BIG FIRE IN DYEA

Five of the Largest Buildings in the Little Lynn Canal Town Destroyed Last Week

Wages on the White Pass Railway Reduced, and Men Leave Their Work.

Five of the largest buildings of Dyea, the little town on Lynn Canal, the people of which desire annexation to Canada, were destroyed by fire a week ago to-day, entailing a loss of $12,000, according to advices received by the steamer Humboldt yesterday. The property destroyed was as follows:

Palace hotel, Berry, owner, and Dr. McCue, proprietor.

Northern hotel, Hugh Wiseman, proprietor.

Chilcoot stables, owned by the Chilcoot Tram Company.

Senate saloon, owned by the Flyn estate.

Court house, owned by the Flyn estate.

The fire broke out in Mrs. McCue's room in the Palace hotel about 7 o'clock, while everybody was at dinner. When discovered the fire had worked its way through the roof and had such a headway that it was seen that the building was doomed. The alarm was sounded and in an incredible short space of time a bucket brigade was organized and a double chain of men formed from the river keeping a steady stream of water for use in fighting the fire. The Northern hotel, which adjoins the Palace on the south, was the next to catch fire and was soon all in flames, and also beyond control. The north wind was just strong enough to fan the fire briskly, and soon the flames passed on south to the Chilcoot stables, which were full of horses and wagons. The horses were fortunately all cut loose before the fire reached them, and these and the wagons were all saved. The Chilcoot Tram Company lost nothing beyond the stable and a small quantity of feed. There being nothing further south of the stables, the fire burned itself out there. Fortunately the wind was from the north and not very fierce, so that the herculean efforts by the volunteer bucket brigade were crowned with success and the town was practically saved by the excellent work of these men. Had the wind been from the south and strong there is every reason for believing that the entire town would have been swept away.

RAILWAY HANDS STRIKE.

A large number of the men working on the White Pass & Yukon railway walked out last week on account of a cut of 5 cents an hour made in their wages by the company and a request that they work ten hours a day instead of nine hours. The men say they were engaged at 35 cents an hour in Victoria, and the cut of 5 cents was a direct violation of the arrangement. They further say they asked a continuance of the 35-cent rate for thirty days longer, when the conditions of weather would make life more comfortable, but their request was refused. Another cause of complaint from the men working in British Columbia was the imposition of the $3 poll tax. It was calculated that more than half of the 700 men who had been employed left their work.

The contractors did not seem to be greatly worried over the strike; in fact, they contended that there was no strike, Mr. Heney simply stating that the men who did not go to work would be discharged. He said the movement among the men, as he called it, would not interfere with the plans of the company.

FROM ATLIN.

A correspondent of the Skagway Alaskan, writing from Atlin City under date of February 26, says:

Mr. Brice, the packer, walked in from Golden Gate, arriving yesterday evening with one foot badly frozen. He reports a bad condition on this end of the trail.

From the delightful weather of the past few days a most radical change has taken place. On Sunday the warm, southerly winds veered suddenly to the north and the temperature dropped twenty-four degrees in one hour. Monday morning on the lake front the thermometer stood at 35 degrees below and at 2:30 p.m. it was 22 below. Tuesday morning your correspondent was informed a thermometer registered 39 below burst, the temperature being considerable below that figure. It has now moderated somewhat, but is still very cold. This is said to be the coldest snap so far in Atlin City.

There is considerable feeling here on the question of lot-jumping. Many lots have been located for building purposes by men who stayed in here during the winter, which have been cleared, but for various reasons have not been built upon. It seems that legally anyone may re-locate and build upon these lots if cleared but not built upon. Those having built upon lots are safe from the lot-jumpers and are congratulating themselves therefor. The others complain that having stayed in the town over winter, and in fact having assisted in making the town, adding value thereto by their labor and expenditure of money in clearing lots, and in many cases also the adjacent street, it is only fair that they be given an opportunity of enjoying what they have earned. It looks to them as though common justice should indicate to the lot-jumpers the propriety of giving them a fair show for their building lots. On the other hand, the opposite side say they took that risk when they located their lots, and these late comers seem to have the legal right on their side.

As the season advances the importance of an all-water route from Bennett to Atlin City becomes one of great importance to those making this district the scene of the season's operations. Atlin lake and Taku Arm are connected by the Atlin river, which flows from the lake into Taku Arm. The current of the river is in some places very swift, running in one place about seven miles per hour. At one point the river is somewhat shallow and at another there is a rock, making it dangerous to navigation. However, both these obstructions can be easily overcome at a very trifling expense. If some preparations are not made to get through this part of the route a landing will have to be made at Taku City, the supplies hauled over the portage to Atlin lake and there re-shipped. This expense and trouble can be very easily avoided if the matter is taken up in time. Of course, at the present time the river is navigable only for light, strong crafts.

As far as the town itself is concerned, all await the coming of the gold commissioner. With his arrival a new interest will be manifested and no doubt building to a very considerable extent will be resumed.

