



# OTAGO PROVINCIAL GOVERNMENT GAZETTE

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By His Honor's Command,

THOMAS DICK,

Provincial Secretary.

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[No. 270.]

## RECONNAISSANCE SURVEY OF THE LAKE DISTRICTS.

### REPORT BY DISTRICT SURVEYOR TO CHIEF SURVEYOR.

Dunedin, October, 1863.

To J. T. THOMSON, Esq.,

Chief Surveyor.

Sir—In forwarding for your inspection the maps of the Reconnaissance Survey of the Lake Districts, I have the honor to request your attention to the following Report in connection therewith.

From appended tables it will be seen that 4883.3 sq. miles have been surveyed; of which, 4579.8 sq. miles belong to Otago, and 303.5 square miles belong to Southland.

	Sq. miles.	Sq. miles.
Of the Otago part there is		
of Pasture	1372.8	
" Forest	954.7	
" Lake	325.3	
" Barren	1924	
" Swamp	3	
		4579.8
Of the Southland part there is		
of Pasture	263	
" Forest	4.5	
" Barren	36	
		303.5
Total area surveyed		4883.3

The bearings of the survey of the Waiau Districts are from the true meridian of Mount York, Lat.  $45^{\circ} 33' 23.4''$  S., Long.  $167^{\circ} 47' 58.6''$  E. of Greenwich. Reference bearing on true meridian to Mount Hamilton  $105^{\circ} 47'$ . The datum-line for altitudes is the high water mark, Bluff Harbor. The bearings of the Wakatipu Districts are from Mount Nicholas, Lat.  $45^{\circ} 07' 24.3''$  S., Long.  $168^{\circ} 28' 00''$  E. of Greenwich. Reference bearing on true meridian to the Crown  $64^{\circ} 11'$ . The altitudes are with reference to Mount Pisa 6426 feet—one of the elevations determined by the Reconnaissance Survey of 1857-8. The Wakaia District has been plotted on the map of the South-Eastern districts with reference to the positions of the Pyramid and East Dome as laid down on it by Mr. Garvie. The altitudes are, relative to the Black Umbrella 3580 feet above sea level, also determined by Mr. Garvie.

The distances throughout the survey were determined from bases measured twice by a common chain; artificial marks were set up till a length of three or more miles was obtained in the sides of the triangles, after that natural marks, such as mountain

peaks, edge of landslips, &c., were used as points for triangulating; where this was impracticable then the method of converging angles was had recourse to. Up the Fiords of the Te Anau and Manipori Lakes, where, on account of the inaccessible nature of the mountains, and the shore line being shaded over with foliage, neither a triangulation could be carried on, nor bases measured. Differences of level between the Lake and one or more commanding peaks were used as a base for determining distances. This method, from the rapidity it gave to the execution of the work, was found to be of great value in the circumstances. It was generally no difficulty to find a suitable mountain peak, a mile or so in vertical height above the level of the lake; the angle of elevation to which, after the necessary corrections had been applied, gave an excellent means of determining distances up to seven or eight miles. The bearings were (from the same reasons as rendered a vertical triangulation necessary), magnetic. Care was always taken on returning to the stations of the true meridian to observe if there was any local deviation in the variation of the compass. In every other part of the survey, the work was done on the true meridian. The difference of bearing between the meridians of Mount York and Mount Nicholas was found to be 30'; the difference to be added to the meridian of Mount Nicholas. The difference of bearing between the meridians of Mount Nicholas and Lindis Peak 44', the difference to be added to the meridian of Lindis Peak. These differences are not to be taken as precise, seeing that the instrument had to be set several times to natural objects in taking on the bearings from meridian to meridian; but they may be taken as showing a general agreement throughout the survey as to bearing, for the apparent discrepancies are very nearly such as are accounted for by the convergence of the meridians to the Pole. The difference between the meridians of the Bluff and Mount York, obtained in a similar manner to the other differences, is 29', to be added to the meridian of the Bluff. In plotting the survey, the latitudes of the prime stations were found to close the one with the other, as also with the latitude of Mount Hamilton, as determined by the Reconnaissance Survey of Southland. A discrepancy of rather more than a minute of longitude, or nearly five seconds by Chronometer, exists between the longitudinal positions of Mount Hamilton, as determined from the two surveys; as the discrepancy is one of absolute distance, it does not affect the value of either survey. The desirability of having a check on the chronometrical determination of the

longitudes of meridians was kept in view during the survey by carrying on, with as much care as possible in the circumstances, a triangulation based on short lines. After plotting the work to the scale of one half-inch to the mile, it is satisfactory to state, considering the rugged nature of the country, that the difference between the chain and chronometrical measurements of the distance between Lindis Peak and Mount York was not appreciable: the meridian of Mount Nicholas when brought to the same test, shows a difference of  $2\frac{1}{2}$  seconds by Chronometer.

To check the altitudes, several peaks were determined both from the data of Mount Pisa and from the data of the Bluff. The nearest agreement of the two determinations was that of Earnslaw, the difference being only two feet. The greatest disparity was in the two determinations of Mount Nicholas, the difference being 107 feet. The angular measurements of the survey were all made, (with the exception of the astronomical observations), by a four-inch Everest theodolite. Throughout the survey, an equal attention was given to the details of each district; so that unnecessary minuteness was not obtained in one part at the expense of vagueness in another.

*Physical Geography.*—The most marked and striking feature in the configuration of the country now under consideration, is the great and sudden differences of elevation that diversify its surface; the elevations take the form of mountain ridges, and the depressions that of gorges, valleys, and deep rocky basins, the latter filled by lakes. The mountains rise from 4000 to 9000 feet above sea level; and as the line of perpetual congelation is 8000 feet above sea level, (as determined last year from the reconnaissance survey of the Wanaka and Hawea Lake district), it follows that all elevations greater than 8000 feet are within the glacial producing zone. The highest parts of the Forbes and Humboldt Mountains are within this zone, and are covered with ice; they are parts of the great icefields that congregate around Mount Aspiring as a centre. The Earnslaw glacier, although only covering about a square mile in extent, is still, on account of its position, a very imposing object: it lies on the south side of Earnslaw, at an elevation of from 9000 feet down to the melting point: it is fifteen miles N. by E. of the head of the Wakatipu Lake; and, as seen from any part of the most northerly twenty miles of it, is by far the most attractive object in view. The lie of the country is nearly from N. to S.; and while the mountain ridges individually lie in that direction, they may, when taken in the mass, be more correctly described as

lying from N. N. E. to S. S. W., and that being directly athwart the track of the almost constant winds from the Pacific Ocean, their influence on the climate of the country may be considered as of the highest importance; for not only do they break the force of those winds, but their cool tops condense the vapours into showers that might otherwise pass over so narrow an island without parting with a drop. The height of the ridges causes the outfall on them to take the form of snow, which lies on them during the greater part of the year; this circumstance, by accumulating over long periods, what would otherwise run off in streams as it fell, is the prime cause of the great, sudden, and at first sight, apparently inexplicable floods that characterise all the rivers that have their sources in high mountains. Change of temperature is the secondary and immediate cause, but while this is the case a flood may occur without any great or perceptible increase of temperature, for the wind, by transporting the snow to a lower altitude, occasions the same effect as a rise of temperature. It was noticed during the survey, that the snow line on the N.W. side (the windy side) of the mountain ridges was higher than on the S.E. side (the sheltered side,) thus showing that the wind is a very decided cause in producing the effects now under consideration. The flood marks on the mountain streams, more especially those running into the Te Anau and Manipori Lakes, show a rise and fall almost incredible. The power exercised by such torrents is forcibly impressed on the attention, by an examination of their channels, immense blocks that have in the first place been disintegrated from the surrounding mountains by frost, lie in their channels, and through the never-ceasing attrition of rushing waters are being broke up into shingle and sand that is carried forward and deposited in the lakes; the mouths of the rivers all show that they are advancing into the lakes, however slowly that may be. The lakes are a very great feature in the natural history of the country, and perform a most important function in its economy. They act as regulating reservoirs to the mountain torrents already mentioned, for over their broad surface the floods find room to spread their volume, until there be time given for the accumulation to pass away in the steady flow of one river. The value of the lakes as a means of restraining such rivers as the Clutha and Waiau within safe limits, will more readily appear when it is considered that the Te Anau and Manipori Lakes, (the two principal of the Waiau River system) alone cover 182 square miles, and that their surfaces have a rise and fall of 8 or 9 feet during

the course of the year. The Clutha River, likewise has the Wakatipu, 114 square miles; the Wanaka, 75 square miles; and the Hawea, 48 square miles: altogether, 237 square miles of lake to regulate its volume. These lakes have also a rise and fall of several feet. From the data now given, it will be evident that but for the tempering influences of the Lakes, the Clutha and Waiau, in place of flowing along a well defined channel, in a perennial stream as now, would have been so fluctuating in volume that no channel could have contained them, and their valleys would have been a shingle bed to the sea—a continuation, in fact, on a grand scale, of such valleys as those of the Dart and Matukituki.

The greater extent of the Lakes at a former period is evident from the terraces that surround their present boundaries; it is plain that the Wakatipu Lake must have extended formerly over the low fertile track of country that extends east from Frankton to the Crown Ridge. The summits of Peninsula Hill, Morven Hill, and perhaps some of the lesser elevations, would then be islets. The old channel of a large river leading away from the south end of the lake, at Kingstown, is very suggestive that then the overflow of the lake passed away by it, and down the Mataura, to the sea. Examination of the valley in which this old channel lies, does not readily explain the cause of this rearrangement in nature, for no sudden upheaval has there dammed the waters of the lake back from their ancient exit: the old channel remains as distinct and as well defined as though the change had only been a thing of a few years. The waters of the lake have receded rather more than a mile in distance, and left the old channel high and dry. The very abrupt gorge through which the Kawarau (the present outlet of the lake), flows, suggests that the change has been brought about by the sudden erupting force of an earthquake opening a pass through the mountains lower than the level of the then lake; and that the present deep gutter-like channel of the Kawarau has been the subsequent slow and gradual wearing down of the channel by the rapid current that sweeps along it.

