Concentration Of Ores by Oil

Description of the Elmore Process for Which Much Is Claimed.

Said That It Would Reduce Cos and Greatly Increase Profits.

The press of the interior has devoted a good deal of space recently to a discussion of the Elmore process for the concentration of ores by oil and the probable results of its introduction in the low grade camps of the Kootenays. The opinion seems to have been arrived at generally that if the Elmore process will do one-half that is claimed for it by its inventor, the problem of the profitable treatment of low grade copper ores has been solved, and properties which are now lying idle, or only being worked for their "pay streaks," will speedily become dividend payers, in fact that it would cause such a revolution in British Columbia mining methods as the cyaniding process did in South Africa.

Mr. Ernest E. Sawyer, managing director of the Dominion Development syndicate, limited, of London, England, who is visiting the province in the interests of his company, is in the city, a guest of the Driard, and is being visited by numerous mining men, who are anxious to obtain information regarding the working of the new process, which is very simple and may be described as follows:

The ore, having been reduced to a freely flowing pulp, passes directly from the mill into the open end of a horizontal rotating drum, inside of which is fixed a belix with cross blades or buckets, which lift up the pulp to a certain height and drop it again, at the same time propelling it forward to the opposite end of the drum, thus keeping the pulp in constant agitation for the few seconds which are occupied in its progress through the drum. With the pulp is also admitted a small quantity of a thick, sticky oil (the residue left in the stills in the refining of petroleum). This oil is, of course, subjected to the same agitation as the pulp, and is consequently tumbled about with it, and exercises the remarkable property of sticking to and buoying up the particles of mineral that are floating about or suspended in the pulp, but it does not stick to or have any effect whatever upon the particles of rock which are present in much greater number. The oil and pulp automatically discharge from the opposite end of the drum into a pointed box or spitzkasten, in which the tailings or rock at once settle down and flow off with the water at the bottom, whilst the oil, by reason of its buoyancy, floats to the top and carries up with it practically all the values which the ore contained.

From the top of the pointed box the oil with its load of mineral flows off continuously to a specially constructed centrifugal machine, where the oil is extracted from the mineral (which is left in the machine), the oil being at once ready for re-use. For close extraction three mixing cylinders are sometimes used, the pulp passing from one to another after floating off the oil and collected mineral and receiving a fresh stream of oil in the next mixer. A second centrifugal machine is also found desirable below the first, to separate the last of the oil and water from the concentrates. The concentrates are left in the machine, practically dry and free from oil.

The process was first tried in the laboratory, then on a small working scale, and then with a plant erected at the Glasdir mine, Wales, capable of treating about 50 tons of ore per week. After a lengthened trial of this plant it was increased to double its original capacity, and was finally replaced by a much larger plant, which treats 250 tons a week. The mine was formerly equipped with one of the most modern concentration mills obtainable, operated under the supervision of able experts, but only 14.5 per cent. average value recovery could be obtained from the ore. With the Elmore process over 80 per cent. of the metallic values were recovered, and the whole of the original jig and Luhrig table plant was abandoned in favor of the new process.

(1) The process saves the finest slime or float mineral, free gold, sulphides or tellurides, etc., which is the chief source of loss in water concentration plants, and will separate such mineral even when the same is of less specific gravity than the gangue it occurs in.

(2) It can be used after any system of wet crushing without classification on material finer than 20-mesh (400 holes to square inch), or can be added to existing concentration mills for the treatment of the slimes which carry gold value; it is thus specially adapted to the saving of "float losses." The grade (mesh) of crushing necessitated will, of course, depend in each case upon the degree of fineness and dissemination of the values through the matrix of the ore, and the ease with which these can be detached therefrom during crushing.

(3) The pulp flows automatically and continuously through the mixers without attention; and the oil passes continuously from the surface of the spitzkastens below mixers into the centrifugal machines, and thence—freed from concentrates—is pumped back into circulation again through tanks feeding the mixers. The discharge of concentrates from the centrifugal machines involves extremely little labor. The power required is very small, being simply that to revolve the mixers and to run two centrifugal machines for several sets of mixers.

(4) The cost of installation is not relatively high for a plant in which the capacity is at least 50 tons per day. The floor space occupied is very small.

(5) The cost of operating is very low and wear and tear as little as any running machinery will admit of.

(6) The quantity of water necessary per ton of ore is small, and by settling this can be used over again, except, perhaps, where amalgamation is used before concentration. Mine waters, even where acid or charged with soluble salts can be generally employed.

(7) Clean concentrates are produced almost free from rocky particles, but containing a small percentage of oil, which is no disadvantage for smelting or roasting, and assists in briquetting if this be desirable.

(8) Certain minerals can be separated from others of similar or greater specific gravity. For instance, copper pyrites can be taken from magnetite, which is impossible by water concentration, and very imperfectly accomplished by magnetic separation, however slowly and carefully conducted.

