

Direct Communication with West Coast Initiated

Isolation of Fifty Years Removed

Important Stage of West Coast Progress

History of the Western Mineral Fields

LETTERIST

Rest of State

tion with other parts of it has been the dream of the Tasmanians, and even the fact that those towns named for building the railway was turned away towards the end of the last century. In some measure the isolation of the Coast was reinforced by the fact that 35 years ago an epidemic of smallpox swept the island, and, although the intermediate Tasmanian by the construction of a railway line connecting it. However, the conditions imposed by the epidemic and the isolation of the Coast, and the concentration of passengers that part of the Tasmanian general isolation, either settled populations with the fact that short excursions to the Coast resulted in the fact that generally the Coast was not visited until there has been some local association.

The completion of the section of about 51 miles, roughly from the Derwent Bridge at Lake St. Clair to the bridge over the King River at the foot of Linda Valley, has occupied about three years, and has been financed jointly by the State and Commonwealth Governments under the Federal Aid Roads scheme at a cost of £146,000. It marks a stage in the development of the West Coast, which is of the utmost importance. The difficulties of communication

IN RIGHT.

It should have been the goal of the National League and American League to have a plan in an open public interest. At present has taken up the committee have been a ten enormous evidence most equally condemnatory to the road being going surveys were made of financing a railroad. The work was not done. It was well in view of Commonwealth a contribution of trunk line known as the Federal was decided. It was came of nearly 30 years of this course. The country concerned the use of the large industry involved in the of linking the West of the States. Selection of a lack of select. It was delegated to Mr. who with his survey people running the yard, which the previous day been made, and also a chief doctorate being as possible combined by law difficult. Possible with and the number selected. It was the same time, they making a thorough inspection routes that the

By means of the road, residents of all parts of Tasmania are placed in easy communication with the Coast. Between Hobart and Queens-town, of course, the route is direct, but until the completion of the link between the Northern end of the Great Lake and Marlborough, which will be put in hand during the coming summer, the approach from the North is by a round about route. When this section is done, however, Queens'town will be about equidistant from Hobart, Launceston, and Devonport.

recommendation was made for the road recently constructed. Janders were in for small portions, making gradual starts from the Hobart and Queenstown ends, until eventually it was decided that the West Coast road provided the only practicable big work in the state, upon which expenditure was justified. Then it was that big contracts were let, one to Cunningham and Walters, and

that the transportation route from Cunningham and Walters to the western end, and the other from a point near Mt. Charles in the Lake St. Clair district to near Cunningham and Walters combined at a point near the Cobdenwood bridge. By special arrangement between the Government and the contractor the work proceeded winter and summer almost without cessation, the result being that an excellent job has been done in rapid time, and the road has been passable for all motor vehicles for some months.

THE ROUTE DESCRIBED

MOUNTAIN, RIVER, AND PLAIN.

Commencing from Hobart, the road follows the Derwent Valley through New Norfolk to Grimma, thence through Hamblin, Uxue, Uue, and Marlborough to the Derwent Bridge, 104 miles from Hobart. This bridge over the Derwent is about four miles from Cynthia Bay, on the shores of Lake St. Clair, the most beautiful of the many glorious sheets of inland water in Tasmania, and the source of the Derwent, here only a tiny stream, but giving plenty of evidence to those interested of the wealth of brown and val-

how trout with which Tasmanian lakes and streams abound.

Taking course generally little north of west, the road follows the north of the Berwerst for a little distance, and then emerges upon the first of the series of hutton grass plains which alternate with dense forests for the greater part of the western portion of the journey. Here come into view the sentinels of the western mountain ranges, the first of which Mt. Olympus, was visible for some miles. The range of Mt. Olympus was reached. On the right Mts. Hugo and Ilfuss stand out prominently, well. Gell and Arnsworth ahead, and the peaks of the King William range on the left hand. It is from Lake Richmond on the eastern slopes of the King William, that the noble Gordon River rises. Passing over the Little Navarre and Navarre Rivers, and several other small streams, the King William draws closer to the coast, the skyline on the left, and the mountains on the right, are the grassyland of several bad-land plains, who, caught in dizzards on the old Lander Track, perished where they lay, the road



AID. V. O'HALLORAN

THE NEW ROAD

Dream of Years Materialised

WARDEN OF QUEENSTOWN.

dips into the valley of the Surprise River.

SURPRISE RIVER GORGE.

Here for the first time since leaving Hobart scenery typical of the West Coast is encountered. The road is cut into a siding beneath the southern side of Arrowsmith, through dense forest country, with the river winding along hundreds of feet below on its way to join the Franklin, and swell the waters of that tributary of the Gordon. It is along this section of the road that the first glimpse is obtained of the great known of the western highlands, the Frenchman's Cap. Dropping to the Franklin bridge, the road passes pretty Lake Shirley, and once over the Franklin, skirts that river for a space to climb the divide separating the Franklin and Collingwood Rivers. From the eminence of the divide a wonderful view of the mountain ranges is presented, peak after peak coming into view as the traveller progresses. From Junction Hill can be seen the immense gorge probably never entered by man, through which flows the wash the foot of "the Frenchman." A short track from the main road to vantage points overlooking this gorge, which is of immense depth and with almost precipitous and heavily wooded sides, could be put in with advantage, and would afford travellers a view of superb grandeur.

FIRST SIGHT OF LVELL.

Once over the saddle, the descent to the Collingwood bridge is made through beautiful forest, nestling under the slopes of the Raglan Range, and from thence on skirting the Collingwood and its tributaries, a steady but well graded climb brings the traveller to Pitt's Pass, and within sight and sound of the Mt. Lyell Co.'s mining operations. Mt. Owen rears its barren head above those of most of its fellows, and as progress is made in the descent to the valley of the Nelson River, the effect of the light on the mountain, causing it to change through many shades of blue, grey, and pink, affords a most remarkable sight. The country along the Nelson has been swept by fire, and now, under a growth of luxuriant grasses, carries cattle destined to provide food for the workers of Mt. Lyell and their families.

The Nelson crossed, the road runs through more or less undulating country to the Princess River, and then on to

road of Queenstown, Strahan, Zeehan, and Waratah, and thence to Burnie, is every master of mine, and these latter fitted, the round trip will provide an attraction of unrivalled value.

COST OF THE ROAD.

The cost of completing the new section of the road which have made through communication possible amounting to \$140,124 for 31.1.3 miles, which is view of the fact that the road passes through virgin forest for a considerable portion of the way, and also crosses rough country, including the main divide of the State, is a very creditable achievement. The earthworks, culverts, bridges, etc., cost £1,907 a mile, and the pavement £820 a mile, a total of £2,527 a mile.

HISTORICAL OUTLINE

Many Early Explorations
Developments of 50 Years

ALTHOUGH the history of West Coast exploration goes back very far in the story of the settlement of Tasmania, it is only during the last 50 years or so that attention has been focussed upon the formerly almost entirely unknown portion of the State. The

fact that the mountains of Zeehan and Heemskirk were the first Tasmanian land seen by European eyes when Tasman's Dutch fleet visited those shores in 1642 is known to every schoolboy, and the subsequent visits by early navigators have little to do with the story of more recent developments.

The history of the West Coast really begins from the time when James ("Philosopher") Smith, one of the hardy breed of early prospectors, pushed out from the North-West Coast through virgin country in 1871, to locate the famous Mount Bischoff tin mine, the greatest deposit of lode tin in the world. Smith's discovery, which led to the opening up of that part of the State, had the effect of attracting the attention of dozens of prospectors to the Waratah district, and as in the want of prospectors, they soon drew away from the more settled part, and directed their attention to the mineral possibilities of areas further afield.

First the Pieman district was gone over, and then, crossing that noble stream, they descended upon the North Mt. Heemskirk area, where alluvial tin was discovered. It was left to Frank Long, however, one of a small party that had pushed further afield into the unexplored regions, to make the discovery which led to the opening up of the Zeehan field. No discoveries that have proved of very great importance followed the activity resultant from Smith's find of Mt. Bischoff until 11 years afterwards. Then it was, on December 23, 1882, that Long first uncovered the galena deposits of the Zeehan district—a very appreciable Christmas present, but one which, as is the case in so many instances, yielded the discoverer little more than regrets.

GOLD AT MT. LVELL.

During the same year prospecting parties from Hobart had set out for Macquarie Harbour, with the object of following up the rivers running into that waterway in search of gold. Some time was spent in following up the streams, with varying success, until in the following year two brothers, Michael and William McDonough, came out on to the shores of the Queen River, and were directed by Mr. T. B. Moore, the prince of West Coast explorers, to a blazed track leading over the ridge which separates Mt. Owen from Mt. Lyell. The investigations which followed disclosed the presence of a massive iron "blew," which was at first worked for gold, it being regarded as the source of the gold discovered in the Linda Valley below. Subsequent Gould had camped in Linda Valley in the 'sixties, and had discovered gold, and T. B. Moore and his brother had also seen traces of gold earlier in 1893. It was in the McDonough brothers, however, that the honour of pegging the first claim belonged, and from that has sprung the development of the

Chief has sprung the development of the east Mt. Lyell mine. Others associated with the discovery and the early operations on the field include the Kaghon brothers, James Crotty, William Dixon, and the late F. O. Henry, who was the first storekeeper on the field, opening a branch of the establishment he had started at Strahan.

