esquimalt & Nanaimo railway land grant was made, they entered into negotiations with the E. & N. Ry. Co. for

superseeded the logging with horses, as surely as the horses had taken the place of the old-fashioned ox teams. Their method is as follows: A cruiser goes out through the woods, noting the lay of the land, the quality of the timber, and how it will have to come out; the cruiser is followed by an engineer, who runs the lines through the timber, taking elevations, etc.; when a suitable route is found the main line is surveyed out, graded, and track laid.

This main line is built for a distance of two or three miles up into the timber, and from it spurs are built from either side, reaching from the main line to the boundary of the company's land on either side. Where the grades on these spurs per-

haul the logs in on to the landing, where they are loaded on to the cars.

In event of the grade on the spur being too steep for the operation of cars, another system, called "trailing," is used. The ties in the middle of the track are covered with two inch plank, side pieces of 6x6 are placed just inside of each rail, donkey engines are placed at intervals along the road, they haul the logs out of the woods to alongside the road, a geared locomotive starting at the far end of the road takes charge of the logs, which are rolled into the centre of the track, dogged together, and hauled along on the plank between the rails; as the engine passes each donkey the logs they have ready are rolled into the track and attached to the turn;



MILLS OF THE V. L. & M. CO. AT CHEMAINUS.

the purchase of all the timber lands contained in their grant. Numerous parties of expert cruisers were at once put in the field, and the E. & N. railway lands from the Koksilah river on the south to the 50th parallel on the north, were thoroughly cruised, and all the lands suitable for logging and containing timber were selected, and purchased by the Victoria Lumber & Manufacturing Company. These lands were not taken up in sections or blocks, but the lines were run just around the timber, taking in no land but what was suitable for logging. The result of such thorough cruising, and the manner in which the lands were selected, is that this company now owns one hundred and sixteen thousand acres of the best timber lands on the Island. This timber lies along the Koksilah and

mit, the logs are hauled on cars down to the main line, in which case landings are built at intervals along the spurs. The tops of these landings are just level with the bunks on the logging trucks. As soon as the spurs are graded, and while the rails are being laid and the landings built, the fallers come in, felling the timber that is to come in over that spur, these are followed by the buckers, who cut the fallen trees up into logs of suitable lengths, then the swamps are cleared out and get everything ready for hauling. When the landing is completed one of the large donkey engines is brought, and placed on one end of the landing securely anchored to convenient trees or stumps, the end of the steel wire rope is taken by a line horse, hauled into the woods, one end of the rope is at-

these are finally dragged down to a landing on the main road, where they are loaded on to cars. The company are using a 25 ton "Climax" geared locomotive, trailing over about two miles of road, which runs up and along the side of Mount Brenton. For collecting the loaded cars from the different landings, spotting the empties, and making up trains, they use a 40 ton "Shay" engine; when this engine has the train made up it is taken in charge by a 60 ton consolidated, eight driver, locomotive, and hauled down to the unloading wharf at the head of Horse Shoe bay, where by means of a crane and a donkey engine the logs are quickly unloaded into the salt water, and are later taken over to the mill. The company employ from 80 to 120 men



LOGGING TRAIN IN THE COMPANY'S WOODS.

Cowichan rivers, Chemainus river, Nanaimo river, Cameron lake, Comox lake, Campbell river, and other streams and waterways.

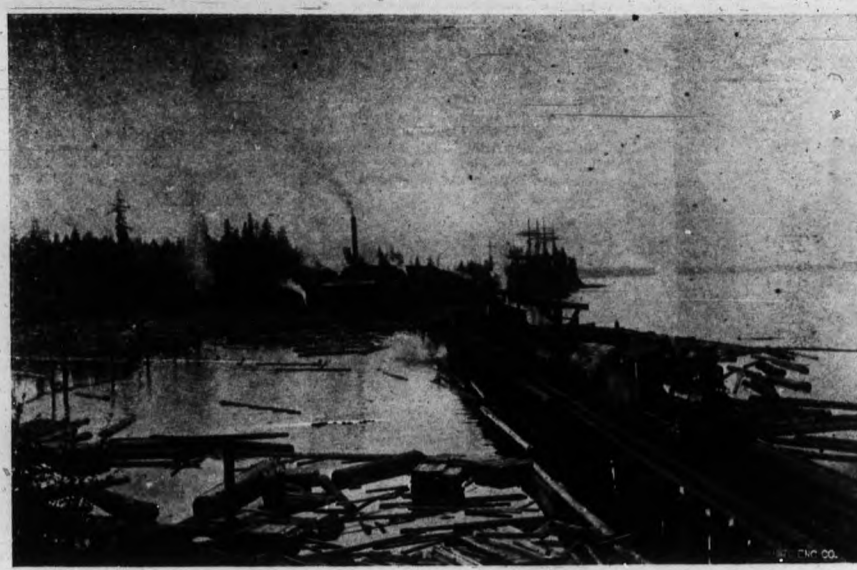
A large body of the timber lies adjacent to Chemainus, and into this tract the company have built a standard gauge, well ballasted road, extending from the head of Horse Shoe bay, in a northwesterly direction, this road is about nine miles long, and is now abreast of Ladysmith, and is being extended all the time, as the timber becomes cut off. The company do their own logging, and have a large and up-to-date plant in the woods, their power consisting of 12 large donkey engines, two geared locomotives, and one direct connected locomotive on their main line. Logging at the present time has been worked down to a science, and there is system in everything connected with the work. In the camps of the V. L. & M. Co. one can see the latest methods of logging with steam power, which has

tached to the log, the signal is given and the log is hauled onto the landing, where it is taken in charge by the loaders, who, using the donkey engine, load it onto the cars, this operation is repeated over and over, until perhaps a radius of 500 or 600 feet is cleared of logs around the landing. In some cases the lay of the land will not permit of the engines on the landing reaching out far enough to pick up all the timber lying adjacent to the landing in which case skid roads are built out into the timber, reaching from the landing for perhaps 2,000 to 5,000 feet, at the end of this skid road an engine is stationed, which hauls the logs in on to the skid road, the end of the rope attached to the engine on the landing is hauled out to the end of the skid road by means of a hand back line, the rope is attached to the logs hauled in by the yarding donkey, which are made up into a turn of 10 or 15 logs, coupled together by dogs, a signal is given, and the engine on the landing

in the woods, and run their camps all the year round. When this company first took hold of the property there was but a small mill; this they operated just long enough to cut out the material for the construction of the present building, which is 544 feet long by 72 feet wide for 430 feet of its length, and 92 feet wide for 108 feet. There is a filing room 20x140 feet, and an engine room 20x140 feet, attached to the mill; a separate stone boiler house 64x64 feet, a large blacksmith shop, and a commodious office. A shingle mill in connection with this plant is now under construction, as well as two 30,000 feet per day capacity dry kilns. After the new mill was completed the company operated it for about a year and a half, then, owing to the depression in the lumber trade at that time, the plant was closed down until March, 1896, since which time it has run continuously. In 1899 the company made



THE COMPANY'S OFFICE AT CHEMAINUS.