The depth of the lakes is an interesting consideration in connection with them. I had not the means of determining it; but that their depth may be reckoned by hundreds of feet, I have almost no doubt. On leaving the shore, and at the distance of a boat length or two, the bottom may be seen down through the clear water at a depth of 20 or 30 feet: then very often there is a sudden dip, and there begins the

deep blue waters through which the eye can no more penetrate. Up the Fiords of the Te Anau and Manipori Lakes there are many places where there is no beach at all; but where the rocks rise perpendicularly out of the water for hundreds of feet, there it may be said that there is a precipice above and a precipice below the lake. If the waters of the lakes were suddenly to dry up, the present shore line would, I believe, appear in most places to be the ledge of a precipice. On the Wakatipu Lake, one of Mr Rees' boatmen tried the depth of the lake near Queens-town; by means of a weight attached to the end of a rope, two hundred (200) fathoms of line were let out before reaching what was considered to be the bottom; similarly, on the Wanaka Lake, seventy (70) fathoms were let out. These results, although they cannot be relied on as precise, are of value as showing how very deep the lakes must be. Soundings of the lakes, carefully taken with deep sounding apparatus, would aid in the solution of the problem—"By what means were the lakes produced?"

The recent development of inland navigation has directed attention to the fickle and uncertain winds that prevail on the lakes. The prime cause of this phenomena is accounted for by the principle in Dynamics that underlies the explanation of all the motions in the atmosphere, viz.,—The tendency of cold air to supply the warmer and more rarified. The secondary causes are the unequal radiating powers of land and water, and more especially in this case in the very unequal and mountainous surface of the country surrounding the lakes: the cold mountain air descends into the gullies, and they all open into the lakes. Then again, they lie in different directions, and so receive the heat of the sun at different times of the day. The consequence of these varied influences at work is a condition of unstable equilibrium in the atmosphere, which, when intensified by a strong N.W. wind (the prevailing wind) raises a sea on the lakes that—confined within their narrow limits, and broken on many headlands and islands,—becomes for the time a tumultuous assemblage of waters, against which it is in vain for human effort to contend. The action of the winds on the Te Anau Lake, from its greater size and diversity of shape, is more interesting than on any of the other lakes. On it there is sometimes both a storm and a calm at the same time. Sometimes it will blow down the lake and at the same time be calm up the fiords, or *vice versa*. When such is the case, there is a sort of heaving motion over the calm part. During warm settled weather the phenomena of "land and sea-breeze," so grateful in warm countries,

prevails on the lakes. On the Te Anau Lake, where, on account of the large extent of downs on its east side, the radiation is more regular than from the surroundings of some of the other lakes; this effect during the intervals it operates was seen to be so regular, morning and evening, that it almost became a measure of time; and from the tidal effects that the breeze had on the Te Anau, it seemed to dignify it with the attributes of a sea.

*Rivers.*—The two principal Rivers of the country surveyed, are the Waiau and Kawarau, these, together with the Upper Oreti and Wakaiā, represent the drainage of the country. The Waiau issues from the Te Anau Lake, and after a very rapid sinuous course of 10 miles it enters the Manipori Lake at a distance of  $5\frac{1}{2}$  miles in a direct line from its exit from the Te Anau; after mingling its waters with those of the Manipori Lake, the Waiau leaves it at a distance of 6 miles south from where it entered it; for the first 5 miles of its course, after leaving the Manipori Lake, the Waiau flows E. by S. in a slow sluggish manner; at that distance it receives the Mararoa, a very considerable tributary, it then suddenly bends to the south, and at the same time quickens its current; it then pursues a rapid course of upwards of forty (40) miles in a general direction, very nearly due south, when it falls into the sea. The Waiau receives in its course, from the west side, the Borland, Monowai, Dean and Lillburn, in the order named; and similarly from the east the Mararoa, Wairaki, Orawea, and many smaller streams; each of the streams just named is of considerable size, and two of them, the Mararoa and Monowai, may be classed as rivers, and will yet be noticed as such further on; still, so far as appearances indicate, there is no very perceptible increase of the Waiau after leaving the lakes; it seems to issue from them full-grown; its average breadth is 150 yards, its depth may be from 10 to 20 feet, and the rate of current, after being joined by the Mararoa, from four (4) to seven (7) miles an hour: judging of the volume of rivers, by the extent of country drained by them, the Waiau would be rated at rather more than one-third of the Clutha. In this case, however, I think, from causes already mentioned, that there will be greater precipitation on the western watershed of the Waiau, than on some of the watersheds of the Clutha, many of the latter being secondary ridges of mountains in the interior; if so, then there will have to be an allowance made in favor of the size of the Waiau.

The Mararoa takes its rise by means of two branches in the Livingston Mountains, which unite together about half-a-mile

above the N. Mavora Lake. After flowing due south through the Mavora Lakes for 9 miles, the Mararoa for the next 18 miles of its course flows in a S.W. direction through a finely grassed and well wooded valley; it then bends to the west a little north of the boundary line between the Otago and Southland Provinces; for the next 10 miles of its course it runs nearly due west, running off and on the boundary line during that distance; it then receives the Whitestone Creek, a very considerable tributary that takes its rise near Snowdon, and has a N.W. course of upwards of 20 miles through the Te Anau Downs. The Mararoa, after receiving the Whitestone, suddenly bends to the south, and after a further course of 6 miles S.S.W. it joins the Waiau about 4 miles south of the boundary line. The total length of the Mararoa from its most remote source to its confluence with the Waiau is fifty-six (56) miles.

The Monowai is the outlet of the lake of the same name: the length of the river is 6 miles, and its direction E.N.E.; it joins the Waiau 12 miles below the confluence of the Mararoa. It was in the middle of November I saw the Monowai; it was then nearly a chain wide, and was from eighteen inches to two feet deep, and had a current not less than five (5) miles an hour; the Monowai Lake must therefore receive the drainage of a very considerable extent of country to the west of the Hunter Mountains. This country, as seen in the beginning of November, from the summit of Hindley and from Ardeer Peak, appeared to be very high and mountainous; all the peaks seen were covered with snow.

The Wairaki, Borland, Dean and Lillburn, are streams of from ten to twenty miles in length; they are all dependent on snow, more or less, for their supply, and being so, they are very fluctuating in size.

The other tributaries of the Waiau, not yet mentioned, are those running into the Te Anau and Manipori Lakes; the principal are the Upukerora, Eglinton, Clinton, Worsley, Glaisnock, Doon, and Spey. The Upukerora takes its rise in the Dunton forest, to the east of the Dunton Peaks, and after a S.W. course of upwards of 20 miles, it bends suddenly to the north, and after running in that direction for more than a mile it falls into the Te Anau Lake, at Patience Bay. The Eglinton takes its rise by two branches from the mountains that bound the head of Milford Sound; they unite below the east side of Mount Eglinton, and after flowing for several miles through a deep wooded gorge, the open country occupied by Mr. Hodge is entered, and after a further course of eight

(8) miles, the Eglinton falls into the east side of the Te Anau Lake. Its general course from where its branches join to its mouth is S.W. The Clinton, like the Eglinton, takes its rise from the watershed of Milford Sound; its general direction is S. by E.; it enters the Te Anau Lake at its east head. A boat can be taken up the Clinton for  $1\frac{1}{2}$  miles, and after that it is only 16 miles to the head of Milford Sound. The Worsley rises near Castle Mount, and flows down a deep wooded gorge, E. by S., to the west head of the Te Anau Lake. The Glaisnock enters at the head of the north fiord, Te Anau, after flowing in a S.E. direction down a narrow, steep wooded gorge. The Doon has its rise near Mary Peaks, and only a few miles from the head of Caswell Sound and George Sound; it flows in an E.S.E. direction along a narrow, flat, wooded valley of about one-third mile in width, to the head of the S.W. arm of the middle fiord, Te Anau Lake. The Spey has its rise from the watershed of the West Coast, near the heads of Jail Passage and Breaksea Sound; for the greater part of its course it flows E. by N., through a very precipitous gorge; on emerging from it, the Mica Burn joins it, and after a further course of nearly two miles through a narrow wooded valley, the Spey falls into the head of the west arm of the Manipori Lake.

The Kawarau is the issue of the Wakatipu Lake: it leaves the lake at the base of Peninsula Hill, its exit is obstructed by masses of rock that divide its volume into several parts that take the form of falls when the lake is high. For the first mile or two of its course the current of the Kawarau is sufficiently slow to admit of cattle swimming easily across it, afterwards it becomes more rapid; at the distance of nearly three miles from the lake it is joined by the Shotover, and at a further distance of six miles by the Arrow. Its general direction up to this is E. by N., it then bends towards the south, and at the same place enters an abrupt rocky gorge, through which it has a very tortuous course of 18 miles before entering the Clutha Valley. After a further course of five miles through it, the Kawarau joins the Clutha just before the latter enters the gorge of the Dunstan Mountains. The general direction of the Kawarau is from west to east; its confluence with the Clutha is nearly due east of where it leaves the Wakatipu Lake; the distance in a straight line is 23 miles, following the course of the river it will be 32 miles. The Kawarau drains about the same extent of country as the Upper Clutha River, and as in this case the nature of the watersheds is similar, they may be considered as of nearly equal volume at

their junction. So great a body of water as the Kawarau possesses would, in favourable circumstances, have been of service in the inland navigation of the country, but there are various obstacles in connection with this river which render that impracticable; these are—the rapid current, the narrow and tortuous channel, and there are several places where a reef of rocks crosses the channel, as at its exit from the lake.

The rivers that contribute principally to the Kawarau are the Dart, Rees, Greenstone, Von, Lochy, Shotover, and Arrow; of these the first five flow into the Wakatipu Lake.

The Dart is considerably the largest of the tributaries just mentioned; it issues in one stream from a deep wooded gorge west of Earnslaw, and at a distance in a straight line of 16 miles nearly due north of the head of the Wakatipu Lake, into which it flows; the bearing of the gorge and the size of the river there, both indicate that it has its sources on or about the boundary line between Otago and Canterbury. The glaciers of the Forbes and the Humboldt Mountains are situated on the opposite sides of the Upper Dart. That its supply depends almost entirely on melted snow and ice, is evident from the great fluctuations that characterise its volume. Immediately below the gorge the channel widens out to a shingle bed of from half a mile to a mile wide; this breadth is maintained on to the lake, a distance of 20 miles by the river. During the survey, the river ran over this shingle bed in several streams, but flood debris showed that it is sometimes all covered.

The Rees enters the head of the Wakatipu Lake only a few yards east of the Dart. Like the latter, it also issues from a wooded gorge, at a distance in a straight line of 16 miles N.N.E. from the head of the lake. It has its upper sources in the ice and snow fields of the Forbes and Richardson Mountains. The flat part of its valley presents similar appearances to the Dart, though on a less scale, for that river is about three times the size of the Rees.

