REPORT

OF THE

CHIEF COMMISSIONER OF LANDS AND WORKS

OF THE PROVINCE OF

BRITISH COLUMBIA,

FROM THE

1ST DECEMBER, 1873, TO THE 31ST DECEMBER,

1874.

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To the Honorable JOSEPH WILLIAM TRUTCH, *Lieutenant-Governor of the Province of British Columbia, Dominion of Canada.*

MAY IT PLEASE YOUR HONOR :

In accordance with Section 13 of the "Public Works Act, 1873," I have the honor to submit to you my Report upon the Public Works of the Province, placed under construction this year; including also a detailed statement of the expenditure thereon, from the 1st December, 1873, to the 31st December, 1874, inclusive; including also an annual statement in reference to the Land Department.

The whole respectfully submitted.

ROBERT BEAVEN,
Chief Commissioner of Lands and Works.

Lands and Works Department,
Victoria, B. C.,
31*st December*, 1874.

REPORT.

CONSTRUCTION OF PUBLIC WORKS, BRIDGES, ROADS, &c.

THE Legislative Assembly, during the Session of 1873-74, understanding the necessity for opening up for settlement the vacant lands of the Province by survey, and by the construction of Roads, Trails, Bridges, etc., wisely appropriated larger sums of money than usual for those purposes; and it has been the special aim of this Department, during the past season, to carry into effect the wishes of the Legislature with vigor and economy.

The system adopted by the present Government of constructing Public Works by contract, whenever practicable, has, by carefully dividing Road construction into such sections as would enable any competent contractor to tender for and push the work to completion, proved upon the whole very satisfactory. It cannot be denied, however, that the contract system increases to a very serious extent the office work in this Department; and, in all cases, necessitates the very closest supervision of work under construction, all of which must be taken into consideration in estimating the cost of works.

One of the most serious obstacles contractors have had to contend against the present year, has been the scarcity of competent white labor; and, in many instances, they have been compelled, contrary to their own wishes, to employ Chinese or abandon the work. It is possible, that this year may prove to have been exceptional to a certain extent in this respect, as, undoubtedly, many men were attracted, in the early Spring, to the Cassiar Gold Mines, who, otherwise, would have been available. On the other hand, however, when we consider the possible increase of employment, caused by Railway and Dock construction in the Province, the question of Chinese labor, in connection with our public works, becomes one for serious consideration.

The location and construction of main roads has been one of the leading features in the season's operations.

In the first instance, on the East Coast of Vancouver Island, certain sections have been let out by contract, and, when completed, will form portions of a Main Trunk Road between Cowichan and Nanaimo.

The greatest care has been taken to properly locate the portions under contract by survey; and the line as adopted is, undoubtedly, the shortest and most beneficial to the settlers. The portion crossing Cowichan flats was decided by vote of the Municipal Council, and by resolution at a public meeting, to be the most desirable route for such a road, and has been subsequently adopted after survey; and will, unquestionably, be a great boon to the district when completed. The contractor for this section suspended work in consequence of the inclemency of the weather. The contractor for the section from Horseshoe Bay to Haslem's, Cedar District, has also been compelled to temporarily suspend operations.

On the Mainland portion of the Province the same Trunk Road system, commencing at Ladner's Landing, on the south arm of the Lower Fraser, New Westminster District, and extending to the town of Hope, in Yale District, a distance of *one hundred miles*, has been placed under contract this season. Five sections of this extensive work have been completed in a manner highly creditable to the contractors; the other two are fast approaching completion.

The first nine miles of this road, commencing at Ladner's Landing, was very much in the nature of an experiment, but was constructed with a view to inaugurate (if suc-

cessful) a system of Roads, Dykes, and Ditches combined; passing, as it does, across the tidal lands of the Lower Fraser, it was considered, even by settlers in the vicinity, a year ago, whilst personally examining the locality, to be a visionary project; but I am happy to know, that although this road was severely tested by storm and tide whilst in an unfinished condition this winter, that it has stood the test, and fully carried out the most sanguine anticipations as to its benefits; and that it will, upon completion, successfully dyke and drain an extensive area of what was, a year ago, worthless, overflown land, never visited, unless by hunters of wild fowl, etc. The eager manner in which the land along this roadway is now sought after, even by former settlers in the far famed Willamette Valley, in Oregon, proves conclusively the practical results of road-making; and had the Government been disposed to withdraw this land from the operation of the Free Grant system, a sufficient acreage could have been disposed of to pay the entire cost of the road.

The system upon which this portion is constructed is very simple, viz.: by cutting two wide and deep ditches, twenty-one feet apart, on the Township line, between No. 3 and 4, and by building up in the centre, between two walls of sod, the material excavated from the ditches, a roadway and dyke is formed, the ditches draining the land into the different sloughs and other outlets, and by putting in flood-gates, that close by the action of the tide, at the crossings of all sloughs, culverts, and termination of ditches, the salt water is entirely excluded from *the inside ditch*, thus dyking the land in rear of the roadway.

The outside ditch of this roadway was also successfully used by settlers for conveying supplies into the interior by canoe, for by fastening open the flood-gate of the ditch, where it empties into the Fraser, and letting in the water by the rise of the tide, a canal, sufficiently deep enough to float a laden canoe or boat, was obtained; and to settlers, who have no wheeled vehicles, this has proved a great assistance.

After crossing these flats, this section of the road strikes the high land at the boundary between Townships No. 4 and 2, continues along portions of the South line of Sections 7, 8, 9, Township 2, and joins the Semiahmoo Road at the South-west corner of Section 10, thus making a continuous road, graded 15 feet wide, from Ladner's Landing to this point, with bridges 12 feet wide, and when running through timber, forest cleared 30 feet wide. Total distance of this section is 13 miles and 13 chains.

At this junction, the Semiahmoo Road runs at right angles towards Semiahmoo Bay, and Brown's Landing, opposite New Westminster on Fraser River, respectively.

The next portion of the Trunk road, known as Section 1, commences at a point on the Semiahmoo Road about 1½ miles from Brown's Landing, and follows almost a straight line, in a South-easterly direction, to the North-east corner of Section 24, Township 2, terminating at Section 17, Township No. 8.

This portion of the wagon road, with the exception of a short crossing at the flat through which the Serpentine River flows, traverses a ridge of heavily timbered and, in many places, gravelly soil. The grading is 18 feet inside the ditches, with a forest clearing 33 feet wide, and substantial hand-rail bridges, 12 feet wide, are put in where necessary, and is now a first-class graded road, that will never, in many portions, require gravel or metal of any description. The distance of this section is 7 miles 72 chains.

Section 2 commences at the termination of Section 1, runs in a straight line, in a South-easterly direction, to the North-east corner of Township 7; thence, in the same direction, to the North-east corner of Section 24, Township 10; thence Easterly, across Township 13, terminating in Section 21; thus keeping a straight course, midway between Fraser River and the 49th Parallel.

This part of the road, with the exception of the portion crossing the fine open land at Langley Prairie, traverses a timbered section of the country, but throws open an immense extent of valuable land unknown to, and never before visited by white settlers. The grading is 18 feet, with a forest clearing of 33 feet; bridging, 12 feet wide; but the road will in many portions require gravelling before being considered a first-class wagon road; yet it is in a better condition to-day than roads through districts in the Eastern States and Canada, where settlement has been going on for the last forty years. The distance of this section is 13 miles.

Road Section 3 commences on Section 21, Township No. 13, and runs almost due East to the West boundary of Township 16, but follows a more Southerly course across that Township, and terminates in Township 19, at the head of Sumass Prairie.

The country through which this section runs, consists of high, rolling land, heavily

timbered with fir, cedar, hemlock, and spruce, with a thick undergrowth of maple; then across a section of open land in the rear of Matsqui Prairie, until burnt timber land, covered with a dense undergrowth of small fir, is reached; then strikes again on to high, rolling land, timbered as before, until the open land at the head of Sumass Prairie is reached.

This section is also graded 18 feet wide, inside of ditches; forest cleared 33 feet wide; and bridged most substantially; but will require gravelling in many places before becoming a first-class winter road; but is to-day in a better condition than portions of the East Saanich Road.

The work approaching Sumass Prairie has been of a very heavy description, but has been constructed in a first-class manner.

Total distance of this section, 10 miles 52 chains.

Section 4 joins on the preceding section at the head of Sumass Prairie, runs about a mile to the East, and then bears away in a Southerly direction to within a short distance of the Boundary Line, in order to avoid the overflown land at the head of the Sumass; thence follows along the base of the mountains on the East side of the lake, terminating about two miles from the lake, in a prairie.

This portion of the road was the last selected, as the water from the Fraser River overflows the Sumass Prairie, in the months of May and June, to a depth of ten feet in many places, and it was consequently very necessary to see the actual condition of the land, during that period, before finally selecting the route. After the Spring freshet recedes, cattle can be driven anywhere across the prairie, but bridges are necessary, at the crossing of the sloughs, for wheeled vehicles.

From the termination of Section 3, to the base of the mountains at the South of the Sumass Lake, this road will be graded 12 feet wide, with ditches cut 20 feet apart, thus allowing for an increased width of grade, when considered necessary.

Along the East side of the lake, the road traverses a rocky, broken section of the country, and is graded 12 feet wide. There is considerable walling and blasting on this portion, and slides no doubt may take place, as on the Yale wagon road; but the danger has, in a measure, been guarded against, by walling the side slopes at the worst places.

Should there, eventually, be much wagon traffic on this portion, it will be necessary to widen out to fully 18 feet. The length of this section is 12 miles and 60 chains, and is unfinished at the date of this Report.

Section 4A joins on to Section 4, runs across the last mentioned prairie, in a North-easterly direction, to the base of a small mountain; then strikes off towards the settled portions of the Chilliwhack, runs through that district, crossing the Luck-a-kuck and Chilliwhack Rivers; runs along the base of the Shannon Mountain; follows up the Hope slough to the Fraser River, below Cheam; follows along the base of the mountains, and terminates 20 miles below Hope, at Popcum.

This road is graded 18 feet clear of ditches on the prairie portions, and from 12 to 15 feet on the high ground, with a forest clearing of 33 feet, and with bridging 12 feet wide,—and is in as good a condition as a road, simply graded, could be. Some of the side slopes, especially on the Cheam Mountain, will require to be cribbed on the inside with timber, before being secure.

Total length of this section, 22 miles.

Section 5 commences at termination of Section 4, at Popcum, and extends to the town of Hope, 14 miles below Yale. This has, undoubtedly, been a heavy section; the bluff above Popcum and at Murderer's Bar required considerable blasting and cribbing; and no less than twenty-six bridges have been constructed.

The road is graded 12 feet wide; forest cleared, 33 feet wide; and bridged, 12 feet wide; but will not require much gravelling, as the land traversed is usually of a light class, and in many places very rocky.

This section is, at present, in the hands of the contractors, as it is not finished; but cattle have been driven over it.

The distance is 20 miles 40 chains.