THE CARIBOO CONSOLIDATED.

Review of Past Season's Work of This Great Hydraulic Enterprise.

From the Ashcroft Mining Journal.

The first annual report of the Consolidated Cariboo Hydraulic Mining Company, Limited, made February 17, was kindly handed to us by Mr. J. B. Hobson. The Cariboo Consolidated is one of the greatest if not the largest and most thoroughly equipped mines on earth. It is being gradually brought to a state whereby its enormous gravel beds can be worked systematically and economically. The energy, ability and knowledge given by Superintendent Hobson for the past five years to Cariboo cannot be over estimated. What would Cariboo be to-day were it not for a few such energetic men?

The following extracts are taken from the report and will be found of interest:

During the period under review (the year 1898) the Morehead dam and ditch were completed at a cost of $118,458.68, which amount is $6,541.32 less than the estimated cost thereof. The company has acquired the mining leases and additional water rights as outlined in the report presented at the meeting held in January, 1898, at a cost of $20,000.

The work of cleaning the canals of accumulations of ice was commenced in the early part of March and completed on April 10.

A run of 70 days 19 hours was made in pit 1, during which time 143,475 miner's inches of water was used to wash out 350,000 cubic yards of top gravel and clay, which produced 4,403½ ounces of gold, valued at $75,166.16, an average yield of 21 cents per cubic yard, an improvement of about 3 8-10 cents on the average for 1897.

A run of 40 days 15 hours was made in pit 2, during which time 89,989.2 miner's inches of water was used in the removal of 436,200 cubic yards of tailings, boulders and other waste material, which produced 351½ ounces of gold, valued at $6,021.70.

The removal of this waste consumed about one-third of the season's water supply, added materially to the cost of the season's operations, and caused a proportionate reduction of the season's product.

The installation of the permanent sluice plant and gold saving appliance in the bed of Dancing Bill gulch was commenced on July 1 and completed August 1. This plant consists of two lines of sluices 7 feet wide by 3 feet deep, each line 240 feet long, both paved with improved steel riffles, which are the best in use for the recovery of fine gold.

The water supply during the season was somewhat in excess of that in 1897. This was to be expected, as the record of rain and snow fall exceeds that of 1897 by 3.01 inches, the precipitation for 1898 being 28.57.

The mine may, in future, depend upon double the supply of water afforded by the South Fork and Dancing Bill water system, and will ensure a steady supply throughout the season, even under more unfavorable conditions than have occurred since the commencement of the equipment of the property.

The 25 placer mining leases purchased during the season are situated on Long Lake creek, Little Lake creek and Morehead creek.

The area of the leases is 2,112.8-10 acres. These leases cover the auriferous deposits of an ancient river channel of stupendous proportions, for a distance of 42,530 feet, about eight miles, commencing at the old Cariboo Company's line west of the South Fork reservoir, and extending down to the confluence of Morehead creek with the Quesnelle river.

Appurtenant to the above described property are valuable water and reservoir rights: one for 1,000 inches of water from Morehead creek, and 1,000 inches of water from Little Lake creek, together with the right to use said Little Lake for a storage reservoir. These additional water rights increase the company's water supply to 7,000 miner's inches.

The acquirement of this most valuable property adds at least four hundred millions of cubic yards of auriferous gravel to the company's holdings, making the total quantity of auriferous gravel available for future washing amount to about four hundred and sixty-three millions of cubic yards.

Since the opening of the lower bench in pit 2 at Dancing Bill gulch, the mine may be considered in good condition for the use of the increased water supply from Morehead lake.

The installation of the hydraulic plant in the South Fork pit, which will be called pit 3, is now under way, and will be completed early next spring, ready for the use of the spring freshet and any surplus water that cannot be profitably used in pits 1 and 2.

The heavy body of indurated clay overlying the gravels on the west side of pit 1 is rapidly decreasing as the workings are advanced easterly up the channel.

There is a marked improvement in the average yield of the top gravel in pit 1 as the workings are advanced up the channel.

The character and grade of the gravel in the lower bench is as good as expected and it is likely to improve as the workings are carried up the channel above the old Chinese workings.

When the improved condition of the working pits, the high grade of the gravel and the increased water supply is considered, it is reasonable to expect that the product should double that of any season since the opening of the hydraulic excavations.

The sum of $17,000 should be appropriated to purchase hydraulic plant and appliances required in addition to that now in stores, to complete the equipment of the South Fork pit, conduct a pooling reservoir for the Morehead system and to complete the bullion retorting and melting plant. When this work is completed the property will be fully equipped for the economical use of the increased water supply and the successful and profitable operation of the company's mines at Dancing Bill and Black Jack gulches.

With the additional force required to handle and utilize the increased water supply and perform the extra work attending the opening of South Fork pit, it is expected that the operating expenses for the ensuing year will be increased, but will probably not exceed $108,000.