(9) Although oil is used freely in the process, the whole plant and building can be kept absolutely clean and neat, owing to the perfection of the mechanical appliances as now developed. The total loss of oil depends in part on percentage of concentrates, and may be taken at from one to three gallons per ton of ore.

(10) The plant is constructed in very convenient units of about 25 tons daily capacity, but depending on character of ore, and can easily be added to when installed.

(11) The concentration depends on the surface condition of the material; and generally it may be said that metallic surfaces are attachable to the oil, and earthly surfaces not. Nevertheless, sulphur, earthy-looking cinnabar, graphite, molybdenite, arsenmite and some other minerals, which in advance might not seem to possess promising surfaces, are most successfully taken up by the oil. Tellurides which are difficult to concentrate by water, and from their gold and silver values need close saving, are easily concentrated by this process. Some oxidized gold ores in which the metal is so fine as to defy amalgamation have given good results. Average banket gold ore from the Randt mines without any previous amalagamation has yielded a high extraction and rich concentrate. These last three classes promise a field for the process in direct competition or in conjunction with cyaniding. As it is desirable to extend the knowledge of its application, correspondence is invited, and samples will be received for laboratory testing by the process, in cases where difficulty or loss occurs in existing methods of concentration or cyaniding.

(12) Where an ore is heavily mineralized the adoption of the oil process by no means precludes the employment of water concentration plant, especially where such is already installed. The contrary is, indeed, the case, water and oil concentration systems being frequently capable of advantageous combination, the former supplementing the latter and rendering it more efficient. By the addition of an oil concentration installation to water concentration plant, not only are all float losses (more or less inevitable with water concentration) effectually recovered, but the capacity of the wet concentration system is greatly increased.

The Vanners, Wilfry tables, etc., would not need to be run as close concentrators, but employed merely to yield a large proportion of the mineral as sharp "heads," all middlings, tailings and slimes being passed through the oil plant for the complete recovery of the balance of values. The total saving by the combination is greater than possible with the most perfect water dressing system alone, whilst the economy is dual; that of the water concentration plant being increased by freeing it from the necessity of close separation, thereby utilizing its maximum ore capacity, and that of the oil plant by relief from the need of dealing with a large proportion of the coarser material.

(13) Where gold occurs both finely disseminated through the quartz or other ore matrix, and also in association with pyrites, telluriges, or refractory minerals, the oil process offers a ready means of treatment. The mineralized values are thereby obtained in a high degree of concentration available for smelting recovery, or for roasting with subsequent chlorination, cyaniding, etc., whilst the residual values (if any) in the siliceous tailings are obtained in a condition readily recoverable by ordinary cyanidation. Thus, the bulk of an ore otherwise unsuited to direct leaching extration, may be so treated after the removal of the refractory contents by means of the oil concentrating process. Notably is this so in the case of tellurides and sulpho-tellurides and copper compounds.

(14) The readiness with which the finest mineral particles are retained by oil renders possible in many instances the simultaneous recovery of slimes values with the concentration of the coarser ore, and will thus often obviate the need for subsequent slime treatment plant, filter presses, etc.; nor will the ore have to be crushed or re-ground to the same degree of fineness as at present found necessary with sulpho-telluride and other refractory ores.

(15) It should be remembered that, as a rule, metallic oxides are not saved by oil, although partial exceptions occur as in the case of atacamite, oxide of copper and cassiterite. Sulphide minerals on the contrary are almost invariably retained with completeness, the most notable exception being the incomplete removal of "blende." Hence, in the installation of oil concentration plant, care should be taken to avoid undue oxidation at any stage in the previous reduction operations, in order to prevent the possible formation of oxide films on the surfaces of the sulphides present in the ore. It is for this reason also that tailings and slimes sent for trial should be taken as "running" samples and despatched hermetically sealed.

EXPERT OPINION.

Many mining men of world-wide reputation have expressed their favorable opinion of the Elmore process, amongst whom may be mentioned F. W. Badley, San Francisco; Daniel C. Griffith, chairman of the Zechan-Montana Mines; Bambridge, Seymour & Co., London, Eng.; J. D. Kendall, London, Eng.; Henry Louis, of the Durban college of Science.

Mr. Kendall, whose opinion is especially interesting to British Columbians, writes as follows:

Dashwood House, New Broad St.,
London, E. C. January 18, 1901.