UNLOADING LOGS FROM V. L. & M. CO.'S RAILROAD.

many improvements to their plant, putting in new boilers, new machinery, and generally overhauling the whole plant. The steam for the plant is supplied by four tubular boilers, 66 in. by 16 feet, and four two-flue boilers, 56 in. by 24 feet. Their power consists of two slide valve engines, 26 in. by 30 in. cylinders, one upright engine, 14 in. by 22 in. cylinder, and one twin slide valve engine, 22 in. by 28 in. cylinders. The company generate their own electric light, have complete fire fighting apparatus on the premises, consisting of two No. 10 Worthington steam pumps, hose, rescuers, ladders, and pipes throughout the mill. They also have a complete machine shop in connection with the mill. The mill is under the superintendency of Samuel Erb, who has been in charge ever since the plant was started up in 1896. From the time a log is brought to the end of the log slip, until it finally reaches the dock in the shape of lumber, it is almost entirely handled by ma-

The present officers of the company are: J. A. Humbird, president; R. P. Rithet, vice-president; T. J. Humbird, treasurer; W. H. Phipps, secretary; E. J. Palmer, manager. The company expend, in their operations in and around Chemainus, upwards of \$250,000 per year for wages. They are on an average 150 men employed in and about the mill, while the company also operate a large general store and a steamboat in connection with their mill business. After the lumber comes down out of the mill, that which is intended for the different vessels then loading is placed opposite their berths on the dock. The loading of the vessels is done by The Victoria & Vancouver Stevedoring and Contracting Co., Ltd., Capt. A. S. Gibson being the managing director at Chemainus. Most of the loading is done by steam power, a donkey engine on a scow being fastened alongside the vessel, a wire fall is run from the don-

SCENIC BEAUTIES OF THE COAST.

SOMETHING ABOUT THE DELIGHTS OF A TRIP FROM VICTORIA THROUGH THE GEORGIAN ARCHIPELAGO.

The east coast of Vancouver Island, while undergoing industrial transformation and attracting thereby a large and happy population, loses none of its beauties as the playground of the West. Its delights have been so frequently described that it seems idle to recapitulate the charms which it presents to those who seek its shores for rest or for change.

In one day the traveller from the city may enjoy every type of natural beauty. Leaving the city by the V. T. & S. railway, he is whisked through a vale of



LOGGING ENGINE OF THE V. L. & M. CO., CHEMAINUS.

chinery. The logs are hauled up the slip by means of an endless chain, on which are saddles every ten feet; these saddles are pointed, and ride on two rails; when a log is pushed in over the end of the slip, the saddles come up under it, fasten into the log and carry it up on to the log deck where it drops on to spiked live rollers, and is carried along, abreast of the two carriages, and is then thrown to the one side or the other, as desired, by means of steam flippers, there to be loaded on to the carriages, and seen up by one of the two large band mills.

The logs are turned on the carriages by means of steam log turners, a Hill steam nigger being used on one side of the mill, and a Simonsen nigger on the other side. The setting is all done by

key down into the ship's hold, (it is) one of the hatches, whence it is taken out through the ports onto the deck. A chuge is laid from the edge of the dock to the ports. The lumber is built into small piles, called loads, on the dock, the wire fall is attached, and it is hauled into the hold of the vessel by means of the donkey engine. The lumbar is then stowed solidly into the vessel by expert lumbermen, who have probably spent the best part of their lives working at the stowing of vessels with lumber cargoes. From 30 to 50 men are constantly employed loading vessels at Chemainus.

The lumber from Chemainus goes to all parts of the world, Australia, South America, South Africa, and Europe being the largest consumers. During the year 1901 the company shipped thirty-

pastoral beauty—the Sannich peninsula. Well cultivated farms alternate with belts of woodland, glimpses of sparkling lakes, of rocky crags and of the broad bosom of the sea. The railway line for the greater portion of its extent is through an avenue of pines and firs redolent with the invigorating resinous odor of the primeval forest.

At Sidney the travellers may board one of several steamers. One, the Iroquois, will carry him through the maze of islands which stud the Gulf of Georgia. These islands are the never-fading delight of tourists, for clad from base to summits in perpetual green they never pall upon the eye of the beholder. So popular has this trip become of late that it promises eventually to rival the famed Thousand Islands of the St. Lawrence, which Eastern visitors declare



LOGGING CREW AND TRAIN OF V. L. & M. COMPANY.

automatic power set works. On one side of the mill logs—up to 140 feet in length can be cut, and on the other side up to 86 feet long can be handled. The lumber is carried from one machine to another all by machinery, not having to be handled at all, a very complete system of live rolls and transfer chains being in the mill. The mill is equipped with the following machines: Two band saws, one Wicks gang, two gang edgers, two gang slab slashers, one patent trimmer, several cut off saws, and a timber planer. The mill's capacity for ten hours is 175,000.

A complete lath mill is in connection with the saw mill, also a planing mill in which there are three planers, one band re-saw, several cut off saws, rip saws, and a gang edger.

eight million feet of lumber to foreign ports. During the first part of this year, owing to the troubles in the Orient the war in South Africa, and a sluggishness in the Australian market, the foreign shipments dropped off some, but the demand is now strengthening and the shipments for the last six months of the year will probably be up to the average.

The company's local trade has been steadily increasing, and now that they have rail connection and are getting in shape to take care of the car trade, the fluctuation of the foreign demand will not have very much effect on the output of their plant.

The scene of the company's operations at Chemainus where its great mills are situated is one of the busiest in proportion to the population on the Island.

must yield second place to those of British Columbia.

By the Strathcona the traveller pursues a different waterway, but never escapes from the panorama of islands which slide past him as the vessel plows her way to Nanaimo. Almost all of these channels are land locked, and the traveller is thus enabled to enjoy the delights of ocean travel without the usually attendant drawbacks of sea sickness.

Recently, since their charms have become more generally known, a demand has sprung up for these islands, and on some of them beautiful homes have either been erected or are in course of construction. The archipelago also forms a delightful cruising ground for a fortnight's or a month's yachting.

STEAMER SERVICE ON THE COAST

DESCRIPTION OF THE CRAFT WHICH PLY ALONG EASTERN SHORES OF THE ISLAND OF VANCOUVER.

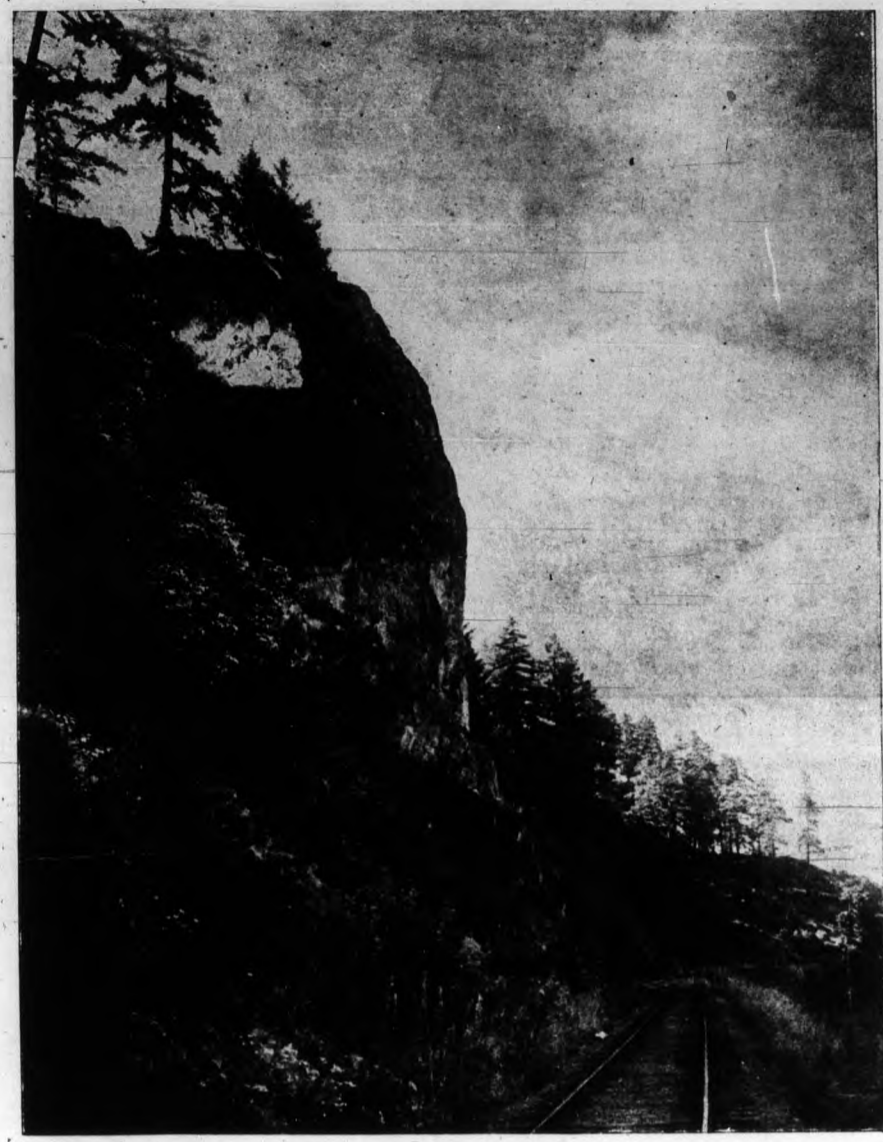
The steamer *Strathcona*, which now forms the connecting link between Sidney and Nanaimo and the ports of Crofton and Chemainus intervening in the railway service now provided by the Victoria Terminal Railway Company, has inaugurated a business that has been fruitful of many beneficial results to this city. She is a handsome type of the greyhound river craft with lofty pilot and helm house and stern wheel that propels her with a minimum of vibration, much to the comfort of those who travel on her. But, though built for river service, the steamer has never proved a success on fresh water, because of her heavy draught. This feature to her construction, however, is the very thing that qualifies her for the run which she is now making. She also has the advantage of a large passenger accommodation as well as a big freight capacity and plenty of power. The daily service which her superior speed has enabled her to establish and maintain has placed her in a foremost place of the steamer fleet belonging to this port. On the route she averages between twelve and fourteen knots, and is able to land passengers for Victoria from Nanaimo at Sidney in time to meet the noon train for this city, and passengers from here for the Black Diamond city at their destination on the evening of the same day, in addition to handling

