Results of Saturday's Sport

Victoria Association Players Defeat the Columbias at the Caledonia Grounds.

Capitals Defeat Victoria West Intermediates at Beacon Hill.

The match yesterday afternoon between the Columbia and Victoria Association football teams at the Caledonia grounds, resulted in a win for the latter by a score of 2 to nil. The game started at 3:15 p.m., and was witnessed by a fair sized crowd, who thoroughly appreciated it. The spin of the coin went to the Columbias, who kicked off. Hunter got the leather and made a splendid dribble, taking the ball up the field to Victoria's quarter line, where he was checked by Pettigrew, who sent it flying down again to J. Johnson, who promptly headed and stopped its flight. Hunter got it again, making another good dash, only to be stopped by Rithet in front of Victoria's goal. After a good hard scrum, Schwengers put his foot behind the sphere, causing it to make a rapid transit to Shandley, who made things exceedingly warm for the Columbia's backs, until they got a "throw in" on their quarter line. Hunter got a chance and rushed the leather up, passed to Lawson, who carried it on further then sent it back to Hunter, who made a long shot for the posts. It was stopped by W. York, and consequently was sent down again. A. Johnson did some nice work and passed out to Lawson, who came spinning after the ball like a flash, and if it had not been for Pettigrew, he might have been a trifle dangerous. The former returned the ball to the middle of the field, and after a hard struggle it was passed out to Shandley, who was promptly checked by Shanks. Victoria again getting the ball, it came down like an avalanche, but a desperate shot went on the wrong side of the poles. This gave the Columbias breathing time. Marshall sent the sphere over to Lawson, who got away from Pettigrew, but could not pass Goward, who is always there when wanted. After a good stiff lot of hacking, Shandley got it and brought it close to the Columbia's posts, but was stopped by Richardson, who sent it up to Wilson. From him it went to Lawson, and then on to Hunter, who endeavored to score, but failed, as Jones in goal fisted it out with a vim. Schwengers sent it down again and the Victorias came after it as if they had the idea their opponents had things their own way long enough. S. Lorimer got it and passed over to York, who was stopped by Shanks, sending out by the Columbia's quarter line. Tye did some nice head work and passed over to J. Lorimer, who sent in a warm shot, but Marshall was in the way. Marshall's kick was sent down again by Goward to Shandley, who again made things serious; but A. Johnson secured it and passed over to Rutherford. Then it went to Berkley, and then back to Hunter. Goward again came to the rescue in time, sending it down to Tye, who sent it on to J. Lorimer, who was checked by Rutherford. He passed to McCann, then it came to Berkley, who sent it out. Wilson sent it to J. Johnson, then it came to Rutherford, who was checked by Tye, then it came to W. York, from him it went to J. Lorimer, then back to York, and was sent flying by him for the posts, but it was fisted out by Marshall. A scrum followed in front of the goal. Lorimer got a chance and put to to good account, scoring the first goal for Victoria. The next few minutes of the last of the first half was in the Columbia's favor.

The second half opened with a desperate rush, the Columbias getting the sphere in close proximity to Victoria's goal, puzzling the backs for a time, until Goward sent it up to Shandley, who was promptly checked by A. Johnson, who sent it to Wilson, then it went from him to Berkley, to McCann, then back to Berkley, who made a shot for goal, and missed. Jones sent the leather up to Shandley. J. Johnson stopped him before he had gone very far, and sent the ball out on the half way line. Pettigrew came up the field like a ton of bricks, but A. Johnson and Rutherford had seen him coming and promptly relieved him of the ball, and sent it to Hunter, he being stopped by Tye, who passed to Rithet. The latter made a fine dribble, then passed on to York, it finally going back to Tye, near the posts. He endeavored to shoot. The shot being well judged, was stopped, however, by Marshall. Richardson, by a very well directed kick, sent the sphere over to Berkley, who brought it down by some very clever dribbling. W. York brought his to a standstill on Victoria's quarter line. Berkley again got it in a few minutes and made a good pass to Lawson, and the latter passsed Goward like a flash and tried for the poles, but went wide of the mark. The Columbias got a corner kick a few minutes after, which went behind the goal posts. Schwengers kicked to Shandley, who passed on to S. Lorimer. He sent it to J. Lorimer, then it came back to Shandley, who was checked by Rutherford, who passed to Richardson. From him it went to A. Johnson. W. York put on a spurt and managed to wrest it away from him, and brought it up the field. He was stopped by Richardson, who tossed the ball to Berkley, and he took it down, passing to McCann. Then it came back to him again, just in front of the posts. He endeavored to score, but failed, as they seem to be very evenly matched. The game started off with a rush, the Victoria Wests pressing the Capital's goal for the first few minutes and then the play returned to the centre of the field for a short time, when the ball was again carried down the field and passed to Williscroft, who made a beautiful shot and succeeded in beating Loveridge in goal, thus scoring the first point for Victoria West. This ended their scoring, for although they pressed the Capital goal, they were unable to get past Loveridge. Their opponents were playing a star game. In the second half the Capitals started in to rush things with a will, and after a good deal of hard playing, Jim Temple succeeded in beating the Victoria West goal keeper, who was playing a magnificent game. On play being resumed the game became much faster, both teams trying to get an advantage over the other. At this point in the game the Capitals were awarded a corner kick. Jack Finlaison taking the kick, dropped it in front of the goal, where A. Stevens, of the Victoria West team, headed through his own goal, thus giving the Capitals a lead of one goal. The teams went at it harder than ever, but no further scoring was done, and the game ended 2 to 1 in favor of the Capitals. For the Capitals, Jim and Guy Temple, F. Smith, A. Haughton and Loveridge played well. While Baker, Bishop, Okell and the goal keeper played star games for Victoria West. John Hanbury refereed the game to the general satisfaction of all concerned. The next game between these teams will be watched with interest.