The Greenstone takes its rise by two branches, viz., the M'Kellar and Caples. The M'Kellar branch, according to Mr. David M'Kellar, who explored its head sources about three years ago, "takes its rise near the head of Milford Sound, and after flowing through two small lakes and a considerable extent of bush, enters an open narrow valley." It flows down through this valley in nearly a straight line for ten miles in a S.S.E. direction; it then bends at right angles, and after forcing its way through a very narrow gorge for six miles in an E.N.E. course, it is

joined by the Caples branch from the N.N.W. The united Greenstone then flows in an easterly direction for nearly two miles, before entering the west side of the Wakatipu Lake.

The Von is formed by the union of two branches, each about nine miles in length. The south branch issues from the Eyre Mountains, and the north branch from the Thomson Mountains; they unite in a deep dell on the south side of Mount Turnbull, and after a course of nine miles in a N.E. direction, through a finely grassed valley, the Von falls into the west side of the Wakatipu Lake.

The Lochy, by means of several branches, drains the barren region enclosed by the Eyre Mountains. Its length is about 15 miles, and general direction E. by N.; it falls into the Wakatipu Lake at Halfway Bay.

The Shotover ranks next to the Dart, of the rivers that are tributary to the Kawarau. It takes its rise in the ice and snow fields of the Richardson and Harris Mountains, and as these are its principal sources, it attains to near its full size early in its course. That for the first 15 miles is S. by E., then eight miles S.W. to the junction of Stony Creek, then nine miles S. in a general direction to Arthur's point, it there leaves the mountains, and at the same time bends to the east for three miles, and then again S. by E. for other three miles, before joining with the Kawarau. On its west side it receives the famous creeks—Skipper's, Stony, Moonlight, and Moak (united)—in the order named. The Shotover, during the greater part of its course, is so hemmed in by opposing mountains, that its banks are impassable in many places for either man or horse. The confined nature of its banks and the snow-clad watersheds, sufficiently explain the sudden and overwhelming floods that characterise it. The incessant action of the river along one course for ages, has cut out its bed into an abrupt gutter-like channel. This, mechanically speaking, may account for the rich auriferous deposits found in the bed of the Shotover; for, as the river kept deepening, the banks would slip into it as into a great sluice-box, where, coming under the action of so powerful a current, the gold would be washed out and deposited, while the lighter matter would be carried along.

The Arrow takes its rise from the snow on Mount Hyde, and after a crooked course through a succession of deep gorges, during which it receives several tributaries, all known to be highly auriferous, it emerges into the open country at Arrowton, and after a further course of six miles along the base of the Crown Ridge, it joins

the Kawarau. The distance in a straight line from the most remote source of the Arrow to its mouth is 15 miles, the course by the river will be a few miles more, and in general direction is S. by E.

The Oreti rises in the Thomson Mountains; for the first 22 miles of its course it runs parallel to the Mavora Lakes and the Mararoa River, at a distance from them of two to four miles; for the next five miles of its course it runs nearly due south, when, being joined by the Windley from the Eyre Mountains, it enters Southland after a course of 27 miles in Otago. The latter 17 miles being through a well-grassed valley.

The Wakaia takes its rise by several tributaries from the Rocky Mount and the Obelisk. It enters the Wakaia forest, and after flowing through it for 8 miles, it enters a fertile well-grassed valley, through which it meanders for 18 miles in a S.W. direction. During this part of its course, the Wakaia receives on its south side the Argyle burn from the Umbrella mountains; and on its north side the Gow, Stevan, Steeple, Dome, and Garvie burns from the Garvie mountains. After receiving the Garvie burn, the course of the Wakaia is nearly due south for 7 miles, to its junction with the Mataura. The total length of the Wakaia will be upwards of 40 miles. At its confluence with the Mataura, it is nearly of equal volume with that river.

*Pasture.*—From table A it will be seen that there is 1635.8 square miles of pastoral country, of which 778.5 square miles belong to the country drained by the Waiau and Upper Oreti; 552.3 square miles to the Kawarau, and 305 square miles to the Wakaia. It occurs in detached portions, and under a variety of circumstances that render a detailed description necessary. Beginning with the Waiau District, the country on the west side of the Waiau River will have to be noticed firstly. The extent is 86 square miles, and consists principally of terrace flats along the banks of the Waiau, which yield natural grasses abundantly, the nutritive qualities of which were very evident from the prime condition of the stock depasturing on them. On the south banks of the Monowai, and up the valley of the Lill, this district is diversified by the undulations of low ridges; these are much overrun with scrub that generally will yield to the clearing effects of burnings off. There are, however, at the head of the Lillburn, several square miles covered with dense prickly scrub and bog pine shrub that will be almost impervious to fire, owing to the want of grass below to carry the flame along and through it. The Waiau River is a great hindrance to the traffic to and from this district. There is considerable

risk in swimming cattle over, and as for sheep, they have all to be boated across. This disadvantage is compensated, I think, by the quiet so desirable in sheep-farming, and isolation from the contagion of epidemic disease. During the survey, while the stockowners on the east side of the Waiau were in the greatest dread of their flocks becoming contaminated by contact with a diseased flock in that district, those on the other side of the river had no apprehension from the same cause. Another advantage worth notice is, that the river and bush outline so fence in these runs, the one from the other, that the duties of shepherding the flocks are very considerably less than in open country. The small park-like patches of clear on the west side Waiau, near its exit from the Lakes, although, apparently of little consequence from their smallness, are much valued by the stockowners for the paddock accommodation they furnish to the male portion of their flocks at certain seasons of the year. The clear at the base of Paddock Hill is peculiarly valuable for this purpose on account of its being bounded on the north side by the sluggish part of the Waiau, so that there is no difficulty in crossing and re-crossing that river at this place.

The remaining part of the Waiau district comprises 692.5 square miles of pastoral country, of which 429.5 square miles belong to Otago, and 263 square miles to Southland. The Southland portion lies between the Takitimo Mountains on the east, and the Waiau River on the west, and is south of the boundary line between the Provinces. The Otago portion is wholly to the north of the same line, and embraces the Te Anau Downs, the Upper Oreti, and Mararoa Valleys. The surface is diversified by the descending spurs of the Takitimo Mountains by several extensive flats along the courses of the rivers, and of low undulating ridges over the Te Anau Downs. It is all very well grassed; blue tussock is the prevailing sort of grass, and oatgrass, anise, and other herbage is frequently met with. Excepting the higher parts of the Takitimo Mountains, a very considerable part of this country is under the elevation of 1000 feet above the sea level. The Te Anau Downs may be stated as having a mean elevation of 1100 feet, and the Mararoa Valley rises to 2000 feet at Hamilton's station. Around the north side of the Te Anau Downs and Mararoa Valley the forest covers the spurs of the mountains, so that the pastoral country is almost all under the highest of the elevations just named; it therefore may all be considered as free from snow during the whole course of the year, so far as the safety of stock is concerned. It only remains to be mentioned, that under this

portion of country there is also included the Mararoa Valley, above the Mavora Lakes. This part of the valley, from the head of the Mavora Lakes to the Pond-burn is, for an average breadth of two miles, covered with as fine pasture as any part of the valley lower down; but from its high elevation, being no where less than 2100 feet above sea level, and rising from that till it merges into barrenness, near the source of the Mararoa, is almost certain to be under snow for some time during winter.

The pastoral country drained by the Kawarau will next be noticed. The extent is 552.3 square miles: it lies principally around the Wakatipu Lake, and the valleys leading into it. Beginning at the head of the lake, and coming down the west side there is no pastoral country till the mouth of the Greenstone is reached; there, on a terrace flat, there are a few hundred acres of fine pasture. Continuing down the lake from the Greenstone, nine miles of a very rugged steep incline, covered with fern, is passed over before the valley of the Von is reached. This valley is several miles wide; it encircles Mount Nicholas and Pasture Hill, and runs back for fifteen miles in a S.W. direction, when it blends with the Great Mararoa Valleys, the whole forming one continuous well-grassed, well-sheltered valley, between the Wakatipu Lake and the Te Anau Downs, of a height nowhere greater than 2600 feet above sea level, and falling from that elevation on both sides to the level of the lakes. After passing the mouth of the Von Valley the mountains again rise abruptly from the lake and leave little room between its margin and the line of barrenness for vegetation. The valleys of Collin's Bay and Half-way Bay unite together by a low Saddle behind Bayonet Peaks, and make up between them several thousand acres of very fair country. South of Half-way Bay the west side of the lake rises precipitously, and, with the exception of some straggling scrub amongst the rocks, is entirely barren. Returning to the head of the lake, and coming down its east side, there will be (including the valleys of the Dart and Rees) 91 square miles of pastoral country, gone over before reaching Fortune Cove; it consists of the spurs from the Richardson Mountains, and of considerable flats at the head of the lake, and around Mount Alfred. This is all well grassed, and is capable of bearing a large amount of stock throughout the year; for, from the fact of there being a large proportion of low country, not much over 1000 feet in elevation, there will always be abundance of feed during winter in the valleys when the higher parts are under snow. It is a considerable drawback to this country that—except by boat-

ing—there is no ready means of access to it, there being no beach along the lake at several places. The only way of driving stock off or on is by crossing the mountains near Moke Lake, at an elevation of 6000 feet; the track can only be taken by sheep, and that of course only when the snow is off.

After passing the precipitous coast line, west of Fortune Cove, there begins a stretch of low country, extending along the margin of the lake for several miles. It consists of terrace flats, and of hills sufficiently low to be grassed over their summits. It reaches back to the Moke Lake, and then along the Moke valley behind Ben Lomond to a junction with the Shotover valley. Its extent, together with the Shotover and Arrow valleys, and the low country extending east from Queenstown to the Crown ridge, is 149 square miles. The valleys of the Shotover and Arrow have little or no flats. The mountain spurs running down to them descend from elevations of from 5000 to 8000 feet in so very steep and rugged a manner, that considering the broken nature of the country, and the barrenness of its higher parts, not more than one-half of the extent has been classed in Table A as pastoral country. The low country extending east from Queenstown to the Crown ridge is much the best, not only of the quantity, now immediately under consideration, but also of the whole Lake District. It is an undulating extent of 20,000 acres, containing several large flats and one or two considerable hills. The whole is covered with a thick sole of grass, and is certainly entitled to rank with the very best pastoral country in the Province. This country would, from affording a safe retreat to the flocks in the winter season, have been of essential service in developing the pastoral resources of the higher parts of the Shotover and Arrow valleys, but as things now are, it has become a commonage for the large number of horses employed in packing, &c., on the Gold-fields.