This terminates the season's work of construction upon the New Westminster and Hope Wagon Road, and it will be seen that taking the sections enumerated, commencing at Ladner's and terminating at Hope, that the total measurement is 99 miles and 77 chains, or *one hundred miles*, less 66 yards; and this is only a portion of the work in New Westminster District, as will be seen by reference to the detailed statement.

As one of the principal objects in opening this road has been to enable farmers in the interior to bring their beef cattle to the seaboard, the Government have used every effort to obtain reliable information as to the best and most direct route from Hope to the Valley of the Nicola and Kamloops. It is true, that farmers on the Nicola can now reach Hope with cattle, by driving down to Princeton, and connecting with the present trail running out of Hope to Kootenay; but the distance from Nicola Lake to Hope, by this route, is 124 miles. Under these circumstances, explorations have been made of three different routes, one by the South pass, one by the Otter Valley, and another by the Coquehalla Valley.

The distance saved by the Otter Valley would be about 15 miles, but would have less feed, and run over very high ground; whilst a trail, *via* the Coquehalla, would reduce the distance between Hope and Nicola Lake to 80 miles, thus saving a distance of 44 miles between Hope and Nicola, the first 35 miles of which would be expensive construction; but from the 35th to 52nd mile, the work would be much lighter; and from the 52nd mile to Nicola Lake (the 80th mile), the work would be of a trifling character. Under these circumstances, I consider that the trail *via* the Coquehalla would be the most beneficial one to construct, especially as it will connect, at the head of Nicola Lake, with the Nicola Wagon Road, and thus bring that thriving settlement in direct communication with Ladner's Landing, by the shortest and most direct route.

The trunk road system has also been extended to Nicola Valley.

The Government, last year, opened a road, 10 feet wide, commencing on the East side of the upper end of Nicola Lake and terminating at Woodward's pre-emption on Nicola River, a total distance of 32 miles; and this year they have placed under contract a road connecting with the above running down the Nicola River, crossing that river with a substantial bridge near its entrance into the Thompson, and terminating at Spence's Bridge, on the Yale Wagon Road, thus making, when complete, a direct means of communication through the Nicola Valley. The road is being constructed 10 feet wide, except where points of rock or bluffs occur, when it will be 18 feet wide. The total distance under construction this year is 35 miles.

Should the connecting link of wagon road be subsequently constructed via the Coquehalla, from Hope to head of Nicola Lake (distance 80 miles), we should then have a road extending from Ladner's Landing, on the Lower Fraser, and connecting, at Spence's Bridge, with the Yale and Cariboo road, opening up and running through the best land in the Province for agricultural and pastoral purposes.

The work of this Department, throughout the other districts of the Province, has also been of an extensive character, although the roads were not specially constructed as trunk or main roads. Take, for instance, the extension of the Burnside road towards the Metchosin; the connection made between the Burnside and the Esquimalt road; by gravelling and otherwise putting in repair the road formerly known as "The Admiral's"; the extension of the East and West Saanich roads; and the numerous general repairs and improvements to the roads in Victoria and Esquimalt Districts.

The general improvement to existing roads in Cowichan has been pushed forward with the utmost vigor, and that district to-day, although sparsely settled, is cut up with passable roads in all directions.

In Nanaimo District, the first work undertaken was to erect an Arch-beam Bridge, 167 feet in length, on the site of the former Lattice Bridge.

A road 10 feet wide from Nanaimo extending towards Comox has been opened to Englishman's River, distance about 9 miles, and improvements have been made to the Departure Bay and Harewood Roads. A bridge 171 feet long, on Prideaux Street, has also been constructed, and other repairs made to Mill and Prideaux Streets.

In Comox District, other extensive improvements have taken place. A wharf, 40 by 60 feet, with an approach 1,035 in length, has been constructed, thus giving a depth of 15 feet of water at the end of the wharf at extreme low tide. A bridge, 184 feet in length, across the Courtenay River, together with a trestle-work approach of 780 feet, is under construction; and the various roads throughout the district have received due attention.

In New Westminster District, in addition to the Trunk Road before mentioned, considerable portions of the Semiahmoo Road have been constructed in a first class manner. One intervening section of about eight miles, together with a bridge across the Nicomekl, still requires to be constructed, in order to make a continuous good road between the 49th Parallel and Brown's Landing, Fraser River.

In the District of Yale, the trail leading across the Hope Mountain to Princeton and Osoyoos, has been placed in good repair. The rocky portions of the trail have been gravelled, in order to prevent beef cattle from becoming foot sore. Several new bridges have been constructed, including one across the Similkameen River, near Princeton.

The portions of the Yale-Cariboo Wagon Road running through the District have likewise been kept in good repair. Several of the old bridges have been replaced by new structures. New stone walling has been built in places where the cribbing has become defective. Narrow places have been widened as much as means would permit. The portions through the cañons have been kept open by this Department during the Winter months. This entails a large extra expenditure, principally for labor shovelling snow, and for the keep of two span of horses stabled on the road during Winter, in order to be in readiness to track the road, and open it after each fall of snow. This is a class of expenditure for which no permanent results can be shown, other than the keeping open of communication with the interior, and facilitating the transport of Her Majesty's Mail.

In this district, also, the contract has been awarded for a first class Timber Bridge across the Thompson, at its junction with the Fraser River. This bridge when completed will consist of six spans of a total length of 426 feet.

A Bridge at the confluence of the Nicola and Thompson Rivers, 160 feet long, with an approach of 190 feet, has been placed under contract, likewise.

Several other smaller structures, such as the Bridge across Peterson Creek, the Coldwater Bridge above the junction of the Coldwater and Nicola Rivers, and the Deep Creek Bridge on the Spellumacheen Road, have been constructed this year.

Other work in this district has been of an important character; for instance, a ten foot road has been opened from Duck and Pringle's to McBryan's Ranch, Shuswap, a distance of 16½ miles.

A 12 foot road up the Cherry Creek Valley, has also been constructed from a point where the Kamloops and Savona's Ferry Road leaves the Cherry Creek Valley to ascend the mountain, and follows the valley up to Pendleton's Ranch, thence forming a junction with the Kamloops Wagon Road, near a small lake. Total distance about 3¾ miles.

A four foot trail has been constructed from Savona's Ferry to Copper Creek, near Hugh Morton's, and is known as the Tranquille Trail. Total distance 6½ miles.

Certain repairs have also been made to the River Trail between Lytton and Lillooet.

In Lillooet District, the wagon road between Lillooet and Clinton, and from Clinton to Bridge Creek, has been kept in repair by contract. A trail has been opened out connecting Big Bar, Dog Creek, and Alkali Lake with the Wagon Road at Clinton, and a certain amount of work has been done to the Burrard Inlet Cattle Trail, but I regret not being able to report its final completion.

In Kootenay District, 25 miles of new road, 9 feet wide, with bridging 10 feet wide, and 5 miles of a four foot trail, have been constructed in the vicinity of the Mining Camps, and the Government Agent reports the district well supplied with good trails. The trail from the Monument to Joseph's Prairie, and from that point to Fort Shepherd, has been kept open and in repair. The prospecting parties assisted by Government have also been tolerably successful.

In Cariboo District, the Wagon Road from Soda Creek to Cameronton has been kept in repair by day labor.

The Quesnelle River Bridge has not yet been placed under contract. Two separate sets of plans, detail drawings, and specifications have been prepared and tenders have been invited for the work, but have not yet been received, as the time for their reception has not expired at the date of this Report.

The principal work upon Public Buildings consists of building an extension, 50 by 36 feet, in rear of the Land Office, Victoria, so as to provide for a fireproof vault, 8 by 30 feet (inside measurement) for the Land Office, one of equal size for the Registrar-General of Titles, and for three rooms for the use of that Department. An Audit Office has also been added to the Treasury Department, and the Court House is being altered, so as to provide accommodation for Grand and Petit Jurors, a Law Library, Barristers' Robing Room, Gallery for the public, &c., and lighting the building with gas.

Fire-proof brick and stone vaults, each supplied with a set of "Hall's" double vault doors, protected by a combination lock without keyhole, have been built in the Treasury, Provincial Secretary's Department, Executive Office, Land Registry, and Lands and Works Departments.

These vaults are of sufficient capacity to contain all the valuable archives of these departments, and are unquestionably fire-proof, the walls being 24 inches thick in the Lands and Works and Land Registry vaults, and 17 inches thick in the three other departments.

The Departmental Buildings at James' Bay, Victoria, have been supplied and lighted with gas, and the grounds in their vicinity fenced in, partially graded, and planted with shrubs, &c. Substantial side walks have also been laid round this Government Reserve.

In the town of Yale, a two-story building, 41 by 24 feet, with accommodation for Government offices and residence on the ground floor, and with ample accommodation for Judge, Jury, and Court Room on the upper floor, has been erected.

This is a very useful and handsome public building, and is constructed substantially upon stone foundations.

At Esquimalt, a Lock-up has been built, and at Cassiar a Magistrate's Office and Lock-up has also been provided.

I regret having to report the total loss, by freshet, of a Bridge constructed in 1871 across the Chemainus River, and also the partial destruction of the Sooke River Bridge, erected in 1872 at a cost of $1,600.

I herewith subjoin, for your further information, a more detailed statement showing the quantities of work constructed this year, together with the total liabilities incurred for each Electoral District of the Province.

Victoria Electoral District.

ROYAL OAK TO REAY'S.

Repairs to the East Saanich Road, between the Royal Oak Tavern and Elk Lake.
John Nicholson, Superintendent;
Snider & Davis, contractors, at $988;
Grading and ditching, 1,011 yards, 20 feet wide;
Gravelling, 923 „ 10 „ 8 inches deep;
3 culverts, 2½ by 1½ feet, 20 feet long;
Forest clearing, 1,314 yards, 33 feet wide.

Repairs East Saanich Road, between Elk Lake and Mr. Spott's Farm.
John Nicholson, Superintendent;
William Tiernay, contractor, at $625;
Grading and ditching, 723 yards, 20 feet wide;
1 culvert, 2½ by 1½ feet, 20 feet long;
Forest clearing, 723 yards, 33 feet wide.

Repairs East Saanich Road, from Mr. Spott's Farm, Northward.
John Nicholson, Superintendent;
William Baker, contractor, at $398;
Gravelling, 931 yards, 10 feet wide, 6 inches deep.

CROSS ROAD, FROM BURNSIDE TO CRAIGFLOWER.

George Lyall, Superintendent;
Charles Molloy, contractor, at $850;
Construction of a new bridge over the Colquitz River, 145 feet in length, 12 feet wide, firmly constructed on cedar piles, and with a substantial hand-rail;
Grading and ditching, 740 yards, 16 feet wide, clear of ditches;
Forest clearing, 740 „ 40 „

CADBORO BAY ROAD, EXTENSION TO THE BEACH.

A new road, from the boundary of Section 31 to Captain Martin's gate.
John Nicholson, Superintendent;
William Baker, contractor, at $950;
Grading and ditching, 1,500 yards, 16 feet wide;
Gravelling, 500 „ 10 „ , 6 inches deep;
6 culverts, 2 by 1½ feet, 17 feet long.