The cup for this contest is presented by the Victoria District Association Football League, and not by the Capital Athletic Association, as previously announced in these columns.

The Junior League game between the North Ward and Central school Association teams resulted in a win for the former by a score of 2 to 1. Mr. James Dick refereed this game to the satisfaction of all. The standing of this Junior League follows:

	Play.	Won.	Lost.	Drwn.	Pts.
Capitals	4	4	0	0	8
Centrals	5	3	2	0	6
North Ward	5	3	2	0	6
Victoria West	4	0	3	1	1
South Park	4	0	3	1	1

THE HUNT.

Yesterday the weekly run of the Hunt club took place at Colwood. Starting at the hotel, the trail led over the Rod Hill road, down towards Demorr's, into the race course, over the old water jumps, where so many horses used to run wide during the races, through Mr. Peatt's land, Langford Plains; Mr. Fraser's farm, and back through the steeplechase course, finishing up at Colwood hotel. The pace was hot right from the start. The hares were hard pressed all the way, and would have been caught but fortunately for them, and unfortunately for one of the hounds who came to grief crossing the E. & N. track, his horse came down, giving him a rather hard spill, the balance of the field stopping a few minutes to help him on. This check just saved the hares from being caught, as they finished three minutes before the leading hound put in an appearance. The jumping of all the horses was good; some very large ones were taken in good style, and this speaks well for the members of the club, who are not afraid to test their jumping abilities against any horses.

There were several spills besides the one mentioned. In passing it might as well be stated that this was the 13th meet, there being 13 out for the run, and it was after the 13th fence that the above-mentioned rider came to grief. After this the members of the Hunt club will be inclined to believe in the unlucky thirteen.

Next Saturday the run will be from the Barracks over the Gorge and Burnside country.

CHESS.

The following is the standing of the competitors who qualified for the final round of the J. B. A. A. tournament. It will be finished next week, and a close ending is apparent:

Player.	Play.	Won.	Lost.	P.C.	To Play.
W. Blake	5	4	1	80	1
B. H. Hurst	4	2½	1½	62½	2
B. Williams	5	1½	3½	30	1
S. T. Johnston	4	1	3	25	2

In the final round, Blake beat Johnston twice, Williams once, and Hurst once; and lost one to Hurst. He plays Williams one more game. Hurst beat Blake once, Williams once, drew a game with Williams, and lost one to Blake. He plays two more games with Johnston.

Williams beat Johnston once, drew one and lost one with Hurst, lost one to Blake, and one to Johnston.

Johnston beat Williams once, and lost one to him, also loosing twice to Blake.

As has already been published, the second J. B. A. A. tournament will commence immediately upon completion of the one that is now being contested. Entries should be in the hands of the secretary not later than Thursday, January 22.

THE RIFLE.

The Fifth Regiment, C. A. Rifle association, met at the Drill hall on Friday evening and disposed of a lot of important business. The following patrons and officers were elected: Lieut.-Governor Sir Henri Joly, Mayor McCandless and Colonel Holmes, D. O. C., patrons.

Lieut.-Colonel Gregory, honorary president; Captain Hall, president; Capt. Currie, vice-president; Sergt. Cavin, secretary-treasurer. The following committee was also elected: Quarter-Master-Sergt. Winsby, Sergt. Lettice, Sergt. Bailey, Lieut. McTavish, Gr. Duncan, Br. Craine, Br. Heathcote, Gr. Spofford, Gr. Phillips, Gr. Hibben, Sergt. Clarke, Gr. Scafe, Lieut. McTavish and Sergt. Lettice were appointed auditors. The following report was read by the acting committee:

To the Members:

Your committee take pleasure in presenting the seventh annual report of the Association.

The secretary-treasurer shows a satisfactory balance in his report.

The annual shoot was held on Good Friday, when there was a very fair turn-out of competitors.