where stoppages are frequent and cargo has to be handled a great deal. The *City of Nanaimo* was built at Vancouver in 1891, and was originally designed for the service between that city and Nanaimo. In 1896 she was transferred to this port and became the property of the E. & N. Railway Company. Since that time she has almost constantly been employed on the route on which she is now operated, and, to all has given a very satisfactory service. The steamer has a horsepower of 56; a gross tonnage of 701 and a registered tonnage of 518. The length of her engine room is 236 feet, while the dimensions of her hull are as follows: Length of keel, 150 feet; beam, 32 feet, and depth of hold, 9.4 feet. The steamer carries considerable housework. With the exception of her dining saloon, which is located at the stern, and her engine room, all the lower deck is devoted to freight space. On the second deck is a cosy saloon, soon to be provided with a piano, a smoking room, forward state rooms, and the offices connected with the different departments of the ship. There is also a hurricane deck which in fine weather is a favorite resort for excursionists. The vessel is a twelve-knot boat, but like most craft of her kind, has extra power when the occasion demands. Built specially for the trade of the islands, the trim little steamer *Iroquois*, operated in connection with the Victoria Terminal Railway Company, has always been a boon to the settlers of the east coast. She was constructed for T. W. Patterson, the late manager of the road, and fitted for both the freight and passenger business. Her hull was built at Port Moody, and was afterwards taken to Victoria to receive the machinery. In every respect the steamer is strongly and substantially put together, and, being of good model, can weather almost any kind of sea usually encountered be-

ESQUIMALT & NANAIMO R.Y.

A LINE WHICH EXTENDS FOR A HUNDRED MILES THROUGH RICH TERRITORY ALONG THE COAST.

Although almost every point of importance on the Island of Vancouver can be reached by water, travel by railway lines always finds greater favor among many who prefer its expedition, and absence from the dangers of sea sickness. The E. & N. railway, running from Victoria to Wellington, has thus, ever since its construction, formed a favorite route for touching the different farming districts and lumber and mining camps of the province. The line was constructed between the years 1883 and 1887 by a company of which Hon. Robt. Dunsmuir was the leading shareholder. The company undertook to build the line and the telegraph system for a subsidy of \$750,000, together with a large grant of land. The capital stock of the company was \$3,000,000. The road and its equipment was also exempted from taxation for ten years. The line has proved a great assistance in stimulating the growth of the island towns. It forms a great artery of trade on which are situated such business points as Victoria, with its great shipping interests; Duncan, the base of a large mining, lumbering and agricultural trade; Chemainus, the busiest lumber town on the Island; Mt. Sicker, the best mining camp on Vancouver Island; Crofton, the smelter town; Ladysmith, the progressive young city springing into existence on Oyster Bay; Nanaimo, the seat of the coal trade, and Wellington,

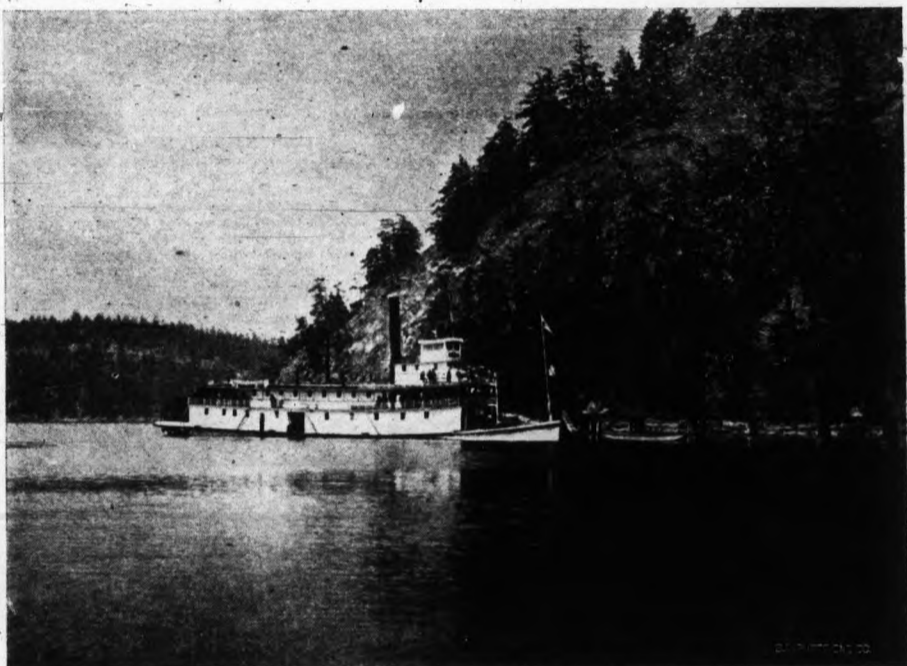


SCENE ON THE ESQUIMALT & NANAIMO RAILWAY.

manifold beauties and resources of the Island of Vancouver. The rolling stock of the line has recently been augmented by the addition of a number of Pullman cars, where for a trifling additional fee the passenger may the better enjoy the beauties of the road. A transfer barge, operating between Ladysmith and Vancouver, brings unbroken cars across the Gulf from the C. P. R., and enable the E. & N. to bring these cars into the city over their line. The premier of the province, Hon. James Dunsmuir, is the principal shareholder in the road, of which the general superintendent is Jos. Hunter and the traffic manager, Geo. L. Courtney.