Of the country lying around the Wakatipu Lake, that only remains to be mentioned that extends down the east side of the lake from Queenstown to Kingstown, and from thence down a valley of 6 miles in length to the Mataura river; the extent is 134 square miles. The low part of this country consists of the valley just mentioned and several thousand acres around Peninsula Hill. The high part consists of the slopes of the Hector mountains and the ridges of the Eyre mountains, drained by the Robert and Allen creeks. The high and low parts of this division of country bear a fair proportion to one another, and are so situated that the one develops the other.

The Wakaia valley contains 305 square miles of pastoral country. The surface consists of a terrace plain, of alluvial flats, and of low long ridges that flank the sides of the Garvie and Umbrella mountains. The lower part of this valley, from its dryness and the large extent of fine hill pasture, is especially well adapted for sheep. Towards the head of the valley, where the flat part narrows into a mile wide, there is a tendency to wetness in the soil along the banks of the river; this circumstance, together with the fact of there being patches of manuka scrub on the ridges, render this part of the Wakaia best fitted for cattle run.

*Agricultural country.*—The low elevation of the Waiau valley naturally suggests its fitness for agricultural settlement. This, however, with the exception of the Waiau plain, is not the case. The flats on the west side of the Waiau are generally too shingly, and the country between the Takitimo mountains and the Waiau, too uneven for cultivation. Still there are several earthy spots, of a few hundred acres each, scattered pretty equally up and down in the valley, suitable for that purpose. Around Mount York there will be about 20,000 acres of alluvial soil, to the cultivation of which there is no natural hindrances. It lies principally towards the Manipori lake and up the banks of the Mararoa and Whitestone, and will be from 600 feet to 1000 feet above sea level.

The agricultural country lying into the Wakatipu Lake consists of about 10,000 acres at the head of the lake; a few hundred acres at the mouth of the Von; and 10,000 acres lying east of Frankton, the latter quantity consists of a terrace flat between Frankton and the Shotover; and of several alluvial flats between the Shotover and Arrow. The elevation above sea level will be from 800 to 1100 feet. This elevation in some situations would have a bleak effect, but any tendency that way, as regards this country, is counteracted by the high mountains that encircle it, for not only do they afford shelter, but the radiation of heat from them has at times, I believe, a very sensible effect on the increase of temperature; be that as it may, I have no doubt, taking the climate and fertility of the soil as they are, that either cereals or vegetables would, if properly attended to, grow well and arrive at full maturity.

*The Wakaia.*—The whole of the flat of this valley, including an area of 70 square miles, may be classed as agricultural land; the terrace plain, comprising one-half of it, would perhaps be too dry some seasons for cropping,—to the other half, lying principally along the banks of the river, no such objection could be urged, some of it would

require to be drained, for which there is plenty of fall.

*Forests.*—A reference to Table A will show that there are 959.2 square miles of forest. This belongs principally to the valleys of the Waiau and its tributaries, and consists of what is usually known (according to the kind) as Red, Black, and White Birch,\* Red and Black Pine, and Totara. The Birch is much the most common tree of the forest; it was found to have a vertical range of at least 3400 feet, for it was seen a few feet above sea level, and then again it was found to be growing over a dip in the Hindley Ridge, at an elevation of 3400 feet above sea level. At the latter elevation the stems of the trees were of a zig-zag unsymmetrical form, and the general appearance of the trees was squat and stunted. The other sorts, viz., Black and Red Pine and Totara, were seen to be principally in the Dean Forest at a low elevation, and within a vertical range of a few hundred feet. A sprinkling of them was seen in the forests along the shores of the Te Anau and Manipori Lakes. In the same locality, the tutu tree, fuschia, and numerous other shrubs, flourish, and by the variety of their foliage and brilliancy of blossom, contribute very considerably to the charms of the Lake scenery. Up the valley of the Dart, totara was come upon; on Pigeon Island, Wakatipu Lake, totara, pine, and goa; and in the Island Bush, Te Anau Downs, totara and pine, at elevations ranging between 1000 and 1400 feet. On Goldie Hill, totara and red pine were seen to flourish at an estimated elevation of 1700 feet; generally, however, for all elevations over 1000 feet, the birch is the tree of the forest. So far as this survey is concerned, I believe it will be an under-estimate to state that the birch occurs five times for one of all the other sorts put together. Seeing that so large a portion of the Province is covered with this tree, it is interesting to know, that so far as applied to economic purposes, it is found to answer well; the stock-owners use the black birch extensively for fencing, stackyards, &c. As for the red birch, it has been found to answer well for building and for furniture and implement purposes. At Printz' station the erection of a handsome mansion-house made of it was nearly completed while the survey was being conducted there. At Gillow's station all the buildings have been formed of it, and what is of more importance in judging of the qualities of this timber, a wool press was seen there in

\* Hooker, in his "New Zealand Flora," classes as *Beeches* what are here termed *Birches*.

To the Red, he gives the name "*Fagus Menziesii*."  
Black, " "*Fagus fusca*."  
White, " "*Fagus Solandri*."

I have still used the term *Birch*, the tree being known in the Colony as such.

successful operation that was entirely made of red birch; there were no straps or bands of iron to withstand the strain, every detail being of this timber. The Messrs. Gillow have had considerable experience of it, and they compare it to the elm of Britain. The size of the trees vary very much according to the situation and elevation. In the valley of the Waiau, near the sea, totaras were seen up to 27 feet in girth, and pines and birches close on 20 feet in girth; on the higher elevations a very usual size of the birch was from one to two feet in diameter.

*Barren Mountains.*—A reference to table A will show that there is 1900 square miles under this division. All the country to the west of the Te Anau and Manipori Lakes (with the exception of what is forest) comes under it. The higher parts of this country are composed of igneous rocks; from the numerous fractures that generally occur in them, it may be expected that mineral and metallic veins will there exist. On Mount Pisgah several veins of quartz, with flakes of mica imbedded, were seen to traverse it; and in the valley of the Doon, below Mount Pisgah, there are many large fragments of quartz and granite. A very cursory examination was made of the bed of the Doon and several other of the streams west of the lakes: mica was discovered in abundance, but no auriferous deposits. Clay, slate, and metamorphic rocks occur between the Te Anau and Wakatipu Lakes, and minute particles of quartz are found on the Thomson mountains. Up to the date of survey, this country had not been prospected. Supposing that gold exists there, it is not likely to be come at so readily as was the case on the Shotover and Arrow, for the valleys are more open and wide than those of these rivers, and the alluvial deposits are much covered over with the degradation of the mountain sides. The higher parts of the Humboldt and Forbes Mountains seem, from their rounded massive forms, to be composed of granite. Mica schist flanks the sides of the mountains surrounding the Shotover and Arrow; it is inclined at almost every angle, and is exceedingly friable in some instances; where it forms the escarpment of a ridge it presents a very contorted appearance. Standing on the Harris Mountains and looking over to the Upper Shotover and around Mount Aurum, a wild, hacked, precipitous scene presents itself, to which it would be difficult to find a parallel.

*Means of Communication.*—In the open country of the Waiau Districts, a pack-horse may be taken up or down or across any part of it, and drays can also be taken over the greater part of it. There are two dray tracks by which it communicates with other districts; one is by the Ora-

wea and round the north side of Twinlaw, and is entirely in Southland; the other is by the valley of the Oreti—it enters Southland near the junction of the Windley and Oreti.

The means of communication in the Wakatipu District is mostly by water—the nature of the country necessitates this; all the valleys open into the lake, and then the shores of the lake are impassable in many places, so the only way of getting from place to place is by boating. In the Shotover and Arrow Districts the rivers flow through gorges too abrupt to allow of their courses being followed, the only way therefore of communicating with the upper parts of the district is by crossing over the ridges; the tracks over these are from 4000 to 6000 feet above sea level, and the ridges being much broken, a long detour is often necessary, so as to keep on the leading ridge, or to get up or down a passable spur; in this way several points on the Shotover and Arrow are reached by pack-horses. Stores are congregated at these points, from whence supplies are distributed to the population along the river. The Wakatipu District has three routes of communication with country beyond its own boundaries; the principal is from Kingstown, at the south end of the lake, and this is the only part of the lake which drays can approach; the other two are bridle tracks—one from the west side of the lake, takes up the valley of the Von, and continues on to the Te Anau Downs; the other leads over the ranges to the Cardrona and Upper Clutha Valleys. The position of Kingstown being at the end of the lake nearest the producing districts of the Colony, and the ports of the east coast, gives to it the command of the import trade of the lake. The magnitude of this trade has made the consideration of the means of communication with the Wakatipu Districts a matter of primary importance. The impracticable nature of the Kawarau valley as it now is, the nearness of the ports of Southland, and the lie of the country between them and the Wakatipu, plainly point to them as the possessors of the greatest natural facilities for communication between the east coast and Kingstown. A dray road by the Kawarau would, under present circumstances, be more than a rival to the route by Kingstown; but before a road could be formed and made, it is not unlikely that Southland will have so much improved the means of communication towards Kingstown, that goods will then be delivered as cheaply there as they ever can be at the Kawarau Junction; in this case, then, the proposed route would only be a rival to the one now in use. The difficulties to be overcome in the formation of a road along the Kawarau valley are of no mean order; the river runs through a most precipitous gorge for

18 miles; opposite the confluence of the Nevis a mile or two would be saved on the length of road line, but generally it would have to keep close on the river. An amount of side cutting, bridging, &c., will have to be done before a substantial road is made, that plainly will make the cost per mile something great.