In the first class there were 19 competitors, second class 32, and third class 61. A rapid fire competition was introduced in these matches for the first time. The prize, a gold watch, being won by Gunner A. Brayshaw.

Two teams were entered in this year's league matches. Up to the present no word has been received as to standing of either team.

A list of those entitled to certificates was forwarded to the secretary of the league, but no reply has yet been received.

We are pleased to inform you that there is an increase of membership over the previous year of 118. That for last year being 335 and this year 453. This is chiefly due to the formation of rifle clubs in connection with the Royal Engineers and Royal Garrison Artillery at Work Point barracks, who became members of this Association to ensure getting practice at Clover Point Rifle range.

Your committee offered for competition three engraved silver spoons in each of three classes. From the fact that one spoon is still on hand it shows that the members have not taken the interest in rifle shooting which this very important branch of military service deserves.

We cannot congratulate the members of this Association on the attendance at the rifle range. At the beginning of the season ammunition was issued free to members at the rate of 200 rounds, making a grand total of 50,400. This is equivalent to a money grant of $801. Out of this there still remains on hand 20,000 rounds, nearly fifty per cent. Considering that we now have a good range and free ammunition, your committee hopes that during the coming season there will be a very much larger attendance.

For the second year in succession the B. C. R. A. meet was held on the Clover Point rifle range with every prospect of it being again held there next season.

A special general meeting was held in April for the purpose of passing the new rules and bylaws as drawn up by a special committee. With some slight alterations the whole were passed as presented, and your committee would suggest that as there is now sufficient funds on hand that 1,000 copies be printed for distrubution amongst the members.

As a shelter house and office for clerical work, etc., is very much wanted on the range, we suggest that this meeting pass a resolution to that effect and forward same to Hon. Senator Templeman and G. Riley, Esq., M.P., requesting them to use their influence with the Dominion government to have the house put up. A plan and probable cost has been very kindly supplied by Mr. R. Wilson.

All of which is respectfully submitted.

(Sgd.) A. W. CURRIE, Capt., Vice-Prest.
J. CAVAN, Sergt., Sec.-Treas.

Statement for year ending 1902:

RECEIPTS.

To Bal. brought forward	$ 48 25	
Membership fees	220 00	
Markers' fees	59 70	
Entrance fees	63 90	
Challenges	4 75	
Celebration committee	100 00	
City Council in aid Bisley Recpts	150 00	
Sale of ammunition	51 05	
Refunds	55 80	
Ottawa Recpt., 1901	5 00	
Prizes in kind, value	468 00	
Prizes in cash	56 50	
Grant from B. C. R. A.	50 00	$1,319 95

EXPENDITURE.

By entrance to Rifle League	$ 15 15	
Markers and register keepers	134 70	
Prizes in kind, value	532 50	
Prizes in cash	138 00	
Bisley representatives	150 00	
Ottawa Representatives	20 00	
Representatives to B. C. R. A.	4 50	
Repairs, etc., to range and targets, etc.	196 20	
Printing	19 40	
Express hire	7 00	
Stationery, stamps, telegrams, etc	5 25	
Freight	2 95	
Refund	1 00	
Salary of Sec.-Treas.	50 00	
Bal. in Bank of Commerce	43 30	$1,319 95

Examined and found correct.

GEO. A. MCTAVISH, W. H. LETTICE, Co.-Sgt.-Maj. Auditors.

SENDING U CALL FOR CONVENION

Initial Steps Taken For Big Gathering of Mining Men.

Temporary office quarters for the provincial officers of the proposed new British Columbia Mining association have been taken in the Board of Trade building, and the provisional secretary, H. Mortimer Lamb, with a staff of assistants, is busy sending out the call for the big convention to be held here on the 25th of next month.

It is intended that local organizations will be formed in every point in the province, where an interest is taken in mining matters and delegates elected to the convention, which, it is anticipated, will be in session in this city for an entire week.

Those who have already signed the membership roll of the proposed association, with their post office addresses, are as follows:

John B. Hobson, Bullion, B. C.
A. C. Hirchfield, Atlin.
H. E. Courtney, Victoria.
J. H. Brownlee, Atlin.
M. M. Leveridge, Atlin.
Capt. Livingston Thompson, Victoria.
S. S. Taylor, K. C., Nelson.
C. H. Lugrin, Victoria.
H. D. Helmcken, K. C., M. P. P., Victoria.
J. J. Shallcross, Victoria.
A. G. Galt, Rossland.
Fred. Peters, K. C., Victoria.
A. Stuart Robertson, Victoria.
N. P. Shaw, Victoria.
O. Furgosson, Atlin.
James Anderson, Victoria.
James Stables, M. L. P., Atlin.
Henry Croft, Victoria.
Wm. Christie, Victoria.
Arthur Crease, Victoria.
A. W. More, Victoria.
E. B. Shaw, Victoria.
G. A. Hartnagle, Victoria.
J. Meinecke, Victoria.
F. A. Devereux, Victoria.
A. G. Howard Potts, Victoria.
Abram E. Smith, Victoria.
Dr. T. J. Jones, Victoria.
W. A. Dier, Victoria.
D. R. Ker, Victoria.
Stephen Jones, Victoria.
A. Henderson, Victoria.
Thomas Walker, Victoria.
A. J. Morley, Victoria.
Hamilton Smith, Victoria.
Thomas W. Sageman, Victoria.
H. W. Walsh Windle, Victoria.
A. L. Belyea, K. C., Victoria.
H. E. Ralfond, Victoria.
C. Dubois Mason, Victoria and Atlin.
W. J. Waterman, Princeton, B. C.
Wm. Laird, Victoria.
G. H. Grant, Victoria.
H. Mortimer Lamb, Victoria.
Rowland Machin, Victoria.

