LAND ROUTES FOR EXPLORATION OF THE WESTERN COUNTRY.

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As in the legendary tales of old, and the true histories of modern times, the heroes of exploration and adventure turn their faces to the setting sun; so those who seek to develop the comparatively little known mineral resources of Tasmania are turning to the West as to a Promised Land, and the time seems opportune for bringing under the notice of the Royal Society a subject in which the whole community is interested, whether it be regarded from an economic or a scientific point of view.

An irregular line drawn from Port Sorell in a southerly direction, between the 146th and 147th meridians, by the head waters of the River Mersey and the ranges west of Lake St. Clair, and along the western slopes of the King William Range and the Hartz Mountains to South Cape, divides Tasmania into two portions of nearly equal area, but unlike in all other respects. In the eastern half, except for a fringe of settlement along the North-West Coast, are all the agricultural and pastoral lands and chief centres of population; in the western half, the general physical conditions are unsuitable for farming or stock raising, and, with the exception just noted, the population consists exclusively of those who are engaged more or less directly in exploiting such of its mineral wealth as has come under the prospector's notice.

In the Western Country the enterprising pioneer or prospector is free from the risk of encountering some of the perils immemorially associated in fable or in fact with the exploration of strange lands. Here are no dragons guarding the golden apples of the modern Garden of the Hesperides; not even grizzly bears or man-eating tigers intent on prey, nor savage tribes fighting for their native fastnesses. But no less formidable are the obstacles with which the explorer dependent on his own resources has to contend. There are patches of open country, but not where he chiefly wants to go; and he must be prepared to face rugged and lofty ranges, difficult either to scale or to descend; deep ravines blocked with every imaginable kind of obstruction; or rivers difficult to cross at any time, and sometimes rising in one night so as to cut off retreat for weeks. Among the worst of his foes are two

representatives of the indigenous flora, the formidable "bauera" and "horizontal," which to at least ninety per cent. of the people of Tasmania are known only by name.

The former (Bauera rubioides) shows itself here and there on the mountain slopes near Hobart as a low trailing shrub, hardly noticeable but for its pretty pinkish-white flowers. In the Western Country it flourishes in dense masses and belts, its pliant and unbreakable stems closely interlaced, so that it is only with extreme difficulty that any passage can be made through the tangle. When the general height of the scrub does not exceed 3 or 4 feet, the explorer may roll over it or tread it down, and so get on slowly; but when the matted bines reach a height of over 6ft. the situation is not one to be envied. Taking advantage of a chance stump, he may raise himself on to the top of the unresisting mass, only to sink into a hollow from which extrication is difficult. Or he may try to force a way, inch by inch, by tearing apart the interlaced bines, every now and then getting his face and wrists deeply scored by the saw-like blades of "cutting grass" (Gahnia [Cladium] psittucorum), a frequent companion "bauera," the opening meanwhile closing behind him, so that, if forced to beat a retreat, he cannot easily retrace his steps. Or, finally, when this mode of travelling has used up all his strength, he may throw himself flat on the wet clay in which this scrub delights to grow, and wriggle himself under it for a few yards. At this stage the average explorer, singlehanded, will give up the attempt in despair, unless the belt is evidently a narrow one, or the question of success or failure involves a question of life or death.

The "horizontal" (Anodopetalum biglandulosum) is of a different type. In the early stages of its growth a belt of this scrub consists of innumerable slender upright stems in close order. When these reach the size and height of an average hop-pole they are usually bent over to one side by the force of the prevailing wind, and by their own weight, to which is added an occasional capping of snow in the winter, gradually sink down until they are nearly parallel with the ground. The next stage is the growth from every bud along the prostrate stems of a forest of shoots, which strive upwards for a few years and then fall in the same manner, though often in a different direction, and this process may be repeated for an indefinite period. The prospector who encounters "horizontal" in its advanced stage may have to climb ten or fifteen feet from the ground before he can advance a yard, and will be fortunate if he can keep his insecure footing on the slender twigs. A slip means a sudden drop to the ground below, which he will reach in a more or less dilapidated condition. The descent to Avernus is easy

enough, if not pleasant; it is the getting back to the miniature tree tops that is the difficulty, to say nothing of the possibility of having to spend the night perched on such a roost.

These are no fancy pictures, but are drawn from some personal experiences of my own when taking bee-lines across parts of the Western Country during brief holidays, and it is to emphasise the necessity for cutting tracks which may serve the purposes of the pioneers of civilization, and especially of the bonâ fide prospector, the real discoverer of new country, that this paper is chiefly written.