The known resources of the Wakatipu Districts are forest, pastoral and agricultural lands, and auriferous deposits. The first three resources are so limited in quantity as to create little or no traffic to and from the district; it would, therefore, devolve almost entirely on the mineral resources of the district to support the road. Gold had been found up to the date of survey over 600 square miles of country; the extent of country found to be payable, and from which the escort returns have come, extends over 360 square miles. The boundary line of this country describes a parallelogram; the north boundary is a line drawn from the head of the Wakatipu Lake east to the source of the Arrow on Mount Hyde; the eastern boundary is a line from the source of the Arrow to its junction with the Kawarau; then for the remaining boundary lines follow up the Kawarau to the lake, and then up the east side of the lake to its head: every creek within this extent, with only one or two exceptions, has been proved to be highly auriferous. The nearness of the Wakatipu Gold-fields to the West Coast suggests the mention of a route to it. The distance between the head of the Wakatipu Lake and the head of Milford Sound is only 27 miles; the mountain ridges lie diagonally across the direct line between these two points; the height and abruptness of the ridges preclude the possibility of taking a direct course over them: the only way of traversing this, and, indeed, all the country bordering on the West Coast, is to follow up the rivers to one or other of their sources, where generally there is a lower and more accessible part in the ridge over which a Pass may be sought. The rivers are a greater hindrance in crossing this country than the mountains. In following them up, their channels are, as a rule, the only place available as a track; this of course necessitates the frequent fording of the

river. Supposing, in the case of the West Coast, there was really a good Pass through the mountains, I believe that the rivers alone would so often interrupt traffic by their floods, that, practically considered, a route to the West Coast is a thing not to be expected. At the very best, a bridle track is all that may be hoped for. From these statements it follows as a sort of corollary, that the traffic of the country must follow the run of the rivers, and that therefore the eastern coast of the Province is where the ports will ever be situated that command the interior districts.

I will conclude this Report by stating my belief that the extent of the Pastoral and Agricultural portion of the Province have now been determined. The distance between the most westerly points of this survey and the coast line is only a few miles; the great altitude of these points—the altitudes by Captain Stokes near the coast line—the lie of the country and its appearance as actually seen, leave little doubt in my mind as to the utter barrenness of the region extending between the forests of the Wanaka, Wakatipu, Te Anau, and Manipori Lakes on the one side, and the forests of the West Coast on the other. To the south of this there is a considerable breadth of country to the west of the Princess Mountains as yet unexplored. What I saw of this country over the Howloto Lake consisted of undulating ridges covered with forest. Its exploration would have to be conducted from Preservation Inlet, or some of the other neighbouring inlets of the West Coast.

I have the honour to be,

SIR,

Your very obedt. servant,

JAMES M'KERROW,

District Surveyor.

Appended are Tables of Areas, Altitudes, and the Register of the Thermometer during survey

TABLE A.

TABLE A.

## ESTIMATED AREAS OF THE NATURAL DIVISIONS SURVEYED.

## PASTURE.

DISTRICTS.	LOCALITIES.	Area in square miles.		
Waiau .....	Open country on the west side of the Waiau River ...	86	778.5	
	Te Anau Downs, and the parts of the Mararoa and Oreti Valleys north of boundary line ...	387		
	Hodge's Run ...	41		
	Paddocks east side of Te Anau Lake ...	1.5		
	The pastoral part of Southland, between the Takitimo Mountains and Waiau River ...	263		
Wakatipu .....	Valleys of the M'Kellar and Caples branches of the Greenstone River ...	8	552.3	
	Von Valley, and side of Wakatipu Lake between mouth of Greenstone and mouth of Afton Burn ...	128		
	Along margin of Lake, between Afton Burn and Half-way Bay ...	41		
	Valleys of Dart and Rees, and down east side of Lake to Fortune Cove ...	91		
	Islands in Lake ...	1.3		
	Country along the Lake between Fortune Cove and Queenstown, also along the north bank of the Kawarau, and up the valleys of the Shotover and the Arrow ...	149		
	Along the east side of the Lake, between Queenstown and Kingstown ...	67		
	Between Kingstown and the Mataura River, also the spurs of the Eyre Mountains drained by the Robert and Allen Creeks ...	67		
				305
	South-Eastern ...	Wakaia Valley ...		
	Total area ...		1635.8	

## FORESTS.

	Sq. miles.		Sq. miles.
Dean	307	Brought forward	858.7
Southland	4.5	Windley Creek	12
Titiroa	104	Ashton Burn	1.5
West of Manipori and Te Anau Lakes	186	Long Forest	9
Eglinton	36	Greenstone River	8
Dunton	208	Dart	37
Burwood	3.6	Rees	4
Margin	3.6	Miscellaneous	1
Bald Hill	6	Wakaia	26
Carry forward	858.7	Total	959.2

## LAKES.

	Sq. miles.		Sq. miles.
Te Anau	132.5	Brought forward	208.7
Manipori	49.7	Wakatipu	113.6
Howloko	11	Hayes	1.15
Monowai	10.5	Diamond	.85
Mavora (north and south)	5	Moke, Sylvan, Bog, &c.,	1
Carry forward	208.7	Total	325.3
Swamp			3
		Carry forward	2923.3

		Brought forward		Sq. miles.
				2923.3
<b>BARREN.</b>				
	Sq. miles.	Brought forward,		710
Longridge Mountains	..... 34	Eyre Mountains	....	215
Princess do.	..... 47	Thomson do.	.....	42
Billow do.	..... 44	Livingston do.	.....	144
Hunter do.	..... 102	Hector do.	.....	47
Matterhorn do.	..... 22	Ailsa do.	.....	33
Kepler do.	..... 97	Humboldt do.	.....	73
Murchison do.	..... 133	Forbes do.	.....	84
Barrier do.	..... 20	Takitimo do.	.....	36
Stuart do.	..... 57	Richardson do.	.....	318
Franklin do.	..... 56	Garvie and Umbrella do.	.....	164
Castle do.	..... 42	Harris do.	....	87
Earl do.	.... 56	Dart (channel of river)	.....	7
		Total		1960
Carry forward	710			
Total extent of country surveyed				4883.3

TABLE B.

## ALTITUDE OF PRINCIPAL OBJECTS IN FEET ABOVE SEA LEVEL.

Earnslaw	9200	Ben Lomond	5747	Cathedral Peak	5134
Do.	9165	Mount Soho	5743	Mount Maury	5090
Mount Christina	8475	Advance Peak	5740	Afton Peak	5043
Edward Peak	8459	Winton Peak	5759	Alexandra Peak	5046
Centaur Peaks	8284	Mount Kane	5740	Albert-Edward Peak	5030
Mount Ansted	8157	Flat Mount	5711	Miller Peak	4995
Mount Tyndall	8116	Mount M'Dougall	5667	Flecked Peak	4953
Mount Bonpland	8102	Black Cone	5665	Mount Hamilton	4932
Cosmos Peak	(?) 8000	Titiroa	5643	Halfway Peak	4930
Mount Larkins	7432	Caroline Peak	5599	Corner Peak	4890
Mount Aurum	7322	Mount Campbell	5593	Dunton Peaks	4893
Stone Peak	7222	Spire Peak	5587	Do.	4834
Humboldt Ridge	7140	Brunel Peaks	5559	Cone Peak	4875
Bold Peak	6990	Do.	5390	Billow Mountains	4884
James Peak	6898	Do.	5170	Do.	4041
The Castle Mount	6872	Largs Peak	5555	Leaning Peak	4858
Moffat Peak	6840	Bay Peaks	5494	Mount Nicholas	4827
David Peaks	6802	Mount Richmond	5491	Mount Luxmore	4811
Upper Peak	6748	Mount Eldon	5470	Do.	4563
Temple Peak	6731	The Coronet	5413	Steeple	4800
Mount Hyde	6700	Mount Burns	5402	Alice Peak	4734
Jane Peak	6650	Mount Pisgah	5345	Beatrice Peaks	4715
Stair Peak	6644	Lorn Peak	5340	Do.	4528
Mount Mavora	6590	Family Peaks	5357	Dana Peaks	4684
Diana Peak	6530	Do.	5220	Precipice Peak	4635
Cecil Peak	6477	Do.	5187	Tower Peak	4627
Symmetry Peaks	6350	Do.	5117	Hook Peak	4615
Do. do.	6224	Brown Peaks	5356	Steep Peak	4481
Mount Anau	6294	Do.	5285	Forward Peak	4421
Mount Turnbull	6283	Do.	5085	Mount Alfred	4412
Mount Crichton	6185	Cold Peak	5342	East Dome	4440
Mount Lyall	6097	Telford Peak	5288	Turret Peaks (highest)	4373
Mount Eglinton	6085	Eldrig Peak	5237	Do.	4135
Mount Dick	6020	Jackson Peaks	5237	End Peak	4116
Rough Peaks	6002	Do.	4738	Titan Rocks	4068
Do. do.	5907	Do.	4236	Hindley	4050
Skelmorlie Peak	5933	Bayonet Peak	5213	Ardeer Peak	3670
Countess Peak	5928	Snowdon	5208	Long Ridge (highest part)	3565
Hummock Peak	5984	Howitt Peaks	5178	Knoll Peak	3548
Walter Peak	5956	Cleughearn	5156	Edge Peak	3483
Helen Peaks	5923	Barrier Peaks	5161	Oblong Hill	3258
Do.	5921	Do.	5087	Mount Prospect	3246
Mount Owen	5806	Do.	5013	Craigie Hill	2808
Round Peaks	5794	Excelsior Peak	5114	Peninsula Hill	2768
Do.	5780	Annick Peak	5114	Dean Hill	2661

Highest part of Bridle Track between Te Anau Downs and Wakatipu Lake	2615	The Monument	1543	Ridge between Lill Burn and Bryce Burn	780
Helmet Hill	2050	Mount York	1344	View Hill	727
Hamilton's Station	2010	Pigeon Island	1564	Cox and Shand's Station	490
Twinlaw	1874	Fern Hill	1165	Lill Burn Valley, near junction of Hipdley and Ardeer branches	400
The Beehive	1964	Freestone Hill	1107		
		Hankinson's Station	1125		
		Gillow's Station	1066		

## ALTITUDE OF LAKES.

North Mavora Lake	2073	Te Anau	694
Wakatipu	1069	Manipori	697

Howloke and Monowai not satisfactorily determined, but they may each be considered under 400 feet.

TABLE C.