SHOAL BAY TO REAY'S.

Extension of East Saanich Road, from Reay's Farm, North Saanich, to Shoal Bay.
John Nicholson, Superintendent;
Imrie & McIlmoyle, contractors, at $2,791;
Grading and ditching, 3,629 yards, 20 feet wide;
Gravelling, 3,629 „ 10 „ , 6 inches deep;
6 culverts, 2½ by 1½ feet, 20 feet long;
Forest clearing, 3,629 yards, 33 feet wide.

HIGHLAND AND LAKE DISTRICT ROAD.

Repairs to Road, from the Metchosin Road *via* Hillyar's & Porter's to Francis', Highland District.
John Nicholson, Superintendent;
Snider & Davis, contractors, at $1,000;
Grading and ditching, 1,949 yards, 15 feet wide;
Gravelling, 1,191 „ 9 „ , 5 inches deep;
5 culverts, 2 by 1½ feet, 15 feet long.

INDIAN RESERVE TO CLOAKE'S.

Repairs and extension of the West Saanich Road, from the North Saanich Indian Reservation to Cloake's.
John Nicholson, Superintendent;
Joseph Nicholson, contractor, at $1,340;
Grading and ditching, 1,218 yards, 15 feet wide;
Do. do. 1,034 „ 20 „ ;
Gravelling, 308 „ 9 „ , 5 inches deep;
Do. 1,034 „ 10 „ , 6 „
Forest clearing, 2,250 „ 30 „ ,
5 culverts, 2½ by 1½ feet, 20 feet long;
1 bridge, 96 feet long, 13 feet high, 13 feet wide, with hand-rail.

REPAIRS, MOUNT NEWTON CROSS ROAD.

John Nicholson, Superintendent;
William Thompson, contractor, at $575;
Grading and ditching, 1,095 yards, 18 feet wide;
Gravelling, 521 yards, 10 „ , 6 inches deep;
4 culverts, 2½ by 1½ feet, 18 feet long;
A bridge on this road was removed, a large culvert constructed, and the hollow filled up and gravelled, at an additional cost of $100.

BURNSIDE ROAD EXTENSION.

From Greenslade's gate to Porter's Farm.
John Nicholson, Superintendent;
Henry Simpson, contractor, at $2,310;
Grading and ditching, 2,411 yards, 18 feet wide;
Macadam rock, 1,200 „ 10 „ , 6 inches deep;
Gravelling, 1,200 „ 10 „ , 6 „
Do. 1,211 „ 10 „ , 8 „
Forest clearing, 2,411 „ 30 „
1 bridge, 20 feet long, 18 feet wide, 4 feet high;
9 culverts, 1½ by 2½ feet, 18 feet long;
Blasting, 15 cubic yards.

From Rowland's Farm to Greenslade's gate.
John Nicholson, Superintendent;
Henry Simpson, contractor, at $1,065;
Grading and ditching, 1,207 yards, 18 feet wide;
Gravelling, 1,207 „ 10 „ , 6 inches deep;
Forest clearing, the entire distance, 30 feet wide;
6 culverts, 2½ by 1½ feet, 18 feet long.

FROM DEAN'S FARM, VIA MOUNT TOLMIE, TO FITZALLAN'S.
Extension of Mount Tolmie Cross Road.
John Nicholson, Superintendent;
Nicholson & Patten, contraators, at $466;
Grading and ditching, 729 yards, 20 feet wide;
Macadam, rock, 152 „ 10 „ , 6 inches deep;
Do. gravel, 152 „ 10 „ , 6 „
Gravelling, 577 „ 10 „ , 8 „
2 culverts, 2½ by 1½ feet, 20 feet long.

REPAIRS TO ROAD FROM CEDAR HILL CHURCH TO THE SAANICH ROAD.
John Nicholson, Superintendent;
Nicholson & Patten, contractors, at $397;
Grading and ditching, 826 yards, 18 feet wide;
Gravelling, 388 „ 10 „ , 6 inches deep;
1 culvert, 1½ by 2½ feet, 18 feet long.

REPAIRS, MOUNT TOLMIE AND CEDAR HILL CROSS ROAD.
John Nicholson, Superintendent;
Malcolm Munro, contractor, at $990;
Grading and ditching, 1,223 yards, 20 feet wide;
Macadam, rock, 1,025 „ 10 „ , 6 inches deep;
Do. gravel, 1,025 „ 10 „ , 6 „
Gravelling, 198 „ 10 „ , 6 „
1 bridge, 20 feet long, 16 feet wide, 6 feet high.

FROM THE EAST SAANICH ROAD TOWARDS TELEGRAPH BAY.
Construction of new road.
John Nicholson, Superintendent;
Henry Simpson, contractor, at $1,020;
Grading and ditching, 1,318 yards, 18 feet wide;
Gravelling, 825 „ 10 „ , 6 inches deep;
Corduroy, 361 yards, constructed with 5 inch split cedar slabs, 18 feet wide, covered with gravel, 10 feet wide, 6 inches deep, backed with earth;
2 culverts, 3 by 1½ feet, 20 feet long.

BURNSIDE ROAD TO CRAIGFLOWER.
Gravelling road, from the Burnside to Colquitz Bridge.
John Nicholson, Superintendent;
George Nicholson, contractor, at $297;
Gravelling, 712 yards, 10 feet wide, 8 inches deep.

MOSS STREET EXTENSION.
John Nicholson, Superintendent;
William Baker, contractor, at $400;
Grading and ditching, 1,180 yards;
Gravelling, 625 „ 8 inches deep, 10 feet wide;
Do. 555 „ 6 „ 10 „
This work is still under contract.

SAANICH ROAD (between Swan Lake and Royal Oak).
William Tiernay (private contract) at 66 cents per yard;
Gravelling, 1,204 yards, 14 feet wide, 5 inches deep.

The following work has been carried out in the District by day work:—
John Nicholson, foreman.

BEAVER LAKE ROAD.
Grading, 1,300 yards, 18 feet wide;
Gravelling, 40 „ 10 „ 6 inches deep;
2 culverts, 1½ by 2½ feet, 18 feet long;
1 do. 3 „ 3 „ 18 „

Forest clearing, 1,275 yards, 30 feet wide;
Blasting, 30 cubic yards;
Total cost, $378 24.
Of this amount, $248 has been refunded by J. D. Robinson, Esq., Water Commissioner.

PROSPECT LAKE ROAD.
Grading, 2,150 yards, 10 feet wide;
4 culverts, 1½ by 2½ feet, 16 feet long;
Forest clearing, 900 yards, 18 feet wide;
Total cost, $162 31.

WEST SAANICH ROAD.
Repairs, from Tolmie's to Prospect Lake junction.
Grading and ditching, 600 yards, 20 feet wide;
Gravelling, 941 „ 10 „ 6 inches deep;
1 bridge, at Swan Lake, 54 feet long, 18 feet wide, 10 feet high, with substantial hand-rail.
Taking out the old bridge, 150 feet long, 9 feet high, near Stevens' house, filling in the hollow 8 feet deep, putting in a culvert 3 by 3 feet, grading and gravelling the filling and hills on both sides;
Total cost, $1,136 66.

GENERAL REPAIRS.—Numerous other general repairs, such as putting in new culverts, slight repairs to bridges, filling in hollows, holes, and ruts, cutting out fallen timber, etc., have been done throughout the district.

Esquimalt Electoral District.

OTTER POINT TRAIL.
From Sooke Road to Otter Point.
John Nicholson, Superintendent;
A. J. McLellan, contractor, at $440;
Length 7½ miles, width 8 feet;
Corduroy, 55 feet, 6 feet wide.

ESQUIMALT TO CRAIGFLOWER.
Repairs to "Admiral's" Road.
John Nicholson, Superintendent;
William Johnston, contractor, at $1,297;
Grading and ditching, 1,423 yards, 20 feet wide;
Gravelling 1,423 „ 10 „ 6 inches deep;
7 culverts, 1½ by 2½ feet, 22 feet long;
7 cubic yards blasting;
Forest clearing, 1½ miles, 60 feet wide.

FROM PARKER'S TO VINE'S, AND FROM GLEED'S TO SCHOOL HOUSE.
John Nicholson, Superintendent;
A. J. McLellan, contractor, at $896.
Grading and ditching, 1,385 yards, 15 feet wide;
Gravelling 1,385 „ 9 „ 6 inches deep;
3 culverts, 1½ by 2½ feet, 15 feet long.

TYLER'S TO HAWKINS'.
John Nicholson, Superintendent;
Jack & Cameron, contractors, at $397;
Sleigh road, 2,200 yards, 10 feet wide;
1 bridge, 75 feet long, 10 feet wide, 11 feet high, with substantial railing;
3 culverts, 1½ by 2½ feet, 10 feet long.

ESQUIMALT ROAD.
John Nicholson, Superintendent;
Snider & Davis, contractors, at $227;
Grading and ditching, 72 yards, 18 feet wide;
Gravelling 341 „ 15 „ 6 inches deep;
Repairing road generally, filling holes, &c.;
Forest clearing, 3½ miles, 66 feet wide;
2 culverts, 1½ by 2½ feet, 26 feet long.

GORGE ROAD.
John Nicholson, Superintendent;
William Tiernay, contractor, at $245;
Re-grading, 624 yards, 20 feet wide;
Gravelling, 624 „ 10 „ 6 inches deep;
2 culverts, 1½ by 2½ feet, 22 feet long.
This work is still under contract.

HAPPY VALLEY ROAD.
John Nicholson, Superintendent;
Snider & Davis, contractors, at $175;
Grading and ditching, 300 yards, 18 feet wide;
Gravelling 300 „ 10 „ 6 inches deep;
2 culverts, 1½ by 2½ feet, 18 feet long.

The following work has been done by day work.
John Nicholson, Foreman.

HAPPY VALLEY ROAD.
Forest clearing, 1,600 yards, 20 feet wide;
Grading 3,100 „ 18 „
Gravelling 75 „ 9 „ 6 inches deep;
2 culverts, 1½ by 2½ feet, 20 feet long;
1 do. 2½ by 4 „ 15 „
Total cost, $496 84.

HIGHLAND DISTRICT ROAD.
From the Metchosin Road to Stewart's.
Grading, 2,400 yards, 10 feet wide;
1 bridge, 35 feet long, 14 feet wide, 6 feet high;
1 do. 40 „ 14 „ 6 „
Grading, 325 yards, 18 feet wide;
do. 515 „ 12 „
Gravelling 185 „ 10 „ 6 inches deep;
2 culverts, 1½ by 2½ feet, 18 feet long.
Total cost, $847 09.

SOOKE WAGON ROAD.
Grading, 1,070 yards, 12 feet wide;
5 culverts, 1½ by 2½ feet, 15 feet long;
Gravelling, 130 yards, 9 feet wide, 6 inches deep;
Total cost, $489 28.