VICTORIANS INTERESTED

In New Company Established to Make Anti-Fouling Composition.

Mr. C. T. W. Piper has invented, and patents are now being taken out for a new anti-fouling composition for the bottoms of ships, etc., says the Vancouver News-Advertiser. After carefully experimenting and testing for several years, he has got the thing as near perfection as it can be. It has been tried on several ships, including the three Australian boats, the Moana, Miowera and Aorangi, with the most satisfactory results, the captain of each vessel giving a testimony as to its non-fouling qualities. It has also been applied to Mr. Hayden's boats in this city, on Coal Harbor, which is a terrible place for fouling boats. Mr. Hayden could not keep his boats clean for three days at a stretch. He had experimented with numerous compositions, and it was with a very great doubt that he tried Mr. Piper's composition. However, he was mightily delighted at the marvelous results, and will in future use nothing else. Two of his naphtha launches have lately been pulled out of the water for the winter, and were as clean after they had been in the water for three months as when the composition was first put on.

A company has just been incorporated by Messrs. Tupper & Griffin for the manufacturing of the composition, and will shortly commence operations. The first directors are Thomas Dunn, Vancouver; Captain John Irving, Victoria; William L. Nicol, Vancouver; George I. Wilson, Vancouver; and C. T. W. Piper, Vancouver. Mr. Piper has arranged to superintend and manage the manufacturing of the composition until the business is on a fair footing.

One great feature about the composition is that it can be manufactured at a wonderfully cheap rate, and sold at an enormous profit. British Columbia is full of the material used in the manufacture of the composition, excepting one thing, which can be imported at a very small cost.

It is understood that there will be a very large market for the composition in Australia, and its manufacture promises to become quite an important industry.

ROYAL SEPARATION.

Crown Prince and Princess of Saxony Make Arrangement.

Berlin, Jan. 17.—The legal representatives of the Crown Prince and Crown Princess of Saxony have arranged the terms for their separation. The Princess abandons all the titles, rights and dignities appertaining to her through her marriage, and resumes her maiden name. The Crown Prince has expressed his willingness to pay her $7,500 yearly. The agreement does not mention the right of the Crown Princess of seeing her children.

The Dresden correspondent of the Tageblatt telegraphs that besides surrendering all her titles, etc., in consideration of the payment of the sum of $7,500 yearly, the Crown Princess of Saxony has full freedom of movement, so long as the Saxon and Austrian courts are informed beforehand of her intended change of abode, and she is guaranteed freedom from arrest.

"What is it that makes men great, papa?" "Persistent advertising, my son."—Cleveland Plain Dealer.

A VALUABLE PUBLICATION

Bureau of Provincial Information Issues a Revised Mining Bulletin.

The Bureau of Provincial Information has issued a new edition of Bulletin No. 7, a general review of mining in British Columbia, with an addenda bringing the information up to the date of publication. The addenda include an estimate of the output for 1902 and a chapter on the paper and pulp industry. Bulletin No. 7 is intended to give general information to enquirers respecting, in particular, the mining resources of the province, until the annual report of the Minister of Mines is available. The latter being a large and important publication, necessarily dealing with mines and mining in detail, demands greater care and a much longer period for production, more especially in respect to mechanical requirements.

The present publication aims at supplying a general knowledge of the subject, dealing as it does with the mineral characteristics of each district, and affording a brief review of progress and an indication of possibilities; and as such the hope is expressed that it may be found useful and interesting. While care has been taken to be as far as possible accurate, the department, relying for information upon a variety of sources, does not assert itself as an authority upon every detail of a subject capable of such a variety of local coloring, and there is, indeed, no opportunity to verify every statement absolutely. In the main the bulletin has been produced as the result of a general familiarity with the facts, and for the general purposes indicated.

The bulletin contains the following reciew of the year and estimate of mining output: In reviewing the progress of mining in the province during the year 1902, it is gratifying to note that in spite of the fact that conditions have been far from favorable, a further substantial and creditable increase of tonnage output has been recorded. So far as metalliferous mining is concerned, increased production is almost entirely due to the excellent showings made by the Boundary and Rossland districts, the output from the former having approximated half a million tons of ore, while the yield from the latter district is about 25 per cent. greater than that of 1901, or in round figures 340,000 tons.