came into the hands of Henry Craft, M. E. The interesting of Mr. Croft in the mountain was undoubtedly the most fortunate thing that ever happened as far as the future of the mountain was concerned. In the face of discouragements and prophecies of failure, Mr. Croft undertook financial obligations which would have paralyzed the energies of a less plucky man, and held out bravely on his course until the great value of his property was demonstrated even to the most skeptical. Not content with opening up his property, he built a narrow gauge, three foot railway from Westholme to the summit of the mountain, enabling him to bring his ores to the E.

hill. In the proprietor of the *Lenora* these men found a true friend, always ready with a word of encouragement, and sometimes with more substantial tokens of good-will. The result to-day is a transformation over the whole face of the mountain, and the contiguous country. A flourishing camp on the summit of Mount Sicker, with two large shippers and a host of smaller properties, a twelve mile narrow gauge railway out to the sea, a fine little town on Osborne bay dust-ring round the largest and most complete smelting works in the West—these are but the forerunners of an activity in Island development which bodes happily for the Capital City of British Columbia, and



STEAMER STRATHCONA AT PENDER ISLAND WHARF.

all the freight moving between the various ports of call on route. The steamer was built for the Skeena river service a couple of years ago. Her builders were the B. C. Iron Works, and her former owners then the Hudson Bay Company. Last spring she was purchased by the Victoria Terminal Railway Company, and on being taken south from the Skeena river, where she lay idle for a number of months, was given an extensive overhauling. No expense was spared in equipping her for the new route. Her machinery was all overhauled, her cabin and state rooms were upholstered and a powerful searchlight was installed for the safe navigation of the steamer on dark nights through the narrow channels through which she has to pass. The steamer has a gross tonnage of 596 tons or a registered tonnage of 375 tons. She has accommodation for 250 passengers, a fact which in itself indicates the size of the vessel. She is commanded by Capt. Thos. Riley, a veteran of the Kootenay lake. There is perhaps no more popular excursion steamer in the harbor than the *City of Nanaimo*, which plies between Victoria, Nanaimo and Comox, and incidentally the advantage of possessing many features which admirably suit her for the excursion business. First of all she has plenty of cabin space, is comfortably appointed, and has excellent steaming capabilities. As a general freight and passenger vessel she is well adapted to the run on the east coast,

between the islands. Since the advent of the *Strathcona* on the east coast route the vessel has been assigned almost exclusively to the run among the islands, and only relieved the larger vessel when the latter is laid up for repairs. Like the *Charmer*, *City of Nanaimo* and other craft of the same type, the *Iroquois* passenger accommodation is all on her second deck, where both comfortable sitting and dining quarters are to be found, equipped with all conveniences. In many respects the steamer resembles a ferry boat, features of her construction admitting of advantages which are greatly enjoyed by the passenger when desiring to view the superb scenery to be found among the islands. The steamer has a gross tonnage of 140 and a registered tonnage of 94. She is 82 feet long, 20 feet by the beam and 11 feet in depth of hold. She is a screw steamer of wooden construction, and was built in 1900. The length of her engine room is 23 feet, and her horsepower is 194, which gives her a speed of about ten knots an hour. These vessels, together with a number of smaller ones which run on less regular schedules, provide a ready and comfortable means of communication with almost all points on the East Coast and the islands which are adjacent to facilitate trade, but to stimulate it as well, for with the excellent service which they provide an additional incentive is given to the settlement of a number of rich valleys and islands which would otherwise have offered little attraction to the settler.

where the terminus of the line now is. In addition to these strictly commercial points, it taps a great district, the paradise of the hunter and the angler, where large baskets and big game can be secured with but few of the hardships inseparable from such exploits in more remote hunting fields. Cowichan lake, a noble body of water teeming with trout; Sooke lake, more remote, but therefore less baited than those nearer; Shawigan lake, one of the prettiest of inland fresh water bodies, with two fine hotels which cater to the tourist trade; the Koksilah, Chemainus, Cowichan, Nanaimo and various other fishing streams—all these are placed within easy access of the pleasure-seeker by the means of transportation mentioned. To those who prefer mountain climbing, the road carries the traveler almost under the peaks of lofty ranges, while the canyons of Goldstream, Millstream and Saanich Inlet, annually attract thousands by their wild beauties. Throughout the whole extent of the line there is not a mile of dull or uninteresting country. Where it does not skirt the sea, the train plunges through a jungle of wild growth, or darts across plains dotted with the finest oaks to be found on the continent, and climbs the steep hill sides above Goldstream, till it reaches a dizzy height above the water of Saanich Inlet. Through tunnels, over great canyons, with their spider-like trestles, round the shores of sparkling lakes, past thriving towns, and budding cities—the whole gives the traveller a comprehensive idea of the



HOTEL SICKER ON SUMMIT OF MOUNTAIN.

THE LENORA MINE.

ONE OF THE TREASURE HOUSES OF THE WEST WHICH ENTERPRISE HAS OPENED UP.

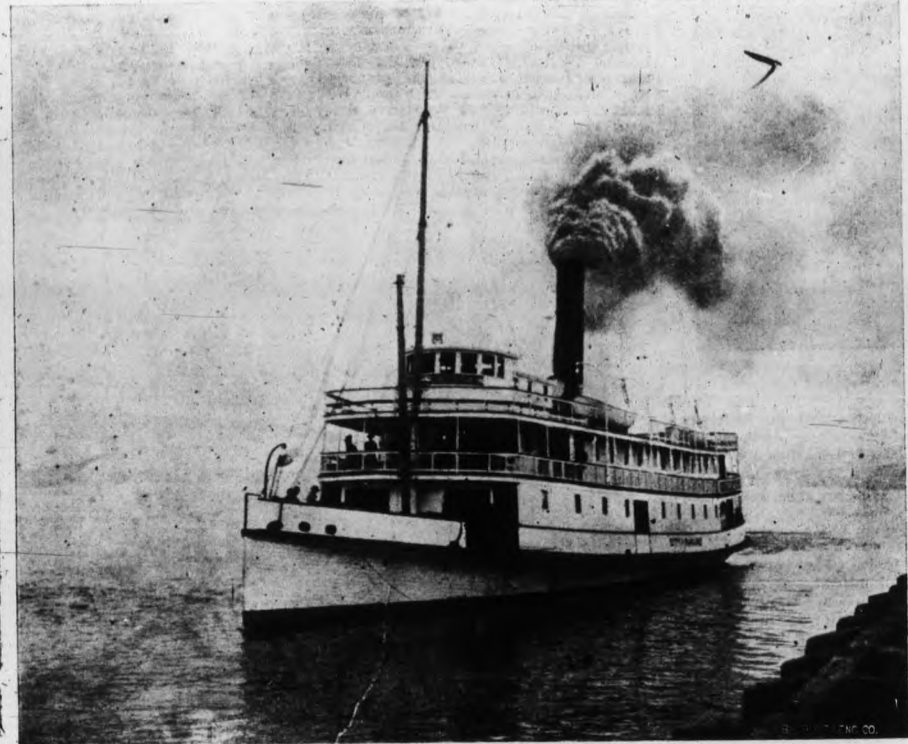
The traveller on the E. & N. railway, just before the train reaches Westholme station, bound north, passes under a trestle over which a narrow gauge railway is laid. On each side he can descry the tracks of the line climbing the hills. On his right is Mount Richards, over which the line works by a series of switchbacks to the Crofton smelter, on his left Mount Sicker, towering 1,500 or 1,600 feet above the valley, and holding in its heart riches which, in the opinion of some of the cleverest mining and smelting men on the continent, exceed those which when discovered on Red Mountain made a Rossland possible, and started a boom in British Columbia mines the ultimate effects of which were of rather doubtful value to this province. Perhaps because of that boom, and the reaction which followed, the extent of the riches of Mount Sicker did not create the enthusiasm which it would otherwise have caused. Years ago a fire swept over the summit of the mountain, burning off the timber and the moss, which made prospecting so difficult on this Island, and disclosing the iron capping under which the vein was discovered. A number of optimistic mining men, including Harry Smith of Duncan, pinned their faith on the newly discovered property and finally enlisted old country capital in it. But the original locator or owner rarely is the ultimate proprietor, and the *Lenora* eventually

& N. for shipment to Tacoma smelter. Then, when the Crofton smelter was assured, he carried his railway by a system of switch backs over the summit of Mount Richards, right down to salt water, and the smelter. But this was not all. Not only did Mr. Croft spare neither money nor energy to place the *Lenora* in the front rank of British Columbia mines, but he extended the open hand of co-operation to every poor fellow who staked on the

for which it is largely indebted to Mr. Croft. The *Lenora* mine is situated about 6 1/2 miles by a narrow gauge railway from Westholme, on the Esquimalt & Nanaimo railway. The altitude of the mine above sea level is about 1,400 feet at the terminus of the railway on the *Lenora* property. This property was secured by the present company in January, 1900, and with the exception of about six months



LENORA MINE—SICKER HOTEL IN DISTANCE.