METCHOSIN ROAD.
Gravelling, 1,298 yards, 10 feet wide, 6 inches deep;
Do. 550 „ 12 „ 6 „
Grading, 591 „ 20 „
1 culvert, 1½ by 2½ feet, 22 feet long;
2 do. 1½ „ 2½ „ 20 „
Forest clearing, 2,200 yards, 25 feet wide;
Craigflower Bridge—1 new bent, 8 stringers, 1,404 feet of 3 inch covering;
Parsons Bridge—3 new bents, 6 stringers, new covering and hand-rail;
Total cost, $1,685 11.

MILLINGTON'S ROAD.
Cleared and graded, 150 yards, 14 feet wide;
Do. do. 300 ,, 10 ,,
Gravelling, 150 ,, 10 ,, 10 inches deep;
Hill, cut down 5 feet for 20 yards;
Total cost, $125 22.

SOOKE ROAD.
Repairs to cribbing of Sooke Bridge.
Michael Muir, by verbal agreement, at $12.

HIGHLAND DISTRICT.
Opening road to McKenzie Lake.
Donald McKenzie, by verbal agreement, at $40;
Opening a sleigh road, 1,200 yards long, 8 feet wide.

GENERAL REPAIRS.—Sundry general repairs, such as filling in ruts, holes, and hollows, repairs to bridges and culverts, cutting out fallen timber, have been attended to when necessary.

Cowichan Electoral District.

SOUTH COWICHAN.
Section 1 (from J. Loves' to the Cowichan Flats).
A. Dodds, Superintendent;
M. J. Marshall, contractor, at $280;
Cutting out 2,600 yards of sleigh road, 12 feet wide, clearing timber, brush, etc.;
Building 4 bridges, of a total length of 180 feet, 12 feet wide.

Section 2.
A. Dodds, Superintendent;
M. J. Marshall, contractor, at $95;
Putting in 4 culverts, 1½ by 2 feet, 12 feet long;
Widening, straightening, and grading portions of the section.

Section 3 (from Hopkins' house to the Saw-mill).
A. Dodds, Superintendent;
Robert John Hopkins, contractor, at $200;
Sleigh road, about 3 miles in length, 12 feet wide, stumps and logs removed, and ground levelled off;
Corduroy, 18 feet;
2 bridges, total length 82 feet.

Section 4.
A. Dodds, Superintendent;
M. J. Marshall, contractor, at $85;
2 culverts, 1 by 1½ feet, 11 feet long;
Sleigh road, 12 feet wide,300 yards long;
Repairing cribbing at landing, and placing box drain.

Section 5 (Cut-off on the Kokesailah Road).
A. Dodds, Superintendent;
Alexander Blyth, contractor, at $119;
1,400 yards of sleigh road, cleared and levelled off to a width of 12 feet.

GOLDSTREAM TO SAYWARD'S.
Alexander Blyth, contractor, at $140;
Clearing out trail and repairing bridge from Cowichan to Goldstream, a distance of 20 miles.

TRUNK ROAD.—COWICHAN TO NANAIMO.
From Richardson's House, and across the Flats, to White's Bridge.
A. Dodds, Superintendent;
William Thompson, contractor, at $4,490;

The roadway of this section is to be raised two feet above the general level of the flat, and to be formed by constructing two solid walls of grass sod eighteen feet apart, with centre filling packed solid; ditches, 20 feet apart; the roadway to be brushed, covered with a layer of earth, and finished with 6 inches gravel.
Grading, 2,500 yards, 18 feet wide;
Gravelling, 2,500 ,, 17 ,, 6 inches deep;
Ditching, 6 feet wide at top, 4 feet wide at bottom, and 4 feet deep;
11 culverts, 3 by 8 feet;
This work is still in the contractor's hands, and is unfinished.

From Davie's Farm, Somenos, to Miller's Ranch; distance, 3 miles.
John Nicholson, Superintendent;
Snider & Davis, contractors;
This section is a portion of the Island Trunk Road, and, when completed, will open up wagon traffic between the Cowichan Flats and Chemainus River. The loss of the bridge, across this river, will prevent traffic past that point until renewed. On the other side of the river, a good average road is open as far as Askew's, Horse-shoe Bay. The work on this section consists of—
Grading, 3 miles, 12 feet wide;
Do. and ditching, 287 yards, 18 feet clear of ditches;
Macadam, rock, 287 ,, 11 feet wide, 6 inches deep;
Do. gravel, 287 ,, 10 ,, 6 ,,
7 bridges, total length 452 feet;
Cribbing, 200 feet;
16 culverts;
Forest clearing, 3 miles, 20 feet wide.
This work is still in the contractor's hands.

The sum of $2,500 was paid over by the Honorable Minister of Finance and Agriculture to the Treasurer of the Municipality of North Cowichan, for construction of Roads and Bridges.

Nanaimo Electoral District.

NANAIMO RIVER BRIDGE.
George Baker, Superintendent;
Daniel Fowler Adams, contractor, at $4,500;
This bridge is on the line of the future trunk road, on the East Coast of the Island, and is built on the site of the former Lattice Bridge. It is constructed with two laminated arches, and a suspended roadway, the span being 167 feet.
The arch beams are formed of nine layers of 4 inch by 16 inch lumber, firmly bolted together, and the ends confined by iron sockets placed against the solid rock, and built in with masonry.
The roadway is carried by 26 1¼ inch iron suspension rods.
There is a substantial approach on the East side, 55 feet in length, and one on the West side 88 feet in length; both being in line with the bridge.

TRUNK ROAD.—COWICHAN AND NANAIMO.
From Lambkin's Bridge, Chemainus, to Haslam's turn-off, Cedar District.
Distance, 15 miles and 10 chains.
John Nicholson, Superintendent;
Samuel Morrow, contractor, at $12,373;
This road, when completed, will open up wagon communication between Chemainus River and Nanaimo City. The work consists of—
Grading, 13 miles and 276 yards, 12 feet wide;
Grading and ditching, 2,062 yards, 18 feet wide;
Macadamizing 2,062 yards with rock, 11 feet wide, 6 inches deep;
Do. 2,062 ,, gravel, 10 ,, 6 ,,
17 bridges, total length 1,386 feet, with height varying from 4 to 15 feet;
45 culverts;
Forest clearing, 15 miles 7 chains, 20 feet wide.

NANAIMO TOWN.

Repairs, Prideaux Street, Nanaimo.
Peter Sabiston, contractor, at $520;
Removing old bridge, and building new one, 171 feet long, 14 feet high, with substantial handrailing;
Grading and ditching, 175 feet;
Removing old corduroy, 175 feet;
Filling, 18 inches, 175 feet;
Gravelling, 175 feet, 12 feet wide, 6 inches deep;
1 culvert, 2 by 3 feet, 22 feet long.

MILL STREET, NANAIMO.

William Hassard, foreman;
Grading, 280 yards, 15 feet wide;
4 culverts, 1½ by 2 feet, 16 feet long;
Gravelling, 150 yards, 12 feet wide, 10 inches deep;
Cribbing, 231 feet, height 2 feet 6 inches to 3 feet.

SLEIGH ROAD.—NANAIMO TO ENGLISHMAN'S RIVER.

From City of Nanaimo to Dixon and Fear's.
William Hassard, foreman, at $100 per month;
Grading, 1,125 yards, 15 feet wide;
Widening road, 600 yards, to 12 feet wide;
Forest clearing, 612 „ 20 „
Gravelling, 15 „ 12 „ 10 inches deep;
Corduroy, 106 feet, 12 feet wide;
Bridge, 44 feet long, 13 feet wide, 4 feet high;
Grubbing out trees and boulders, straightening road, and filling ruts, holes, etc.

From Dixon's and Fear's to Englishman's River.
Grading, 4½ miles, 10 feet wide;
Partly grading, 4½ miles, 10 feet wide;
Corduroy, 181 feet, 13 feet wide;
8 bridges, total length 406 feet, height from 6 to 10 feet, 13 feet wide;
7 culverts, 1½ by 2 feet, 15 feet long;
Cribbing, 1,270 feet, average height 15 feet 6 inches.
This road is reported to be a thoroughly passable sleigh road, and follows the general line of the Victoria and Comox Trail as far as Deacon's Camp; from thence a cut-off has been made, along the shore of Nanoose Bay, following it to the head of Bay, where it again joins the Comox Trail, and continues along it to Englishman's River.
At the cut-off, heavy clearing and cribbing was found necessary.

DEPARTURE BAY ROAD.

William Hassard, foreman;
Grading, 670 yards, 12 feet wide;
Do. 400 „ 15 „
Ditching 360 „
Corduroy, 65 feet, 13 feet wide;
Bridge, 110 „ 12 „ 8 feet high;
9 culverts, 2 by 1½ feet, 15 feet long;
Repairing and raising approach to Mill Stream Bridge;
Removing rocks, boulders, and stumps, for a distance of 3 miles.

HAREWOOD ROAD.

William Hassard, superintendent;
Grading sleigh road, 3¼ miles, 10 feet wide;
Forest clearing, 3¼ „ 12 „
Gravelling, 65 yards, 10 feet wide, 10 inches deep;
1 bridge, 13 feet long, 12 feet wide, 3 feet high;
5 culverts, 1 by 1½ feet, 12 feet long;
Ditching, 150 yards.

GABRIOLA ISLAND.

The settlers on this Island held a meeting on the 30th May last, and resolved that the sum appropriated, viz., $600, should be equally divided between the East and West ends of the Island; and that Mr. White and Mr. Guffie be appointed foremen, for expending the amounts in improving the roads and bridges. The money has been satisfactorily expended under the superintendence of the abovementioned foremen.

Comox Electoral District.

COMOX WHARF AND APPROACHES.

George Baker, superintendent;
Joseph McPhee, contractor, at $3,337;
The construction of this Wharf will be of great benefit to the settlers, as it will enable the steamer to land freight and passengers at any time.
The main wharf is 50 by 60 feet, built on cedar piles, and there will be a depth of 15 feet of water, at extreme low tide, at its end.
The approach is *one thousand and thirty-five feet* (1,035) feet long, built also on piles, in spans of 20 feet, and is firmly cross braced with raking piles.
The roadway is 12 feet wide in the clear, and is protected on either side by strong hand-rails.

ADDITIONAL APPROACH TO COMOX WHARF.

George Gartley, contractor, at $95;
This work consists of building a crib and the shore end of the approach, filling it in with earth, cutting down the hill 5 feet, and filling in hollow, thus giving an additional length of approach of 140 feet.
Grading, 16 feet, clear of ditches.

COURTENAY RIVER BRIDGE.

George Baker, superintendent;
John Wilson, contractor, at $3,350;
This bridge is in two spans, of 92 feet each, and supported on a centre pier of piles. There is also a trestle-work approach on the north side of the river, 180 feet in length, and on the south, one of 30 feet.
The bridge is framed with top and bottom chords, queen post and braces, combined with straining beams and braces.

ADDITIONAL APPROACH, COURTENAY RIVER BRIDGE.