To Ernest E. Sawyer, Esq., Consulting Engineer, 11 Cornhill, E. C.:

Dear Sir,—In reply to your enquiry I have much pleasure in giving you my opinion as to the Elmore oil concentration process. I have examined, whilst at work, the only plant yet built, that erected in Wales, for the purpose of treating the yellow copper ore from the Glasdir mine. It saves about 85 per cent. of the values as against 15 per cent. by ordinary water concentration as previously carried out with the best machinery that could be got. The ore contains only about 1.2 per cent. of copper. I have also made numerous laboratory tests with the oil process. For ores which contain finely disseminated metallic minerals I think oil is greatly superior to water as a concentrating medium, for it comes at once into contact with, licks up, and saves a large proportion of the floating particles which pulverization produces in such minerals, and which are unavoidably lost when water is used. To save by water, the mineral treated must sink, but a very large proportion of some minerals, such as chalcopyrite and tetrahydrite, will not sink, as it is well known to all engineers who have given any attention to metallurgy. I recently made a number of concentrating tests, with water, of a yellow copper ore containing about 2.2 per cent. of copper. The average loss was 55.8 per cent., mainly arising from floating ore, the surface of the water being covered with a scum of metallic mineral which would not sink. Messrs. Elmore have made tests of the same ore, and lost only 2 per cent. The less the percentage of metallic mineral in an ore, and the more finely it is disseminated, the greater is the loss in water concentration. The use of oil prevents that loss almost entirely. I feel very sure that the process has a great future, for besides enabling many ores to be profitably treated, which could not possibly be so treated in water, it will always be useful as a tailings plant in mills handling ore in which a large proportion of the metallic minerals is so scattered through the gangue that it can be saved by handsorting and jigs.

In British Columbia and other parts of Canada I know of a large number of deposits which cannot possibly be worked profitably if water concentration were employed, but which, with the Elmore process, would become very valuable properties. Mines that have been worked at a profit when smelting their produce could greatly increase that profit by employing the Elmore process prior to smelting. Much ore that has hitherto been amalgamated and cyanided will, I am satisfied, be more economically dealt with in the future by oil concentration.

I am, yours faithfully,
(Signed), J. D. KENDALL.

Never is time more precious than when some member of the family is attacked by colic, dysentery or any bowel trouble. The doctor is distant but if Perry Davis' Painkiller is near all danger is soon ended.

HE DIES TODAY.

Murderer Rice Ready to Meet His Doom.

Toronto, July 17.—Frank Rice, the condemned murderer of County Constable Wm. Boyd, spent his last day upon earth very quietly. He devotes a good deal of time to religious exercises, and in company with Rev. Robt. Hall, his spiritual adviser. He is apparently prepared to meet his fate and shows no signs of despondency. He has no desire to cheat the gallows, and is ready to meet the death which the law has ordered for him.

The Annual Rifle Meet

Splendid Prize List Is Made Up For This Year's Competition.

Large Number of Competitors Will Be Here From All Parts.

As already announced by the issue of the official prize list, the twenty-ninth annual prize meeting of the B. C. Rifle association will be held at the Clover Point range on Thursday the 31st instant, continuing throughout the two following days. The prizes to be competed for at this meeting are more numerous than heretofore, the list embracing in all fifteen competitions.

Competitors will be glad to notice several new features in the prize list, the most important being the Service match to be fired under service conditions, as regards sights, etc., and the Transvaal Cup match to be competed for by Canadian volunteers who have seen service in South Africa.

The firing will begin on Thursday, the 31st July, at 8 a. m., with the extra series of 500 yards, and the following matches will come off during the meet in the order named:

No. 1—Tyro Match.—Five hundred yards, seven shots—This match is restricted to efficient members of the militia, who have not won a prize of $4.00 at any previous meeting of this or any other provincial, Dominion, or National meeting, and eighteen prizes are offered at a total value of $50.

No. 2, New Westminster match—500 yards, 10 shots—Fifty-one cash prizes, value $139. The first prize in this match is the Westminster Challenge Cup, to be won twice.

No. 3—Nanaimo Match—200 and 600 yards, 7 shots at each range—Fifty one cash prizes, value $139. The first prize in this match is the Challenge Cup presented by the Mayor and Council of Nanaimo, to be won twice in succession.

No. 4—Victoria Corporation Match—500 and 600 yards, 7 shots at each range. Fifty-one cash prizes, value $139.—The first prize in this match is the Challenge Cup presented by the Corporation of Victoria, to be won twice.

No. 5—Helmcken Match—200, 500 and 600 yards, 7 shots at each range. Fifty eight cash prizes, value $166.—The first prize in this match is the Dorothy medal presented annually by Mr. H. Dallas Helmcken, K. C., M. P. P. The second prize, the Challenge Cup, presented by Hon. C. F. Cornwall, when Lieutenant-Governor, to be won twice in succession.

No. 6—Electric Railway Cup, open to teams of 10 members from any one city in the province, the result being taken from the highest aggregate of scores in match No. 5. The prize in this match is the handsome Challenge Cup presented by the B. C. Electric Railway company to be finally won in three successive competitions.

No. 7—Vancouver Corporation match—800 yards, 10 shots. Fifty-one cash prizes, value $139.—The first prize in this match is the Challenge Cup presented by the Corporation of Vancouver.