The report deals with the revenue and expenditure attending the equipment, opening and physical operation of the mine and does not include head office expenses.

The total value of the company's property amounts to $4,126,816.64.

The summary of the opening run on lower bench is: Time occupied in washing 16 days 3½ hours; quantity of water used, 31,416.46 inches; quantity of gravel washed, 35,670 cubic yards; duty of water per inch, 1 1-10 cubic yards; gold recovered, 1,389 ounces; value, $23,953.50; yield per cubic yard, 67 15-100 cents; product per day of 24 hours, $1,483.58.

An immense bedrock slide encountered near prospect shaft 1 interfered materially with the progress of washing gravel, and reduced the duty of the water for the washing done on the lower bench.

The summary of the season's work is: Total time occupied in washing, 128 days 16½ hours; total water used, 264,880.4 inches; total pay gravel washed, 385,670 cubic yards; total Chinese tailings and other waste material removed, 436,200 cubic yards; gold product for season, 6,144 ounces; value, $105,141.36.

The total permanent improvements for the season amounted to $142,141.12; operating expenses, $96,506.68; gold recovered, $105,141.36; miscellaneous provisions and mining stores on hand, $32,775.43; explosives on hand, $4,958.88.

The water supply system, as now completed, consists of the following: Main South Fork canal from Polleys lake reservoir to the mine, 19 miles in length, capacity 2,000 miner's inches; canal from Drop gulch to South Fork reservoir, 1 mile, 3,000 inches; canal South Fork reservoir to Dancing Bill gulch, 1 mile, 3,500 inches; ditch from Dancing Bill gulch to South Fork reservoir, 1 mile, 1,000 inches; old South Fork ditch from South Fork reservoir to French Bar bluff, 1 mile, 1,000 inches; Morehead canal, from Morehead lake reservoir to its junction with South Fork canal, 10 miles, 2,500 inches. All the canals and ditches are in good condition, excepting the old South Fork ditch. This will be improved and used hereafter for the delivery of surplus water for use in the South Fork pit.

AS IT IS IN ATLIN.

British Residents of the New Northern City Protest to the Government.

Small Encouragement for the Pioneers in Cresting Facts for Consideration.

"Business in Atlin city and district is paralyzed; development is killed in the bud; and the people who have invested their all in the laying of the foundation for a great mining section are brought face to face with ruin, if not starvation."

That is how Mr. W. Wallace Grime summarizes the effect of the alien exclusion law upon the district which it most directly affects and to which it is charged the government has been in many other ways quite the reverse of paternal or considerate. Mr. Grime is "just out" from Atlin, and bears testimony to the rigorous conditions hedging about the pioneers of this new community as he lies in a private room at the Jubile hospital, tenderly nursing two badly swollen and frozen feet.

As to the natural advantages of which Atlin district is possessed, Mr. Grime speaks in terms of eloquent appreciation. The policy of the government, however, has been, as he describes it, the reverse of encouraging to the development of the region. He apparently shares this view with the great proportion of the resident population, for when it became known that he was coming down to Victoria—some three weeks ago—he was unanimously chosen by the British residents to present a petition from them to the provincial government, and to press the grievances therein dealt with, as forcibly as possible; at the same time securing the co-operation and support, if possible, of the cities of Victoria and Vancouver, as kindred sufferers in the pocket from the exclusion bill.

The petition in question has already reached the hands of Premier Semlin, and Mr. Grime has received assurance from that honorable gentleman that it is "receiving consideration."

In brief the prayer of the British residents in Atlin is that the exclusion act be repealed as speedily as possible, on the ground that it had already paralyzed the trade and industries of the district; that it is inimical to the interests and development of the country; that it has caused a sudden and complete cessation of all prospecting and claim improvement; that it has caused capitalists to withhold from investing in the country, and has checked effectually the influx of population necessary for the building up of a rich section of the province.

As to the other matters of complaint in Atlin, the petition points out that the pioneers who have invested their all upon their faith in the country are here—as by the exclusion law—the first and immediate sufferers. They have surveyed a city, cleared its streets, fenced and cleared the lots, built homes or places of business upon them, and maintained a loyal and law-abiding community—and this without a dollar of cost to the government that might naturally be expected to have done something for the town and district so recently sprung into prominence.

It is in view of these facts, and because they have invested their all in the place, that the Britishers of Atlin ask for some amelioration of present conditions, and that the prior claims of the pioneers and present holders of property shall be respected under the new regime.

To place the situation distinctly before the public, it is necessary to go back a little in the history of the new North. At the time Atlin sprang into existence and the town appeared destined to achieve not inconsiderable importance, Captain Rant promulgated the edict that no one should erect a building or cabin upon an unsurveyed lot. There was no provision for surveys, and the majority of the miners could not afford to pay for such a luxury, and so in the dilemma Mr. L. D. Kinney, an excellent of St. John, New Brunswick, came to the fore and assumed responsibility for the cost of a first-class townsite survey, which was made by Mr. Agerton. It provides for 60-foot streets and 100x50 foot lots, the completion of the Agerton plan being followed immediately by the clearing of streets and lots and the erection of homes and business premises.