THE COPPER MARKET.

Achievement in these districts is all the more noteworthy and significant in that the price of copper, which last year averaged over 16 cents per pound, has this year declined so considerably as to have averaged below 11¼ cents, the difference in the case of low-grade ores such as those mined in the Boundary being equal to a loss of from $1 to $1.50 per ton, or the equivalent of a 2½ per cent. dividend on $15,000,000, the nominal capitalization of one group of large producing mines in this section. The causes leading to the fall of the copper market need not here be discussed, but it may not be out of place to remark that, while prices in 1901 were abnormally high, those of 1902 were abnormally low, as the recently published statistics of available stocks and consumption show, and in consequence an improvement in market conditions may be expected to take place in the early future. This will necessarily have a stimulating effect upon the copper mining industry of the province.

LODE GOLD.

Last year the principal gold (lode) producing centres were Trail Creek division, Yale (including the Grand Forks, Kettle River and Osoyoos divisions), Nelson and the Coast districts. In point of productive importance Rossland still maintains the premier position, and the value of the gold output from this district in 1902 may be safely estimated at $3,000,000. The Boundary mines have produced in the neighborhood of $1,000,000 in gold, but the advance here is counterbalanced by a falling off in output from the Nelson and Coast districts.

SILVER-LEAD ORES AND ZINC.

Conditions in the silver-lead districts of the Slocan and of East Kootenay have been decidedly depressed. The market price of silver has reached this year the lowest point on record, and the local industry has further suffered under disadvantages of inadequate market facilities and the low price of lead in Europe. Recently, however, the outlook for the Slocan has brightened very considerably, in consequence of a demand having arisen in the United States for the zinciferous contents of the ores of this district. In many of the mines a large proportion of the ores carry heavy values in zinc, but until quite lately the presence of this metal was regarded as being penalized by the smelters—as a detrimental rather than as a desirable characteristic. At first, some uncertainty existed as to whether this class of ore would be subject to duty upon being exported into the United States, but a ruling has since been obtained from the customs authorities at Washington setting at rest apprehension on this score, and already shipments of zinc ores and concentrates have been made for the American market. The silver-lead output from the Slocan meanwhile shows a decrease compared with production during 1901. There is, moreover, a decided falling off in the East Kootenay yield; but, on the other hand, production from the Lardeau district, in which this branch of mining is also carried on, has considerably increased.

PLACER MINING.

While in certain sections of the province placer mining operations have this season been conducted under exceptionally favorable auspices, the results elsewhere have been somewhat disappointing. Thus the Atlin yield of over half a million dollars is most satisfactory, and in certain sections of Cariboo a greater quantity of gold has been recovered than for some years past; but in the Omineca district little was accomplished this year, and the scanty supply of water, attributable to an exceedingly dry season, restricted operations at the most important of the Cariboo hydraulic mines to such a degree as to reduce the normal yield by two-thirds. Col. the Hon. E. G. Prior, minister of mines, at a recent banquet in Victoria, in speaking of the outlook in Cariboo, is reported by the Times newspaper to have said: "He was glad to say that Cariboo was to see a new era of prosperity. The small capitalists, it was said, had seen their last in that district. This was not quite so. He had obtained information from W. F. Robertson, provincial mineralogist, who had recently returned from there. He did so because he knew that many of the pioneers he would meet at the banquet took a deep interest in that district. The individual miners had not seen the end of their success in those camps. George Veith, on Keithley creek, was doing well. Bill Anderson was also succeeding. Wardner, on Grouse creek, had spent 22 years there, and was meeting with success. From Lightning creek he had received good reports. Montgomery, a miner 83 years of age, was still working and was taking out $100 slugs, the coarsest ever seen there. He was getting all coarse gold, without any fine dust. On the Point claim 56 ounces to a pan had been obtained, and 150 ounces had been taken out in a day. The big companies were also meeting with success. On Slough creek they were 300 feet deep. Drifting 1,200 feet, they were upraising to bedrock, with good prospects. On Horsefly, Ward had taken $1,600 in a day and a half. The Cariboo Hydraulic had had a bad season, due to the lack of water. There was more snow this year, and consequently the prospects were brighter for next year. The early men in Cariboo had shown wonderful pluck, and he hoped those who followed them in the camp would reap their reward."

COAL AND COKE.

Vancouver Island colliery owners have felt keenly the effects of the competition resulting from the introduction of oil as fuel for industrious purposes in California, their principal market. The output, however, shows a very slight falling off, and as recently the Southern Pacific railway, after a thorough test, decided that coal was the most satisfactory fuel for use in locomotives, it is thought that this competition may not prove so dangerous as at first feared. Production of coke and coal from the Crow's Nest Collieries has steadily increased, and notwithstanding the delays caused by an unfortunate mine accident, followed by a strike in the spring, the output is considerably greater than that of 1901.