STEAMER CITY OF NANAIMO OF E. & N. LINE.



ORE DUMP ON COPPER CANYON.

continuously shipped ore to Tacoma and Everett smelters. About 50,000 tons have been already shipped. On the dump there are at present about 40,000 tons of second class ore, but amongst this there is a quantity of first class ore which was put on the dump when the mine was first opened.

It is estimated there are between two and three years' ore in sight in the mine; so far about 5,000 feet of tunnelling has been done in addition to the work on the floors which have been opened up.

There are three tunnels, and under the No. 3, which is the lowest, a shaft is being sunk to open up the lower levels. The ore bodies have been found to be as wide as 50 feet. The main ore body is continuous from the entrance of No. 1 tunnel into the Tye claim, which lies to the east. A large body of high grade ore belonging to the north vein has been proved, and is 24 feet wide in the cross-cut; ore from this body is now being stopped, and assays as high as \$525 to the ton have been secured from this body running \$130 in gold, 696 oz. in silver and 14 per cent. copper.

A new automatic sorting table has just been completed which works perfectly, and will save a great deal of the cost in sorting the ore. A new 5-drill Cornish compressor with 14-inch steam cylinder has just been erected, also 100 horse-power boiler, besides this machinery there is an engine for running sorting machinery, and two 25 horse-power boilers; also a 2-drill Rand compressor. The hoist, inside the mine is driven by air; it is intended to work up levels below No. 3 as quickly as possible.

The formation of Mount Sicker is very easy to work, consisting principally of schistose rocks. In about 14 days the output of the mine will be increased materially, as about 60 tons per day will be shipped to Tacoma and 250 tons to Crofton smelter.

Lenora mine is connected with the smelter by 12 miles of mineral road, already mentioned, descending for the first six miles 1,400 feet to the E. & N. railway track, then climbing about 600 feet, again descending to Crofton, the terminus. The latter portion of the railway is run over a series of switchbacks, the object of building the road between this section of country being that it is of the same mineral formation as Mount Sicker, carrying veins of copper ore.

This railway will no doubt be kept busy not only with Lenora ore but with that of a number of other mines which are being fast opened up. The Mount Sicker camp is well supplied with timber and the Chemainus river affords a large water supply for electric or other purposes.

The main vein upon which the Lenora and Tye veins were staked has not yet been opened up, but free gold has been found on the surface. It will not be long before this vein is proved by proper development work.

On Mount Sicker is situated a first-class hotel, which is unusual in the early stages of a mining camp, and with such an altitude of 1,900 feet above sea level, the change from the sea coast of Victoria to Mount Sicker, within three or four hours, ought to be beneficial to those seeking a change of air. It is fitted up with the most modern conveniences, and forms a capital hostelry for those frequenting the mountain.

THE COPPER CANYON GROUP.

ONE OF THE BIG PROPERTIES WHICH IS RAPIDLY COMING TO THE FRONT.

On the very crest of the mountain are situated the Tye and Lenora mines, but over a thousand feet below is a group of properties which has lately excited



MOUTH OF TUNNEL, COPPER CANYON.

a great deal of interest, and which promise to rival the more advanced mines in richness and extent. Its discovery took place in a rather remarkable way. Two miners were discussing the Lenora and the Tye on the summit of the mountain one day, when one of them exclaimed, "If this ledge is as deep it should show in the canyon." They then followed the lead down the hillside and at the base of the hill, where the Chemainus river has carved a channel through the rock, they discovered the Copper Canyon, the Susan and the Victoria.

Development work was pushed on these until a crown grant was secured, after which little development took

place of extensive stoping above them. There is one claim and a fraction between the Lenora and the Victoria. The buildings consist of an office, bunk house, dining room and kitchen. The company is now putting up new buildings, consisting of a bunk house, 10x32, dining room and kitchen 15x30, while the old dining room, 14x24, is to be moved to the new site for a storehouse.

The new superintendent of the Copper Canyon, Wm. Lewis, is putting up a residence for himself on the property.

The group is now owned by a company called the Mount Sicker & Brenton Mines, Limited, of which the fol-

lowing are the officers: President, A. Dier; secretary-treasurer, E. D. Dier; managing director, W. A. Dier; directors, W. A. Dier, Dr. T. J. Jones, R. T. Elliot, E. D. Dier, F. S. Munro and T. D. Conway. The capitalization of the company is \$1,000,000, made up of shares of 25 cents, par value.

POWER, LIGHT & WATER COY.

A PRETENTIOUS PROPOSAL TO SUPPLY THE WHOLE CAMP WITH ESSENTIALS.

In connection with the activities of the Copper Canyon Company and on the Victoria tunnels have been driven a distance of 554 feet. A boiler and hoisting plant have been purchased from the Albion Iron Works, of this city, and when installed will greatly facilitate future work by the company. As soon as the government have completed the work of widening and strengthening the bridge across the river and have improved the grade down the mountain side, these will be taken in. A compressed plant has also been ordered.

On the main lead of the Copper Canyon, the lead is in 156 feet, and it is all in ore. There is a crosscut 90 feet to the north and another 16 feet to the south.

On the Victoria claim the tunnel is in 35 feet and in ore. Half way up the claim, there is a tunnel in 150 feet, with a 50-foot crosscut. At the river there is another tunnel in a ledge there, there being ore in all the tunnels.

The Copper Canyon properties are copper-gold, with some silver, but carry the largest percentage of the first named. A good average smelter return nets \$22.60. It is 1,350 feet below the Tye, and the company thus have the advan-



GENERAL VIEW OF SICKER TOWNSITE.

power, light and water from a large lake, of which the company own control, on the summit of Mount Brenton. This lake is 14 miles long, and from half to three-quarters of a mile broad. It is very deep, and is fed from the snows which clothe the summit of Mount Brenton, and from a number of small streams which are tributary to it. By building a dam across the outlet where the overflow channel, which nature has provided, allows the water to escape down the mountain side, the level of the lake can be raised several feet.

Mr. Dier recognized what a boon the transmission of this water would be to the mining men of Mount Sicker, where only small streams are available for use, excepting in the winter time. He proposes to pipe this down the mountain to furnish power for running the drills, for the generation of electricity for light for the camp, as well as water for domestic and mining uses.

been the development of the little town of Crofton, situated on Osborne bay, Vancouver Island. Less than a year ago the waters of the bay were undisturbed by the prows of any but the smallest craft, while the townsite was clothed with trees to the water's edge.