No. 8—Vancouver Bankers' match—200, 500 and 600 yards, 7 shots at each range. Fifty-eight cash prizes, value $166, including $50 donated by the bankers of Vancouver.

No. 9—Grand Aggregate—For the aggregate of scores in matches Nos. 2, 3, 4, 5, 7 and 8. Twenty-nine cash prizes, value, $85.

No. 10—Militia Aggregate—For the aggregate of scores at 500, 600 and 800 yards, ranges of matches included in the Grand Aggregate restricted to efficient members of the active militia of No. 11 district, 18 prizes, cash value, $50.

No. 11—Tyro Aggregate—Restricted to competitors entered in the Tyro match for the aggregate of scores in matches Nos. 1, 2, 3, 4, 5, 7 and 8. Twenty-two cash prizes, value, $42.

No. 12—The Laurie Bugle Match—For teams of 10 "efficients" from each regiment of the active militia of No. 11 military district, for the aggregate of scores in matches included in the Grand Aggregate. Prize, The Laurie Bugle and $20.

No. 13—Ottawa Team—This match provides for the conditions under which the team to represent the province at Ottawa at the D. R. A. matches of this year will be selected, besides which there will be 12 cash prizes, value $38, to be competed for.

No. 14—The Service Match—500 yards, 7 shots. Thirty-nine cash prizes, value $100. This amount is presented by S. M. Robins, Esq., superintendent of the New Vancouver Coal company, Nanaimo, and the match is to be fired under service conditions, which preclude the use of slings, orthoptics, verniers and other aids to sight, apart from clear glass spectacles.

No. 15—The Transvaal Cup Match—open to officers, N. C. O. and men who served in South Africa as members of any Canadian corps during the Boer war of 1899-1902. The prize in this match is a Challenge Cup presented by Capt. A. C. Bell, A. D. C., and the match is to be fired under the conditions of the Vancouver Bankers' match, and the further conditions more fully explained in the prize list.

The cost of entry in individual matches is 50c., 60c., 70c., 80c. and $1 for the three aggregate matches, $1. For the Transvaal Cup match the entry is free. The cost of entries include one sighting shot at each range.

Extra series and pool shooting will be carried on during the regular matches as occasion offers throughout the meeting. Competitors must supply their own ammunition as none will be for sale on the range. The regulations under which the meeting will be conducted are set forth in full in the prize list, and competitors must make themselves acquainted not only with the regulations, but with the conditions of any match for which they have entered. Entry forms can be obtained on application to the secretary of the association, Capt. J. Reynolds Tite, at Vancouver, or from the secretary of local associations. Entries close at 5 p. m. on Saturday, July 26. Every inducement is offered the younger shots to compete, upwards of 17 prizes in individual matches being set apart for Tyros.

The Council of the association are greatly indebted to His Honor, the Lieutenant-Governor, Sir Henri Joly de Lotbiniere, K. C. M. G., for his donation of $10 to encourage young rifle shots in the province; to Samuel M. Robins, Esq., superintendent of the New Vancouver Coal company, Nanaimo, for his handsome subscription of $125, and to the Bankers of Vancouver for $50 for prizes in the match open to all comers, also to H. Dallas Helmcken, Esq., K. C., M. P. P., for again presenting the Dorothy medal, and to the B. C. Electric Railway company, and the Corporations of Vancouver and Victoria for again presenting cups.

The meeting will be conducted under the supervision of Lieut.-Col. F. B. Gregory, R. O., as range officer, assisted by the range committee. The personnel of the competition will be made up of members of H. M. ships and of the garrison at Work Point barracks, the members of the active militia of the province, including the recently formed Rocky Mountain Rangers, with a fair number of civilians, and a most successful and enjoyable meeting is anticipated.

YOUR OPPORTUNITY TO GET WELL.

You are offered Dr. Chase's Nerve Food as the most perfect restorative, blood creator and system builder that was ever prepared. The name of the discoverer, Dr. A. W. Chase, is enough to guarantee this, and besides you have the testimony of scores and hundreds of cured ones in every part of Canada and the United States. You can use it knowing that it is bound to do you good.

THE SANDS OF LIFE

When the weather is hot the sands of the little life are apt to glide away before you know it. You can't watch the little ones too carefully at this period. Dysentery, diarrhœa, cholera infantum and disorders of the stomach are alarmingly frequent during the hot, moist weather of the summer months. At the first sign of any of these, or any of the other ailments that afflict little ones, give

Baby's Own Tablets.

These Tablets will speedily relieve and promptly cure all hot weather ailments. Keep them in the house—their prompt use may save a precious little life.

A Mother's Praise.

Mrs. Herbert Burnham, Smith's Falls, Ont., says:—"When my eldest child was six weeks old he had an attack of cholera infantum and was at death's door. My doctor advised the use of Baby's Own Tablets, and in twenty-four hours baby was better; the vomiting and purging ceased and he regained strength rapidly. I have used the Tablets for other ailments of children since and always with the happiest results. I can sincerely recommend them to mothers as a medicine that should always be kept in the house."