John Wilson, contractor, at $1,950;
Length, 600 feet 6 inches; width 13 feet;
This approach is strong trestle-work, with firm hand-railing on each side.
A turn-out is provided, for the convenience of teamsters, 18 feet in width and 50 feet long.
This addition makes the approach, on the north side of the bridge, 780 feet 6 inches.

DISTRICT ROAD WORK.

George F. Drabble, superintendent;
Section A.—From steamer landing to graveyard, 7,034 yards.
Robert Beauchamp, contractor, at $60;
Macadamizing, 20 yards;
Ditching, 100 yards;
3 culverts;
General repairs throughout.

Section B.—From Mission to Gordon's, 6,331 yards;
Thomas Rabson, contractor, at $250;
Macadamizing, 78 yards, 10 feet wide;
Ditching, 576 yards;
Grading, 69 „ 20 feet wide;
Ditches cleared, 7,296 yards;
1 culvert;
Gravelling, 116 yards, 12 feet wide, 6 inches deep.

Section C.—From Gordon's to past Beach's, 3,754 yards.
William Beach, contractor, at $120;
Grading part of 1,829 yards;
Ditching, 567 yards;
Grading, 240 ,, 14 feet wide;
Brushing road, 62 yards;
Bridging, 27 feet;
Removing logs, trees, etc.

Section D.—From Green's Slough to Brown's.
Thomas Rabson, contractor, at $550;
Macadamizing, 120 yards, 10 feet wide, 8 inches deep;
Grading, 2,627 yards, 20 feet wide;
Ditching, 1,401 ,,
Ditches cleared, 3,380 yards;
Corduroy, 27 feet;
5 culverts.

Section E.—From Oliver's Junction to Thomas'.
James Rees, contractor, at $125;
Grading, 594 yards, 15 feet wide;
Side hill grading, 59 yards;
Ditching, 351 yards;
2 culverts;
Re-covering bridge, 21 feet long.

Section F.—From Steamer Landing to Point Holmes.
Alphonse Piloen, contractor, at $260;
Cutting and making sleigh road, 880 yards, 16 feet wide;
Side hill grading, 168 yards;
Clearing road, along beach, of stone, etc., 352 yards;
Ditching, 91 yards;
1 culvert;
Road cleared of logs, and levelled where required, throughout, distance, 6,200 yds.

Section G.—From Section A, thence along Robb's west boundary.
P. S. Smith, contractor, at $120;
Cutting and clearing sleigh road, length, 1 mile; width, 14 feet.

Section H.—From Section A, along Duncan's East boundary, distance 1½ miles.
Robert Beauchamp, contractor, at $220;
Cutting and clearing sleigh road, 14 feet wide; levelling ground, and making it thoroughly passable for teams.

Section I.—Contract No. 1.—From Comox River, at Ford's, to Trout River, distance, 3 miles.
Calvin Farr, contractor, at $350;
Grading (partly), 3 miles, 20 feet wide;
Bridging, 90 feet;
Raised corduroy, 24 feet;
Outfall ditching, 90 yards;
Ditching, 172 yards;
12 culverts.

Section I.—Contract No. 2.—From Courtenay River to Nanaimo Trail, distance 1,200 yards.
George Gartley, contractor, at $225;
Grading sleigh road, 1,200 yards, 14 feet wide;
Side hill grading, 100 feet;
Cribbing, 40 feet;
Bridge, 10 ,,
Corduroy, 40 ,,
Forest clearing, 1,200 yards, 20 feet wide.

New Westminster Electoral District.

NEW WESTMINSTER AND HOPE WAGGON ROAD, TO POPCUM.

From Ladner's Landing, Lower Fraser, to junction with the Semiahmoo Road.

Distance, 13 miles 13 chains.

William H. Ladner, superintendent;

John Kirkland, contractor, at $11,750;

Raising and grading roadway, 8½ miles, 2 feet high, 15 feet wide;

Ditching, on each side, 21 feet apart, 4 feet wide at top, 3 feet on bottom, and 3 feet deep;

Grading, 4 miles and 53 chains, 15 feet between ditches;

Forest clearing, 30 feet wide the entire distance;

Bridging:

1 Bridge,	70	feet long,	3½	feet high,	12	feet wide;	
Do.	12	,,	3½	,,	12	,,	
Do.	20	,,	3½	,,	12	,,	
Do.	37	,,	3½	,,	12	,,	
Do.	37	,,	3½	,,	12	,,	
Do.	111	,,	3½	,,	12	,,	
Do.	12	,,	3½	,,	12	,,	
Do.	74	,,	3½	,,	12	,,	
Do.	53	,,	3½	,,	12	,,	

Corduroy, 1,243 yards, 15 feet wide;

7 culverts, 1 by 1½ feet, 18 feet long.

Section 1.—From Semiahmoo Road to Section 17, Township No. 8.

Distance, 7 miles and 72 chains.

Lewis F. Bonson, superintendent;

John Grant, contractor, $16,400;

Grading and ditching, 7 miles 72 chains, 18 feet wide, clear of ditches;

Corduroy, 1,364 yards, 18 feet wide, with ditches 3 by 1 by 1½ feet;

Corduroy, 1452 yards, 18 feet wide, raised 2½ feet, with ditches 6 by 4 feet, by 4 feet.

3 large culverts;

Forest clearing, entire distance, 7 miles 72 chains, 33 feet wide;

Bridging:

1 Bridge,	89	feet long,	12	feet high,	12	feet wide;	
Do.	90	,,	14	,,	12	,,	
Do.	40	,,	6	,,	12	,,	
Do.	50	,,	4	,,	12	,,	
Do.	60	,,	5	,,	12	,,	

Section 2.

Distance, 13 miles.

Lewis F. Bonson, superintendent;

A. J. McLellan, contractor, at $19,645;

Grading and ditching, entire distance of 13 miles, 18 feet wide;

Forest clearing, entire distance, 33 feet wide;

Corduroy, 2,046 yards, 18 feet wide;

Ditches, 1½ by 1 by 3 feet;

42 culverts;

Bridging:

1 Bridge,	70	feet long,	10	feet high,	12	feet wide;	
Do.	30	,,	5	,,	12	,,	
Do.	40	,,	8	,,	12	,,	
Do.	125	,,	8	,,	12	,,	
Do.	20	,,	3	,,	12	,,	
Do.	60	,,	6	,,	12	,,	
Do.	125	,,	8	,,	12	,,	

Section 3.

Distance, 10 miles and 52 chains.

Lewis F. Bonson, superintendent;

Duncan McDonald, contractor, at $18,500;

Grading and ditching of entire distance of 10 miles and 52 chains, 18 feet wide;

Forest clearing, entire distance, 33 feet wide;

Corduroy, 594 yards, 18 feet wide;

Culverts, where necessary;

Cribbing, 220 yards;

Bridging:

1 Bridge, 30 feet long, 7 feet high, 12 feet wide;

Do.	125	„	40	„	12	„
Do.	80	„	15	„	12	„
Do.	20	„	40	„	12	„
Do.	70	„	5	„	12	„
Do.	270	„	50	„	12	„
Do.	120	„	12	„	12	„
Do.	30	„	5	„	12	„
Do.	100	„	12	„	12	„
Do.	20	„	3	„	12	„
Do.	70	„	12	„	12	„
Do.	120	„	40	„	12	„
Do.	70	„	15	„	12	„

Section 4.

Distance, 12 miles and 60 chains.

Lewis F. Bonson, superintendent;

James McIntosh, contractor, at $14,000;

Grading and ditching, 5¼ miles, 18 feet wide;

Do. do. 7½ „ 12 „

Forest clearing, 5¼ „ 33 „

Corduroy, 130 feet, raised 2 feet, 12 „

5 culverts, 12 feet long, 12 feet wide;

24 do. 6 „ 18 „

Bridging:

1 Bridge, 30 feet long, 4 feet high, 12 feet wide;

Do.	74	„	10	„	12	„
Do.	90	„	3	„	12	„
Do.	70	„	10	„	12	„
Do.	100	„	16	„	12	„
Do.	70	„	8	„	12	„
Do.	40	„	8	„	12	„
Do.	100	„	10	„	12	„
Do.	30	„	3	„	12	„
Do.	40	„	3	„	12	„
Do.	30	„	4	„	12	„
Do.	380	„	9	„	12	„
Do.	100	„	4	„	12	„
Do.	30	„	4	„	12	„
Do.	40	„	4	„	12	„
Do.	20	„	5	„	12	„
Do.	35	„	5	„	12	„
Do.	30	„	3	„	12	„
Do.	20	„	3	„	12	„

On this section, a large quantity of blasting was required.

This work is still under contract.

Section 4A.

Distance 22 miles.

Lewis F. Bonson, superintendent;
George H. Armstrong, contractor, at $17,600;
Grading and ditching, 22 miles, width, 12 and 18 feet;
Forest clearing, 22 miles, 33 feet wide;
Corduroy, 479 yards;
15 culverts, full width of road, and varying in length from 10 to 18 feet;
Bridging:

Bridge No.	1	35	feet long,	3	feet high,	12	feet wide;
Do.	2	30	„	3	„	12	„
Do.	3	20	„	3	„	12	„
Do.	4	80	„	9	„	12	„
Do.	5	70	„	7	„	12	„
Do.	6	50	„	5	„	12	„
Do.	7	30	„	3	„	12	„
Do.	8	150	„	8	„	12	„
Do.	9	90	„	6	„	12	„
Do.	10	40	„	3	„	12	„
Do.	11	120	„	12	„	12	„
Do.	12	170	„	20	„	12	„
Do.	13	80	„	4	„	12	„
Do.	14	100	„	3	„	12	„
Do.	15	30	„	4	„	12	„
Do.	16	50	„	4	„	12	„
Do.	17	110	„	13	„	12	„
Do.	18	100	„	15	„	12	„
Do.	19	50	„	4	„	12	„
Do.	20	70	„	8	„	12	„

No. 12 bridge crosses the Luc-a-kuk River, and the centre span is 60 feet, constructed with straining beams, braces, and suspension rods.

A large quantity of blasting was required on this section, also a considerable amount of cribbing.

Semiahmoo Road.

Section A.—Commencing at Brown's Landing, opposite New Westminster, and terminating at junction of Section 1, New Westminster and Hope Wagon Road.

Distance, 1½ miles.
Lewis F. Bonson, superintendent;
William Thompson, contractor, at $2,375;
Grading, 2,200 yards, 18 feet clear of ditches;
Ditching, 1 foot wide at bottom, 2 feet at top, 1½ feet deep;
Macadamizing, rock, 221 yards, 12 feet wide, 10 inches deep;
Do. gravel, 221 „ 12 „ 6 „
Gravelling, 1,320 „ 12 „ 4 „
4 turn-outs, 75 by 21 feet, built of cedar slabs, and gravelled;
4 culverts, 2 by 1½ feet, 20 feet long;
Forest clearing, 2,200 yards, 33 feet wide.

Section C.—Commencing at Woodward's Pre-emption, and terminating at the Nicomekl Bridge.