## REGISTER OF THE WEATHER.

DATE.	PLACE.	THERMOMETER.		REMARKS.
		7 A.M.	2 P.M.	
1862.				
Sept.				
8	Twinlaw	...	61	Strong west wind
9	Do	43	59	Do do
10	Do	51	...	
11	Waizaki	...	81	Fine clear day
12	Waiau	54	65	Dull and cloudy
13	Howell's Station	50	53	Dull morning, rain in the afternoon
14	Do	49	54	Do do
15	Do	39	60	Fine clear day
16	Do	31	56	Do
17	Do	42	...	Cloudy
18	Lill Burn	...	65	Clear
19	Do	41	69	Wet forenoon, clear afternoon
20	Do	43	61	Fine clear day
21	Do	38	80	Dull morning, clear afternoon
22	Do	50	75	Very wet day
23	Do	58	61	Do
24	Do	45	55	Dull forenoon, wet afternoon
25	Do	44	51	Do do
26	Do	40	54	Very wet day
27	Do	41	51	Showery morning, dry afterwards
28	Do	46	61	Calm and cloudy
29	Do	44	71	Fine clear day
30	Do	50	96	Clear forenoon, wet afternoon
	Goldie Hill	51	56	Do do
		42	55	
Oct.				
1	Lill Burn	43	53	Showery
2	Do	45	56	Sunshine and shower
3	Do	46	56	Wet morning, clear afterwards
4	Do	50	67	Fine day, wet evening
5	Do	52	64	Fine clear day
6	Do	51	66	Dull and cloudy
7	Do	56	67	Dull, with showers
8	Do	39	60	Fine clear day
9	Waiau	51	62	Wet forenoon, dry afternoon
10	Do	41	64	Dull and cloudy
11	Do	54	65	Do do
12	Do	56	72	Fine clear day
13	Do	49	58	Showery
14	Do	44	62	Do
15	Do	50	58	Fine clear day
16	Muscle Beach	51	68	Dull and showery

DATE.	PLACE.	THERMOMETER.		REMARKS.
		7 A.M.	2 P.M.	
1862.				
Oct.				
17	Waiau .....	48	62	Fine
18	Do .....	60	67	Do
19	Limestone Gorge .....	54	58	Very wet day
20	Do .....	42	63	Hail and snow
21	Do .....	39	56	Do
22	Do .....	39	57	Do
23	Do .....	48	60	Do
24	Do .....	43	67	Fine clear day
25	Lill Burn .....	54	66	Do
26	Limestone Gorge .....	52	68	Do
27	Do .....	51	...	Do
—	Lill Burn .....	..	75	Do
28	Howell's Station .....	54	74	Dull and cloudy
29	Wairaki .....	54	68	Do
30	Do .....	51	70	Dull, but fine
31	Do .....	51	72	Do
Nov.				
1	Waiau .....	58	81	Fine clear day
2	Do .....	56	71	Drizzling rain
3	Do .....	55	72	Foggy and dull
4	Do .....	53	...	Do
—	Takitimo .....	...	81	Dull, with N.W. breeze
5	Do .....	62	51	Wind from N.W.
6	Do .....	54	...	Do
—	Waiau .....	...	57	Squalls from N.W.
7	Black Mountain .....	62	56	Squally showers from N.W.
8	Do .....	60	57	Clear, with wind from S.W.
9	Do .....	58	70	Dull, with showers
10	Waiau .....	55	73	Fine clear day
11	Do .....	63	...	Do
—	Hindley .....	...	59	Do
12	Do .....	51	59	Fog in the forenoon, clear afternoon
13	Do .....	63	52	Do do
14	Do .....	52	62	Dull and cloudy
15	Waiau .....	59	70	Fine clear day
16	Do .....	65	75	Do
17	Do .....	64	71	Do
18	Do .....	62	66	Wind from N.W. in the forenoon, showery afternoon
19	Do .....	64	...	Do
—	Takitimo .....	..	61	Dull and cloudy
20	Excelsior Creek .....	59	...	Do
—	Takitimo .....	...	60	Do
21	Mararoa .....	61	64	Cloudy forenoon, wet afterwards
22	Do .....	58	67	Dull, wind from N.W.
23	Do .....	60	71	Do
24	Do .....	61	71	Do
25	Do .....	60	...	Do
—	Mount Prospect .....	..	56	Squally showers
26	Mararoa .....	62	...	Do
—	Mount Prospect .....	..	76	Bright sunshine day
27	Mararoa .....	57	84	Do
28	Do .....	60	75	Do
29	Whitestone .....	65	69	Drizzling showers
30	Do .....	69	66	Wet forenoon, dull afternoon
Dec.				
1	Do .....	64	75	Drizzling rain and fog
2	Do .....	63	79	Fog in the forenoon, sunshine afternoon
3	Do .....	63	79	Sunshine and shower
4	Manipori Lake .....	66	75	Sunshine at intervals
5	Do .....	59	58	Wind from N.W., with rain
6	Do .....	44	60	Clear, wind from N.W.
7	Do .....	50	61	Do
8	Do .....	51	75	Do
9	Do .....	55	80	Fine clear day
10	Do .....	53	66	Do

DATE.	PLACE.	THERMOMETER.		REMARKS.
		7 A.M.	2 A.M.	
1862.				
Dec.				
11	Manipori Lake	62	84	Fog in the morning, fine afterwards
12	Do	61	69	Wet morning, dry afterwards
13	Do	56	63	Very wet day
14	Do	59	64	Dull and showery
15	Do	60	69	Dull and cloudy
16	Do	57	71	Do
17	Do	60	77	Fine and clear
18	Do	61	78	Do
19	Do	63	84	Do
20	Do	57	...	Fog in the forenoon
—	Te Anau	...	71	Clear afternoon
21	Do	60	83	Very fine
22	Do	62	65	Dull and cloudy
23	Do	65	68	Wet and stormy
24	Do	64	69	Strong wind from the N.W.
25	Do	66	80	Clear, wind from N.W.
26	Do	67	67	Wet and stormy
27	Do	66	67	Very wet
28	Do	62	71	Fine and clear
29	Do	64	74	Do
30	Do	69	75	Do
31	Do	59	65	Dull and cloudy
1863.				
Jan.				
1	Do	69	78	Do
2	Do	64	61	Do
3	Do	55	59	Do
4	Do	60	65	Dull forenoon, wet afterwards
5	Mount Pisgah	46	...	...
..	Te Anau	...	59	Do
6	Te Anau Lake	54	58	Very wet day
7	Do	55	75	Fine clear day
8	Do	59	69	Dull and cloudy
9	Do	65	72	Do
10	Do	60	76	Fine and clear
11	Do	61	...	...
...	Mount Eglinton	...	69	Do
12	Do	53	...	...
...	Te Anau	...	66	Clear forenoon, dull afternoon
13	Do	58	72	Fine and clear
14	Do	69	76	Do
15	Do	68	98	Do
16	Manipori	75	87	Do
17	Upukerora	71	79	Dull and cloudy
18	Do	68	78	Do
19	Do	60	...	...
...	Whitestone	...	82	Dull forenoon, clear afternoon
20	Do	72	76	Dull and cloudy
21	Do	67	75	Drizzling rain
22	Mararoa	62	78	Do
23	Do	61	74	Dull, and then clear
24	Oreti	61	84	Clear forenoon, wet afternoon
25	Do	65	75	Dull, with showers
26	Do	64	74	Dull and cloudy
27	Mararoa	65	...	...
...	Bald Hill	...	63	Do
28	Mararoa	60	...	...
...	Bald Hill	...	48	Do
29	Mararoa	54	...	...
...	Mavora Lake	...	65	Dull morning, clear afternoon
30	Do	61	64	Wet day
31	Do	54	...	...
...	Cold Peak	...	51	Dry and clear
Feb.				
1	Mavora Lake	60	76	Do
2	Do	65	77	Drizzling rain
3	Oreti	62	72	Strong wind from N.W.

DATE.	PLACE.	THERMOMETER.		REMARKS.
		7 A.M.	2 P.M.	
1863.				
Feb.				
4	Oreti	64	74	Wet day
5	Do	65	71	Clear, wind from N.W.
6	Do	54	69	Dull forenoon, wet afternoon
7	Von River	59	70	Dull and cloudy
8	Pond Burn	59	67	Clear
9	Von River	59	66	Showery
10	Wakatipu Lake	62	70	Dull and cloudy
11	Do	60	71	Do
12	Do	64	...	Do
..	Mount Nicholas	...	61	Do
13	Wakatipu	60	...	Do
..	Mount Nicholas	...	47	Do
14	Wakatipu	62	75	Fine and clear
15	Do	65	90	Do
16	Do	61	82	Dull and foggy
17	Do	68	89	Clear
18	Rees River	62	72	Fine and clear
19	Mount Alfred	68	84	Do
20	Rees River	63	86	Do
21	Dart River	66	83	Do
22	Do	53	83	Do
23	Diamond Lake	69	...	Do
...	Rees River	...	86	Do
24	Wakatipu	66	67	Very wet day
25	Do	65	78	Dull and cloudy
26	Do	67	78	Fine and clear
27	Do	65	85	Do
28	Do	62	72	Wet morning, dull after
March				
1	Do	59	72	Fine and clear
2	Do	59	75	Do. wind from N.W.
3	Do	60	75	Do do
4	Frankton	62	...	Do
...	Peninsula Hill	...	55	Dull forenoon, wet after
5	Frankton	56	..	Do
...	Peninsula Hill	...	73	Dull forenoon, clear after
6	Frankton	52	...	Do
...	Shotover	...	84	Fine and clear
7	Haye's Lake	64	80	Do
8	Arrow River	61	81	Dull forenoon, clear afternoon
9	Do	68	69	Fine and clear
10	Harris Mountains	54	52	Fine and clear
11	Do	32	46	Dull and cloudy
12	Shotover	61	68	Fine sunshine
13	Wakatipu	63	81	Do
14	Queenstown	62	75	Do
15	Ben Lomond	55	67	Dull and cloudy
16	Do	54	62	Dull forenoon, wet afternoon
17	Wakatipu	53	79	Fine and clear
18	Do	62	77	Do
19	Do	58	64	Showery
20	Do	61	75	Do
21	Eyre Mountains	63	68	Sunshine day
22	Wakatipu	61	71	Very wet day
23	Do	52	73	Showery
24	Do	59	74	Dry and clear
25	Kingstown	52	56	Showery
26	Do	56	68	Dry and clear
27	Mount Dick	54	52	Dull
28	Mataura	55	76	Dull forenoon, clear after
29	Do	56	81	Fine and clear
30	Do	51	65	Dull, with fog
April				
4	Wakaia	45	71	Fine and clear
5	Do	44	70	Do
6	Do	48	50	Wet and stormy
7	Do	39	52	Do

DATE.	PLACE.	THERMOMETER.		REMARKS.
		7 A.M.	2 P.M.	
1863. April				
8	Wakaia	47	66	Fine and clear
9	Do	50	65	Dull morning, wet after
10	Do	48	62	Fine
11	Do	34	66	Do
12	Do	42	63	Wet and cloudy
13	Do	31	67	Fine
14	Do	49	71	Do
15	Do	51	72	Do

## AUCTIONEERS' LICENSES.

Superintendent's Office,  
Dunedin, 28th September 1863.