As in the case of most mining fields, the original discoverers of Mt. Bischoff, Zeehan, and Mt. Lyell failed to take full advantage of their finds, and it was left for those who came along afterwards to

reap the wealth they had located.

Since then, at an estimate which can reasonably be called conservative, the West Coast mineral fields opened up as the result of the efforts of the early prospectors mentioned, have yielded to the State minerals to the value of over £40,000,000. The Mt. Bischoff field has produced metallic tin to the value of over £6,000,000; the Zeehan silver-lead field has a record of production of silver and lead of about £11,000,000, and the value of the copper, gold, and silver produced by the Mt. Lyell Co. alone, apart from that of the many other mines originally operated, is in excess of £20,000,000.

READ-ROSEBURY FIELD.

Another important mining field of which great things are expected is that of the Mt. Read-Rosebery districts, where the Electrolytic Zinc Co. has extensive works, waiting the time when

the economic production of zinc, gold, silver, and associated metals from the immense ore bodies it holds will be possible.

EARLY EXPLORERS.

HISTORY OF COMMUNICATIONS.

The history of West Coast exploration, a summary of which is given in the following article, has been compiled as the result of a great deal of painstaking research on the part of Mr. W. Rose Reynolds, Engineer of Works, from Parliamentary papers and records and other information in the possession of various Government departments.

According to the information obtained by Mr. Rose Reynolds, the first expedition in an attempt to reach the Frenchman's Cap, which evidently had been noted on account of its strange shape by officers at the penal settlement at Macquarie Harbour, was made by Mr. W. S. Sharland, Assistant Surveyor, who set out from Bathurst on February 12, 1882. From a camp at Surveyor's Marsh, north of Lake Leven, he commenced his journey with a pack horse and five men, passing over and naming the Clarence and Powrie Rivers, and near Marlborough he reported having seen a herd of 31 white cattle, plenty of kangaroos, and a native hut. One of his men, when lost, saw one native carrying a spear, but he quickly disappeared and this was the only native seen on the trip. Sharland named and climbed Mt. Charles, from which he saw a fine sheet of water which he named Gordon Lake, believing it to be the source of the Gordon River. Leaving his horse and two men behind at a Derwent, Sharland set off with provisions for six days. He crossed the Franklin River, where one of his men was nearly drowned, and the London Plains, then recently burnt out by natives, of whom signs were seen, and here the party found human bones, evidently the remains of one of the escaped convicts who had absconded from Macquarie Harbour. Struggling against tremendous difficulties Sharland and a party climbed to within half a mile of the summit of Frenchman's Cap, only to find, to their intense disappointment, an impossible chasm barring further progress. The Out was reached on the return journey on March 24.

SETTLEMENT AT MARLBOROUGH.

About 1830 land settlement had extended to Marlborough, and the Clarence, nearly 100 miles from Hobart, and it is probable, although no records exist, that Harvey or Calder, when in the district at that time, explored the country around Lake St. Clair.

SIR JOHN FRANKLIN'S TRIP.

the King, about seven miles from Queenstown. A steady rise through Linda Valley, the scene of the alluvial gold mining which ultimately led to the discovery of the immense deposits of copper ore which have kept Queenstown prosperous for half a century, and Gormanston is reached. A nerve testing run follows over a precipitous road with hairpin bends in rapid succession occupying a little over four miles. The traveller then emerges into the valley of the Queen River, and the journey of 157 miles safely completed, receives the welcome of the residents of Queenstown.

NORTHERN CONNECTION.

Until the link in the direct road from the northern portion of the State is completed, which will be probably towards the end of the approaching summer, the journey from Launceston, Del-

oraine, or North-West Coast towns to Queenstown is by a somewhat circuitous route. The Launceston-Deloraine-Great Lake Road, however, is to be completed without delay by way of the western side of the lake to Miema, and thence to Marlborough, where it will junction with the West Coast Road, and place the people of the north within as close touch of Queenstown as are those in the south. From Launceston to Queenstown the distance will be about 160 miles.

In general, the newly-completed road will provide an asset to the State of the utmost economic and commercial importance, and should prove an additional attraction to tourists from other parts of the Commonwealth. The connection by road of Queenstown, Strahan, Zeehan, and Waratah, and thence to Burnie, is

The first authentic exploration trip across the State from the capital to Macquarie Harbour was made by Sir John Franklin, then Governor of Tasmania, starting about March, 1842, but there is no doubt that Surveyor Calder had been over the same ground previously, clearing the track and staking the plains, etc. in order to guide the party across and enable it to do the trip in the time it was carried out. The country between Lake St. Clair and

Macquarie Harbour, except for the partly open gum country from St. Clair to Mt. Arrowsmith, and scattered button grass plains, was an impenetrable forest requiring considerable track cutting to enable reasonable progress, and sufficient food supplies to be carried for such a large party.

The route taken was from Hobart to the Ouse—54 miles—and was done probably by horse conveyances. From Ouse to Marlborough (58½ miles from Hobart), and perhaps almost up the Clarence and Derwent Rivers, it was done by bullock cart. The remaining distance was then by foot to Mt. Arrowsmith, crossing the Franklin River (102½ miles), and travelling in a south-westerly direction via Loddon Hills, Calder Pass, to the east of Frenchman's Cap, between Deception Range and the Franklin River, crossing the latter to the Gordon River at Expectation Reach, 10 miles from its mouth into Macquarie Harbour (or about 160 miles from Hobart). The party was met here by the small craft, "The Breeze," which took its members to the Convict Station at Settlement Island, thence on to Hobart. Those accompanying Sir John Franklin were Lady Franklin, Mr. Beger, Dr. Miligan, as medical attendant and naturalist, Mr. David Smith (an officer), an orderly, a maid and Mr. Calder, the surveyor, as guide, and immediate master of 20 able-bodied convicts especially chosen for the purpose.

Lady Franklin describes the trip in the following words: "Our expedition has been a rough one, and perhaps rather an anxious one, but on this very account, it has afforded a salutary change to our thoughts, long harassed by recent political matters at headquarters."

The expedition started on March 25, 1842, reached the Franklin River through a few miles of timber country on April 13, and was at Expectation Reach, Gordon River, on April 22, so that it took 25 days to make the trip, 56 miles of which was through unexplored country (except where Mr. Calder prepared the track), and extremely rough travelling was experienced. Considerable hardships must have been endured on this section of the journey, especially by the two women, although Lady Franklin was carried in a stretcher or palanquin by the convicts. Even the portion from the Ouse to Derwent by bullock cart must have been very rough travelling, because not even a decent bullock road existed for a considerable part of the distance.

The party carried no weapons whatever, except the axes, etc., carried by the convicts, and on the trip from Macquarie Harbour to Hobart on "The Breeze," the crew consisted of only five men, making in all 12 persons, including two women, and the convicts outnumbered them so that at any moment they could have overpowered the party and obtained their freedom, as there was the vessel already equipped to enable them to get away from the Colony, but luckily they behaved very well, buoyed up by the promise of Sir John Franklin that portion of their sentence would be remitted for good conduct.

During the years intervening till 1838, a little spasmodic exploration work was carried out. In 1843 Surveyor Burgess found coal at what he named Coal Hill, beyond Lake St. Clair. In 1856 Surveyor Calder found veins of auriferous quartz on Mt. Arrowsmith, assays of which gave results up to 500 lbs. per ton. In 1855 a Mr. J. Whyte took up land on which gold was discovered and in November, 1859, gold was located by Tully on the slopes of Mt. Arrowsmith, and also on the Frenchman's Cap.



MR. R. M. MURRAY,
Warden of Gormanston.

EXPLORATIONS BY GOULD.

MINERAL AREAS COVERED.

Two of the most important of the early exploratory trips which revealed the presence of minerals in areas afterwards proved to be highly productive, were those carried out by Gould in 1868 and 1862 with a party of 23, including Mr. Gould as geologist, Mr. Burgess as surveyor, Mr. Breen as second in command, and Mr. Smith in charge of the prospectors, the first expedition set out at the close of 1858 on a journey which occupied four months, and covered the area of country bounded by Lake St. Clair and the King River on the south, and Granite Tor and Burnt Bluff on the north. After establishing a depot at the head of the Couvier Valley, west of Lake St. Clair, Gould put in certain main creeks from which the party, divided into sub-sections, carried out its further operations. Incidentally, during stormy weather which precluded journeys on the lake, attention was devoted to taking soundings of Lake St. Clair, which was proved to be of depths up to 50 feet. Gould's theory as to the formation of the lake was that it was originally a very deep gorge entering the Derwent, and that an intrusion of diatase had the effect of covering up one end of the gorge, thus forming the lake.