Then like a thunderbolt out of a clear sky came the order of the new commissioner, Mr. Graham, that all building should be immediately suspended until his arrival, as it was intended that the townsite should be resurveyed, the streets widened from 60 to 90 feet, the lots cut down from 100x50 to 100x25, and all titles to be disregarded and the newly defined lots disposed of at auction to the highest bidder.

Here was where the residents felt the pinch, for they had invested their all in the making of the town; here was their home, though loyal and patriotic to the core, and ready to give every possible assistance to the officials put over them, they felt it very hard that their efforts should be rewarded with such treatment as indicated in the order of the commissioner—or even a threat of such treatment.

There were about 200 buildings under erection in Atlin City alone when Commissioner Graham's order came to suspend operations, besides others at Discovery and Surprise Lake camps—the population of these three contiguous camps aggregating perhaps one thousand. The worst of the order upsetting the old survey is that the people who have spent their everything in making and improving their homes for themselves will have no chance to hold them, having exhausted their resources upon the place. Even now a Dawson capitalist is contentedly waiting until with Mr. Graham's arrival he is permitted to buy for a song, at auction, the town Atlin's pioneers have by their industry and energy created.

The non-arrival of Mr. Graham is another woe for the Atlin folk. He has been due half a dozen times, and in mid-January he himself fixed it definitely that he would be up from his winter quarters at Bennett by February 20. He also fixed for that date the trial of the first criminal case developing in Atlin, a miner named Munson being accused of stealing from caches on the trail. The day of the trial arriving and still no Mr. Graham, the hearing was further postponed, Munson being out on bail and making no effort to leave the camp.

On his way out, Mr. Grime discovered that, Commissioner Graham's eyes giving out after he had started from Bennett, he had been obliged to return to Skagway for suitable glasses, setting out again from the gateway city shortly before the 23rd. How he stood the cold spell which so seriously nipped both Mr. Grime and Mr. Wishart, and which he also must have encountered, has not yet been learned. Mr. Vickers was acting as deputy recorder in Atlin, pending Mr. Graham's arrival, to which no one looked forward with greater expectancy.

As to the condition of affairs in Atlin at latest advices. The first stampede-letter mail arrived on Tuesday, the 14th ultimo, in charge of the contractor, R. A. Grimes, of Skagway, whose bargain is to make one trip each way weekly. Heretofore the residents have been forced to depend upon a private mail service at a cost of 50 cents per letter.

The claim of the citizens of Atlin with regard to their lots is that the town was surveyed and built upon before a reserve was declared, and that they were ordered by the then commissioner to keep on their surveyed lots till further notice. They hold that the best recognition the government could possibly give the pioneers would be a free title to the homes they have made for themselves—or at all events a moderate upset price.

As to the effect of the alien exclusion bill, Mr. Grime says it has stopped the influx of miners and caused already an immense depreciation of customs receipts. It has killed the outfitting trade in Victoria and Vancouver, and is ill-advised because there are not one-tenth enough British in the country, or likely to come in, to develop it in anything like a thorough manner. Fifteen hundred is a very high estimate of the population of the entire district, yet 30,000 men would find employment in the development of existent claims—4,000 on Pine creek alone—to say nothing of the benches and new gold streams constantly being exploited. Canadian or British interests are affected now, because money has ceased to circulate; labor cannot be had for the development of the mines; and the claims cannot be sold to the American investors, who are undoubtedly the best buyers.

A great number of the claims that were staked last fall went unrecorded through the winter, the owners being in many cases short of money, and these are already being jumped; while as soon as the record books are opened—upon Mr. Graham's arrival in Atlin—the jumping of American claims by wholesale will commence.

The Americans have already sent a vigorous petition to their government at Washington asking them to mediate with Canada for the repeal or disallowance of the exclusion bill. The British residents at first proposed to send their protest by Mr. Kinney to Ottawa, but afterwards entrusted it to Mr. Grime, to be laid before the British Columbia government in this city.

Mr. Grime has little to say concerning the remarks of Mr. W. Norman Smith in the Times of last Saturday, in so far as these remarks concern himself. Mr. Smith is a friend, he says, and he does not believe he made use of the language attributed to him.

THE DANUBE ARRIVES.

The C. P. N. Northern Liner Reached Port Soon After the Humboldt—Dawson Arrival.