Little ones thrive, are good natured and grow plump and rosy in homes where Baby's Own Tablets are used. Children take them as readily as candy, and crushed to a powder they can be given to the youngest infant with the best of results.

Sold at drug stores or you can get them post paid at 25 cents a box by writing direct to

The Dr. Williams' Medicine Co.,
Brockville, Ont., or Schenectady, N.Y.

Soldiers Back From London

Two Members of Coronation Contingent Return and Tell of Their Trip.

Delighted With the Hospitable Treatment Received in the Old Country.

Trooper W. Winkle, who served in South Africa with Strathcona's Horse, and Gunner Smethurst, of the Fifth regiment, who was a private of the First Canadian Contingent to South Africa, are home from London, where they went as members of the Coronation contingent from this city. Both had a pleasant trip, and said the story of alleged ill-treatment of the Colonial contingent in London, given by the Associated Press — which sees British events with United States glasses, was untrue. General Cooke, in command at Alexandra Palace, and his staff, did all in their power to make the Canadian troops comfortable. The weather was bad, it having rained much, and there was mud galore, but the marquees, in which the Canadians were housed on the east side of the palace, were floored and had walls eight feet high. They were dry and comfortable. There was also nothing to complain of regarding the horses—which the correspondent said were a source of complaint—for all that the members of the contingent had to do was to exercise them. They had grooms provided to tend them.

The Colonial troops were reviewed by the Prince of Wales—and this was the only procession which took place during the visit of the contingent. It was a brilliant parade, formed of picked men from all lands about the seven seas, and of all colors. The stands erected for the Coronation procession were brought into requisition, and the windows of the Admiralty buildings, Colonial and foreign offices, and Horse Guard's building, as well as the roofs, were black with spectators. The route down Constitution Hill, the park and near Buckingham palace, was lined with crowds. The royal cavalade came from the palace at 11 a. m. The Queen's carriage was preceded by an escort of Life Guards, and with her were the Prince of Wales, Princess Victoria, and Princess Charles of Denmark. Seven carriages followed. The Queen was greeted by a loud outburst of cheering, as was the Prince of Wales who followed, riding to the parade ground in a field marshal's uniform, and was accompanied by the Crown Princes of Denmark, Sweden and Greece, and other princes.

The parade was drawn up, and the Queen's carriage was driven along the front, the different corps saluting as Her Majesty passed, and she bowed as each corps saluted. Her Majesty then returned to the starting point, and the Prince of Wales dismounted, and presented the Victoria Crosses and Distinguished Service Medals to veterans of the war. Then came the march past, in which the Canadians, who lead, were loudly cheered for Canada won fame in Britain by her war services. The parade of state was as follows:

	Men.
Headquarter Staff	5
Colonies—	
Canada	680
Australia	219
New Zealand	163
Cape Colony	150
Natal	106
Ceylon	118
Straits Settlements	106
Hongkong	77
Jamaica	37
Trinidad	50
Malta	49
Cyprus	14
Gold Coast	42
Lagos	26
Sierra Leone and Gambia	24
Bermuda	22
Southern Nigeria	51
Northern Nigeria	34
Fiji	21
British North Borneo	24
British South Africa (Rhodesia)	26
Sierra Leone (Imperial)	27
Jamaica (Imperial)	30
St. Lucia	3
Singapore	10
Uganda (King's African Rifles)	33
Wei-Hai-Wei	16
Total	2,017

Colonel Pellatt, commanding officer of the contingent, as reported in the Montreal Herald, gave the following interview on landing at Quebec:

"The treatment which we received while in England could not have been excelled. Everybody was extremely kind to us and all did their best to make our visit enjoyable.

"The camp arrangements at Alexandra palace were most satisfactory and General Cooke and his staff were extremely thoughtful and courteous. The only drawback was the distance of the camp from the centre of the city, which made traveling to and from the city very costly in addition to taking up much time. The militia authorities claimed nearer camp could not be provided and perhaps this was so."

Questioned as to the showing made by the Canadian troops, Colonel Pellatt said "There was no comparison between the Canadians and the other colonials; our men excelled them in every respect; for physique, smartness and steadiness on parade the Canadians carried off the honors, and at the reviews before the Duke of Connaught and Lord Roberts we were highly complimented on our appearance and military bearing."

Col. Pellatt's personal opinion of the conduct of his men is contained in his farewell, which appeared in "orders" last night, reading in part as follows:

"The officer commanding desires to express his appreciation of the good work done by the officers, non-commissioned officers and men of the contingent, their support under more or less trying circumstances that made the trip that very decided success admitted by every one.