Distance, about 2 miles.
William H. Ladner, superintendent;
W. J. Brewer, contractor, at $4,750;
Ditches (double), 6 feet wide at top, 4 feet wide at bottom, and 4 feet deep;
Roadway, raised 2 feet, and graded 18 feet in clear; sides, protected by sods, properly laid up;
Corduroy, about 2 miles, 5 inch cedar slabs, 18 feet wide;
The bridge across the Serpentine River was removed to a different position, at a cost of $100.

Section E.—From 49th Parallel to junction with Section D.
Distance, 2,996 yards
William H. Ladner, superintendent;
William Litster, contractor, at $1,200;
Grading and ditching, 1 mile 1,236 yards, 12 feet wide;
4 culverts, 1 by 1½ feet, 18 feet long;
Corduroy, 66 yards, 18 feet wide;
1 bridge, 100 feet long, 12 feet high;
Forest clearing, 1 mile 1,236 yards, 33 feet wide.

Burrard Inlet.—New Westminster and Hastings Road.
Lewis F. Bonson, superintendent;
John McMurphy, section-man;
Charles Digby, contractor, at $812;
The repairs to this road consisted of clearing all logs and brush to full width of road, and clearing the ditches; repairing corduroy, bridges, filling ruts, and reforming road, breaking stones, etc., throughout its entire length.
Corduroy (new), 130 yards;
1 bridge, 80 feet long, 14 feet wide.

North Arm Trail.—From North Arm of Fraser River to False Creek Bridge.
Jackman & Digby, contractors, at $225;
Length of trail, 2¾ miles; width, 16 feet.

Pitt River Road.—Brunette River Bridge.
Levi Carpenter, contractor, at $265;
Removing old bridge, and constructing a substantial new one, with strong hand-rail; two wooden approaches, total length, 56 feet; and an additional approach of earth filling.

North Road.—From New Westminster to Port Moody.
Distance, about 4½ miles.
William Litster, foreman;
This road has been cleared to a width of 12 feet throughout, and repaired generally.
Grading, 1,300 yards, 12 feet wide;
Re-grading, 850 „ 12 „
Corduroy, 300 feet, 12 feet wide;
Bridging, repairs to three bridges, renewing sills, stringers, etc., where required;
21 culverts, 1 by 1½ feet, 18 feet long;
Cribbing, 100 feet, 3 feet high.

False Creek Trail.
Repairs to Bridge, etc.

Municipality of Chilliwhack.
The sum of $1,500 was handed to the Treasurer of the above Municipality, to be expended on Roads, Streets, and Bridges.

Langley Municipality.
The Treasurer of this Municipality received the sum of $1,500, for disbursement on Roads and Bridges.

Maple Ridge Municipality.
The sum of $250 was transferred to the Treasurer of Maple Ridge, in aid of Roads and Bridges.

Yale Electoral District.

NEW WESTMINSTER AND HOPE WAGON ROAD.

Section 5.—From Popcum to Hope.

Distance, 20 miles 40 chains;
Lewis F. Bonson, Superintendent;
Charles Murphy, section-man;
Hayward & Jenkinson, contractors, at $18,337;
Grading and ditching the entire length of section, 12 feet wide;
Forest clearing the entire section, 33 feet wide;
Corduroy, 295 yards, 12 feet wide;
35 culverts, width of road, varying in length from 6 to 15 feet;
Bridge No. 1—60 feet long, 12 feet high, 12 feet wide;

Do.	2	30	„	6	„	12	„
Do.	3	200	„	10	„	12	„
Do.	4	100	„	15	„	12	„
Do.	5	90	„	12	„	12	„
Do.	6	30	„	6	„	12	„
Do.	7	50	„	5	„	12	„
Do.	8	30	„	4	„	12	„
Do.	9	70	„	12	„	12	„
Do.	10	50	„	5	„	12	„
Do.	11	50	„	6	„	12	„
Do.	12	18	„	4	„	12	„
Do.	13	70	„	10	„	12	„
Do.	14	25	„	5	„	12	„
Do.	15	45	„	4	„	12	„
Do.	16	20	„	5	„	12	„
Do.	17	100	„	18	„	12	„
Do.	18	150	„	16	„	12	„
Do.	19	90	„	20	„	12	„
Do.	20	20	„	4	„	12	„
Do.	21	135	„	20	„	12	„
Do.	22	20	„	4	„	12	„
Do.	23	48	„	18	„	12	„
Do.	24	120	„	13½	„	12	„
De.	25	140	„	18	„	12	„
Do.	26	48	„	18	„	12	„

No. 24 bridge is built in two spans of 60 feet each, on a V crib. The spans are both trussed.
No. 25 bridge has two V cribs, and two spans of 60 feet, trussed.
A great deal of blasting and cribbing was found necessary on this section.

SAVONA'S FERRY AND OKANAGAN WAGON ROAD.

A. J. Kirkpatrick, foreman.
Grading, ditching, and cutting, 10¾ miles, 11 feet wide;
Grading, 200 yards, 14 feet wide;
1 bridge, 25 feet long, 7 feet high, 18 feet wide;
Cribbing, 208 yards, 3 feet high;
13 culverts.

BRIDGE ACROSS PETERSON CREEK, on the Savona's Ferry and Okanagan Road.

John Boyd, superintendent;
James McIntosh, contractor, at $237.
Bridge, feet long, 15 feet wide, with a crib-work approach, 75 feet long;
3 culverts.

SAVONAS' FERRY AND OKANAGAN ROAD.

A. J. Kirkpatrick, contractor, at $200.
Cutting out fallen timber and keeping road open for one year, between Duck & Pringle's and the head of Okanagan Lake.

CACHE CREEK AND SAVONA'S FERRY WAGON ROAD.
Rocky Point.
John Boyd, superintendent;
Joseph Willwood and Peter Peterson, contractors, at $975;
Removing old cribbing, and replacing with a stone wall, 3½ feet wide at the base, 2 feet wide at the top, and of the same height as the old roadway.
Length, 75 yards.
This work is reported to have been damaged by freshet, but no information to that effect has been received from Mr. Boyd.

CACHE CREEK AND SAVONA'S FERRY ROAD.
Putting this road in thorough repair.
John McIntosh, contractor, at $380.

NICOLA VALLEY.
Construction of a bridge, at a point about 400 yards above the junction of the Nicola and Coldwater Rivers.
Alexander Robb, superintendent;
John P. Moore, contractor, at $275.

NICOLA VALLEY ROAD.
Sections 1 and 2.
Commencing at Woodward's pre-emption and following down the right bank of the Nicola River, crossing near the junction of the Thompson, and terminating at Spence's Bridge, Cook's Ferry.
Total length, 34 miles;
Alexander Robb, superintendent;
Duncan McDonald, contractor, at $20,500.
Grading 18 feet wide round all points of rock and bluffs; other portions, 10 ft. wide;
Blasting, 40 chains;
Bridges across all ravines and creeks.
This work is still in the contractor's hands.

LYTTON-LILLOOET TRAIL.
Arthur Stevenson, foreman;
Building a bridge, 33 feet long, 10 feet wide, and 9 feet high, across Texas Creek; grading approaches, and building abutments.
Building a bridge, 70 feet long, 10 feet wide, and 10 feet high, across Stive Creek; grading approaches, and building abutments.
Improving trail from Mormon Bar to Spintlem Flat.

CHERRY CREEK SLEIGH ROAD.
John Boyd, superintendent;
John Carrougher, contractor, at $1,450;
Grading, 6,253 yards, 12 feet wide;
Cribbing, 300 feet, 4 feet high;
5 culverts.

TRANQUILLE TRAIL.—From Savona's Ferry to Copper Creek, near Hugh Morton's.
John Boyd, superintendent;
Donald Fraser, contractor, at $725;
Opening trail, 6¼ miles in length;
Grading „ 4¾ „ „ 4 feet wide;
Cribbing, 1,000 feet, 2 feet high.

SHUSWAP ROAD.
Sleigh Road, from Duck & Pringle's to McBryan's Ranch.
Distance, 16¼ miles.
John Boyd, superintendent;
Andrew J. Kirkpatrick, contractor, at $1,375;
Grading, 6¼ miles, 10 feet wide;

Macadamizing, 15 feet, 12 feet wide, 3 feet deep;
Ditching, 90 feet, 2 feet wide, 1½ feet deep;
Cribbing, 60 „ 6 „ high;
Do. 30 „ 3 „
1 bridge, 18 feet long, 12 feet wide, 6 feet high;
Do. 10 „ 12 „ 5 „
11 culverts.

DEEP CREEK BRIDGE.—SPELLUMACHEEN ROAD.

Construction of a Bridge across Deep Creek, near A. L. Fortune's.
John Boyd, superintendent;
Jean Lavon, contractor, at $950;
Bridge, 382 feet long, 12 feet wide, 16 feet high; constructed with one main trussed span, 60 feet long; 12 spans of 30 feet each, built on trestle-work; suitable approaches, substantial hand-rail, and covering of 3 inch plank.

TRAIL FROM HOPE TO OSOYOOS LAKE.

William Bristol, superintendent;
The work on this portion of the trail, from Hope to Kootenay, consists of construction of new trail, near Osoyoos Lake, so as to avoid the necessity of passing through American Territory;
Building a bridge across the Similkameen River, near Princeton;
Constructing bridges at the 21 and 23 mile-posts, in order to avoid a dangerous and expensive slide;
Repairing bridges at the 9 and 11 mile-posts;
Gravelling the rocky portions of the trail;
Cutting out fallen timber, removing slide, etc.

TRAIL FROM PENTICTON TO THE MISSION, OKANAGAN.

The work was carried on under instructions from Mr. J. C. Haynes, Commissioner, Osoyoos.

THOMPSON RIVER BRIDGE.

Construction of a first-class Timber Bridge, across the Thompson River, at Lytton.
Arthur Stevenson, superintendent;
John McIntosh, contractor, at $8,500;
Bridge, 426 feet long, 15 feet wide in the clear, 12 feet head-way, 53¼ feet high; supported on 4 main piers, one trestle, and two abutments;
Centre span, 133 feet, constructed with upper and lower chords, queen posts, and braces, combined with double straining beams;
2 spans, 72¾ feet each, substantially trussed;
1 span, 46 „ 10 inches;
2 spans, 45 „ supported with principals and straining beams.
Each main pier is constructed with 21 piles, arranged so as to give a length at base of 57 feet, up and down stream, with a width of 13 feet. These piles are securely framed at the bottom into square timbers, with the frame work firmly bolted, and leaded into the solid rock, with the top of each pier securely bolted and framed in a suitable manner to receive the corbels.
Each entire pier is securely cross-braced with heavy round timbers, and planked in with 3 inch lumber.

NICOLA RIVER BRIDGE.

Alexander Robb, superintendent;
Thomas Spence, contractor, at $2,930.
The bridge is constructed at the crossing of the Nicola Valley Road, and forms the necessary connection between Nicola Valley and the Yale Wagon Road.
Bridge, 160 feet long, 12 feet wide in the clear, 8 feet high above extreme high water level, and supported on 4 piers of 5 piles each; centre span, 60 feet, trussed with principal, straining beams, and suspension rods, with top chord carried over the three spans; side spans 50 feet each, trussed and framed in a similar manner.