Less than 12 hours after the steamship Humboldt's arrival yesterday morning, the C. P. N. steamer Danube arrived from the North with another coterie of railroad hands and northern folk. She left Skagway on Thursday, the same day as the Humboldt left, and brings practically the same budget of news. Dr. G. H. Wayne, who has been in to Dawson with an American party of mineralogists, in search of mines, arrived on the steamer en route to California. He made a quick trip out over the trails, and reports upwards of 2,500 people between Dawson and Skagway. He says the weather was very severe, and that many snow slides recently occurred on the journey. Dr. Wayne was formerly surgeon on the United States man-of-war Charleston, and his medical training came in useful on the trip down from Lynn Canal. A bad case of pneumonia developed on the way, the patient being a young fellow named Ford, who, although removed to the hospital on arrival here, is said to be quite convalescent. Dr. Wayne was also one of those who claimed to have suffered from Fawcett's loose administration, but despite this fact is now credited with a good-sized fortune.

The Danube prolonged her trip down by calling at Wrangel to land 25 tons of coal, and at Alert Bay. Here the Humboldt passed her.

The well known strengthening properties of iron, combined with other tonics and a most perfect nervine, are found in Carter's Iron Pills, which strengthen the nerves and body, and improve the blood and complexion.

Americans May Be Employed.—One of the chief complaints of the British residents of Atlin, as embodied in their petition to the government, appears to fall to the ground by reason of the amendments made to the Mineral act during the late days of the recent session. They could not find enough Britishers in the country to work their properties, they said, and they could not engage Americans as the law provided that even a wage earner in a mine must possess a free miner's certificate. This condition does not apply under the amended law.

CARTER'S LITTLE LIVER PILLS.

CURE

Sick Headache and relieve all the troubles incident to a bilious state of the system, such as Dizziness, Nausea, Drowsiness, Distress after eating, Pain in the side, &c. While their most remarkable success has been shown in curing

SICK

Headache, yet Carter's Little Liver Pills are equally valuable in Constipation, curing and preventing this annoying complaint, while they also correct all disorders of the stomach, stimulate the liver and regulate the bowels. Even if they only cured

HEAD

Ache they would be almost priceless to those who suffer from this distressing complaint; but fortunately their goodness does not end here, and those who once try them will find these little pills valuable in so many ways that they will not be willing to do without them. But after all sick head

ACHE

is the bane of so many lives that here is where we make our great boast. Our pills cure it while others do not.

Carter's Little Liver Pills are very small and very easy to take. One or two pills make a dose. They are strictly vegetable and do not gripe or purge, but by their gentle action please all who use them. In vials at 25 cents; five for $1. Sold by Druggists everywhere, or sent by mail.

CARTER MEDICINE CO., New York.

Small Pill. Small Dose. Small Price.

ELECTRIC SCIENCE.

Wonders of the Subtle Current the Subject of a McGill Lecture.

Prof. Owens Talks of Its Very Latest Feats and Possibilities.

The recent installation of a new electrical plant in the laboratories of McGill University has drawn attention to the electrical department of Applied Science. Much interest was therefore taken in the announcement that Prof. Owens, the new professor of electrical engineering, was to deliver the annual university lecture upon the subject of "Electricity as a Factor in Modern Development."

The lecture was delivered in the Molson Hall at McGill College yesterday afternoon, and was largely attended. Mr. Samuel Finley presided, and there were upon the platform with him the principal, Dr. Peterson, and the deans and professors of the several faculties of the university.

Prof. Owens in his opening words referred to the recent donation of Sir William McDonald to the electrical department. "It was with great pleasure," he said, "that I received the invitation to deliver this lecture, for I saw in it not only an opportunity of expressing my appreciation of the courtesies that have been extended to me since coming to Montreal, but also of voicing the sense of gratitude felt by every one concerned in engineering education for the recent enlargement of the facilities of McGill University for engineering instruction and research, facilities that have been most graciously afforded by our distinguished benefactor and governor, Sir William McDonald.

The record of the past hundred years in general engineering work was comprehensively reviewed. "To the engineer, and not to the military leader," he said, "we now look for the advance of civilization and the extension of the Empire. How recently have we seen our Anglo-Saxon civilization extended throughout the heart of Africa by the distinguished engineering soldier, Lord Kitchener. With railway and machine gun he accomplished the task that the heroism of Gordon assailed in vain. But not more on the outskirts of civilization than in the midst of crowded thoroughfares does he find pioneer work to do. To him we look for every advance in our methods of fibre and food production, the annihilation of time and distance, our engines of war and implements of peace. The industrial revolutions occasioned by his inventive genius have laid the foundation of every social change, and to his labor and the result of his work our modern civilization is mainly due. By the introduction of electric traction not only have the sanitary conditions of our cities been improved, and an immense amount of time for pleasure or business saved, but healthy country homes have been substituted for the overcrowded tenement. The day is not far distant when the city 'block' for dwelling purposes will be a thing of the past. The very same agencies, natural sources of power, waterfalls and coalfields, which formerly operated to concentrate population, are now, through improved methods of power transmission and distribution, operating in an opposite direction, and, as the time goes on, a man's place of living will bear less and less relation to the location of his office or place of conducting business.