To-day a marvelous transformation has taken place. The townsite has been cleared, graded streets, some of them sidewalked, lead through all portions of the townsite; dwellings, hotels, stores, etc., have sprung into existence, wharves have been built, ferry slips installed, and a huge smelter, the largest and most complete in the whole West, has reared itself in the midst—a centre about which the rest of the town cluster. A railway, 12 miles in extent, has been built to the town, bringing to it the ore of the rich mountain behind it,

Already he has had a fine bridle path cut from the Canyon to the summit of Mount Brenton, and this can, with supplementary labor, be readily converted into a good wagon road. The ascent is made by a system of switchbacks. To make this power and light available for the Sicker camp, and at the same time to provide an ideal method of getting the ore out of the properties on the higher levels, it is proposed to run a tunnel into the mountain from the Canyon through the Canyon group, and the Lenora, to the west line of the Tye. The properties higher up the mountain, by stoping from tunnel to surface, will thus obtain a means of getting out their ore without the expense of lifting it to the surface. They will also obtain drainage for their mines, power for their drills, etc., at what it is estimated will be a much lower figure than they now have to pay.

Mr. Croft proposes prolonging the Sicker branch of his railway up the Chemainus river valley to meet the mouth of the tunnel, so that ore brought out through it will be readily transported via the Sicker railway to the smelter at Crofton.

The tunnel will be double tracked, and from it a complete system of stoping can be carried out in all the properties which it penetrates.

OTHER CLAIMS.

VARIOUS OTHER PROPERTIES WHICH PROMISE WELL ON THE MOUNTAIN.

Although the Lenora, Tye and Copper Canyon properties have been developed more than any others on the mountain, it must not be supposed that they embrace all the desirable claims. For instance, the Mount Sicker and B. C. Development Company own not only the townsite of Sicker, but 17 claims as well, many of which are crown granted.

In addition to these there is the Richard Hill, which has been bonded by C. H. Dickie and some Duncan people, and which, it is expected, will develop into a most desirable property. There is now a 75-foot shaft and a crosscut. It adjoins the Tye.

On Mount Brenton, Messrs. Lang and others have a promising property on which they are sinking. Then there is the Coronation group, which is owned by a Nanaimo syndicate, and which is giving every indication of proving a No. 1 property.

Further up the Chemainus river Mr.



CHEMAINUS RIVER AND BRIDGE, COPPER CANYON.

while steamships of different lines bring to its door the ores and products of other camps, districts and cities.

This is but another tribute to the enterprise alike of the gentlemen after whom the town was named, and Messrs. Breen, Bellinger and Fotheringham, the three enterprising smelter men who are at the back of the Northwest Smelting & Refining Company.

The town as it stands to-day hangs beautifully to the water. The land rises on a grade more or less sharp back from the bay, making drainage a simple and easy matter. On that section where the smelter stands it is more level. Back of it Mount Richards forms a wind break, while a whole squadron could find

THE SWITCHBACK RAILWAY.

A wonderful little line is the Lenora & Mount Sicker, one of the few narrow gauge systems in the Northwest. It is twelve miles in length, and there is perhaps not half a mile of that distance which is level. The first section of the line, namely, the Mount Sicker part, was built to bring the ores of the Lenora mine down to the E. & N. railway, on which it was shipped to Chemainus or Ladysmith, to be transported from that point by steamer to the smelter. Eventually, when the Crofton smelter was built the remaining five miles of the line were built to carry the train over Mount Richards, and out to the sea at the new smelter site.

At present the traveller takes passage from Crofton itself on an improvised passenger car, the engine taking back with it also the empty ore cars, or freight for the mountain. The sturdy little Shay engine immediately commences its climb up the sloping side of Mount Richards, which is situated at the back of the town. The line creeps sinuously up this mountain, until as the top is reached the valley through which the E. & N. runs is seen hundreds of feet below.

Then the descent commences by a series of switchbacks of such a sharp grade that in an astonishing time the train has reached the trestle which spans the E. & N. Then the real climb commences, for Mount Sicker towers 1,500 feet above the valley, and this height must be surmounted before the train reaches its destination. The little engine puffs away energetically through the towering pines which sweep the sides of the cars as they pass, stopping occasionally to quench its thirst in the troughs which bring the clear water of the mountain streams out to the tracks. Higher and higher the train ascends, till rock cuttings are encountered, and curves of such sharpness that wonder is felt that they can be negotiated, and now the valley of the Chemainus river is described far below. Opposite Mount Brenton rears its head, and far away across the Gulf the industrial school of

anchorage in the ample bay which forms its harbor.

Two large, commodious and well equipped hotels are operated there. Hotel Crofton by Mike Conlin and Hotel O'Brien by J. Pearce, both gentlemen formerly residents of Victoria, Messrs. Dyke and Broadwell each conduct a general store, although the latter has recently been bought out by a Nanaimo firm.

Water is obtained by a dam higher up the mountain, and will probably be obtained ultimately from a more pretentious source of supply. The Crofton Gazette, a bright weekly, supplies the town with the mental pabulum necessary for its sustenance.

It is estimated that when the smelter actually commences operations that the town will have a population of several thousands.

THE KEY CITY.

Although Mount Sicker has several large shippers on its crest, it is not to be supposed that the wealth of the camp is expressed in these only. There are numerous others properties, now in the process of development, upon which the showing is so encouraging as to warrant the belief that they will eventually become first rate holdings.

Among the most prominent of these is the Key City, owned by Sacramento people, and of which the manager is Colonel Wasson. These owners have manifested their faith in the property by spending a considerable amount of money on a plant, and they have now struck the ledge of the Lenora, which the Key City adjoins. A fine hoisting plant has been installed and at 120 feet a splendid body of ore has been encountered. The extent of this ore body is now being proved.



C. H. DICKIE, M.P.P., A Mt. Sicker Pioneer.

Kuper Island is easily described, and, on a clear day, the environs of Vancouver. But the camp is not yet reached and the train continues its toilsome journey till, when the very summit of the mountain is attained, she swings abruptly into a natural cup-like depression in the hill, where nestling under the Lenora and Tye mines, a busy little town, proclaims its existence and its enterprise.



PART OF LENORA PROPERTY.



CONSTRUCTION WORK ON TYE SMELTER AT LADYSMITH.

THE TYEE COMPANY.

SPLENDID PROGRESS MADE BY THIS MINE, AND CONSTRUCTION STARTED ON ITS SMELTER.

On the very summit of Mt. Sicker is situated the Tye mine, the development of which has been so satisfactory

month, but developments will be pushed simultaneously with the stoping, it being the policy of the company to keep the ore reserves well ahead of the smelter.

The machinery at the mine consists of one double drum and one single drum hoisting engines, by Joshua Hendy & Co., of San Francisco; 3 boilers, aggregating 120 horse-power, an Ingersoll Sargeant compressor of 3 drill capacity and a sawmill. Another 60 horse-power boiler, 50 horse-power engine, No. 4

Stratford's crossing is being constructed by B. C. Riblet, of Nelson and Spokane. It is of the double rope automatic type, and which, when worked to full capacity, can deliver 400 tons per day. Competent engineers have stated that this will be as good a tramway as any yet constructed in British Columbia. This, together with the ore bins now being completed at the railway, will be in working order in a few days.

At Ladysmith work on the Tye company's smelter is being pushed under the able management of Thomas Kiddie, who is smelter manager to the company. Grading was finished some time ago, and the retaining walls of masonry and brickwork for the dust chamber are nearing completion. The smelter buildings will be raised in the course of the

my visit to the mine I had a high opinion of its future, I returned to London having more than verified that opinion, and I believe we possess one of the finest properties yet opened in British Columbia, and it may interest you to know that this opinion is shared by two eminent geologists who have recently visited our mine and have privately communicated the same to me, being quite a gratuitous expression of opinion on their part. It is now four and a half years since we first began to expend money on the development of these properties, which now belong to the Tye Copper Company, and this, unlike some other properties in British Columbia, has been done without any undue inflation



ORE DUMP, TYEE MINE.

next few days. Three cars of the smelter machinery which is being constructed by Allison & Co. are now on the ground, and other cars are on the way. The ore bins at the receiving grounds, which are situated 1,700 feet north of the smelter, are nearly completed, and will have a capacity of 1,000 tons. The sampling plant will be erected at this point.