The geological history of the Western Country can be given, in the present state of our knowledge, only in very general terms. In the eastern division, south of a line about midway between the 41st and 42nd parallels of latitude; or, in other words, in about three fourths of the eastern balf of Tasmania, the oldest sedimentary rocks are those belonging to the Permo - Carboniferous The central plateau is not, as is generally supposed, a vast boss of ancient volcanic rocks, but rather a ring of massive dykes and caps of diabasic greenstone, or dolerite, with intricate reticulations. These traverse all the rocks of pre-Tertiary age, and are interspersed with sheets of more recent basaltic lavas. Some members of the system extend well into the western country, the Cradle Mountain with its outliers, and the Eldon Range, being familiar instances. The older sedimentary rocks, the source of all the precious metals, do not show themselves in force in any part of this eastern division, though I have noted quartzites and foliated micaceous schists in the Russell Falls Valley, and between Lake Echo and the River Nive; but, once across the boundary, the geological conditions are all changed. the rocks which form such conspicuous features in the settled districts being either entirely absent, or playing a very insignificant part in comparison with the enormous development of the older rocks. Towards the determination of the exact stratigraphical relations of these rocks there has been no great advance made since the discontinuance of the Geological Survey some 30 years ago; nor can we even definitely identity the several formations with their supposed equivalents in other countries, though much excellent work has been done in this direction, both by amateur and professional geologists. The oldest rocks comprise massive bands of quartzite, of which the most familiar instances are those of the S.W. Coast, Mount Arrowsmith, and Rocky Cape on the North Coast, and in the same series occur chloritic and micaceous schists, with less altered shalv bands in which evidence may one day be found which will help to determine the true nomenclature of the system. The country rocks of

the Western silver fields may probably be classed as Upper Silurian, and the well-known massive crystalline limestones as Lower Silurian, or Cambrian. All the rocks of these separate systems are much bent and folded, with anticlinal axes exposing the older members of the whole series, and trending generally north and south, but often much contorted on the line of strike. The effect of this is that the several formations crop out at intervals across the whole of the western country, and those which have been successfully worked, and appear to have run out, may be met with again at no very great distance to the east or west. It is this circumstance that points conclusively to the importance of opening routes fit for horse or foot traffic through the heart of the unexplored country. If he is but given access to the scene of operations, the prospector or explorer may be left to do the rest himself.

Some account may now be given of what has already been attempted in this direction, with suggestions as to the character and object of the work that still remains to be done, and these may be prefaced by a brief notice of the two schemes for reaching Zeehan by an extension of the railway system from Mole Creek in the north and Glenora in the south.

The first was to follow the general direction of the V.D.L. Co.'s old track, but bearing to the south after crossing the Mersey, and continuing on in a south-westerly direction between Barn Bluff and Mount Pelion to its final destination. A trial survey of the greater part of this route was made in 1891-2, but not without encountering serious obstacles in the shape of almost Alpine heights, steep grades, and other engineering difficulties, and the survey of the western portion of the line was not completed. A similar tale may be told of the railway survey which was projected for the extension of the Derwent Valley line to the westward Between Glenora and the Ouse there are no obstacles of any great importance, but between this point and Navarre Plains many formidable difficulties embarrassed the surveyors. The route finally selected would cross the Nive near its junction with the Derwent, and follow the left bank of the latter river to a point not far from the Wentworth Hills, the direction of its continuation being dependent on the route adopted for the rest of the line. The surveyor in charge of western portion, after a careful examination country between Lake St. Clair and Mount Arrowsmith, finally decided on a line skirting Navarre Plains, and by Lake Dixon and Mount Rufus into the Cuvier Valley. From the Cuvier Valley the survey was continued south of Coal Hill, and by a circuitous route around Gould's Sugar

Loaf, to and across the only practicable pass in the Eldon Range. By this time the funds granted for the survey were exhausted, but the surveyor in charge pushed through to Zeehan with one man, via Lake Augusta, Lake Dora, and Mount Dundas, encountering difficulties which can be realised only by those who have some personal knowledge of the rugged mountains and dense scrubs of the West, but finding a practicable route. The time has not yet arrived for the construction of either of these railways as a matter of public policy, but the surveys have placed on record a mass of information for which use may be found at some future date.

Leaving the question of railway communication with the West Coast, a short description may be given of the tracks which are already in existence, and the routes which should be opened without further delay.

For many years past there has been a practicable track from Mole Creek, diverging from the V.D.L. Co.'s road so as to reach the tableland by way of the Fish River, and giving access to the Great Lake on the east, and the Marlborough country on the south, passing by the Nineteen Lagoons. Up to this point there are already sufficient facilities for horse and cattle traffic, and beyond it, via Bally's Peak, Bronte, and Marlborough, there is a fairly practicable road for horse dravs or light carts to Lake St. Clair and Mount King William, the starting point of the Linda track, along which small herds of cattle are occasionally driven to Mount Lyell and Strahan. This route from Mole Creek constitutes an important line of communication between the northern and north-eastern districts and the West Coast, and all the improvements which are required to facilitate traffic along it may be effected at a very moderate cost.

In order to establish direct communication between Launceston and the Western silver fields, a route has been suggested, which, deviating from the last mentioned track between the head waters of the Mersey and Forth, would follow the general course of the uncompleted railway survey between Mount Pelion and Barn Bluff to near Granite Tor, and either cross the Murchison south of Sophia Peak, or near its junction with the Mackintosh, according as the destination is Mount Read or the vicinity of Mount Black. This route would intersect an important belt of mineral country, of which little is known at present.