"The desire of all ranks to do credit to the country whose representatives they were, have borne fruit in the discipline, cleanliness, and precision on all parades. Before the separation, which will carry the men to their homes far and near throughout Canada, the officer commanding wishes each and all God-speed and future success in the various callings followed by the citizen soldiers of the Dominion."

Col. Turner, V.C., D.S.O., in command of the cavalry division, endorsed all that Col. Pellatt had said.

FOR A CERTAINTY I AM CURED.

Mr. James Treneman, butcher, 536 Adelaide street, London, Ont., writes that for two years he was laid up with kidney disease and urinary troubles. He became dropsical and his legs would swell so that he could scarcely go round. He never used any medicine that did him so much good as Dr. Chase's Kidney-Liver Pills and knows for a certainty that this treatment cured him. One pill a dose, 25 cents a box.

HARD UP HOLLANDERS.

Mr. Schuurman Thinks Many Would Likely Come to Canada.

From Mail-Empire.

Mr. E. A. E. Schuurman, of Holland, in a talk with the Mail and Empire, expressed his surprise that such a large number of Dutch had settled in Canada, and that there were communities so largely Dutch that the language was used as largely, or more so, than English. He thought if this fact were made known in Holland, it would result in a large immigration to Canada, as times were very bad in Holland at present, and large numbers of workingmen were leaving monthly for all parts of the world, except Canada. If these people knew that there were communities of people of Dutch descent in Canada, and that they had prospered here, they would turn their faces this way in large numbers.

The hard times some attributed to the Boer war, and some to one of those inexplicable industrial crises; but, whatever the cause, Holland, Belgium and Germany were passing through a period of depression such as had not been experienced for years. There was, comparatively speaking, no shipping in the harbors, no ship-building, no manufacturing going on, and trade was at a standstill. England, on the other hand, in spite of her great exertions over the war, seemed to be busy and prosperous.

The feeling in Holland toward Britain during the war was certainly a strained one, and some people were so foolish as to injure themselves by refusing to sell to, or buy from, England. Most of the people realized the foolishness of this course, and accepted the inevitable. Mr. Kruger had been made a great deal of during the war, but Mr. Schuurman was not prepared to say how the feeling would turn now.

Mr. Schuurman gave a little sidelight which showed that for ways that are dark and tricks that are vain, the sedate Dutchman is not so slow as some people imagine. The franchise is not universal. A man must occupy a house of certain dimensions containing so many stoves and so many windows, but landlords let suitable apartments for a few hours for exhibition purposes only, and in this way ten or a dozen citizens qualified on the same house, so that not many people were left off the list.

CHILLIWACK.

Some of the Good Points of the Garden Valley.

From Chilliwack Progress.

Chilliwack Valley has come to be known throughout the province as the Garden of British Columbia. Other communities may question our right to this appellation, but there can be no objection to our claim of being one of the most prosperous peoples in this great Dominion.

The outlook at the present time is very bright. The hay crop is very heavy, and, in fact, all crops promise a big yield.

Two creameries are running full swing—the Eden Bank and the Chilliwack—and are turning out an article second to none in Canada. The demand for our butter far exceeds the supply. It finds a ready market wherever it has been introduced. This industry is capable of great expansion in this valley.

Stock raising has become a very important and profitable industry. Large numbers of cattle and sheep from here find a ready market at the Coast and our export of hogs runs away up in the thousands each year.

The fruit industry is yet in its infancy, but large quantities of plums, prunes, cherries and apples are produced and the output could be increased indefinitely.

There are about 50,000 acres of land assessed, which, with the improvements at a most conservative estimate valuation is put down in the roll as one million three hundred and sixty thousand, eight hundred dollars. This does not include personal property.

Chilliwack has on two or three occasions suffered heavy loss from the overflow of the Fraser. But a feeling of security is now felt, as during the last four years some 13 miles of dyke has been constructed and is now about complete.

We have five post offices. Chilliwack, which is the distributing office for the whole valley, is in charge of S. Mellard, a most efficient and obliging official. The other offices are Rosedale, Cheam, Sardis and Sumas.

The community is well supplied with churches, schools and live up-to-date business concerns that meet the needs of an enterprising, progressive people.

There are two saw mills and one grist mill to meet local demands. Dressed lumber and building material is brought from Harrison river mills and from New Westminster.

There are 12 churches, presided over by six clergymen. There are 10 public schools, with 13 teachers, and an enrollment of about 450 pupils. Besides these there is a large Industrial school at Sardis, the Coqualeetza Institute, for the training of Indian children, of whom there are about 100 in attendance.

ITS SUCCESS IS ASSURED

Subscription By Citizens in Aid of the Victoria Fall Exhibition.