During his second trip Gould explored parts of Macquarie Harbour, crossed Mt. Lyell through Linda Valley, discovered gold in the King gullies at the junction of the Franklin and Gordon Rivers, and also traces of copper.

SUBSEQUENT DEVELOPMENTS.

In 1857 Mr. J. R. Scott, who was a surveyor and afterwards became a Minister of the Crown, headed an expedition financed by Mr. G. F. Read, then the owner of Redlands Planty and the following year, Mr. E. A. Counsel, afterwards for many years Surveyor-General, followed Scott's route.

None of the old explorers had traversed the route of the present road, and it was left to Mr. T. B. Moore some years later to explore that route, and the present road runs almost exactly along Moore's track. In 1837 Public Works votes were made for tracks from Waratah, and some years earlier—1831—a vote was passed for a telegraph line from Waratah via Corinna to Mt. Heem-

Kirk. The Strahan-Zeehan railway construction was started in 1890, and opened at the end of the following year, and a steamer service to Strahan was inaugurated. A feature of the country in which Gould drew attention was that the famous Iron Blow at Mt. Lyell had counterparts north and south, and it has been a noticeable feature of West Coast mining that gold discoveries have been associated with each of these "blows."

DIRECT TELEGRAPH.

It was not till 1886 that a direct telegraph line was put in between Hobart and the West Coast, the route being by way of the old Linda Track, and prospectors and cattle dealers made regular use of that track to reach the West Coast fields.

Rough roads were opened about this time from Waratah to Corinna, and thence to Zeehan, from Dundas to Strahan, and from Strahan to Mt. Lyell, and eventually, with the development of the various fields, came the railway line from Strahan to Queenstown, Zeehan to Dundas, Zeehan to Mt. Lyell, and Zeehan to

from Strahan to Queenstown, Zeehan to Dundas, Zeehan to Mt. Lyell, and Zeehan to Burnie, the latter being the line owned by the Esau Bay Railway Co. while the North Mt. Lyell Co. also developed a line from its mine to the smelting works at Crotty, to Phillips Harbour.

THE ROAD JUSTIFIED

Overdue for 40 Years

Mr. C. Selby Wilson's Views

"A Paradise of Minerals"

ONE of the pioneers of the West Coast, and one who has been actively associated with almost every phase of its development, is Mr. C. Selby Wilson, the District Surveyor for that portion of the State. Mr. Wilson, who is living at Hobart and who visits the Coast periodically on his professional duties, first went to Zeehan in 1881, shortly after the discovery of tin, silver, lead, gold, and copper brought the Coast into prominence. He has been associated in his professional capacity with the development of every one of the many rich fields, and in his pioneering days had many thrilling and arduous experiences, some of which would have proved the end of a much less active and weaker physically.

On one occasion, only a few years after he first went to Zeehan, in the winter of 1883, just at the time of the discovery of the STAFFORD, he had a hazardous experience. He was with a party, as with an extreme poor performer, who endeavored to cross Zeehan, having been killed on the way for two days, and when they reached the Pienian they found that the punt, which was the only means of crossing, was on the opposite side. Late was drawn as to who should swim across to the punt so that other members of the party could cross. The undertaker, as the case might be, was a poor swimmer, and Mr. Wilson volunteered for the task of negotiating the steady wide torrent, running almost a ton per second, after a period of rest, in which he was carried by the current out of sight of his companions, who thought he had been drowned. Mr. Wilson managed to reach the opposite bank, and after talking out the punt, rescued his companions, who eventually reached Zeehan.

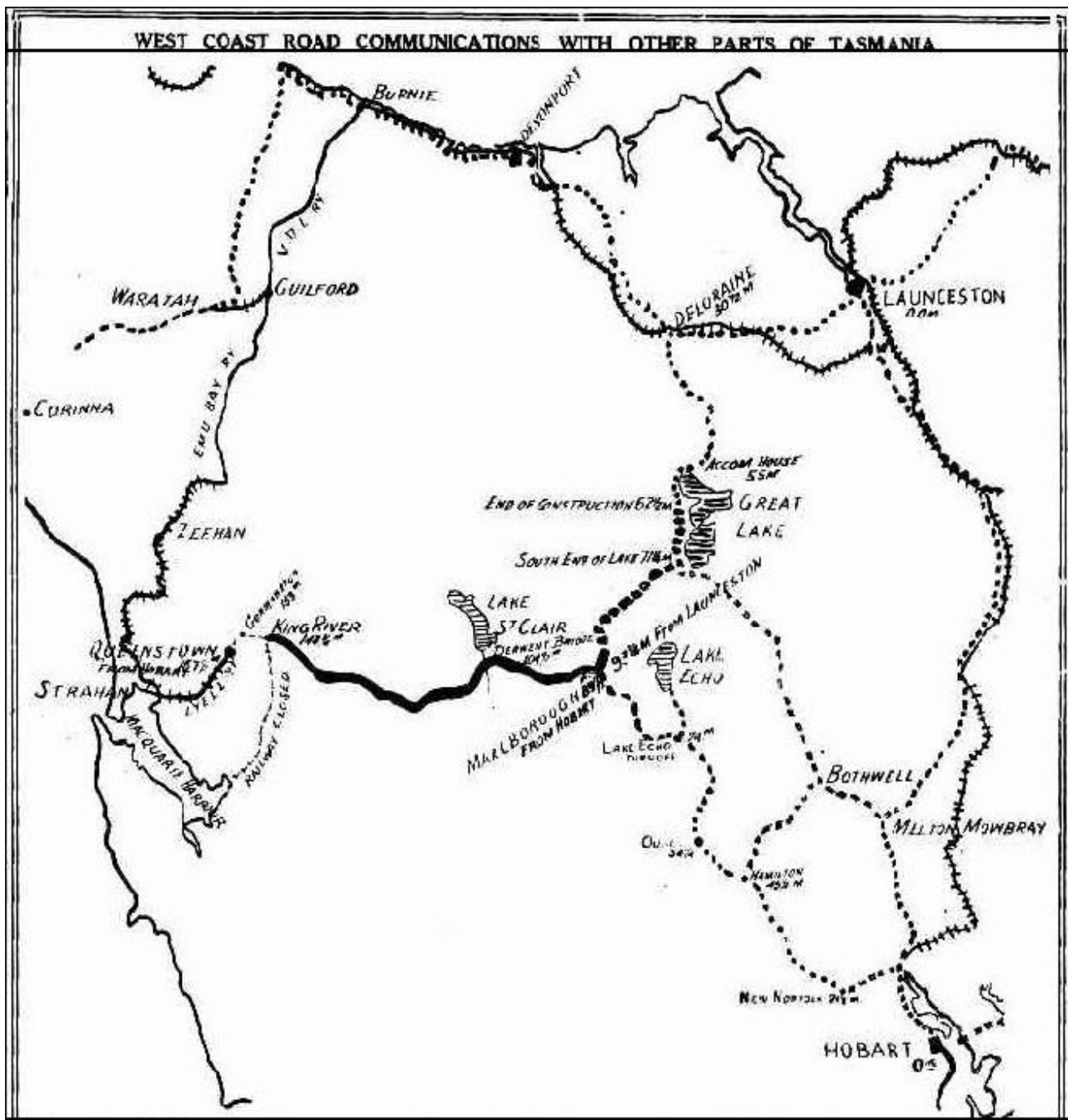
On another occasion, when in the company of one of his trusty lieutenants, the late Mr. Dave Farquhar, the marvellous powers of endurance of the two were tried to the extreme. They were going through the unknown country between the Murchison and the head waters of the Mersey River, and owing to difficulties encountered as the result of flooded rivers, found themselves short of food. For five long days they had nothing to eat. Killing the dog was suggested, but was strenuously opposed by Mr. Farquhar, who urged holding out for another day. They decided to hold out, and a few hours later the dog put up a badger. As a result, within 10 minutes they were enjoying half-cooked badger as only starving men could.

"MOORE HIGHWAY"

Road Name Suggested.

Naturally, as a West Coast man, Mr. Wilson views with satisfaction the inauguration of the daily direct service to Queenstown, and made the following statement yesterday when referring to the justification for its construction:—

Continued on Next Page



THE NEW ROAD: The plan shows the position of the recently completed portion of the new road to the West Coast, and the means of communication now possible between other parts of the State and Queensdown. Distances between the various centres are shown, and the dotted section from Marlborough to the northern end of the Great Lake is that which is to be constructed this summer, giving direct communication with the north.



A VIEW OF CORNWALL: Showing the position of the recently completed portion of the new road to the West Coast, and the means of communication now possible between other parts of the State and Queensdown. Distances between the various centres are shown, and the dotted section from Marlborough to the northern end of the Great Lake is that which is to be constructed this summer, giving direct communication with the north.

of the Mt. Lyell Copper Mines. The main road route is through the heart of Gormanston, which is about 41 miles from Queenstown.