The piers are securely braced and bolted at intersections, and are boarded up 7 feet high with 2 inch plank, and are protected on the upper side from the ice, by a cutwater covered with light boiler plate iron.

APPROACHES.

The approach to this bridge on the North end is 150 feet in length, 12 feet wide, and consists of 25 feet spans, supported on trestles.

The South end approach, is 40 feet in length, 12 feet wide, and constructed on mud-sills.

YALE-CAMERONTON WAGON ROAD.

Yale to Boston Bar.—Neil Black, foreman, at $130 per month.

Distance, 25 miles, 18 feet wide.

Month.	Nature of Work.	No. of Men.	No. of Days.	Rate of wages per diem.	No. of horses
January	Shovelling snow, and keeping road passable.	3	60	$2 69 to 5 00	2
February	Do. do. do.	120	994	1 50 to 5 00	
March	Do. removing rock and loose logs.	8	170	2 69 to 5 00	4
April	Clearing rocks from road, left by slides. 1 bridge, 62 feet long, 8 to 17 feet wide, 19 feet high. 2 culverts, 17 feet long, 6 feet wide, 3 to 5 feet deep.	15	272	66⅔ c. to 5 00	
May	Bridging, cribbing, grading, and blasting rock. Stone wall, 81 feet long, 4 to 17 feet high. Gravelling, 200 yards, 12 feet wide, 6 to 12 inches deep 2 bridges, 125 ft. long, 12 to 18 ft. wide, 18 to 19 ft. high	15	339½	$1 33 to 5 00	1
June	Bridging, grading, and general repairs. Stone wall, 20 feet long, 3 to 6 feet high. Gravelling, 232 yards, 12 feet wide, 6 to 10 inches deep. Bridging, 156 feet long, 18 feet wide, 17 to 19 feet high. 1 culvert, 7 feet wide, 18 feet long, 6 feet deep.	11	255	1 23 to 5 00	2
July.....	Removing rocks and fallen timber, shovelling slides. Grading, 378 yards, 2½ feet wide. 2 bridges, 154 feet long, 18 feet wide, 17 and 18 feet high 1 bridge newly covered with 4 inch plank. 2 culverts, 18 feet long, 7 feet wide, 3 to 4 feet deep.	8	230	1 33 to 5 00	2
August.....	Cribbing, 88 feet long, 3 feet high. Gravelling, 87 yards, 12 feet wide, 10 to 12 inches deep. 4 bridges, newly covered with 4 inch plank, total length 297 feet, 8 to 17 feet high. 1 culvert, 17 feet long, 6 feet wide, 6 feet deep.	9	259	1 33½ to 5 00	8
September ...	Removing rock, building walls, and general repairs. Stone wall, 59 feet long, 7 to 12 feet high. Gravelling, 1 mile, 12 feet wide, 10 to 12 inches deep. 1 culvert, 75 feet long, 18 feet wide, 32 feet deep.	12	257	1 33 to 5 00	
October	General repairs, removing slides, etc. Gravelling, 1,204 yards, 12 feet wide, 12 inches deep. Stone wall, 69 feet long, 4 feet high. 20 culverts, each 20 feet long, 6 to 12 in. wide, 6 to 10 inches deep, open for drainage.	10	299	1 33 to 3 00	
November ...	Removing rock, shovelling slides, getting out bridge timbers. Gravelling, 500 to 600 yards, 12 feet wide, 8 to 10 inches deep. Cribbing, 300 feet, 3 to 5 feet high.	10	171	1 33 to 5 00	
December ...	Shovelling snow, and opening road for general traffic. Blasting loose rock slides, 30 feet long, 6 feet wide, 9 to 12 feet deep.	Indian 63 White 12	466	1 50 to 5 00	

YALE-CAMERONTON WAGON ROAD.

Boston Bar to Clinton.—Arthur Stevenson, foreman, at $130 per month.

Distance, 111 miles.

Month.	Nature of Work.	No. of Men.	No. of Days.	Rate of wages per diem.	No. of horses
January	Clearing snow slides, cutting ice, clearing and breaking road.	48	287½	$2 50 to 5 00	2
February	Clearing snow slides, turning water off road, breaking road, etc.	10	111½	Do.	
March	Clearing snow and gravel slides, and widening road.	29	197½	Do.	
April	Clearing gravel slides, building bridges, culverts, and cribbing, etc. 1 bridge, 40 feet long, 16 feet wide, 16 feet high. 2 culverts, 16 to 18 feet long, 3 to 8 feet wide, 1 to 3 feet deep.	32	619¼	1 75 to 5 00	2
May	Preparing and hewing heavy timber for bridge work. Clearing rock and gravel slides, etc., and general repairs.	14	343	Do.	2
June	Clearing gravel and rock slides, framing and building bridge and approach, general repairs, etc. Gravelling, 250 feet long, 16 feet wide, 1 foot deep. 1 bridge, 120 feet long, 16 feet wide, 17 feet high.	14	337½	Do.	2
July.....	General repairs, gravelling, widening road, etc. Gravelling, 1,600 yards, 12 feet wide, 8 inches deep.	8	206	2 25 to 3 00	2
August.....	General repairs, gravelling. Gravelling, 1 mile, 11 feet wide, 6 inches deep.	13	269	1 62½ to 3 00	2
September ...	Clearing gravel slides, repairs to bridges and cribbing, and general repairs. Cribbing, 50 feet long, 20 feet high. Bridge repairs, 175 feet long, 17 feet wide, 35 feet high.	12	273	1 92 to 3 00	2
October	Clearing gravel slides, and general repairs. Cribbing, 120 yards, 5 feet high. Heavy timbering, handrail, repairs of covering, etc.	12	297	1 62½ to 3 00	2
November ...	Clearing gravel and snow slides, general repairs, keeping road open for traffic. Cribbing, 150 yards, 5 feet high.	11	146	2 69 to 3 00	2
December ...	Keeping road open for traffic, shovelling snow and gravel slides.	8	98½	Do.	2

HOPE AND NICOLA TRAIL—EXPLORATION AND SURVEY.

The Government being anxious to carry into effect the wishes of the residents of Nicola, Kamloops, and Okanagan Valleys, in reference to the construction of a road connecting Hope with Nicola Lake, have used every effort, by enquiring, exploration, and survey, to ascertain the best means to obtain the necessary connection between these points,—I subjoin copies of the petition received, correspondence, and letters from Mr. Edgar Dewdney and William Bristol in reference to this subject; together with a report from Mr. George Landvoight, of explorations *via* South Pass, Otter, Coquhalla, and Coldwater Valleys :—

" *To His Honor the Lieutenant-Governor in Council :*

"The undersigned, settlers of the Kamloops, Okanagan, Nicola, and Cache Creek Valleys, beg to petition Your Honor, for the construction of a road from the South end of the Nicola Forks, up the Coldwater Valley to the summit of the Coquhalla, thence down the Coquhalla to Fort Hope. The distressed condition of the stockraisers of the district, owing to their having no outlet by which they can drive to the now almost only beef market in the Province, together with the fact that the cattle ranges are becoming overstocked and destroyed, we trust will induce you to make some efforts for our relief.

"We are informed by Mr. Dewdney, Engineer-in-Chief of the exploration of the Coquhalla, made by the Government for the purpose of determining its practicability for the Canadian Pacific Railway, that it affords every facility for a cattle road. The elevation is but little more than half that of the Hope Mountain, and the distance is from

Kamloops—the heart of the grazing country—only one hundred and eleven (111) miles, with good feed to the summit of Coldwater.

"The expense of a road up the Coldwater would be trifling, and only a few miles near the summit of the Coquhalla present any difficulty.

"A trail in 1860 or 1861 was made twenty-two (22) miles out from Hope, up the Coquhalla Valley. This would require a small outlay to put it in good repair.

"Your petitioners, as in duty bound, will ever pray, &c., &c."

(Signed by 91 residents and settlers.)

"Lands and Works Department,
"Victoria, 5th March, 1874.

"*Mr. Edgar Dewdney, M.P.*

"DEAR SIR,—The Government are in receipt of a petition from the settlers of Kamloops, Okanagan, and Nicola, requesting that a road may be opened from the South end of the Nicola Forks, up the Coldwater to the summit of the Coquhalla, thence down the Coquhalla to Hope.

"As I am aware that you explored this section of the country for the purpose of determining its practicability for a Railway, may I take the liberty of requesting that you will kindly place at my disposal any information, by letter, that you may be at liberty to give, in order that the earliest possible steps may be taken to meet the views of the petitioners. I have, &c.

(Signed) "ROBERT BEAVEN, C. C. L. & W."

"Victoria, March 9th, 1874.

"SIR,—I have the honor to acknowledge the receipt of your letter of the 5th instant, requesting me to forward you any information I may have concerning the route from Hope to Nicola Lake, *via* the Coquhalla Pass, in order that the earliest possible steps may be taken to meet the views of the petitioners who lately have requested the Government to construct a cattle trail by that route.

"I am sorry I have not my notes by me, made at the time of my exploration for the C. P. R. S. I, however, take much pleasure in giving you all the information I can, as far as my recollection serves me.

"In the year 1859 or 1860, a trail was made from Hope, 18 or 20 miles up the Coquhalla River. At that point it ran up a stream to the Westward, to Boston Bar, and is what is known as the Boston Bar Trail. The road over this portion of the route passes over good, hard bottom flats, and, with the exception of one or two points, would require very little grading. I should think that an expenditure of $50 per mile on that section of the road would put it in first class order. A bridge would be required across the Coquhalla, and I should suggest that the cheapest place for crossing would be at the cañon, about four miles from Hope. A short piece of trail would be necessary from that crossing to the old wagon road. I have never examined that part closely, but I am quite sure that for a bridge it is a favorable place, the span not being more than 30 to 40 feet, with no chance of its being carried away at high water.

"From the end of the Boston Bar Trail, on the Coquhalla, to the summit, a distance of about 14 miles, the work required for a cattle road would not be heavy, as a succession of flats could be utilized. At one point, for a distance of about three-quarters of a mile, some blasting would be required to construct a road, as the boulders are so large they cannot be handled until broken. This section, I should say, could be built for $3,500.

"From the summit of the Coquhalla to Nicola Lake the country is very easy, and a trail for about 17 to 20 miles up the Coldwater exists. This stream would require a bridge, and I believe a favourable spot would be about 12 miles from the summit, where the valley narrows. The whole work could be done for from $8,000 to $10,000, and a good route obtained for the purpose of driving stock to supply the Victoria market.

"It would certainly be open a month earlier in the Spring and later in the Fall, than the Hope Mountain, the elevation being only 3,300 feet above the Fraser River at Hope, against nearly 6,000.

"The distance chained from Hope to the summit of Coquhalla was 33 miles, and the estimated distance from the summit to Nicola Lake about the same.

"Should you require any further information I shall be happy to furnish you with it.

"I have, &c.

(Signed) "EDGAR DEWDNEY.