A more direct route from the North-Western settlements, and more convenient for horse or foot traffic, would be opened by connecting Zeehan with the rich agricultural district of Kentishbury, via Railton, Sheffield, Mount Claude,

the Forth Valley, Middlesex, Mayday Plain, and Mount Black. This track would facilitate exploration of the country south of Surrey Hills, and more than half of it is already practicable for traffic.

The route known as the Linda Track, from Mount Arrowsmith to Mount Lyell and the West Coast, to which reference has already been made in connection with the cattle-track from the North, constitutes at present the sole medium of land communication between Eastern and Western Tasmania. it is regarded merely as a bridle-road or cattle-track, the Linda track must be kept in repair, and improved from time to time as occasion requires. There is another consideration which should not be lost sight of. Every road through the western country should be made to serve, as far as possible, the purposes of a base line of exploration of the surrounding country, and the weak point of this route is that between the Dee and Mount Lyell, a distance of 84 miles, there is no place where supplies of any kind could be obtained. prospector who has to fight his way through "bauera" and "horizontal," if he has no depôt to fall back upon when his small stores are exhausted, is indeed heavily handicapped.

The next route to be considered is one which was originally designed as a main road to the West Coast, but which has never yet produced any adequate return for the time, labour, and money expended upon its construction. Its very existence is now almost forgotten, and of those who know anything of "Dawson's-road," there are not many who could give much information about the line of country through which it passes. This road dates from the time of Governor Sir William Denison. Starting from Dunrobin bridge, it crosses the Broad and Repulse Rivers, and winds up and around one of the outliers of the Mount Field or Humboldt Range, the curves and grades being laid out with the engineering skill which is a characteristic of all similar works of that time. Leaving Mount Misery, the road descends into the Florentine Valley, where my personal acquaintance with it ceases. Crossing the Florentine River, Dawson's-road was carried up its left bank to Gell's Lookout, and thence westerly to the Gordon Bend. Some selections were made in the Florentine Valley early in the sixties, and one enterprising pioneer took up his residence there, but after a few years' trial the place was abandoned, and the road soon became blocked by fallen timber. It was again cleared as far as the Florentine in 1878, but is probably now quite impassable, except where its course lies through open country. Dawson's-road could be again cleared, and the Florentine bridged, at a moderate cost; but, if the object in view is merely to give access to the Florentine Valley and the country beyond it, it is now quite evident that a much more

direct and in every way preferable route is obtainable to the south of Mount Field.

The last two routes to be described are those intended to start from the head of the valley of the Russell Falls River. The Florentine and Russell Falls Rivers respectively drain the western and eastern slopes of a comparatively low range of hills running southerly from Mount Field, and now known as the Humboldt Divide. It was from this point that I suggested as far back as 1878, the cutting of a track to the navigable part of the Gordon. At that time there was no settlement along the course of the Russell Falls River, and it is only since the Tyenna district has been settled, and a road made to the head of the valley, that the importance of this means of access to the unexplored western country has begun to be generally recognised.

One of the proposed routes would take the most northerly of the passes across the Divide, and, skirting the western slopes of the Mount Field Range down to and across the Florentine, would cross Dawson's-road not far from the Gordon Bend. Keeping along the open country of the Rasselas Valley it would make for the easiest pass in the King William Range, and continue in a north-westerly direction past the Loddon Hills to join the Linda track between the crossings of the Franklin and Collingwood Rivers. There is reason to believe that a practicable line for a road will be found along this route, but for purposes of exploration it would not add much to the means of access to the western country that already exist.

The only route remaining to be noticed would be carried over the lowest and most southerly saddle on the Humboldt Divide, cross the head of the Florentine Valley, and keep on in a westerly direction past Mount Wedge to McPartlan Pass, and thence northerly, by the easiest line of country available, to the Gordon, striking that river somewhere between the confluence of the Denison on the north and the Serpentiue on the south. Here means should be provided for crossing the Gordon at all seasons, whether the track be continued down the right or the left bank to the head of the navigation. Unless, however, this track is extended north of the Gordon, it will lose half its value as a base line of exploration, to sav nothing of the advantage of the direct communication with western mining centres, which such an extension would provide. It is therefore of the highest importance that an early attempt should be made to find a practicable route from the crossing of the Gordon, through the unknown country north of that river, to the point where the Linda Track enters the Collingwood Valley.

The tract of country which the last mentioned route would intersect extends from Frenchman's Cap, and the Elliott, D'Aguilar, and Wilmot Ranges on the west, to the Humboldt Divide, Mount Field, Wyld's Craig, and the King William Range on the east. Its southern boundary may be roughly described as a line from the Frankland Range by Huon Plains and Mount Wedge to the Humboldt Divide, and it is bounded on the north by the Linda Track. The area of this tract of country is not less than 1,000 square miles, very little of which has ever been carefully examined, though it is contiguous to some of the oldest settlements of the colony. The greater part of it is wholly unexplored and unknown.

Between the Frankland and Arthur Ranges and the South West Coast there is a great extent of country which is still almost a terra incognita; but this should be approached from Port Davey, or other points along the coast line, and the business of its exploration does not come within the limits of a paper intended to deal only with the question of land routes between the settled districts and the mining centres

which are already established.