All the switches and connections with the E. & N. Railway Company are practically finished, and will be in perfect working order by the time the first shipments of ore are ready to pass over them.

The same mountain is thus not only furnishing steady shipments for two mines, but has practically brought into existence two smelters as well.

of capital, and during that period we have had the anxieties common to all mining enterprises, but I believe that now that period has gone past, and that during the current year your past efforts will be crowned with success.

MINING ON VANCOUVER ISLAND.

British Investors Well Satisfied With the Outlook Here.

In connection with the meeting of the Tye Company referred to in this issue, Secretary Gardner made some pertinent remarks in regard to mining generally on Vancouver Island. He said:

"I find that some of our own share-



WHARF AT CROFTON LOADED WITH SMELTER MACHINERY.

these properties. I mention these facts because some at any rate of these good properties will ere long be in a position to ship ore to our smelter at Ladysmith, where good profits will arise both for the mines and the smelters. I have nothing further to add, except to say that I congratulate the shareholders upon being interested in such a property as we possess."

Satisfactory experiments with oil fuel for fire engines have been made by the London county council.

TEA AN ANTIDOTE.

General Booth, head of the Salvation Army, says there are 500,000 persons in Great Britain who get drunk every day, and he proposes to cure them of drunkenness by inducing them to drink tea. Consequently the members of the Salvation Army have been instructed to obtain from policemen the names and addresses of all the inebriates, after which they are to visit them at their homes and present them with a certain kind of tea which is warranted to produce in a short time a distaste for all intoxicating liquors.



TYEE COMPANY'S OFFICE, DUNCAN.

Residents of Buffalo, N. Y., use more water than any other city in the world.

GREAT ELEPHANT'S TUSK.

For years it has been known that some African elephants have unusually long and heavy tusks, but it is not easy for foreigners to get any of them, since they are highly prized by the natives, who use them as ornaments for their houses and temples and as decorations for the graves of their ancestors.

For this reason exceptional interest attaches to an elephant's tusk, which is said to be the longest that has ever been imported into Europe. It is nearly five feet in length, and was purchased by a Hamburg merchant in Tanganyika, who was informed that it had come from the Tanganyika region, in Central Africa. In this region the elephants are noted for their fine tusks, and a higher price is asked than for any others. Moreover, during the past few years the price has advanced considerably, for the reason that in Tanganyika elephants are by no means so plentiful as they used to be.

An engine capable of developing a speed of thirty miles an hour in thirty seconds is being constructed by the Great Eastern railway for their suburban traffic.



TYEE ORE BINS, LADYSMITH, CAPACITY 1000 TONS.

that the construction of a smelter primarily to treat these ores has been undertaken by the company. The Tye Copper Company, Limited, is an English company, with its registered office at 45 Leadenhall street, London, Mr. William Gardner being the secretary. The capital is £180,000, divided into 180,000 shares of £1 each.

The property owned by the Tye Copper Company consists of five full-sized claims and four fractional claims, which run without a break from the Tye to the Chemainus river, and contain about 250 acres. Work has been carried on since the early spring of 1893, and considerably over 4,000 feet of development work has been done. The mine has been opened up by two shafts, and a third is now being sunk.

The main shaft is in three compartments, viz., two for hoisting and a ladder way. This shaft has now reached a depth of 400 feet from the surface.

The main body has been opened up along a length of 800 feet, and to a depth of 200 feet, the entire distance being in ore, which varies in width from about 10 to nearly 40 feet. The face of this drift is still in solid ore. Thus this immense ore body has been proved by actual development to live half way through the claim, and as the fissure through the claim, and as the fissure found on the Richard III., which is the next mine to the east, there is strong evidence to show that these chutes of rich ore will traverse the entire length of this portion of the property.

Besides carrying a high percentage of copper, the ore is rich in gold and silver. Out of several hundred assays that have been taken during the course of development, there has not been a single sample that has not run well in gold. The assays have ranged from 3 per cent. to over 20 per cent. copper, from 3 dwts. to half an ounce in gold, and about 5 ounces silver. At the present time there is nearly 8,000 tons of ore on the dump ready for shipment to the smelter, which, without grading, will run about 6 per cent. copper, \$4 in gold and 4 ounces silver to the ton of 2,000 lbs. This ore is raised from the drifts and crosscuts run in the mine during the ordinary course of development, and without stoping. It is estimated that the present developments have exposed from 30,000 to 100,000 tons of ore in the mine to the shallow depth of only 200 feet. This is sufficient to keep the Tye company's smelter, now in course of construction at Ladysmith, in full blast for the next three years. Shipping will commence about the 25th of the present



THE MOUTH OF THE COWICHAN RIVER.

Gates crusher, sorting belt, etc., is now being added. E. C. Musgrave is the resident engineer in charge of the mine, and Clement Livingstone the manager. The aerial tramway which connects the mine with the E. & N. railway at

At the general meeting of shareholders held in London recently, William Gardner, the secretary, referred to the officers of the company here and the mine in the following complimentary terms:

"In regard to our general manager, I should not like to finish my report without stating to those shareholders who do not have the privilege of knowing Mr. Clement Livingstone, the board's trusted representative in British Columbia, without bearing witness to the energy and constant care he bestows on the interests of the company, which he seems to live for. Mr. Livingstone's character for business ability and uprightness are known far and wide, both in British Columbia and in London, and owing to this reputation of the Tye Company stands at the very highest point, and I consider we are most fortunate in having such a man to look after our affairs at that end. Mr. Livingstone, as most of you are aware, has a large interest in our company.

"Our mine superintendent, Mr. Musgrave, is a man like-minded to Mr. Livingstone, and is carrying out the development of the mine in a workmanlike manner, and is unceasingly on the look out to economize labor at every point. He has a happy combination of both theory and practice, having graduated at Kingston University, besides a large experience in practical mining. With such qualifications we need not doubt that our mine is in good and safe hands.

"Having thus touched all these various points, I can truly say that if before

holders do not fully appreciate the advantages we have in Vancouver Island over the mines that are situated on the Mainland of British Columbia, so for their sakes and any others in the same position, it is as well to bear in mind that the climate of the Island is quite different and much milder than on the Mainland, being surrounded by the mild waters of the Pacific, and so we are able to work, even on the surface, all the year round. Then, again, the ores of the Boundary district are not nearly so rich as those being worked on the Island at Tye and Mount Sicker, etc., and it is rare to find anywhere such ore as we have in our mine, containing so much of the precious metals, in some cases sufficiently high to pay for all or nearly all our working expenses. I believe that ere long Vancouver Island with all its stores of mineral wealth will astonish the world; if only reasonable capital is provided to open up the country. I was fortunate enough to visit other properties while in the Island, that seemed to me as worthy of development as ever. Tye was in the initial stages, and quite as favorably situated for working. Some of the clearest mining men from the States are realizing the vast resources of the Island, and are anticipating big developments by already erecting smelters and converters, to deal with the output of the mines in the near future. Pioneers like Harry Smith, who discovered the Lenora and Tye claims, are already finding rich indications in certain mineral belts, and all that is wanted is judicious development to prove

The umbrella and parasol were used by the Eastern nations many centuries before the Christian era. The oldest chinaware shows pictures of ladies and mandarins shaded by parasols of patterns similar to those now in use.