J. G. LYNCH, M.A.

Inauguration of Daily Services by New Road

THE ROAD JUSTIFIED

Continued from Page 10

Not long last an important part of the East Province, as Western Tasmania is sometimes pathetically called, has been connected to the main road system of Southern Tasmania. Now that this is an accomplished fact the hope may be expressed that that very essential connection, namely, to the Great Lake from Marlborough, will be expedited in order to join up with the roads of northern Tasmania. Also it may even be not too much to expect that extra favorable consideration will be given towards extending the highway from Queenstown to link up with the road system of north-western Tasmania.

Seeing that the recently constructed road from the Derwent bridge, near Lake St. Clair, to Mount Lyell closely follows the old pack track route marked out in the latter eighties by that intrepid explorer, the late Mr. T. R. Moore, it seems fitting as a lasting tribute to his memory that the road should be named the 'Moore Highway' by the Commonwealth and State Governments, who provided the money for its construction. Doubtless such an official recognition of the many signal services rendered to this State by Mr. Moore will meet with the appreciation of an ever-grateful public.

EARLY EXPERIENCES.

Thinking backwards over the years, what a change from travelling per Irish tandem some foot following the other, excepted with the resilient cushions and springs of a motor speeding 40 to



MR. C. SELBY WILLSON.

District Surveyor of West Coast since 1888.

40 miles per hour. By the former means it took it used to take us four long days from Strahan to the Dee River walking well into the night, and camping only when the tandem method punctured. To-day, per motor, the distance from Hobart to Queenstown means from five to seven hours' travelling. On an Australian Mission, E. A. Counsel, then Surveyor-General, Dolph Weber, and I started from Zeehan at break of day for Lake St. Clair, via the Canning River and the southern foothills of the De Grey Range, and to the north of the Eden Range. The going was so rough and uncertain that it took us about five days to reach Gould's Pyramid, where we finally struck Bob Ewart's camp, the day previous we had quite run out of tucker. Bob Ewart, who for many years was one of my loyal and trusty companions (he crossed the last range three years ago) was in charge of a party of prospecting and prospecting that wild country lying between Cradle Mountain, as Mount Pelion, to the Raglan Range, and had only pitched his camp a day before our arrival. Doubtless Mr. Counsel has never forgotten that memorable trip, the kangaroo steak and damper at Bob's camp, and he is said the quiet before Nelson's blood on reaching the accommodation huts at Lake St. Clair at a late hour on that cold first night. Notwithstanding our temporary hardships, we took a chance.

Seeing that the late Mr. Moore was a chance.

EXPENDITURE JUSTIFIED.

Sometimes I am asked if, in my opinion, there was sufficient justification for the construction of the road from Marlborough to Mount Lyell. Well, viewing the question in its broad significance, I certainly believe the expenditure to be justifiable, taking in some sort of parenthesis, however, such an important matter of State development has been delayed for well nigh 40 years—40 years in the wilderness, so to speak. According to my own facts, there was not an atom of justification for any such expenditure. Some of the most, of course, have been wasted during the earlier years of mining in the West Coast. But since then the number of advantages in this regard have far outweighed the disadvantages. The potential wealth of western Tasmania surely merits more consideration than has hitherto been devoted to it. It is too much the fashion to regard the West Coast—practically one-fourth of the area of the State—as a wilderness of mountains and strata, and a no man's land; but as a matter of fact ascertainable fact, it is a treasure wealth. For instance, the total value of mineral products for the State in 1932 was £1,000,000 (approximately), and at least one-third of which were obtained from the western mining district. In good truth the prosperity of the State is very largely dependent on the general and continuous development of the mining industry; the total value of which for the past 50 years has far more than equalled the total combined value of the wool and dairy products.

EXPERT OPINIONS.

The fact that little is known of Tasmania's mineral wealth may be gathered from the following extract from an article contributed to the 'Miners' Magazine' (N.S.W.), by the late Mr. Robert C. Sticht, for many years the general manager of the Mount Lyell Mining and Railway Company. He said: "Though the smallest of the six States comprising the Commonwealth of Australia, Tasmania is by no means the least rich in mineral resources. It is unique in character and remarkable in variety. The number of known mineral species exceeds that of any of the other Australian States, and even in respect of its mineral interest of industrial mining the little island may count comparison with much larger countries. Tasmania possesses most mining localities of the world through exhibiting, within a limited area, an unusual number of commercially valuable minerals, including some of the most useful metals and it is safe to say that no other mining region in the world can duplicate the existence of similar diverse enterprises of equal magnitude and importance within an equally narrow territorial compass. At least one-third of the mining is well mineralised and is fit for no other purpose than mining, and though much of this ore-bearing area may be of low grade, still the economic minerals are closely distributed, and the generality of the ore deposits valuable enough to become amenable to perfected processes of treatment, which can be operated profitably when carried out on a large scale."

Seeing that the late Mr. Sticht was one of the most able and best-known authorities in the mining and metallurgical world his views should carry conviction. For it is undeniable that the great work of exploiting and utilizing the deposits of low-grade and often complex ores in the best account would and undoubtedly to the wealth of the State. Continuous and well-directed effort to open up new mines should, therefore, be materially encouraged as a matter of public policy and sound business. The wisdom of consistently protecting and fostering the development of which the late Professor Gregory and Dr. Mackintosh Bell—both prominent geologists—have tersely described as a 'paradise of minerals' within the fastnesses of our mountains and along lines that have been laid down by able scientists and geologists, who can say that there are not other Lyells and Bleibos, etc., that will add enormously to the wealth of the State."

THE HEART OF LYELL

Mt. Lyell Mining and Railway Co.

Tasmania's Greatest Mine

THE MOUNT LYELL mining field provides the outstanding instance in Tasmania of the romance of the mining industry. True it is that there have been more spectacular discoveries, and more money has been made in a short time in other parts of the State than in a similar time at Mount Lyell, but for endurance and sheer worth the Lyell copper mines stand supreme.

Since the first discovery a little over 50 years ago, minerals to the value of over £26,000,000 have been won from the field, and the Mount Lyell Mining and Railway Company, which is now the holder of practically all the worthwhile mineral lands in the immediate vicinity of Queenstown, has paid in dividends nearly £3,100,000.

The history of the Mount Lyell mining field dates from the year 1881, when a party of prospectors in search of gold landed at Farm Cove in Macquarie Harbour, and worked their way up the King River valley. They succeeded in discovering some gold near the confluence of the latter with the Queen River, a few miles from the site on which Queenstown now stands. Although a considerable amount of gold was obtained, no payable field was found, despite extensive prospecting over a large area in the surrounding district, and it was not until 1883 that gold was discovered in the valley immediately below what afterwards became the famous Mount Lyell mine. A small company was formed to work this, and it was only after the lapse of several years that it was discovered that the massive outcrop of ironstone which was being worked for gold was actually the capping of a huge mass of iron pyrites carrying copper, silver, and gold.

HUGE PYRITIC MASS.

As the gold-mining proposition was found to be unpayable, interest was directed to the pyritic mass, and in 1891 Mr. Bowyer Kelly visited the locality, and as the result of his investigations a company was formed, known as the Mount Lyell Company, No. Liability, which was superseded in 1893 by the Mount Lyell Mining and Railway Company Limited. In that year Dr. E. D. Peters, Jun., a world-known authority on copper metallurgy, was brought from America to report on the proposition of working the pyritic deposit as a copper mine, and as the result of his favourable report, the services of Mr. H. C. Sticht, who had had experience in America in the treatment of ore of this description, were obtained. Mr. Sticht arrived in April, 1895, and immediately set about the work of erecting a smelting plant in the Queen Valley, a mile from the present town of Queenstown, and a similar distance from the mine, which is situated on the opposite side of the ridge joining Mount Lyell and Mount Owen. Ore transport was provided by an aerial tramway, and general communication with the mine was established by a surface tramway and haulage line. The metallurgical process adopted was known as the 'pyritic' process, and was de-





LATE MR. R. C. STICHT.

First General Manager of Mt. Lyell M. and R. Co.

developed and carried out by Mr. Sticht with signal success from the outset, the smelter being started up in 1886.

RAILWAY TO STRAHAN.

Simultaneously with the erection of the smelter, and the developing of the mine, the work of constructing a 5 ft. 6 in. railway in Queenstown from a point on the navigable part of the King River, known as Teepookana, was undertaken and completed in July, 1885. This was extended in 1890 to Strahan, where it joined the Government line at Regatta Point, and established through connection with the railway system of the State.

OTHER OPERATIONS.

The activities of the Mount Lyell Company naturally encouraged extensive prospecting work throughout the district. Many other companies were formed, and large sums of money spent, but only in a few cases was the work done rewarded with much success. The greatest discovery was that made by the North Mount Lyell Mining Company, which was successful in locating rich ore on the property of 20 acres about a mile to the north of the parent Mount Lyell mine. The nature of this ore, however, was quite dissimilar to the pyritic deposit of the latter, being silicious rock, impregnated with various copper sulphides—particularly hematite, chalcocite and chalcopryite.