"The modern electrically driven and lighted machine shop and factory has an elevating tendency as great as was the depressing effect of the smoke-filled foul-smelling establishment it has often replaced.

"What, then, will be the place of engineering in the coming university? The answer is evident. Just as a general knowledge of science has come to be considered an essential in every course intended to afford a liberal education, so a general knowledge of the applications of the science will likewise be regarded. For the present, electrical, as well as other special branches of engineering must be conducted as undergraduate work. Few, if any, schools of eletcrical engineering are more happily situated than ours. With the splendidly equipped factories of the Canadian General Electric Company at Peterboro, the Royal Electric Company of this city, and the magnificent water-power developments at Lachine and Chambly, within easy reach, the student quickly learns the bearing of his subject upon the commercial and industrial interests of the Dominion, and it is my highest ambition that the splendid water powers of Canada shall be guided into useful channels largely by graduates of McGill University.

"But let us return to the original subject, and trace in more detail the developments in the several branches of electrical work.

ELECTRIC LIGHTING.

"Coupled with the steam engine and water-wheel, the dynamo converts the solar energy of our coal fields and waterfalls into a subtle and powerful force, whose applications are literally without number. By 1870 the dynamo machine might be said to have reached a commercial form, but the problem of electric lighting was not solved until 10 years later.

"So rapidly were the advantages of the incandescent lamp appreciated for interior lighting, and the electric arc for street illumination, that in less than a single generation, from fifteen to twenty million candescents and nearly half a million arcs are now in use in a single country—the United States.

"In the early days of the industry, when the problems of insulation and distribution were imperfectly understood, it was necessary to use low electric pressures and to place the central station close to the district to be supplied, but now that we have become familiar with pressures of ten, twenty, thirty and forty thousand volts, and the possibilities of alternating currents for transmission and distribution are better known, the station may be located well outside the limits of the average city, feeding into suitable sub-stations wherever current is required. This means both a great economy in the cost of generation and the absence of the familiar smoke nuisance.

"Happy and thrice happy should the people of the city be, because of the magnificent water power that is being developed at her very gates. Within easy reach of Montreal there is more hydraulic power than in the whole of Switzerland, and when fully developed and electrically applied, we should have here the electric city of the Dominion.

"But brilliant as have been the advances in electric science, we are still far short of what we hope the future holds. The two engineering problems that excite most interest to-day are the efficient conversion of the energy of fuel into electric agency, and the conversion of electric energy into light, without accompanying heat. The steam-engine converts only from 5 to 10 per cent. of the chemical energy of coal into mechanical power, while the dynamo converts from 90 to 95 per cent. of the mechanical power it receives into mechanical power. In point of efficiency the dynamo is practically perfect, but all thermal engines are subject to laws which under working conditions sadly limit their efficiency. Therefore the effort is being constantly made to convert the chemical energy of carbon directly into electric energy, without passing through the form of heat, a process essentially similar to the conversion in the ordinary zinc-copper battery; but so far no practical carbon battery has been produced.

"Indeed, it is doubtful if the art of government is sufficiently far advanced to withstand the social strain that such a revolutionary invention would produce. It would mean unlimited power at practically no cost, and would occasion industrial and social changes beside which those produced by the steam-engine would dwindle to a vanishing point. If our modern lighting apparatus could be brought to the efficiency of that of the glowworm and firefly, the consumption of a few tons of coal per hour would light the world.

ELECTRIC POWER.

"Power distribution by electric motors, though first developed in conjunction with electric lighting, not only now exceeds many times the lighting interest, but it has become one of the largest commercial enterprises of the globe. In 1898 more than a million horse-power in electric motors was employed in the United States in street railway transportation alone, conveying, by a recent estimate, more than three billion passengers, and earning something like a hundred and twenty-five million dollars. These same railways employ an army of two hundred thousand men, and represent an invested capital of from one to one and a half billions.

"To-day, about a mile above Niagara Falls, some fifty thousand horse-power is continuously flowing from half a score of huge electric spinning tops. No feat of modern engineering has been watched with greater interest than this, and none more successfully conducted. The power of Niagara has been estimated at about seven million horse-power, greater probably than the physical force of the whole human race is capable of continuously exerting. At present some two hundred and fifty thousand horse-power is to be developed on the American and Canadian sides, or about 5 per cent. of the total power available; not enough to perceptibly diminish the flow of the falls. However, should the whole be utilized, leaving the rocky bed dry and bare, we would but be substituting a wonderful cataract of eternic energy for the splendid flow of gravitational matter so justly famed. Which spectacle would present greater beauty would depend upon the individual. To those who trace in imagination the course of a beam of sunlight, turning from a vast in the ocean, rises in cloud and falls again in grateful shower over grain fields and vineyard, filling brook and swelling river, and finally tumbling through mighty turbines and silently streaming from the polished slip rings of stately dynamos, bursting again into wholesome sunlight to brighten the homes of hundreds—the substitution would but be the completion of a full cycle of usefulness and beauty.