"*The Hon. the Chief Commissioner of Lands and Works,*
"*&c., &c., &c.*"

"Yale, April 30th, 1874.

"*R. Beaven, Esq.,*
"*Chief Commissioner of Lands and Works, Victoria.*

"SIR,—According to your request, I and an Indian started out to look for the chances for making a trail from Hope to Nicola Lake. The Indian I had with me had been with Mr. Dewdney on the survey. We left Hope on the 20th of April, and followed the old Boston Bar Trail up to where it left the Coquhalla; thus far there is no heavy work, with the exception of 5 or 6 points where the trail runs up around bluffs. From that point the mountains on both sides close on to the creek, and the trail would have to be made out of the side of the mountain as there are no flats along the creek. We went up to within 5 or 6 miles of the summit. From the point where the Boston Bar Trail turns off as far as we went, some 8 or 9 miles, the trail would run along the side of the mountain, with the exception of about one mile—for the most part very steep, and in many places on solid rock. It would take a good deal of work to make a trail along this portion. The Indian informed me that it was no better until the summit is reached. As I had a fall and hurt my knee, and as the snow was getting pretty deep, I did not think it safe to go any further. I think that July would be soon enough to take a thorough look at the route; the snow will not be off sooner. There is no chance of feed for stock from the summit till you get near Hope—30 odd miles. I remain, &c.

(Signed) "WM. BRISTOL."

SOUTH PASS EXPLORATION—HOPE TO NICOLA.

"*Hon. Robert Beaven, Chief Commissioner of Lands and Works.*

"SIR,—In accordance with you letter of instructions, dated the 27th July, 1874, ordering me to explore the South Pass of the Hope mountain for a cattle trail, I left Hope on the 1st August. I followed the Hope-Similkameen Wagon-road for twenty-five miles. This road, built in 1859 by the Royal Engineers, had in many places fallen into decay through neglect, and it is only within the last two years that it has been sufficiently repaired to afford an excellent cattle road, the only objections are its stony character in many places and the narrowness of some of the bridges, built in late years. However, both objections are being gradually removed by the force now at work for that purpose.

"At the end of the wagon road there are two trails, both of which join again on the "Grant Summit." One, the Cañon trail, leads over a high summit and is used during the summer months, affording both better feed and a better and safer country for pack-trains and cattle than the other one—the Grant trail. This latter trail being a few miles shorter and passing over a lower altitude, is travelled in the spring and autumn when the Cañon trail is closed by snow; but as it is constructed, nearly its whole length, from the end of the wagon road to the summit of the mountain, along a steep hillside, it is not well adapted for a cattle trail. I followed this (Grant) trail for 4½ miles to Cedar flat. This part of the trail is the most objectionable of the whole; it is constructed for about one mile around a succession of precipices, and is in its present condition altogether unsafe for both cattle and pack-trains. During my exploration of the South Pass I examined the ridge of mountains lying between that tributary of the Skadget which leads up to the South Pass and the main Skadget below Skadget flat, in order to find a better route than that through which this objectionable part of the Grant trail runs, and although I succeeded in finding such a route the distance would be so much increased thereby, that it will be preferable to retain that portion of the present Grant trail, and improve it in such a manner as to make it safe for cattle.

"At Cedar flat I left the Grant trail and followed the south branch of the Skadget, which leads up to the South Pass.

"In examining the country for a cattle trail I kept three great requisites of such a trail in view: First, There should be sufficient pasture for cattle; Second, The trail should as much as possible avoid steep hillsides, as these are always very objectionable in a cattle trail, requiring heavy excavation to make them safe, and being difficult to keep in repair; Third, It should be, as near as possible, free from sharp stones, which are so injurious to the feet of cattle in travelling long distances.

"For the first two miles a fine gravelly bench, thickly covered with small fir trees, offers a good location for a trail; very little is to be done here except opening a clearing through the timber. At the end of these two miles I traversed a deep ravine with steep sides and came to a steep hillside continuing for three miles, thickly covered with small

trees and somewhat stony for about one mile of the distance. There is, however, everywhere sufficient soil to grade out a good trail from the mountain side; near the end of these three miles is a small stream which requires to be bridged.

"After passing this stream I followed for about four miles the mountain side, which here is more favorable, having a more gentle slope, but is traversed by several rather deep ravines with steep sides. There are here several large flats very heavily timbered in the bottom of the valley on both sides of the stream, they are, however, not continuous, and it would require repeated bridging of the stream to construct a trail here ; the mountain side above described is therefore preferable. At the end of the last four miles (nine miles from Cedar flat) we leave the stream, which I had followed up from Cedar flat, and follow a small tributary in an Easterly direction. The further I advanced the more favorable became the country and I arrived after two miles on the flat summit of the pass, very favorable for a trail and with sufficient feed for cattle. This summit is almost bare of timber and forms a flat, nearly a mile wide. It had all the appearance of being free from snow early in the season, vegetation being much more advanced than on the Grant summit. The divide between the headwaters of the Skadget and those of the Similkameen is formed by this flat. The distance from this summit to Cedar flat is about eleven miles of which only three miles offer any difficulty, being steep hillside. The whole country, within two miles of the summit, is thickly timbered with small fir trees, very few of them exceeding a foot in diameter. There is an abundance of fine cedar and large timber in the bottoms of the creek. Every part of the trail would be exposed to the sun, run over dry ground and only two small bridges would be required. The general direction from Cedar flat to the summit is south-east giving the hillside, on which the trail would be constructed, a South-west aspect. The altitude of the summit is about 4,400 feet or from 1,000 to 1,200 feet lower than the Grant Pass.

"In passing over the level and flat divide I came to one of the branches of the Similkameen, here a comparatively small stream. I followed down this stream for three miles over a succession of benches, which are, however, swampy in places, and would require in all about a half mile of corduroy. These benches are all heavily timbered and have the appearance as if the snow would lie on them longer than on the summit, unless therefore a wide clearing was made it would be preferable to lay the trail above these flats along the hillside, which offers no great difficulties. There are in this distance of three miles two streams, one rather large, both of which require to be bridged. There is plenty of large timber, but no cedar, of which I found but one small tree in the whole distance from the summit to Allison's (Princeton).

"I left the stream (Similkameen) at this point; it falls two miles below here into the south fork of Similkameen, which latter runs here in a North-east direction. I traversed the low mountain-spur intervening between the stream, followed from the summit and the south fork of the Similkameen through a favorable country, and after two miles I arrived at the South fork, where I came upon the trail constructed by the Boundary Commission, which I followed for four miles, partly over a fine, level bench of sandy soil with small pine timber, and partly over low flats with large spruce and cottonwood trees. At the end of these four miles (nine miles from the summit) the Boundary Commission trail crosses the river to avoid a rather steep, rocky slide of about a half mile, and one and a half mile more of steep and unfavorable hillside, both of which offer some difficulty to the construction of a trail, which would probably have to be located higher up on the hillside. Seven miles more over favorable ground, having one short rocky point (¼ mile) and about two miles of steep hillside, brings us to the head of the cañon of the Similkameen. In the eighteen miles traversed since leaving the summit there are five streams to be bridged. These streams, though insignificant at this season, have the appearance of being large in the early part of the season, and substantial bridges of from sixty to eighty feet (one of 100 feet) in length would be required. Timber for bridge building is in abundance near all these streams.

"There is an abundance of timber-grass—a very inferior herbage—from the summit to this point; but with the exception of one place, a hill at the head of the cañon, I saw no bunch-grass, although having been told by the Indians that this species of grass abounded through this part of the country. The pasture here is the same as that found on the present Hope-Similkameen trail between the Nine-mile Creek (from Princeton) and the Grant summit. On the summit of the South Pass the grass is good, several good kinds of it as well as blue lupins and peavines being found there in good abundance.

"At this point (eighteen miles from the summit of South Pass) the cañon of the

Similkameen commences, and the country becomes much more difficult. I ascended a high spur of the mountain to avoid a precipitous rocky bluff near the river, and descending on the other side, came to a large stream, coming from the West, being here about two miles distant from the point where I ascended the spur. From this point to Nine-mile Creek, where a trail constructed through the cañon of the Similkameen would join the Hope-Similkameen trail, is about fifteen miles. The ground is very broken by deep ravines with steep and rocky sides. I examined the mountain-side up to an altitude nearly as high as the South Pass, but could find no great improvement: probably at a still higher altitude a better site for a trail might be found; but it is a question whether the snow would not lie much longer at this altitude, especially in the deep ravines and in those places not exposed to the rays of the sun, than in the South Pass itself, and so defeat the object of the trail. In examining the country, and especially the large stream last mentioned, I found that this stream approaches the present trail very near as it ascends the Hope Mountain, and I succeeded in finding a low gap near Powder Camp (see sketch), where, by following up the large stream mentioned for about ten miles, the trail could be connected with the present Hope-Similkameen trail. The stream has rather steep sides, but does not offer any such difficulties as I found along the cañon of the Similkameen. The distance from the mouth of the stream to Powder Camp is about ten miles, added to this the distance of eight miles by the trail from Powder Camp to Nine-mile Creek, and we have only three miles more than the length of a trail down the Similkameen cañon to the same point.

"The distance from Powder Camp to Cedar Flat by the present trail is twenty-two miles, and the estimated distance *via* South Pass between the same points would be thirty-nine miles, making the latter trail longer by seventeen miles:

Distance from Cedar Flat to Powder Camp, *via* South Pass	39	miles
Same distance on Hope-Similkameen trail	22	,,
Being less in favour of present trail	17	,,
Distance on proposed South Pass trail, where only inferior timber-grass would offer as pasture	34	,,
Same on present trail	15	,,
Less, and in favour of present trail	19	,,
Distance without feed on trail *via* South Pass	24	,,
Same distance on present trail	18	,,
Being in favour of present trail	6	,,

This will show that in all these respects the present trail is preferable to one constructed *via* South Pass: however, the advantage to cattle-drovers and pack-trains of being able to reach the Western side of the Cascades a month earlier in the Spring, and very nearly as much later in the Autumn, is very great, and may well outweigh all these disadvantages and difficulties.

"This trail, I feel sure, would be used in Spring and Autumn only, when the cañon trail is impassable by snow; during the summer months the latter will always be given the preference, having all the advantages above stated.

"I have, etc.,

(Signed) "GEORGE LANDVOIGT.

"*Hope, 14th September*, 1873."

COQUAHALLA, COLDWATER AND OTTER VALLEY EXPLORATION—HOPE TO NICOLA.

"*Hon. Robert Beaven, Chief Commissioner of Lands and Works:*

"SIR,—I have the honor to submit the following report upon an exploration of the Valley and Pass of the Coquahalla and the Valley of the Coldwater. This exploration was undertaken in accordance with your letter of instructions of the 3rd August, 1874, to determine whether the Coquahalla and Coldwater Valleys are well adapted for a cattle-trail from Nicola Valley to Hope.

"Having dispatched three Indians with provisions, tents, etc., the day previous, I left Hope on the 25th August on the old Boston Bar trail. This trail had been con-