The North Lyell Company developed a mine of considerable extent, and built a railway commencing from the head of the Linda Valley immediately below the mine on the opposite side from Queenstown, and extending to Macquarie Harbour, coast with the harbour being made at the southern end at Pillinger, the town of Strahan being situated at the northern end. Ten miles from the Linda remains a smelting works was built, and the township which sprang up round this was known as Cresty, being named after the founder of the North Lyell Company. Some very rich ore was sent over this line and exported to Europe, and a considerable tonnage of the average grade ore of the mine was treated at the Cresty works, but the metallurgical process proved to be very expensive owing to lack of suitable fluxing material. The idea first for the purpose was the pyrites of the Mount Lyell mine, and conversely, the silicious ore belonging to the North Lyell Company would provide a quite suitable flux for the smelting of the pyrite at Queenstown. That is to say, the two ores were the natural complement of one another, and the obvious proposition was that the two deposits should be worked in conjunction.

BIG COMPANIES COMBINE.

By the year 1892 the finances of the North Mount Lyell Company had become exhausted, and the richer portion of the Mount Lyell pyritic deposit had been depleted, and the way was thus made clear for the negotiating of the amalgamation of the two companies, which was effected in August of that year, the Mount Lyell Company practically absorbing the North Mount Lyell Company and the combined proposition retaining the name of the parent company. From this date to 1912 pyritic smelting was continued, but by this time owing to the gradually increasing cost of mining pyrites (the whole of the production now being mined underground instead of in the open cut workings as in the early part of the mine's life), and also to the diminution of the copper contents of the pyrites, this process

was abandoned. The mining and smelting of Mount Lyell ore was discontinued, and the North Lyell ore, from which most of the copper had been produced

most of the copper had been produced for many years, was subjected to treatment by wet concentration. This meant that instead of large quantities of metal-bearing material carrying a relatively small amount of copper, a small amount of material rich in copper was smelted, and this process has continued to the present time.

The introduction of a concentrating mill involved the making of many plant alterations and additions, and in 1923 the treatment plant was further extended by the installation of an electrolytic refinery, in which the blister copper produced by the smelting process is refined into pure copper, and the silver and gold extracted incidentally.

OTHER COMPANIES ABSORBED.

Among the more important of the other companies which were engaged in active operations during the early history of the field were the Mount Lyell Rocks Co. and Lyell Tharista Co. and the Lyell Cement Co., South Tharista, Royal Tharista, Crown Lyell, and South Mount Lyell Companies. The two first named actually produced a considerable quantity of ore similar in nature to that of the North Lyell Mine, which they adjoin and add to in the Mount Lyell Company. The others mentioned were all successful in locating large bodies of ore, but the grade of this was comparatively low in each case, and the deposits were not regarded as being capable of being worked commercially. All these properties, together with many others, were gradually absorbed by the Mount Lyell Company, and have since been quite successfully worked to the improvements that have been made in metallurgical treatment, the low grade ores referred to have received

of attention, and are now being worked and are regarded as having a very important bearing on the future life of the field.

THE SPIRIT OF INDEPENDENCE.

OPERATIONS SELF-CONTAINED.

The Mount Lyell Company's works and operations at the present time are remarkably self-contained and complete, and cover every step in copper production, from the mining of the ore to the turning out of electrolytic copper, which is copper in its purest form. Few, if any, works in the world undertake this whole range of operations in the one locality. In addition, the company generates its own power at its Lake Margaret hydro-electric plant, which has a capacity of 10,000 h.p. continuously, and has its own railway system, which as well as dealing with its inward supplies and outward products serves the whole Lyell community. It also provides for its own supply of timber for the mines and works, these being obtained from logging areas in the Lyell and neighbouring districts.

Up-to-date engineering shops, foundries, sawmills, etc., undertake the work of maintaining the extensive plant and equipment of all branches of its organisation.

PROCESS OF OPERATIONS.

The ore on arrival at the works from the various mines is deposited in steel bins, from which it passes to the coarse breaking plant. This comprises three crushing machines in series, which reduce the ore to half-inch size. From the crushing plant it is transferred by conveyor belt into large cylindrical concrete bins having a capacity of 1,000 tons, and thence it passes in a continuous stream to the fine grinding section of the milling plant, where it is ground in ball mills with water until it reaches the form of a fine pulp 85 per cent. of which will pass through a sieve of which the meshes are only one two-hundredth of an inch wide. This fine material is sent to the flotation machines, which separate the valuable metals from the waste rock material. The mineral product thus obtained, known as concentrate, has the water extracted from it by means of suction filters, and part of it is roasted in a roasting plant in order to agglomerate it into "slater" (hard clinker), and the balance is stored for direct smelting. The slater and raw concentrate are smelted in the blast furnace in suitable proportions with coals and fluxes, and a copper matte is produced. This contains copper, iron, sulphur, and precious metals, all waste being eliminated in the form of slag. The matte is transferred in a molten condition to a "converter vessel," where by blowing compressed air through it the iron and sulphur are got rid of, and molten copper containing all the silver and gold

soluble are got rid of, and molten copper containing all the silver and gold present remains. This is cast into large rectangular cakes of about 500 lbs. each, which are treated in the electrolytic refinery, where the metal is purified by a process of electrolysis. The contained gold and silver are deposited in the refining tanks in the form of "slimes," which, although having the appearance of ordinary mud, is extremely valuable and is carefully packed and sent away

for the final recovery of the precious metals.

POLICY OF PROGRESS.

In order to keep pace with the gradual reduction in the cost of producing copper elsewhere in the world the company has consistently maintained a progressive policy and kept all its methods and its plant up-to-date and efficient in every respect. A very important move in this direction was undertaken in 1914, when the harnessing of the Lake Margaret water power was completed and the whole of the extensive steam plant was replaced by electrical equipment. This afforded supply of cheap power has since been one of the biggest factors in enabling the company to carry on operations, particularly during times of low metal prices, and in making possible the treatment of various low grade deposits.

In 1922, when a crisis occurred in the base metal world owing to the collapse of the metal market, the company, as already mentioned, adopted the bold policy of abandoning pyritic smelting, for which it was world-famous, and substituting wet concentration and smelting of concentrates. This change involved the installation of a complete concentrating plant, which had to be carried out without interruption in copper production, the change from one process to another having been made gradually and under very considerable difficulties.

TUNNEL TO NORTH LYELL.

In 1924 two further large and important projects were undertaken with a view to obtaining cheaper production costs, one being the erection of an electrolytic refinery, and the other the construction of a deep level tunnel 1,000 ft. long in the mountain side connecting the 1,000 ft. level of the North Mount Lyell mine with the Queenstown works. Both of these undertakings were completed in 1925, and have proved to be largely instrumental in enabling the company to maintain operations in face of unprecedented low copper prices which have prevailed for some time past.

RECORDS OF PRODUCTION.

The total output of metals since the inception of the company was as follows:

Copper, 252,818 tons.
Silver, 14,390,518 ounces.
Gold, 404,145 ounces.

The approximate value of the above was £20,560,000, of which £5,212,875 has been distributed in dividends, and the remainder in wages, purchase of materials and plant, taxes, etc.

The total number of employees at Queenstown at the present time is 1,150, and the total amount distributed fortnightly in wages and salaries approximates £14,000.

COMMUNITY INTERESTS.

In addition to the activities directly relating to the mines and works, the company has extensively engaged in matters of a social and cultural nature. It assists employees to acquire or build their own homes on a rent-purchase system of a very liberal nature. It

conducts large general stores and butcheries in both Queenstown and Germanston for the benefit alike of employees and the public, these being run on a non-profit basis, the object being to keep the price of commodities at a reasonable figure in connection with the butcheries, extensive grazing lands are held in the King River district along the early portion of the route of the overland road, also a farm property near Burnie. It obtains and provides firewood at cost price for the whole community, and also supplies through the municipal councils electric light and power for domestic use at a specially low rate, and assists residents in obtaining domestic electrical apparatus on a liberal time-payment system. It provides club houses, fully equipped with billiard tables, libraries, wireless sets,

billiard tables, libraries, wireless sets, gymnasiums, etc., at both Queenstown and Cloniston, which are available for membership to all men of the district and are vested in committees elected entirely by the members. It also subsidises the local technical school and district hospital, and assists many other local institutions.

DIRECTORS OF LYELL'S DESTINY.

THE GENERAL MANAGERS.

The successful development of the Mt. Lyell mining field has been due to the extreme capacity and enterprise of the general managers of the Mt. Lyell Mining and Railway Co., and any story of the history of its operations would be incomplete without reference to their great work.

From the inception it has been the policy of the directors to obtain the services of the best men available, and when the pyritic ores of the mine gave trouble in treatment, about 1873, the services of Mr. Robert C. Sticht, of

Boston, U.S.A., a graduate of the Clausthal School of Mines, Germany, who had made a special study of the then recently adopted methods of pyritic smelting, were obtained. Mr. Sticht, as metallurgist to the company, and afterwards as mine manager, successfully controlled its destinies until the time of his death in 1922. Under his direction the mine and the treatment processes were developed to a degree of extreme efficiency, and he laid down a faultless foundation for his successor, the present general manager, Mr. R. M. Murray.