IN accordance with Clause 8 of the "Licensed Auctioneers' Ordinance, 1862," a Special Meeting will be held in the Provincial Secretary's Office, Dunedin, on Tuesday, the 3rd day of November 1863, at Two o'clock p.m., to consider the following applications:—

Name of Applicant.	Residence of Applicant.	Names of Householdors signing Certificates.	Residence of Householdors.
Hyam Edward Nathan	Hawthorn, North-East Valley	Donald Henderson Jones and Williamson Arthur Beverly William Perkins Frederick Lewis Meiville Speier and Levien	Dunedin " " " "
Frederick William Eicke	Dunedin	Henry Driver A. R. Thomson John T. Wright J. Milner Wm. Royse John Stephenson	Dunedin " " " "
Alexander Cumming	Stafford Street, Dunedin.	John Jones George McLean Ed. McGlashan D. Girdword E. B. Cargill W. D. Murison	Dunedin " " " "

JOHN LOGAN,

Secretary to the Superintendent.

Provincial Secretary's Office,  
Dunedin, 1863.

Provincial Secretary's Office,  
Dunedin, 28th Sept., 1863.

HIS HONOR THE SUPERINTENDENT directs it to be notified that he has been pleased to appoint

JUSTIN AYLMER, Esquire, J. P.,

to be Mining Registrar and Gold Receiver at the Dunstan, appointment to date from 7th September last.

By His Honor's command,

THOMAS DICK,  
Provincial Secretary.

Provincial Secretary's Office,  
Dunedin, 28th Sept., 1863.

HIS HONOR THE SUPERINTENDENT directs it to be notified that he has been pleased to appoint

WILLIAM LAWES SIMPSON, Esquire,

to be Mining Registrar and Gold Receiver at Teviot, *vice* Benjamin Fox Duncan resigned.

By His Honor's command,

THOMAS DICK,  
Provincial Secretary.

## WOOLSHED, OAMARU.

FRESH TENDERS for a Lease of the said Shed for Six Months will be received at the Provincial Secretary's Office, Dunedin, until noon of Tuesday, 20th October current.

THOMAS DICK,  
Provincial Secretary.

8th October, 1863.

## CROWN GRANTS.

CROWN GRANTS in favour of the persons whose names appear in the annexed Schedule are now ready for issue.

W. H. CUTTEN,

Commissioner of Crown Lands.

Crown Grant Department,  
Waste Land Board Office,  
Dunedin, 12th September 1863.

## SCHEDULE.

Name.	No. of Grants.	Name.	No. of Grants.
Atkinson, E. B.	5	Lewis, J. G.	1
Alexander, J.	2	M'Hardy, A.	1
Andrew, D.	2	Murray, R.	1
Allen, J.	1	Meluish, W.	1
Anderson, A.	4	M'Glashan, E.	1
Brown, J.	1	Mains, J. & D.	1
Bain, R.	1	M'Lean, J.	7
Baker, A.	4	Meek, R.	1
Basire, F.	1	Milstead, J.	1
Borrie, J.	2	Mainland, J.	1
Bannerman, Rev.		Muir, A.	1
W., and others,		M'Leod, A., and	
in trust,	1	Gibson, J.	1
Cameron, R.	1	Napier, D. J.	1
Collis, E.	1	Ogilvie, W. B.	2
Currie, J.	2	Paterson, J.	1
Cargill, W. W.	3	Quarrie, G.	1
Cameron, R.	1	Reed, J.	1
Chalmers, A.	1	Ross, A. H.	1
Dunn, J.	1	Reynolds, W. H.	2
Dawson, G. C.	6	Robertson, T.	1
Dundas, A.	2	Strauchon, H.	2
Duffy, J.	2	Stewart, W.	1
England, D. W. C.	1	Stuart, J. M., and	
Eiloart, E. G.	1	Kinross, J. G.	7
Familton, J.	1	Sewell, W.	2
Ferris, A.	1	Stuart, A. P.	2
Gibson, E.	2	Somerville, J.	1
Granger, T. B., &		Street, C. H.	1
Fraser, H.	1	Shand, G.	1
Hendry, R.,		Sewell, W.	2
Woods, J.,		Summers, A.	1
Millie, J. W.,		Simson, T. R.	1
Miller, D., &		Stevenson, J.	1
Crocker, S.	1	Seaton, J.	1
Hibbard, B.	3	Superintendent, in	
Hastie, T.	1	trust	2
Hewat, R.	1	Trotter, W. S.	2
Isdale, A.	1	Tolmie, W. A.	1
Inglis, J.	1	Thomson, T.	1
Jones, J.	1	Turnbull, G.	2
Jenkins, R., and		Turnbull, J. McL.	1
Gourlay, B. E.	2	Taylor, G. R.	1
Kemp, J.	1	Thomson, H. S.	2
Kitchen, J.	2	Waddell, J.	1
Kilgour, D.	1	Wilson, R.	1
Logan, J.	1	White, W.	1
Landels, A.	3	Young, W. C.	1
Leslie, J.	1.		

## WAIHOLA.

A SALE by Auction of the following Sections in Waihola Township will take place at the School-house there on Tuesday, the 24th day of November, at 12 o'clock noon.

Lot.	Section.	Block.	Lot.	Section.	Block.
1	9	XX.	20	15	XI.
2	8	"	21	14	"
3	10	"	22	13	"
4	11	"	23	12	"
5	12	"	24	16	"
6	13	"	25	17	"
7	8	VI.	26	18	"
8	9	"	27	19	"
9	17	"	28	1	XII.
10	1	X.	29	2	"
11	2	"	30	3	"
12	7	"	31	4	"
13	8	"	32	1	XIII.
14	12	II.	33	2	"
15	14	IX.	34	3	"
16	15	"	35	12	XXI.
17	16	XVII.	36	13	"
18	17	"	37	14	"
19	11	IX.			

W. H. CUTTEN,

Chief Commissioner.

Waste Land Board Office,

Dunedin, 10th October, 1863.

## FAIRFAX.

THE following Sections in the Township of Fairfax will be sold by Auction at the Court-House, Tokomairiro, on Wednesday, the 25th day of November next, at Twelve o'clock noon.

Lot.	Section.	Block.	Lot.	Section.	Block.
1	2	I.	16	9	XII.
2	10	"	17	15	"
3	2	II.	18	17	"
4	3	"	19	1	"
5	4	"	20	2	"
6	8	"	21	3	"
7	14	V.	22	4	"
8	12	"	23	1	VI.
9	10	"	24	12	"
10	9	"	25	11	"
11	8	"	26	10	"
12	13	XII.	27	3	"
13	12	"	28	4	"
14	10	"	29	5	"
15	14	"	30	6	"

W. H. CUTTEN,

Chief Commissioner.

Waste Land Board Office,

Dunedin, 10th October 1863.

## MOLYNEUX.

A SALE by Public Auction of the following Sections in the Molyneux Township, will take place in the Crown Hotel, Clutha Ferry, on Friday, the 27th day of November next, at 12 o'clock noon.

Lot.	Section.	Block.	Lot.	Section.	Block.
1	1	V.	29	18	XLV.
2	2	"	30	10	XXXIX.
3	3	"	31	11	"
4	4	"	32	19	"
5	5	"	33	20	"
6	6	"	34	17	XLIX.
7	7	"	35	6	XXIV.
8	8	"	36	7	"
9	9	"	37	1	XLV.
10	11	"	38	2	"
11	15	"	39	3	"
12	18	"	40	4	"
13	22	"	41	16	"
14	11	XVIII.	42	17	"
15	12	"	43	2	XXIV.
16	13	"	44	4	"
17	14	"	45	8	"
18	11	XX.	46	9	"
19	12	"	47	10	"
20	13	"	48	11	XL.
21	14	"	49	12	"
22	1	XLV.	50	13	"
23	2	"	51	14	"
24	3	"	52	15	"
25	4	"	53	16	"
26	5	"	54	18	"
27	16	"	55	19	"
28	17	"	56	20	"

W. H. CUTTEN,  
Chief Commissioner.

Waste Land Board Office,  
Dunedin, 10th October, 1863.

## BALCLUTHA.

THE following Sections in the Township of Balclutha, Clutha Ferry, will be sold by Auction, in the Crown Hotel, on Friday, the 27th day of November next, immediately after the sale of the sections in the Molyneux Township.

Lot.	Section.	Block.	Lot.	Section.	Block.
1	8	IV.	17	18	III.
2	10	"	18	4	"
3	11	"	19	5	"
4	12	"	20	6	"
5	13	"	21	7	"
6	7	"	22	15	"
7	6	"	23	14	"
8	12	V.	24	13	"
9	11	"	25	12	"
10	10	"	26	11	"
11	9	"	27	17	II.
12	7	"	28	16	"
13	6	"	29	15	"
14	5	"	30	14	"
15	1	III.	31	8	"
16	20	"			

W. H. CUTTEN,  
Chief Commissioner.

Waste Land Board Office,  
Dunedin, 10th October, 1863.

## OUTRAM.

THE following Sections in the Township of Outram will be sold by Auction at the West Taieri Ferry, on Tuesday, the 1st day of December next, at Twelve o'clock.

Lot.	Section.	Block.	Lot.	Section.	Block.
1	5	XIII.	17	5	III.
2	4	"	18	7	"
3	3	"	19	8	"
4	14	IV.	20	9	IX.
5	13	"	21	10	"
6	11	"	22	11	"
7	10	"	23	13	III.
8	16	X.	24	14	"
9	15	"	25	15	"
10	14	"	26	2	I.
11	13	"	27	3	"
12	11	"	28	4	"
13	10	"	29	1	"
14	9	"	30	22	"
15	2	III.	31	19	"
16	3	"			

W. H. CUTTEN,  
Chief Commissioner.

Waste Land Board Office,  
Dunedin, 9th October 1863.

## OTAGO PENINSULA.

NOTICE is hereby given, that Block VI., Otago Peninsula, situate between Hooper's Inlet and the Native Reserve, having now been surveyed, all persons having claims within the boundaries of the said Block are requested at once to call at the Land Office so that these may be settled.