CHARACTERISTICS OF THE YEAR.

The chief developments of the year in mining have been: The inauguration of the smelting industry on Vancouver Island, by the establishment of large works at Osborne bay and at Ladysmith; the encouraging results attending the exploitation of deep-level mining in the Cariboo district; the opening up of the Trout Lake and Lardeau districts by the completion of the branch line of the Canadian Pacific railway from the Arrow lakes; the further reduction of smelting costs at Rossland; the doubling of smelting facilities in the Boundary district, and the securing of a market for British Columbia zinc. The operation of smelters on Vancouver Island is indicative of the important developments that have taken place at the mines of the Mount Sicker and other Vancouver Island districts since last year, and there is now no longer any room to doubt that this section of British Columbia will shortly contribute very largely to the aggregate mineral production of the province. The effort that is being made on Slough creek, Cariboo, to tap the ancient river channels by deep-level mining methods, has been so far successful that the auriferous gravels were reached this season. The value per cubic yard has yet to be determined, but if the values approximate the estimate made of six dollars to the yard, it is impossible to exaggerate the possibilities that present themselves. In no portion of the province has there been this year so large an investment of capital in mines and mineral claims as the Lardeau, and since the completion of the railway a number of mines have become steadily productive. At Fish creek some exceedingly promising discoveries of free-milling gold quartz have been made, and capital has been also interested in this field. During the year experiments have been conducted at Rossland, with a view to devising a method of treating profitably the lower grade ores of the district, and it is announced that the recent tests indicate that this problem will be successfully solved in the near future. Meanwhile, costs at the Trail Smelter have been further reduced, and, in consequence, operations for a period were suspended. At two of the larger mines work was resumed this summer. In the Boundary district, the capacity of both the Granby and Greenwood works has been doubled and a third smelter at Boundary Falls "blown in." Further additions are moreover contemplated. Generally considering, the year has been a satisfactory one. The industry has been more firmly established, production has again increased, and the promising discoveries which have been made in several new fields show that activity is not being confined to productive areas alone.

THE YEAR'S OUTPUT.

As returns from the mining districts are not yet available, it is impossible to do more than give an approximate estimate of production for 1902. It may, however, be safely stated that in point of tonnage output an increase of from 15 to 20 per cent. over last year's figures has been made; but it is more than probable that the value of the aggregate production will be found to be below the record established in 1901. The reason for this will be found in the fact that, during the year, not only the price of copper but the prices of silver and lead have declined considerably, the difference in the case of copper being a depreciation of over 25 per cent. While the decline in the price of copper failed to restrict the output of the mines producing this metal, the silver-lead industry, being less favorably positioned, was seriously handicapped by market conditions, as is evidenced by the less satisfactory showing made by both the Slocan and East Kootenay lead mines, the largest and most productive of the properties in the latter district being at the commencement compelled to suspend operations entirely. A still larger output might look for the expected from the Boundary district, had conditions during the year been uniformly favorable. For a period, however, the smelters were unable to secure an adequate supply of coke, and mine shipments during that time were largely curtailed. The returns from the Vancouver Island mines do not properly indicate the activity that has prevailed, shipments having been held back pending the construction of the smelters at Osborne Bay and Ladysmith.

The placer gold returns, thanks to the increased yield from Atlin, show probably a slight increase.

Ore tonnage is estimated as follows:

	Tons.
Grand Forks, Kettle River and Osoyoos Divisions	525,000
Trail Creek	340,000
Nelson	80,000
Slocan and Ainsworth	30,000
Coast Districts	25,000
East Kootenay	20,000
Other Districts	25,000
Total	1,045,000

THE BLUE JAY BONDED.

Work Resumed on the Property After Years of Idleness.

Phoenix, Jan. 19.—(Special.)—A deal has recently been made here by the owners of the Blue Jay property, in Skylark camp, for a working bond and lease on the claim, the cash consideration being $10,000 for the interest, distributed over some 15 months in time.

The Blue Jay is one of the best known claims in Skylark camp, having been located in May, 1895, by Michael Kane, a resident of Phoenix, who still has an interest in the property. It is located about a mile and a half from the city, on the same ridge with the Old Ironsides and Knob Hill mines. The present owners of the Blue Jay are M. Kane, Evan Parry, J. A. Porter and J. E. Edwards, the latter owning a three-sixteenths interest. Mr. Edwards has made the lease and bond from his partners for the remaining thirteen-sixteenths, and has already started work on the claim with a force of men. According to the terms of the lease, work on the Blue Jay must be continuous.

The Blue Jay now has a shaft 115 feet in depth, which was sunk on the ledge, and another shaft some 40 feet in depth. Mr. Edwards has started a tunnel to tap the main shaft at a depth of 75 feet, and this tunnel is now driven into the mountain some 60 feet, the ledge being expected to be reached in some 40 feet more of work.