Mr. Murray has been associated with the Mt. Lyell Co. for 35 years. From 1906 until 1921 he held the position of Engineer-in-Charge of the company's mines. In the following year he was appointed assistant manager, and upon the death of Mr. Sticht, in 1922, Mr. Murray was appointed to supreme control. Under his capable leadership, the operations have been continued with considerable success. Many serious problems have been faced and overcome, the plant has been extended and improved in many directions, working costs have been reduced to a hitherto unknown level by the improvements effected, including the construction of the famous tunnel 2,699 feet long connecting the lower workings of the North Lyell mine with the concentrating and smelting plants, the electrolytic refining of the copper ores has been undertaken, and generally the operations of the company since Mr. Murray has been in charge reflect highly his capacity and administrative ability.

MAILS FROM HOBART

THE ARRANGEMENTS.

With respect to the information published in "The Mercury" yesterday regarding the exchange of letter mails between Hobart and Queenstown by means of the new road transport service commenced by Messrs. Guy Bros. of Launceston, the Deputy Director, Posts and Telegraphs (Mr. J. E. Mountriss) states that it is intended to forward also letters to Zeehan and Strahan by the new services on Mondays and Wednesdays, and from those offices on Tuesdays and Thursdays. This course will continue to be followed while the existing curtailed time-table is in operation over the Emu Bay railway.

Continued on Next Page





THE LINDA TRACK

The Linda Track, near Ouse, showing the road and the telegraph line.

The Linda Track, near Ouse, showing the road and the telegraph line. W. Fellows, photo.

WEST COAST SERVICES

USERS OF LINDA TRACK

Early Difficulties Recalled

Pioneers Interviewed

SOME OF THE EXTREME difficulties that had to be faced by men who used the old Linda Track 30 and 40 years ago, and by so doing helped to pioneer the way for the eventual linking up of the West Coast with the rest of the State by a State highway, were related recently in interviews with Mr. John Pearce, ex-bush contractor, of Lane's Tier, Mr. John Best, ex-driver, of Ouse, and Mr. A. B. Cook, ex-inspector of roads, of Ouse.

Now that the road is completed and the traveller is able to speed along in a cosy motor-car over the perfect grade and even surface, it becomes exceedingly difficult to imagine the hardships that had to be overcome by the early pioneers. Forty years ago there was no metalled road beyond the Dee River, approximately 25 miles beyond Ouse, and the only mode of transport to the Lake country was by bullock wagon. There has been a recognised track through to the West Coast from Lane's Tier, St. Clair for nearly 50 years, and old residents recall that when it was completed it was regarded as a wonderful asset. Up till the time of the completion of the Linda track the only means of reaching the West Coast from Hobart and the south was by steamer to Strahan. Besides being expensive, the steamer trip was certainly not pleasant, and when the track was opened it became very popular, especially with men seeking employment on the West Coast. The walk overland, especially between Lake St. Clair and Queenstown, was most difficult in the early days, and often men were forced to camp by the wayside for several days to escape the severe weather. Travel was slow, and communication difficult, and it frequently happened that the whereabouts of travellers on the overland track were unknown for long periods. In those days it appears that extreme hardships were accepted as a matter of course, and apparently travellers were not concerned with the time it took to complete a set journey so long as they were able to reach their destination.



MR. JAMES PEARCE,

of Lane's Tier, beyond Ouse, who was one of the contractors responsible for the erection of the overland telegraph line to West Coast.

J. J. Cowburn, photo.

OVERLAND TELEGRAPH.

One of the most interesting links with the early days of the old Linda track, which is followed in places by the new road, was the erection of the telegraph line to the West Coast from Ouse. The work was commenced nearly 45 years ago, and a number of the men who worked on the construction of the line are still living in various parts of Tasmania. The most difficult part of the work was between Iron Store, about 15 miles beyond Lake St. Clair, and Strahan, and the men responsible for the carrying out of this section of the construction were three brothers—Mr. John Pearce, of Lane's Tier, near Ouse, the late Mr. James Pearce, of Hobart, and the late

Lane's Tier, near Ouse, the late Mr. James Pearce, of Hobart, and the late Mr. David Pearce, of Clarence, near Lake St. Clair. When interviewed at his home recently, Mr. John Pearce, who is 72 years of age, was able to relate some of the extreme difficulties that had to be overcome during the course of the work, which occupied approximately 15 months. He explained that the contract provided for the cutting of all scrub and timber for a distance of 20ft. on either side of the proposed telegraph line, which had to be erected on suitable poles. Any large trees likely to fall across the line also had to be felled. The amount paid for the work was 1 12 a mile, and out of that workmen were paid by a day, less 15s. a week for rations. The wire necessary for the line had to be taken to the Derwent River bridge in bullock waggons from Ouse, and taken from there by pack horses. When the contractors were approaching the West Coast the wire and provisions were taken from Strahan to the Queen River by bullock teams, and afterwards taken by pack horses along a track over which a man found it difficult to walk.

TASMANIAN WORKMEN PRAISED.

Referring to the class of labour available during the period the telegraph line was under construction, Mr. Pearce said he was able to secure some really first-class men, who were always willing to work from daylight until dark and undergo the greatest hardships in the course of their work. He referred to Messrs. J. Bacon, of the West Coast, F. Clemons, of Lane's Tier, E. Freeman, of the West Coast, and J. Best, of Ouse, as workers of the best type, and remarked that the day was never too

long or too wet for them when there was work to be done. Mr. Pearce mentioned that at one stage of the work he employed several men who came from New Zealand to work on the Zeehan-Dundas railway. While the weather was fine they worked well, but when it rained they were useless, and finally left. At one period, Mr. Pearce said, it rained every day for eight weeks, and, rather than lose time and their pay, the hardy Tasmanians kept at their work. After a few hours in the rain the men would get soaked to the skin, but despite this they continued until dark each day. Very often their clothes would be wet when they started work the next morning, but even this did not prevent them from keeping going.

ENCOUNTER WITH TIGER.

When asked whether he and his men

When asked whether he and his men had many exciting experiences while at work on the telegraph line, Mr. Pearce smiled, and said that when he was a young man he looked upon things more as a matter of course than in the light of excitement. "Anyway, now I come to look back over those difficult days," continued Mr. Pearce, "I realize that many times my life was hanging by a thread. Perhaps the closest call I ever had was one day when I was working on a particularly rough part of the track near the Collingwood River. I had just finished clearing out a section, and was walking back along the track to the camp when I encountered a savage-looking Tasmanian tiger. I had left my axe at the spot where I was working, and was therefore helpless. I stood staring at the snarling beast, which was about 10 yards away from me, and every minute I expected it to rush at me. I hardly think I was afraid, because I had caught many of these vicious animals in snares while hunting kangaroos, but at the same time I had never before come face to face with one in the bush. For several minutes the tiger kept his eyes on me, and finally slid quietly away into the bush. Naturally I was very much relieved, and I can tell you I lost no time in getting to the camp. I passed the spot on a number of occasions after that, but never without taking an axe or slash hook with me."

Mr. Pearce went on to say that when the Linda track was being put through a Mr. Richard Lord, who was working in one of the gangs, used to feed a tiger, which had a habit of visiting his camp at night. Mr. Lord regarded the tiger as a pet, but Mr. Pearce said it was not of the type of pet he encouraged about his camp while he was working in the locality. In those days, he said, tigers were very numerous in various parts of the State, and during one game season he and his brothers caught 17 of them in special neck snares, which were set along with the ordinary kangaroo snares.

SURVEYOR'S GOLD DISCOVERY.

Mr. Pearce said that about the time the old Linda track was being put through to the West Coast there was a considerable amount of prospecting being done, particularly on the West Coast side of Mount Arrowsmith. He recalled that on one occasion one of the surveyors, who was interested in the Great Western railway scheme, was in the act of dipping a gilly-ear into a small creek near the wooden store when he discovered a nugget of gold weighing about half an ounce. Wild excitement prevailed among the men associated with the surveyor, who, he thought, was Mr. James Moore, but although a thorough search was made for further traces of

search was made for further traces of the gold, no discovery of any importance was made. It was surmised afterwards that the nugget of gold was dropped from the pocket of a prospector who stopped at the creek for a drink while on the way from the West Coast to Hobart.

DIFFICULT WINTER ROAD.

When asked to express his opinion on the new road, Mr. Pearce said that he had not travelled over it, but from his knowledge of the country through which the road passed, he felt sure the thoroughfare would not be satisfactory in the winter months. In the circumstances, he felt that something should be done to ensure the safety of travellers over the most difficult sections of the road. In the event of a motor-car meeting with an accident on certain parts of the road it would be impossible under existing conditions to obtain assistance unless some of the persons involved were able to walk probably 25 miles. He thought the position could be greatly relieved if the overland telegraph line to the Coast was reconstructed, and arrangements made for the installation of emergency telephones at several points on the most difficult sections of the route.

DROVER'S EXPERIENCES

CHARGED BY WILD BEAST.

STOCK DRIVEN OVERLAND.