"From either standpoint, however, Canada is fortunate, for she has water power enough and to spare. Some of this is already being splendidly developed, but much will not be needed for many years.

"Among the best examples of electric transmision in the world are the plants at Lachine, Chambly and Hamilton. The latter plant started in September last, and is now transmitting some two thousand five hundred horse-power 35 miles, at the enormous pressure of 22,500 volts. The two former, I supose, most persons in Montreal have had the pleasure of seeing.

"It is of interest to enquire as to the probable limit of economical power transmission by electrical means. In reply to this I may say that Lord Kelvin, after an inspection of the Niagara plant in 1897, is quoted as placing the limit at about three hundred miles.

"It is estimated that about two hundred thousand horse-power of electrical machinery is now in use on the American continent for transmitting the power of falling water.

"Without doubt the greatest advance that has been made for many years in land telegraphy has occurred in the past year, and is due to Prof. Henry A. Rowland, of Baltimore. He has brought out a 'multiplex printing telegraph,' by which 16 messages per minute, of 20 words each, may be sent over a single wire by operators skilled only in the use of the typewriter, the messages being automatically recorded, not in cypher, but in ordinary type, at the end of the line. I had the pleasure of seeing his apparatus, which is a marvel of mechanical beauty, in successful operation a few days ago, over artificial lines varying from 600 to 1,000 miles in length, a modification of his system, adapted to automatic sending will transmit from 3,000 to 4,000 words per minute. What this means may be seen by remembering that at this rate the contents of a New York daily might be transmitted to Montreal in less than an hour. But notwithstanding these devices, by which the carrying capacity of a single wire is multiplied many times, efforts are continually being made to do away with wires altogether, and to transmit messages by setting up electro-magnetic waves at different sending points, and using suitable detectors as receivers.

"In the United States there are considerableover a million telephone instruments in daily use, and each day more than three million connections are made. In England about 150,000 miles of telephone wire are in use, and the number of messages per year has reached something over eighty million.

OTHER APPLICATIONS.

"There are many other applications, but suffice it to say that in hundreds of other ways electricity is playing a similar part. In agriculture, electrical methods of stimulating plant growth have passed the experimental stage. In medical practice it has become indispensible. In domestic life the electric call-bell, chafing dish and fan motor bring a measure of comfort even to bachelor quarters. Indeed, no bounds can be placed upon this spirit of the nineteenth century, that comes

"To answer our best pleasure; be't to fly,
To swim, to dive into the fire, to ride
On the curl'd clouds."

FRIENDS PREVAILED

A Nervous Toronto Woman Walker the Floor During the Night for Hours at a Time—She Makes a Statement.

TORONTO, ONT.—"I was troubled with nervousness. It was impossible for me to keep still and if the spells came over me during the night I had to get up and walk the floor for hours at a time. My blood was very poor and I was subject to bilious attacks. My feet would swell and I was not able to do my own house work. I treated with two of the best physicians here but only received relief for a time. I became discouraged. One day a friend called and advised me to try Hood's Sarsaparilla. I laughed at the advice but I was prevailed upon and procured one bottle. Before I used it all I began to feel better. I took several bottles and also several boxes of Hood's Pills. Now I can eat and drink heartily and sleep soundly. Hood's Sarsaparilla has entirely cured me and also strengthened me so that I now do all my own work. I cheerfully recommend Hood's Sarsaparilla to all sufferers from nervousness, weakness or general debility." MRS. H. F. PARM, Degrassi Street.

Hood's Pills cure Liver Ills; easy to take, easy to operate. 25 cents.

IN A SEVERE STORM

The R.M.S. Empress of India Comes Through Very Bad Weather Unscathed.

Steamship Athenian Leaves Hong Kong For Victoria This Month—Along the Waterfront.

Anything but agreeable weather was experienced by the R. M. S. Empress of India on her 40th homeward voyage completed yesterday. Running up to Yokohama from Kobe she was three days in a storm in which several other big ocean liners were obliged to "lay to" including the Northern Pacific steamship Victoria, which is due here on Saturday. The Empress, however, came through the fury of the blast unscathed. She reached quarantine at 2 o'clock and continued to Vancouver four hours later. W. Lough, of F. C. Davidge & Co., was the only Victorian to arrive. He has been traveling through the commercial centres of the Far East buying silks and other merchandise for his house and has now in transit to New York some pretty large shipments of this line of goods. Of the other saloon passengers there were compartively few. S. S. Benjamin, a Hongkong broker, who was one of the arrivals, is on a "round-the-world" pleasure trip with his family and there were other tourists in Capt. Fraser of London; Mrs. Van Nicrop, J. Martin, a London solicitor, who has recently been to Australia and is there interested in the timber business; Rev. C. H. Browne, of Eastborne, Eng.; T. B. Pink, of the celebrated purveyors of Pink & Co.; Mr. and Mrs. Guggemheim, of Denver, and Mr., Mrs. and Master Hutchinson, of Yokohama. The only other saloon travellers were F. Nobholz, a silk merchant going to Switzerland; Mr. Norie, Mrs. Norie and Miss Norie, of Edinburgh, returning from a visit to friends in Ceylon; and E. P. Cadwell.