The exhibition is an assured success, the subscriptions pouring in giving ample evidence of the success of last year's fair. From the subscriptions already promised to the collector it is anticipated that fully $3,000 will be raised from this source alone. It is hoped that all citizens will avail themselves of the opportunity to take a membership ticket at the small cost of two dollars, entitling them to all the advantages of the fair and enable the committee to put on the best attractions. Most encouraging reports have been received from the Farmers' Institutes, all acting in the most courteous manner. As a sample of the encouragement given to the secretary by exhibitors at the last fair a local firm Messrs. Carruthers, Dickson & Howes, who kindly furnished the show cases for the women's department last year, and who had a handsome exhibit of their own work, visited the secretary's office and endeavored to obtain space for an exhibit this year. They volunteered the information that in consequence of the exhibit they made last year they had received orders sufficient to keep them employed for six months. This is certainly encouragement to the managers, and should induce manufacturers to use the fair as a means of showing the public what they are prepared to furnish.

The Victoria's Farmers' Institute has subscribed the sum of $35 to the fair, and from the institutes at Okanagan, Kelowna, Chilliwack, Matsqui, Alberni, Richmond, Metchosin, Delta and Oyoos great encouragement and assistance has been received.

The first list of subscriptions follows:

E. & N. Railroad	$200 00
B. C. Electric Railway Co. Ltd.	100 00
Victoria Truck & Dray Co.	65 00
C. P. N. Co.	50 00
Canadian Bank of Commerce	25 00
Pemberton & Son	25 00
J. H. Todd & Sons	25 00
Weiler Bros	25 00
R. P. Rithet & Co.	25 00
Victoria Times Printing & Pub. Co.	25 00
Pither & Leiser	25 00
Victoria Transfer Co.	25 00
Turner, Beeton & Co.	20 00
J. A. Sayward	20 00
Henderson Bros., Ltd	20 00
Hamilton Powder Co.	12 00
W. & J. Wilson	10 00
D. Spencer	10 00
L. Goodacre & Sons	10 00
New England Hotel	10 00
Paterson Shoe Co.	10 00
B. C. Pottery Co.	7 00
Cyrus H. Bowes	5 00
Saunders Grocery Co.	5 00
Erskine, Wall & Co.	5 00
Chas. E. Redfern	5 00
Victoria Book & Sta. Co.	5 00
R. Machin, Bennet Fuse Co.	5 00
J. Raymond	5 00
Dixi H. Ross & Co.	5 00
Helsterman & Co.	5 00
T. N. Hibben & Co.	15 00
Bickman Tye Hdw. Co	8 75
Baker Bros.	5 00
Hicks & Loviek Piano Co.	3 00
Geo. Powell & Co.	2 50
Thos. Cooper, Brown & Cooper	2 50
Sidney Shoes	2 50
Pacific Transfer Co.	2 50
M. Bantly	2 50
Dr. R. L. Fraser	2 50
Joseph Heaney	2 50
J. T. L. Meyer	2 00
C. B. Sylvester	2 00
Bank of Montreal	18 00
D. K. Chungranes	1 00
Jas. Sommer	1 00
Victoria Farmers' Institute	35 00
	$902 25

Further list will be published every week.

Choir Concert.—The hall of the First Presbyterian church presented an animated and pretty appearance last evening. It was the annual choir concert, the hall being nicely decorated for the event. The evening's entertainment was enlivened by a hotly contested game of ping pong. Mr. J. G. Brown occupied the chair and the following programme was acceptably rendered: Vocal soloists, Mrs. Gregson, Miss Haughton, Mr. Brown, Mr. Wheeler; instrumental selection, Misses Gleason and Haughton; recitation (in costume) Mrs. Wm. Gleason; violin solo, Mr. Jesse Longfield; Miss Scowcroft and Mr. Kinniard responded to a well merited encore to their vocal duet. Ice cream and cake by the ladies brought the pleasant evening to a close.

Victoria's Brighton Beach

Summering on the Sandy Shores Of Cordova's Lovely Bay.

Small Colony Now Under Canvas At This Favorite Camping Grounds.

The little colony of campers at Cordova Bay now numbers about two hundred all told, and every day sees additions to the dwellers under canvas, who line the beautiful beach almost from one end to the other of that delightful spot. The campers have now representation on the aldermanic board, besides which His Worship Mayor Hayward and the balance of the members of the Council yesterday paid an official visit to the bay.

For years now Cordova bay, Rosario Straits, and about six miles from Victoria, has been recognized as an ideal camping place during the summer months and every year sees more and more attention paid to this beautiy spot of Victoria's suburbs. Surrounded as the city is by so many perfect camping grounds, it might be difficult to claim for any particular locality delights which many others could not also claim. But certain it is that Cordova Bay is never visited by the chilly southerly winds and is possessed of a much greater expanse of clean sharp sandy beach than perhaps any other watering place hereabouts. The bay is some three of four miles long and with the exception of a length of rocky crags which jut out to meet the water in one portion of the bay, the entire length is beautiful white crystalline sand and almost absolutely free from sea weed. When the tide is out these glorious sandy beeches extend nearly half a mile out to sea, and are packed firm and dry. Baseball, lacrosse and cycling, which are carried on on the sands, proves the assertion that in this respect Cordova Bay may fairly claim to possess at least one unique feature.