"I have come to regard the five years I was engaged driving cattle over the old Linda track to the West Coast as the most difficult years of my life," said Mr. John Best, of Ouse, when interviewed recently. "That was 30 odd years ago, and despite the extreme hardships I was forced to suffer from time to time, I must say I never felt one ill effect. In fact, I was in better health then than I ever remember."

Mr. Best, who is in his kind year, said he made his first trip over the Linda track in 1897 with a mob of cattle he had been commissioned to purchase for Mr. Harry Turner, of Queenstown. At that time the track was in a rough state, and when the beasts were wild the task of getting them along the narrow thoroughfare was extremely difficult. He explained that the general practice adopted in getting the cattle along over the roughest stages of the long journey was to separate three from the rest, and drive them ahead. With the aid of several good dogs at the rear of the main body of cattle, it was possible to make fairly good progress.

JOURNEY MADE IN STAGES.

Five days were generally allowed for the trip from Ouse to Queenstown, though on many occasions when the weather was bad and the cattle obstinate, up to 15 days were taken to cover the distance. On an ordinary trip the cattle would be taken from Ouse to Marlborough on the first day, a distance of some 34 miles, and the following day they would be driven on to the Iron Store, on Navarre Plains, about six miles beyond the present road bridge over the River Derwent. From there the track was much more difficult, and drovers considered they had done well if they reached the Wooden Store on the third day, and covered a distance of 13 miles. On the fourth stage of the journey the drovers aimed at reaching the King River, a distance of approximately 17 miles from the Wooden Store,

but very often they failed owing to the extremely rough nature of the country. The final stage of the journey was between the King River and Queenstown, and by the time the distance was covered the cattle, dogs and the drover had had enough of the trip.

A NARROW ESCAPE.

Mr. Best said that mostly he made the trip alone, but there were occasions when two men were necessary to deal with the cattle. He recalled that on a trip with a particularly wild lot of cattle, one beast lost its footing on the narrow track, and fell headlong into a deep gully on the Queenstown side of Mt. Arrowsmith. At the time he was accompanied by Mr. J. Horner, and believing that the beast had been badly injured in the fall, Mr. Best decided to endeavour to reach it and kill it out of its misery. After a hard struggle through the dense scrub, he managed to get into the gully near where the beast was lodged. The thick undergrowth prevented either Mr. Best or his companion on the track above from localizing the beast.

On the track above from localizing the beast, and for a time it was thought that the animal had been killed outright in its fall of probably 100 ft. Mr. Best was about to make his way back to the track when he heard his companion call. At that moment the rattle of aerial whistles at his side attracted his attention, and he glanced round just in time to see the maddened beast charging straight at him. He flung himself backwards in an effort to evade the beast, but he was too late, as one of the horns caught between the buttons of his waistcoat, and practically ripped it from his body, leaving a fair scratch across his chest. He regained the track in a somewhat exhausted condition, and related the story to his companion. Afterwards they shook hands, and decided on the spot never to risk their lives in similar circumstances. The beast was not afterwards seen, and Mr. Best surmised that it died, as it was impossible for it to get out of the gully.

REPAIRS TO TRACK.

Mr. A. S. Cook, of Ouse, spent two years supervising repairs to the Linda track some 34 years ago. When interviewed he said that the work was undertaken in an effort to relieve unemployment in the Hamilton and Ouse districts, following the closing of the Van Diemen's Land Bank. The track at that time was in a very bad state of repair.



MR. J. BEST.

A veteran drover of West Coast track.

and many of the small bridges were decayed. Altogether 40 men were employed on the work, and the track was reconditioned practically from end to end. Mr. Cook said the men employed were paid at the rate of 4s. a day, and they were able to obtain rations from a Government depot, which was established for the benefit of the workmen at the Derwent Bridge. Bullock waggons were used to carry the provisions from the Ouse to the Derwent Bridge, and once each fortnight Mr. P. Evans, of Leube, conveyed a quantity of meat to the depot on pack horses. At times the work was seriously interrupted by bad weather, and during the winter months the men were employed on the road in the vicinity of Marlborough, where the metalled road ended in those days.

SCENIC ATTRACTIONS

The Glorious Gordon Its Beauties Described

IT IS AS A SCENIC RESORT, and an attraction to tourists, that the West Coast will become famous as the result of the completion of the road link. For variety of attractions, and those of a nature entirely its own, the Coast is unique. Thousands of people know by repute of the Gordon River, but on account of the difficulties of access hitherto existing, comparatively few have been able to visit this magnificent stream, the most beautiful in Australia and rivalled in beauty by few others in the world. Dense forests cover the greater part of the country, interspersed with hutton grass plains, inhospitable but possessing a beauty of their own, and the mountain ranges, rising tier upon tier from the coastline, with their rugged peaks, present a beautiful aspect. Through deep

Continued on Next Page

WESTERN BEAUTY SPOTS

SCENIC ATTRACTIONS

Continued from Page 12

and fearsome gorges, rush mountain streams to feed the Gordon, King and other rivers, and the gullies hide level banks of ferns beautiful beyond description. The mountain plateaux are dotted with lakes, of which there are dozens named and unnamed, and all adding to the scenic attractions of the most beautiful portion of the State.

A WONDERFUL WATERWAY.

The commanding point for the Gordon River trip is from Strahan, the port of the West Coast, where comfortable motor boats and one or two small steamers are available for charter. Starting from Strahan, two hours' travel brings the party to the pretty little island made notorious from its association with the convict days of Tasmania—Settlement Island—which is about 18 miles from Strahan. To the west of Settlement Island lies the low strip of country separating Macquarie Harbour from the South Atlantic Ocean, and to the east several peaks of the West Coast range raise their craggy, steep-topped heads to alight in the morning sun. These include Mt. Jukes (2,799 ft.), Strahan (2,350 ft.), Borel (2,350 ft.), and Taswell (2,440 ft.), and as Settlement Island is approached the Fingerman Cap (4,750 ft.) looms up. Other objects of note passed on the way from Strahan to Settlement Island include the mouth of the King River and Phillip Island on the western side, and Hells Gates, the entrance to Macquarie Harbour, can be seen to the west. About 10 miles from Settlement Island lies the little Harbour of Pillager, or Kedi's Basin, once the terminus of the North Mt. Lyell railway. Settlement Island is well worth a visit. It retains many relics of its early habitation, including ruins of the coal mines, prison cells, the hospital, etc., with a proportion of sweet peas, raspberries, etc., growing wild, bears testimony to a former civilization. Generally, however, nature has reasserted herself, and tangled patches of ferns and scrub cover what were once fertile gardens. Despite that, however, an hour or two can be spent with interest wandering over the island and viewing some of the spots vividly depicted by Marcus Clarke in "For the Term of His Natural Life." About half a mile to the south-east of Settlement Island lies Condemned Island, a tiny spot, said to have been used as a place of safe keeping for prisoners who had been sentenced to death.

THE GORDON ENTRANCE.

About three miles from Settlement Island and 21 miles from Strahan the Gordon River is entered. The river emerges into the harbour through low, swampy, tree-covered banks, about 300 yards apart, and giving no indication of the wealth of beauty lying behind them. Very soon, however, the banks change, and the low, lightly timbered

banks change, and the low, lightly timbered swamps become steep, forested mountains and limestone cliffs covered with verdure down to the very water's edge. No one who has made the trip up the Gordon can forget the marvels of its beauty. The small boat, on its upward progress, passes tiny cascades trickling over limestone banks densely covered with ferns and trees, and dropping with a musical splash into the dark waters below. So dense is the foliage, so dark the water, so wild and lifelike the reflections, and so unexpected and difficult to detect are the bends in the river that the traveller gets the impression that tender bark marks its end, and feels that the tiny boat is being loaded into the forest until suddenly, another reach of the river opens out, more beautiful than the last, and with growing amazement at the ever-changing beauty the traveller settles down to enjoy the new vista of Nature's glory unfolded at each turn.

LIMEKILN AND LONG REACHES.

About 12 miles from the mouth of the river Limekiln Reach is entered—a quiet stretch of dark water, and hushed only when Long Reach comes in close. Here, for about two and a half miles, the river flows straight, as an arrow through wooded banks about 250 to 300 yards apart, rippling up with varying steepness to the skyline and covered with almost every one of the varieties of flora of the Coastal regions, presenting a mass of greenery of many shades. Here and there the light green feathery foliage of the Huon pines is seen, and the more sombre tones of the myrtle and blackwood, and tamarisks, silver conifers and other trees add to the variety of a vista to delight the eye and thrill the soul.

THE MARBLE CLIFFS.