THE ATHENIAN COMING.

News is brought by the C. P. R. steamship Empress of India that the Athenian, which it will be remembered ran north in connection with the Tartar a year ago, is to leave Hongkong on March 18, en route to Victoria. She is coming via Japan and Honolulu and it is expected will bring an Oriental cargo. Her repairs have been completed at Hongkong, some of the contemplated changes including the addition of a poop deck being left undone.

THE DANUBE POPULAR.

"The C. P. N. Co.'s steamer Danube arrived in port yesterday, bringing 53 passengers and 400 tons of freight, and a small quantity of lumber," says the Skagway Alaskan. "This steamer is one of the most popular on the run of the British boats. Her officers, Capt. Meyers, Harry Bishop, purser; and Harry Kline, steward, are men that make one feel at home when under their care, and every department of this boat's service is looked to in detail, in a manner worthy of comment. Many a traveller north has a] collection of his voyage with Capt. Meyers and Purser Bishop."

THE RETAIL MARKETS.

Eggs Fall Again in Price—Potatoes Rapidly Increasing in Value.

The egg famine season is over, eggs being about as cheap as they are likely to get this year, the past week having seen the price drop to 25 cents for local eggs and 20 cents for the imported product. As predicted by merchants last week the potato market is growing very stiff and quotations have jumped from $1.00 to $1.25 per cwt., with an upward tendency still prevailing. Few other changes are reported by merchants. They are now having California produce quoted them and next week or the week after will doubtless see quite a variety of Southern goods in stock. The following are the retail quotations:

Flour—Ogilvie's	$5.50
Lake of the Woods (Hungarian)	5.50
Ld. B. (Hungarian)	5.50
Three Star	5.25
Premier	5.25
Snowflake	5.00
Enterprise (Armstrong)	5.50
XXXX (Armstrong)	5.25
Graham, per 10 lbs	35
Wheat, per ton	26@30
Buckwheat, per 10 lbs	50
Straw, per bale	60@75
Onions, per lb	04
Rhubard, per lb	12½
Oats, per ton	20@23
Barley, per ton	28.00@30.00
Bran	22@24
Middlings, per ton	24@25
Ground feed, California, per ton	28@30
Chop feed, B. & K.	23@25
Corn, whole, per ton	26@28
Corn, cracked, per ton	27@29
Cornmeal, per 10 lbs	35
Oatmeal, per 10 lbs	40@45
Rolled oats, 7 lbs	30
Citrons, per lb	3
Cabbage, per lb	4
Potatoes, per cwt	1.25
Cheese, per lb	20
Red peppers, per lb	15
Hay, baled, per ton	9@10
Eggs, Island, per doz., strictly fresh	25
Eggs, imported, per doz	20
Butter, fresh, per lb	25
" Dairy (Eastern), per lb	25
" B. C. Creamery, per lb	35
Hams, Canadian, per lb	16
" American, per lb	15@18
Bacon, American, per lb	16&18
" Rolled, per lb	14@16
" Long clear, per lb	12½
" Canadian, per lb	14@16
Shoulders, hams, per lb	12½
Meats—Beef, per lb	09@15
Sides, per lb	08@09
Veal, per lb	10@15
Mutton, per lb	10@15
Carcase, per lb	10½
Joints, per lb	10@15
Pork, fresh, per lb	9@12½
Ducks—Brant, per pair	1.50
Turkeys, Eastern	15@18
Turkeys, Island	20@25
Geese, Eastern	14@16
Geese, Island	18@20
Fruit—Apples, per box	1.00@1.50
Apples, Island, per box	1.00@1.50
Lemons, California, per doz	25@35
Oranges, per doz	20@35
Navial, per doz	35
Bananas, per doz	35
Salmon, per lb	10@12½
Halibut, per lb	12½
Rock cod, per lb	06@08
Ling cod	08@10
Smelts, per lb	08@10
Flounders, per lb	08@10

Friendly Help.—The usual monthly meeting of the Friendly Help Society was held in their rooms at the city market Tuesday morning. Many needy cases were reported and the reports and accounts for the month were received. About forty families and individuals received assistance during the month. Twenty had fuel, a like number groceries and the remainder clothing. It was decided to hold the annual meeting on Saturday, the 18th inst., at 3 p.m. Following are the donations for the month which are thankfully acknowledged by the society: Money, Mrs. Newcombe. Mrs. (Dr.) Wilson, the City and Miss Woods; clothing, Mrs. Greenfield, Mrs. Vincent, Mrs. Scott, Mrs Gill, Mrs. Galletly,