W. H. CUTTEN,  
Chief Commissioner.

Waste Land Board Office,  
Dunedin, 8th Oct., 1863.

## OTAGO PENINSULA.

NOTICE is hereby given that the Applications for Land in Blocks 1, 2, 3, 4, and 5, Otago Peninsula, will be decided by auction on Monday, the 2nd day of November next, at 12 o'clock noon.

W. H. CUTTEN,  
Chief Commissioner.

Waste Land Board Office,  
Dunedin, 9th October, 1863.

## NOTICE OF DISSOLUTION OF PARTNERSHIP.

THE Partnership hitherto existing under the style or firm of Galbraith and Justice, Bakers and Grocers, Great King-street, Dunedin, was this day dissolved by mutual consent.

ARCHIBALD GALBRAITH.  
WILLIAM JUSTICE.

Witness—

William Douglas, Clerk, Dunedin,  
Dunedin, 3rd October, 1863.

**IN THE SUPREME COURT OF NEW ZEALAND, OTAGO AND SOUTHLAND DISTRICT.**

In the matter of the Petition of **HYMAN COHEN**, late of Waikouaiti, in the Province of Otago, late a Publican, but now of Dunedin, in the Province aforesaid, out of business, a Debtor; and in the matter of the Petition of **BENJAMIN HYMAN**, of Dunedin aforesaid, Glass and China Dealer, a Creditor of the said Hyman Cohen of not less than Fifty Pounds; and in the matter of the "Debtors and Creditors Act, 1862."

**NOTICE** is hereby given, that His Honor Mr. Justice Richmond has appointed Monday, the 23rd day of November next, at Ten o'clock in the forenoon, at the Court House, Dunedin, for hearing the Petition of the above-named Hyman Cohen and Benjamin Hyman.

**ROBERT CHAPMAN,**  
Registrar.

Supreme Court Office,  
Dunedin, 6th October, 1863.

**IN THE SUPREME COURT OF NEW ZEALAND, OTAGO AND SOUTHLAND DISTRICT.**

In the matter of the Petition of **JOHN McCLEAN**, of Dunedin, in the Province of Otago, Merchant, trading under the name, style, or firm of **J. McClean and Company**, praying that the Estate of **GEORGE GIBSON**, of Green Island, in the Province of Otago aforesaid, Licensed Victualler, may be sequestrated; and in the matter of the "Debtors and Creditors Act, 1862."

**NOTICE** is hereby given, that His Honor Mr. Justice Richmond has appointed Monday, the 23rd day of November next, at Ten o'clock in the forenoon, at the Court House, Dunedin, for hearing the Petition of the above-named John McClean.

**ROBERT CHAPMAN,**  
Registrar.

Supreme Court Office,  
Dunedin, 7th October, 1863.

**IN THE SUPREME COURT OF NEW ZEALAND, OTAGO AND SOUTHLAND DISTRICT.**

In the matter of the Petition of **HENRY COHEN**, late of the Dunstan Gold-fields, in the Province of Otago, Storekeeper, but now of Hogburn, in the said Province, out of business; and of **SAMUEL JACOBS**, of the Dunstan Gold-fields aforesaid, Commission Agent, a Creditor of the said Henry Cohen to the extent of not less than Fifty Pounds, praying

for the sequestration of the Estate of the said Henry Cohen; and in the matter of the "Debtors and Creditors Act, 1862."

**NOTICE** is hereby given, that His Honor Mr. Justice Richmond has appointed Monday, the 23rd day of November next, at Ten o'clock in the forenoon, at the Court House, Dunedin, for hearing the Petition of the said Henry Cohen and Samuel Jacobs.

**ROBERT CHAPMAN,**  
Registrar.

Supreme Court Office,  
Dunedin, 7th October, 1863.

**IN THE SUPREME COURT OF NEW ZEALAND, OTAGO AND SOUTHLAND DISTRICT.**

In the matter of the Estate of **ALFRED BENJAMIN SOLOMON**, of the Arcade, Dunedin, a dealer in Fancy Goods; and in the matter of the Petition of **ISAAC HERMAN**, of Dunedin, Merchant; and in the matter of the "Debtors and Creditors Act, 1862."

**NOTICE** is hereby given, that His Honor Mr. Justice Richmond has appointed Monday, the 23rd day of November, 1863, at Ten o'clock in the forenoon, at the Court House, Dunedin, for hearing the Petition of the said Isaac Herman.

**ROBERT CHAPMAN,**  
Registrar.

Supreme Court Office,  
Dunedin, 8th October, 1863.

**LIST OF PERSONS APPLYING FOR RELIEF, UNDER "THE DEBTORS AND CREDITORS ACT, 1862."**

**ISAAC HERMAN**, of Dunedin, Merchant, praying for the Sequestration of the Estate of **ALFRED BENJAMIN SOLOMON**, of the "Arcade," Dunedin, Dealer in Fancy Goods.

**HYMAN COHEN**, late of Waikouaiti, in the Province of Otago, late a Publican, but now of Dunedin, in the said Province, out of business; and of **BENJAMIN HYMAN**, of Dunedin aforesaid, Glass and China Dealer, a Creditor of the said Hyman Cohen to the extent of not less than £50.

**JOHN McCLEAN**, of Dunedin, Merchant, trading under the name, style, or firm of **J. McClean and Company**, praying for Sequestration of the Estate of **GEORGE GIBSON**, of Green Island, Licensed Victualler.

**HENRY COHEN**, late of the Dunstan Gold-fields, in the Province of Otago, Storekeeper, but now of Hogburn,

in the said Province, out of business ;  
and of SAMUEL JACOBS, of the Dun-  
stan Gold-fields aforesaid, Commission  
Agent, a Creditor of the said Henry  
Cohen to the extent of not less than  
£50.

ROBERT CHAPMAN,  
Registrar.

Supreme Court Office,  
Dunedin, 10th October, 1863.

I HEREBY Certify that JOHN DUN-  
CAN NIVEN, of Port Chalmers, in the  
Province of Otago, has this day submitted  
for my examination his Diploma as a  
Doctor of Medicine, from the University  
of Edinburgh, in accordance with the pro-  
visions of an Ordinance passed by the  
Legislative Council of New Munster, Ses-  
sion I., No. 2, of 1849, intituled "An  
Ordinance to define the qualifications, and  
to provide for the remuneration in certain  
cases of Medical Practitioners."

Dated at the Resident Magistrate's Court,  
Port Chalmers, this 9th day of October,  
1863.

THOS. A. MANSFORD,  
Resident Magistrate.

IMPOUNDED, on the Sixth day of  
October, 1863, by James Wright,  
Mount Pleasant, One Steer, no visible  
brands, colour brown, white on forehead,  
belly white, age about fourteen months,  
owner unknown, for trespassing on Daniel  
Jackson's property, Mount Pleasant; and  
in default of being released, the above cattle  
will be sold at the Public Pound at Port  
Chalmers on the 27th day of October, 1863,  
at 12 o'clock noon.

DAVID KILGOUR,  
Poundkeeper of the Port Chalmers Pound.

TENDERS will be received at the  
Office of the Secretary of Public  
Works until 12 o'clock noon on Tuesday,  
the 27th October, for the supply of 4000  
cubic yards of Metal on that portion of  
the road from Taieri Ferry to Tokomairiro  
River, between the Ferry and the Lake  
Hotel.

Specifications can be seen, and forms of  
tender obtained, at the office of the Chief  
Engineer of Roads, Dunedin.

GEORGE DUNCAN,  
Secretary of Public Works.

TENDERS will be received at the office  
of the Secretary of Public Works,  
until 12 o'clock noon on Tuesday, the  
27th October, for the supply of 1000 cubic  
yards of Metal on that portion of  
the road from Taieri Ferry to Tokomairiro  
River, between the Lake Hotel, and the  
south branch of Tokomairiro River.

Specifications can be seen, and forms of  
tender obtained, at the office of the Chief  
Engineer of Roads, Dunedin.

GEORGE DUNCAN,  
Secretary of Public Works.

ABSTRACT of Advertisements from the Pro-  
vincial Government Gazette of 23rd Sept.,  
1863: -  
Tenders for Steam Coastal Service to be lodged by  
noon of 16th October, 1863.

JOHN LOGAN,  
Secretary to the Superintendent.

WANTED,

500 ACTIVE YOUNG MEN

To proceed at once to

AUCKLAND.

THE WAIKATO

Thrown open.

THE LAND GIVEN TO  
MILITIA SETTLERS,  
MILITARY AND NAVAL SETTLERS,  
AND  
SETTLERS GENERALLY.

Every information regarding the duties to be done,  
and the nature of the land to be given can be had on  
application to the AUCKLAND VOLUNTEER  
OFFICE, Provincial Hotel Buildings, where printed  
regulations can be seen.

W. MASON, M.H.R.,  
Agent for the General Government

OTAGO GOVERNMENT TOWN LAND  
SALES.

HAWKSURRY,

At the Court House there, on Tuesday, the 20th  
day of October next, at 12 o'clock.

PALMERSTON,

At the Hawksbury Court House, on Tuesday, the  
20th day of October, immediately after the sale  
of the sections in Hawksbury.

HAMPDEN,

At Hampden, on Tuesday, the 22nd day of October  
next, at 12 o'clock noon.

OAMARU,

At the Court House there, on Saturday, the 24th  
day of October next, at 12 o'clock noon.

HERBERT,

Situate near the Otepopo Bush, at the Court  
House, Oamaru, on Saturday, the 24th day of  
October next, after the sale of the sections in  
Oamaru.

W. H. CUTTEN,  
Chief Commissioner.

Waste Land Board Office,  
Dunedin, 23rd September, 1863.

NOTICE TO MARINERS.

TAIERI RIVER.

NOTICE IS HEREBY GIVEN that the South  
Channel at the mouth of the Taieri River is  
now open, having a depth of (5) five feet on the bar  
at low water spring tides; and that the North  
Channel is so narrowed and nearly dry at low water,  
as to be unsafe for vessels to enter by it. Masters of  
vessels visiting this river should be conversant with  
the signals in use at the bar, and be guided entirely  
by them. Directions for the use of the same can  
be had on application at the Harbour Office,  
Dunedin, and Port Chalmers.

WM. THOMSON,  
Harbour Master.

Harbour Office,  
Port Chalmers, 19th Sept., 1863.