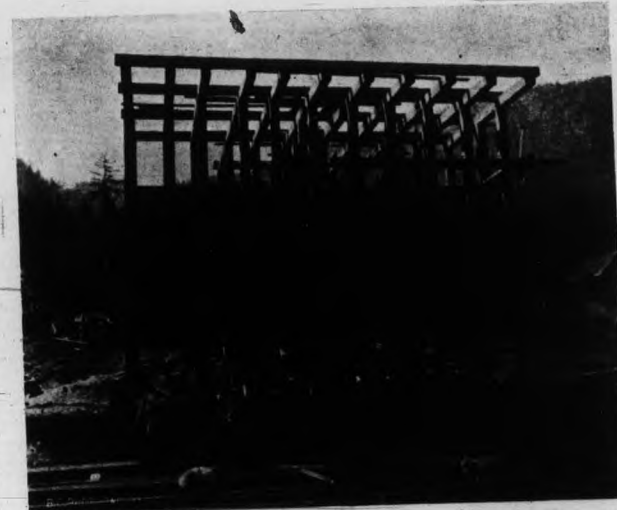
Made In Victoria.

The Half-Tone Engravings in this number of the Times were made by

The B. C. Photo Engraving Co.



SHAFT HOUSE, TYEE MINE.



TYEE ORE BINS BEING BUILT AT STRATFORD'S CROSSING.

STARTED AS MINER.

BRIEF SKETCH OF THE CAREER OF HON. RICHARD SEDDON, PREMIER OF NEW ZEALAND—POLITICAL CAMPAIGNS.

This year may well mark the commencement of a career almost unique for its romantic interest, tireless energy, and uninterrupted progress...

The Most Striking Proofs of personal power and popularity ever accorded to a politician. He had been in power for nine years...



MR. SEDDON, PREMIER OF NEW ZEALAND.

abuse. His followers, with an exuberant venom which could hardly be equalled by the yellowest rags of the Far West...

Personal Popularity among the working masses of New Zealand, is to be found in a retrospective glance at the recent history of the colony.

longer heard, and "swaggers" were no longer seen in the land. The condition of the laborer was immensely improved.

Many Other Reforms, all of which have given to New Zealand the finest system of labor legislation in the world.

PREMIERS ENTERTAINED. Trade and Other Relations Discussed—Discriminating Marine Insurance—Against Canadian Waterways.

The Colonial Premier and leading shipowners engaged in the colonial trade were entertained on July 14th at luncheon by Lloyd's Register of British and Foreign Shipping...

Lord Selborne, the First Lord of the Admiralty, in the course of his reply to the toast "Our Flag," said: "Did our brothers in the dominions beyond the sea realize, as they must in the future...

Personal Popularity among the working masses of New Zealand, is to be found in a retrospective glance at the recent history of the colony.

NOTICES.

Take notice that at the expiration of thirty days from this date I intend to apply to the Honorable the Chief Commissioner of Lands and Works for permission to lease the foreshore...

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Notice is hereby given that 30 days after date I intend to apply to the Honorable the Chief Commissioner of Lands and Works for permission to lease the foreshore...

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Canadian Pacific Navigation Co., Ltd. Excursion to Nanaimo.

Time Table.—Effective July 25th, 1902.

ALASKA ROUTE—FOR SKAGWAY DIRECT. Table with columns for destination and departure times.

For particulars as to time, rates, etc., apply to nearest agent or to the Chief Manager, J. W. TROUP, Manager, Victoria, B. C.

Pacific Coast Steamship Co. F.O.B. South-Eastern Alaska. LEAVE VICTORIA.

For Nome LEAVE SEATTLE. Senator, 9 p.m., Aug. 15, Sept. 14, Oct. 10, Valencia, 9 p.m., Aug. 30, Sept. 29, Aug. 30.

For San Francisco LEAVE VICTORIA. Steamships City of Puebla, Umattila or Ogeen, carrying H. R. M. mails, 8 p.m., Sept. 2, 7, 12, 17, 22, 27, Sept. 1, 6, 11, 16, 21, 26 and every fifth day thereafter.

Atlantic Steamship Sailings Montreal. Lunenburg—Allan Line, Aug. 23. Corinthian—Allan Line, Aug. 27. Pretorian—Allan Line, Sept. 6. Larion—Allan Line, Sept. 13.

NOT RESPONSIBLE. BR SHIP "Marian Woodside". NEITHER THE MASTER NOR THE UNDERSIGNED IS RESPONSIBLE FOR ANY DEBTS CONTRACTED BY THE CREW OF THE ABOVE VESSEL WITHOUT THEIR WRITTEN AUTHORITY.

Mortgage Sale. Under a Power of Sale in Mortgage registered at Victoria in Charge Book, Vol. 7, Folio 521, No. 6375 B, tenders are invited to be sent to the undersigned up to 12 o'clock noon on the 27th day of August, A. D. 1902...

Re Peter Steele, Deceased. PURSUANT TO THE TRUSTEES AND EXECUTORS ACTS. Notice is hereby given that all creditors and others having any debts, claims or demands against the estate of Peter Steele...

ESQUIMALT & NANAIMO RY. Labor Day, Monday, September 1st, 1902.

UNDER THE AUSPICES OF THE TRADES AND LABOR COUNCIL. Combined celebration of Trade Unionists of Nanaimo, Vancouver and Victoria. Big Trades' Procession, Sports, Speech-making, Etc.

CANADIAN PACIFIC And Soo Pacific Line WORLD'S SCENIC ROUTE. LOWEST RATES. BEST SERVICE.

IMPERIAL LIMITED VANCOUVER TO MONTREAL—90 HOURS SAILING FOR JAPAN AND CHINA.

GREAT NORTHERN RAILWAY. TICKET OFFICE. Cor. Government and Yates Streets, VICTORIA, B.C.

THE BEST OF EVERYTHING. North-Western Line TO CHICAGO. By Way of the Two Big Cities, Minneapolis and St. Paul.

THE MILWAUKEE. A familiar name for the Chicago, Milwaukee & St. Paul Railway, known all over the Union as the Great Railway running the "Pioneer Limited" trains every day and night between St. Paul and Chicago...

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OCEANIC Steamship Company. FOR Hawaii, Samoa, New Zealand and Australia.

THE WHITE PASS AND YUKON ROUTE. To the Atlin, Big Salmon, White Horse, Hootlakine, Stewart River, Klondike, Koyukuk and Yukon Mining Districts.

THE GREAT NORTHERN. 75 Government Street, Victoria, B. C. Passengers can leave and arrive daily by steamers—Rosalie or Majestic, connecting at Seattle with overland byer.

GREAT NORTHERN RAILWAY. TICKETS TO KOOTENAI, CANADIAN, AMERICAN AND EUROPEAN POINTS.

SHORTEST AND QUICKEST LINE. St. Paul, Duluth, Minneapolis, Chicago. AND POINTS EAST.

VICTORIA, TERMINAL & SIDNEY RAILWAY COMPANY. NEW TIME CARD. In Effect June 14th, 1902.

SIDNEY & NANAIMO TRANSPORTATION CO. STR. STRATHCONA FOR NANAIMO, GORFTON AND CHB. Leaves Nanaimo at 7 a. m. daily. Arrives at Victoria at 12.15 p. m. Train leaves Victoria at 2 p. m. Arrives at Nanaimo at 7.15 p. m.

STR. IROQUOIS. Makes the Island calls as usual. J. ANDERSON, General Manager.

Spokane Falls & Northern R'y Co. Nelson & Ft. Sheppard R'y Co. Red Mountain R'y Co. The only all rail route between all points east, west and south to Rossland, Nelson and intermediate points, connecting at Spokane with the Great Northern, Northern Pacific and O. R. & N. Co.