Assays taken as an average from ore from the Blue Jay have given $25 in gold and silver, and picked specimens have resulted much higher. This is now the only claim being worked in Skylark camp, and Mr. Edwards expects to be able to have a splendid showing on the Blue Jay before spring.

CENSURE LAURIER.

Kingston Liberals Declare in Favor of Tarte.

Kingston, Ont., Jan. 19.—At the annual Liberal convention of Frontenac County held in Whig hall, on Saturday, a resolution was carried supporting Hon. J. I. Tarte in his views on protection and lauding him for his many sacrifices in the best interests of the country.

OBITUARY.

Death of H. J. Robertson, an Old Resident of Moresby Island.

The death occurred at Moresby island yesterday of H. J. Robertson, in the 69th year of his age. Deceased had resided on the island for many years, where he had considerable property interests. He was very widely known in Victoria and adjacent districts, being prominent in the public eye some years ago, when he ran in several campaigns as candidate for the local legislature. He was a man who possessed firmly fixed convictions on questions of public import, with which he was familiar, and he was a frequent contributor to the press, his letters invariably reflecting the robustness of his character. He had been in poor health for a long time, and the news of his passing away does not come unexpectedly. The funeral will take place in Victoria on Tuesday.

Elziar Tetu, formerly of this city, died on January 9 at his daughter's residence, South San Francisco, San Mateo county, California. He was 81 years of age.

THE ST. LOUIS.

Leaky Boilers the Reason For Her Delay.

New York, Jan. 17.—The American line steamer St. Louis reached port today. Her delay was due to leaky boilers.

ARCHBISHOP LANGEVIN

Makes a Startling Statement to His Congregation--More Elevators.

From Our Own Correspondent.

Winnipeg, Jan. 19.—Archbishop Langevin, speaking at St. Boniface cathedral yesterday morning, rather surprised his congregation by announcing that it was not sufficient for their salvation to practice the ordinary duties of their religion; they should also, in order to be good Roman Catholics, and as one of their important duties, be obedient to their clergyman and follow his directions in matters concerning elections.

The Canadian Elevator Company will build 70 new elevators this year along the lines of the Canadian Northern railway, and will also open 20 lumber yards in the Territories.

CITADELS AFLOAT.

The new British cruisers, as described in "Engineering," to be known as the "Duke of Edinburgh" class, are to have citadels as distinct from the scattered casemate system, and when one recalls, continues "Engineering," that we have since first adopting the system of casemates in 1889, fitted 800 of these, and that in some 30 ships now building there are 380 casemates, it is important to inquire how far this change is justified. The casemate system was first introduced, and greatly appreciated, because it secured, at a minimum of weight, a complete protection for each gun crew and gun mechanism from the attack of common shell. The face of the casemate was usually made of armour equal to resisting penetration from a shot delivered by a gun of a calibré corresponding to that protected by the casemate. But the rear walls were only made of one-half, and in some cases of one-third, this thickness, the theory being that a large percentage of the shell would pass direct across the ship—i.e., at right angles, and that even those which might cross diagonally, and thus be liable to strike the casemate opposite to the broadside attacked, would have their force spent and their charge exploded by contact with the shell plating or bulwarks. There has, however, been a considerable development in armour piercing shell during the past ten years, and the result has been to make such diagonal shots, even at long range, capable of very considerable destructive power when exploding near to, or against, the rear plating of such a casemate. To make the armour on all sides of maximum thickness, it has been considered, would involve a weight which might be more satisfactorily utilized if disposed entirely on the broadside, so that that part of the shell of the ship between the casemates might be completely armoured. The United States have, more than any other power accepted this condition, and in their recent ships more than 70 per cent. of their guns are thus protected in box batteries or citadels. France, on the other hand, has preferred to put the secondary guns in turrets, which offers advantages in isolation; nearly 70 per cent. of her guns are disposed in this way. In Russia, however, there is a greater variety in the systems adopted, and barely 50 per cent. of the secondary guns are in turrets, while the remaining weapoins are equally distributed between casemates and box batteries. Germany utilizes all three methods in almost equal proportions, although in later ships our citadel system finds favor. Britain, on the other hand, has practically all her guns within casemates, the only departure being in the case of the ships of the King Edward class. The citadel system, while enabling the guns, and therefore the armour, to be concentrated within a comparitively small area, may also confer the advantage of greater arc of training for the majority of guns than is possible under the casemate system. In the new British cruisers, adds Engineering, the citadel will extend for about three-fifths of the length of the vessel, and the side plating will be 6-inch cemented armour for about 5 feet below the water line right up to the main deck. On the water line, however, there will be forward and abaft the citadel, to the bow and stern, armour plating tapering from 4 inches to 3 inches in thickness, the usual armored bulkheads forming the bow and stern athwartship walls of the citadel. The armoured deck will, as hitherto, be curved to the bottom of the side plating, thus increasing the effective protection on the broadside against gun attack.