A few miles farther on the waterway narrow till the width is less than 100 yards from bank to bank, but nowhere does the beauty of the scenery fail to create the most enthusiastic sentiments in the beholder. About 15 miles from the mouth what are known as the Marble Cliffs are reached. These are immense limestone rocks, which rise precipitously from the left bank of the river to a height of about 100 ft., and for a distance of 100 yards or more. The

faces of the cliffs are coated with carbonates of lime, formed by the percolation of water through the rocks, and this gives them a very pretty appearance, which is enhanced by the bright green of the foliage. Many small tributaries are passed, but in nearly every instance their junctions with the parent stream are so densely covered by the surrounding foliage as to be almost unnoticeable. Here and there on the journey up the river, however, evidence of the work of the pine-gutters is seen. One of the factors that influenced the establishment of the convict settlement at Macquarie Harbour was the fact that along the banks of the

river, in Macquarie Harbour, was the fact that along the banks of the Gordon River were big beds of Huon pine, a timber which very early in the settlement of Tasmania was regarded as one of extreme value, and the chief occupation of the convicts was pine cutting along the Gordon's banks, since then the Gordon has yielded large quantities of timber, chiefly Huon pine, and pine is still one of the hazardous business, but fortunately their cutting is now limited to areas well away from the river banks, so that the beauty of the forest is protected.

About four miles beyond the Marble Cliffs the centre of the stream is occupied by a rugged mass of rock to which the name Pyramid of Butler's Island has been given. This jagged mass appears to have fallen from the

slope of the mountain above, and is the best obstruction to the navigation of the waterway. The channels on either side are navigable, however, and for a further distance of about eight miles small steamers and motor boats can proceed, until the First Rapids are encountered, after which navigation can be carried out only by rubber boats which can travel some miles beyond the confluence of the Franklin River with the Gordon, amidst scenery of remarkable charm.

SIR JOHN FALLS.

One of the chief attractions of the Gordon River trip lies not immediately in the Gordon, but in one of the small tributaries about 25 miles from the entrance. Here, after rowing or pushing a small boat a little distance up the creek, beneath a canopy of overhanging vegetation, the traveller emerges into a pool of fresh water, into which with a resounding roar, the Sir John Falls plunge sheer from a height of 50 ft. or so. In any setting the Sir John Falls would be a sight of extreme beauty, but in its surrounding of bold forest-covered cliffs it makes a picture of astounding loveliness. Farther up the same creek are two other beauty spots, Diana's Basin and Upper Falls, which are also easily reached.

The accommodation for parties making longer than day trips up the Gordon is limited, but in the summer time

camping in such a setting on the river bank is an experience of considerable enjoyment.

The return journey to Strahan during the late summer afternoon and evening is not easily forgotten. In the fading light the colours of the foliage, and of the rock outcrops seen occasionally on the surrounding hills present an ever-changing picture of delicate beauty, and the eye is held by a succession of views now of bold grandeur, then of dreamy enchantment, and again of charming picture-sequences. The river is so wide and deep that the current is hardly perceptible. The dense forests are mirrored in such startling fidelity that if a photograph is taken on a still day it really does not matter whether it is

photograph is taken on a still day it really does not matter whether it is right side up or out—the effect is the same in either case.

AROUND QUEENSTOWN

A WEALTH OF INTEREST.

To the stranger to Queenstown there is a superabundance of interesting places to visit and sights to see, and even without making the trip to the Gordon River, several days can be spent profitably and pleasantly in sight-seeing.

First in importance, of course, are the works of the Mt. Lyell Mining and Railway Company, upon the successful operation of which the prosperity of Queenstown, and in fact of many homes on other western coasts depend. The company's mining, concentrating, and refining operations are a subject of the greatest interest, and a day or two can be well spent in visiting them.

LAKE MARGARET POWER SCHEME.

As part of its policy of development, the Mt. Lyell Co. some years ago decided to generate hydro electricity, and the power station at Lake Margaret, about five miles from Queenstown, is one of the places of interest to which visitors should go.

Lake Margaret is one of the largest of 30 or so small lakes on the tableland between Mrs. Dundas, Road, and the Eldon Range. It has an area of about 500 acres, is a natural half-longated half a mile deep, occupying portion of a valley in which, over the glacial conglomerate, evidence of the glacial action of the ice age is apparent. The lake is at an altitude of 2,100 ft., and water is conveyed by a 4 ft. diameter wooden pipe due from the intake at the lake to a point on the mountain side immediately above the power station. Here, at the top of the haulage line, the water enters two steel pipes, and drops with great force to the power station turbines about 1,000 ft. below. There are four main turbines, with a nominal capacity of 1,350 horse power each, at the main station, and last year a second station was built lower down the valley, in order to meet the increasing demand for power. In addition to supplying the requirements of the Mt. Lyell Co., the power is also used for lighting and heating at Queenstown, and is conveyed as far afield as Zeehan and Rosebery. Within a few miles of Lake Margaret, access to which is given by a tram line from a point near the smelters at Queenstown, lie many other pretty lakes, including Nona, Mary, Martha, Pauline, Dora, Beatrice, Selina, Spider, Westwood, and Rolleston.

STREAM AND SEA FISHING.

For many years the Gordon River has yielded brown trout, but owing to the wealth of natural food in the river and its tributaries, they have been exceedingly difficult to attract by legitimate means. On occasions, and for scientific purposes, nets have been used in the river, and hauls of big fish have been made. The same thing applies to other large West Coast streams, notably the Pichman River, along the banks of which prospectors and others are wont to augment their food supplies with fish taken by means that would hardly satisfy the city-dwelling fly-catcher. Of late years, as the result of the efforts of a few enthusiasts, much has been done in the propagation of sporting freshwater fish in West Coast streams, and now excellent sport is to be obtained in many of them, notably the Nelson, which runs beside the West Coast Road for a few miles.

The Gordon River trout are said to be present in great numbers, and sea fishermen who ply their trade in the waters of Macquarie Harbour, claim that these trout, which are voracious feeders, have had a serious effect upon salt water fish in the harbour, and have thinned them out considerably. Be that as it may, the sea fishermen who fishes for sport can get all he wants at many favoured spots in Macquarie Harbour, and at The Heads—the entrance to the harbour. Here, with the aid of a boat, good hauls of trumpeter, ling, cod, crayfish, and many other fish can be made.

THE KING RIVER GORGE.

The journey by rail from Queenstown to Strahan over the Mt. Lyell Co.'s railway line provides an experience unique in Australia, and one of the most spectacular and interesting possible in any part of the world.

The journey is unique because of the fact that the country over which the line passes is so steep in its gradients

that the ordinary adhesive system of train propulsion is impossible, the heavy grades, being as steep as one in 16 in parts, and it was therefore necessary to install the Abt rack rail system. Midway between the ordinary rails are two parallel steel rack bars, provided with cogs into which fit two pinion cog wheels in the special combination engines used on the railway, and which are worked by a separate pair of cylinders. The cogs of the rack rails are cut with minute exactness and so arranged that the cog of one rail is precisely opposite the space in the other, so that one of the pinion wheels always grips. By the aid of this ingenious contrivance the train is enabled to climb up one side of the hill, and run down the other without risk of accident, and make the journey that would not be possible without its aid.

As the traveller goes from Queenstown to Strahan, the first few miles of the journey are along the valley of the Queen River, past Lynchford, named after Conrad Lynch, one of the pioneers

of the field, and through country which yielded a fair amount of alluvial gold many years ago. Soon the barrenness characteristic of Queenstown is left behind, vegetation becomes less widely scattered, and soon the traveller is into forest country. At Hall's Creek the Abt system is encountered, and climbing over grades up to one in 16 the train reaches Rinasdeena, which is the summit of the Abt, 5,800 ft. above sea level. There the descent begins, and from Rinasdeena to Teepookana the journey is of indescribable beauty. For part of the distance the train runs along a siding cut into the wall of the cliffs overlooking the rugged gorge of the King River. On the one side the cliffs rise almost sheer for hundreds of feet to the mountain tops above, or else there are heavily timbered hills rising so abruptly as to darken the railway carriages, while on the other the traveller looks down almost sheer to the waters of the King tumbling over their rocky bed 1,000 ft. or 2,000 ft. below. The Abt system ends on the western side at Dublin-Marrill, from whence the train proceeds to Teepookana, crossing on the way a fine bridge in all nearly 500 ft. in length. The scenery from Rinasdeena to Teepookana is especially grand just where the King River is first encountered. Here the river emerges from a huge gorge, formed by two precipitous mountains, that on the south known as Gentle Annie, about 2,000 ft. of almost bare rock, while the northern mountain is heavily timbered. From Teepookana the line skirts the lower reaches of the King, and is almost level for the few miles before it emerges on to the shores of Macquarie Harbour, and comes to rest at the terminus of the Mt. Lyell Railway at Ragatta Point, which is the terminus also of the Tasmanian Government West Coast railway from Zeehan.

Provision is made at places en route for picnickers, and many enjoyable hours can be spent by holidaymakers at these spots.

ALPINE CLIMBING.

For the more adventurous traveller the mountains surrounding Queenstown provide a great attraction. From Mount Owen (2,850 ft.) overlooking Queenstown, which, while not easy of access, presents no very great difficulties, a magnificent view is obtainable. To the west Macquarie Harbour and the ocean are spread, and on all other sides are dozens of mountain peaks, each possessing a distinctive, rugged outline, and a beauty that changes with the varying light. Of them all, Mt. Owen holds the palm, and the traveller with a sense of appreciation of the beauty of Nature, can spend an hour of delight watching the changing colours of the bare western slopes of the mountain in the setting sun.