The drive to Cordova Bay is one of the most delightful of the numerous roadways in the district, but owing no doubt to the few farms in that locality, until quite recently the road is not quite as smooth nor so well furnished as many others. However, there are three means of access to the bay from the city. The Saanich road, the Cedar Hill road, and the "new" road. The latter is about six miles in length but is not yet quite completed. The second is about nine miles and has the advantage of being well made and in perfect condition for cycling the whole way. The Saanich road route is also good for wheels as far as Elk Lake, at which point a cross road runs to the bay over rolling hills very taxing to the spirit of the cyclists. If time is no object the Cedar Hill road is to be preferred. From the foot of Cedar Hill all the way around the full length of the bay the road runs through beautiful shady groves, which very largely compensates for the few hills en route.

The drive around the bay is particularly delightful, following, as it does, the shore line at a high elevation and through the shady growth of maples and pines affords glimpses of the beautiful blue waters of Haro Straits and the Islands of the archipelago beyond, the snow-clad summit of Mount Baker dominating all and putting the finishing touches to a landscape that has few equals the wide world over. When this portion of the road is widened and put in the same condition as the cityward section, the drive to and around Cordova Bay will not have a peer in this neighborhood of unexcelled drives. The road at present follows closely the sinuosities of the bank as a coast road should, but an attempt is said to be on foot to straighten the road by running it back just far enough to forever mar its chief beauty—a view of the beach and the adjacent water. Move the road back and then private owners will fence in the seaward side as far as high-water mark, and the hundreds who every year camp along the beach above high water mark (as of necessity they must), will have to pay tribute for a privilege which ought to be as free as the air they breathe. It is understood that this matter will be brought to the attention of the authorities, and the influence of the Tourist Association invoked in order that this delightful resort may be preserved for the use and benefit of the public.

BRITISH SHIPPING.

During the year 1901 a total of 315,056 British vessels entered the ports of the United Kingdom, a tonnage of 83,300,483. During the same period 310,537 British vessels cleared from English ports, with a tonnage of 82,878,106. In the same year 36,061 foreign vessels entered ports of the United Kingdom and 35,301 cleared, with a tonnage respectively of 20,609,638 and 20,326,074.

EASIL EXCITED.

Mount Vernon, Ohio, July 17.—In putting down a test well the Logan Natural Gas company today struck gold ore assaying $5 a ton. A small vein of coal was also discovered. There is great excitement, and the price of land has gone up.

FORTY-FOURTH

Winnipeg Threat

Windsor Company M to Cut Off City's Supply.

An Australian Visit Grand Results Fro Fast Line

Work of Red Cross Scarcity of Veget Ontario.

Windsor, Ont., July 23. Water & Sewage Purif of this city, through its commenced proceedings a of Winnipeg, which threa the water supply of th Windsor company alleges tem in use in Winnipeg ment of its patent proces

Toronto, July 23.—Dr. of Gympie, Queensland, way to England, is of th there is a great future be trade between Australia Columbia, since it has be improve the service. W and resources of the Domi gan appeared to be much said these things were o ning to dawn on the avera He is of the opinion also destined to become, if not the world, at least the English-speaking nations.

Montreal, July 23.—The of the Canadian Red shows that $82,387.39 w through that society's cha in South Africa during th

Picton, Ont., July 23.— head of the Boulter Can says there will be no rece to limit the pack of veg count of their scarcity, due er conditions, which have growth.

EXPECTED AT MO

Montreal, July 23.—T troops are expected to rea 11 o'clock tonight.

DUNDONALD'S AR

Montreal, July 23.—The ster liner Lake Champlai Dundonald, the new maj board, passed Fame Point o'clock this morning. Th expected to reach here tom

ASKS A DIVIS

Toronto, July 23.—Rev. of Manitoba, is in the city division of Manitoba and Territories' conference into General Presbyterian com meets in Winnipeg in Sep

IN NATURE'S SC

Toronto, July 23.—In a Richard Harcourt, acting mier Ross says, a party school teachers will make ada this summer.

COMING ON BUS

Montreal, July 23.—N. commissioner of the C. P morning by the Imperial business trip to British C

ENGINEERS IN CO

Toronto, July 23.—The R Locomotive Engineers of ca met in annual sessi About three thousand de attendance from all parts States, Canada and Mex port of the insurance depa that that department has of about 30,000. The av payment in adjustment of past year has been about total amount paid for d death claims up to May $10,699,947.

FAVOR AFFILIA

Toronto, July 23.—The association yesterday adop recommending the affiliatio makers' union.

STILL A MYST

Toronto, July 23.—It is that poisoning was the death of George Whalley, dead in Evans & Son's d on Sunday.