BUBONIC PLAGUE.

Convention in Washington Censures San Francisco.

Washington, Jan. 19.—Eleven state boards of health were represented today at a meeting to discuss the situation arising from the presence of bubonic plague in San Francisco.

A resolution was adopted which declared that the presence of the plague in California is established beyond doubt, and quoting various medical authorities from whom the fact has been established.

Another resolution was passed in which the fullest publicity was urged relative to infectious diseases and preventive measures.

Another resolution passed censured the State Board of Health of California and other officials there for their laxity in suppressing the plague in San Francisco's Chinatown, and added that the conference would not consider the United States safe from infection till these officials acted harmoniously.

STEEL TILE TRUST.

Another Big Combine Has Been Formed.

Pittsburg, Pa., Jan. 19.—The Steel Tile & Metal Ceiling company, a new combine with members in the principal cities of the United States, was formed here today by the election fo Lee McCullum, of New York, president.

The Outlook For Copper

A Review of the Industry for the Year Which Has Just Closed.

Estimate Shows an Increased Production—Prospects Are Brighter.

The following table gives the estimated output for copper for 1902. The exact figures will not be available for some months. The estimate given is, if anything, too high, rather than too low:

United States	293,504
Spain and Portugal	54,000
Mexico	40,000
Chili	33,000
Japan	27,500
Germany	22,000
Canada	19,000
Australia	17,500
Tasmania	12,500
Peru	9,000
Russia	8,000
Cape Colony	6,500
Norway	3,500
Miscellaneous	11,500
Total, long tons	557,854

The four principal copper producing interests in the world are the Amalgamated Copper Company, the Rothschilds interest, controlling the Rio Tinto, Boleo and others; the Calumet & Hecla Mining Company, and the Phelps, Dodge & Co. group of mines. The Amalgamated has made prices, and the others have marketed their productions at current figures.

The market price of the metal since the early weeks of 1902 has fluctuated within narrow limits, mostly on the basis of 11½ to 12 cents per pound for lake copper, with English and Continental prices closely corresponding. Owing to the unexampled prosperity now prevailing in the United States, a market price of 11¼ cents per pound is about equivalent to the low-record price of 9 cents per pound made in 1894, this increase in cost of production being caused by higher wages paid to labor and the greatly enhanced cost of all machinery, fuel and supplies as compared with 1894, when an era of industrial depression enabled the mines to produce copper for about four-fifths of the present average cost. The dividend disbursements by American mines were smaller in 1902 than for many years past. The dividends paid by the Amalgamated Copper Company, at the rate of only 2 per cent. in 1902, are not properly adaptable to the dividends of American copper mining companies, for the reason that the Amalgamated is merely a securities holding corporation, and any dividends paid by it are simply redivisions of dividends previously paid by constituent companies, some of which, as the Boston & Montana, are owned outright by the Amalgamated, while others, like the Anaconda, have a large number of shares held by independent owners.

The low price of copper has led to the closing of hundreds of mines in the United States and in all other parts of the globe, yet not a single producer of the first, second or third rank has been forced to stop work. The Montana mines have worked under check in 1902, but at the close of the year were working fairly full forces. The United Verde, in Arizona, has been closed because of fire, and the Mountain, in California, is idle because of a strike. Several new producers of importance have made their debut in 1902, much the largest of these being the Greene Consolidated, of Mexico, a mine of the first magnitude and of great promise. Few of the new mines have been able to make as much copper as anticipated. Nearly all have had to expend more money than was planned. Some have come to grief financially, and others are in poor condition from lack of funds and inability to secure adequate cash advances.

The year 1902 closed with better prospects than it began. The feeling of hopelessness on the part of many consumers has given way to renewed hope. While a return of 17-cent copper cannot be expected, unless coming through manipulation that will ultimately react to the injury of the trade, an advance of a cent or two per pound would be a wonderful aid to many producers, and would not place too high a tax on consumers. Copper at 13 or even 14 cents per pound is reasonable, but a higher price is not warranted under the present conditions of the trade, or conditions likely to arise within the next two or three years.

The market for copper has been dominated for several years by the Amalgamated Copper Company. That corporation maintained prices at an artificially high level in 1900 and during the greater part of 1901, and late in the latter year created havoc in the trade by making enormous sales at any price obtainable. There is reason to think that this company is now well sold up, and, therefore, in no position to long maintain prices at a lower level than warranted by laws of trade, though it could again make prices unnaturally high by withholding production, having facilities for marketing or withholding from market a large amount of copper, in addition to that made from mines that it owns outright, or controls through ownership of a majority of issued shares.—Horace J. Stevens, in the Western Mining World.

INCREASING STRENGTH.

Duke of Connaught's