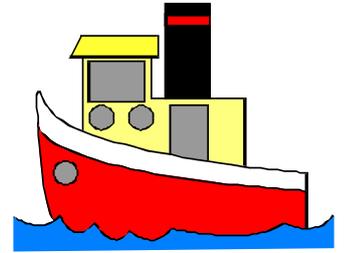


Wheels and Floats



Newsletter June 2017

TAURANGA MODEL MARINE AND ENGINEERING CLUB INC.

The Secretary
PO Box 15589
Tauranga 3112

Palmerville Station Phone 578 7293

Miniature Railway Memorial Park
Open to Public, weather permitting
Sundays in Summer: 10am to 4pm approximately
Winter: 10am to 3pm approximately
Website: www.tmmecc.org.nz

MEETINGS

General Members Meeting every first Tuesday 7pm.
Committee Meeting every second Thursday at 7pm.
Maintenance Tuesday mornings from 9am.
Engineering discussions Tuesday evenings 7.30pm.

COMMITTEE

President: Peter Jones 543 2528
Vice President: Russell Prout 5482881
Club Captain: Bruce McKerras 5770134
Secretary: Rachael Duncan
Treasurer: Owen Bennett 544 9807
Committee: Warren Belk, Shane Marshall,
John Stent, Jason Flannery
Bruce McKerras.
Boiler Committee: Peter Jones, Bruce McKerras,
John Heald, Russell Prout.
Safety Committee: Warren Karlsson, Bruce Harvey,
Peter Jones, Russell Prout, Mark
Duncan
Editor: Roy Robinson 07 5491182
royrobkk@gmail.com
NOTE new email address

CONVENERS

Workshop: John Nicol
Track : Bruce Harvey, John Stent,
Russell Prout
Marine: Warren Belk
Librarian: John Nicol
Rolling Stock: Murray de Lues
Website:
Driver Training:
Club Captain: Bruce McKerras

OPERATORS 2017

2 July B Harvey
9 July P Jones
16 July B McKerras
23 July R Salisbury
30 July N Bush
6 August M Duncan
13 August W Karlsson
20 August M de Lues

Greetings Members.

Our 2017 AGM has come and gone, what was great about this years gathering was the turn out of members. Our membership has not grown much over the last few years but the activity has. Standing down this year from Committee is Clive Goodly and Murray De Lues, as secretary . Rachelle Duncan was nominated as new secretary and Jason Flannery as a new committee member, looking forward to working with them in the coming year. Bruce Harvey has taken a step sideways, and Russell Prout has taken on the position of Vice President. I would have been quite happy to see Bruce take over the position of President, but circumstance would not allow, thank you Bruce for your years as Vice President and the passion you have for our club. For the rest of us it's business as usual and looking forward to the new year and planning for our round house and 40th Club anniversary.

Everyone knows about face book, the modern means of communication, especially for the busy people who are so busy rushing around not having time to stop and talk. On the flip side it can be destructive. I suggested to my daughter I join and she explained it was not my scene, it could have been that she didn't want me know what everything she was up too, or perhaps the fact I have no interest in trivia. I'm not alone, when Jason Flannery our new committee member suggested we put our club on face book, myself and others were horrified after what we had seen on open forums. However Jason marketed the idea very well and assured us that he and Murray De Lues will administer the site to make sure we do not field some of the less than half witted comments that come through on some open forums. At our last committee meeting we discussed the idea and we are going to support Jason's proposal, I think it is going to be a great means of communicated with our public supporters if it is managed as suggested.

I guess it will be well known throughout our model engineering fraternity that our club locomotive Tamar is compliant and has a commercial boiler certificate issued, the first duplex boiler in the world we have been told. Well done to those that have worked hard to achieve this result. It demonstrates the progressive nature of our club and I'm proud to be part of it.

Finally, our open weekend last Saturday was very well supported. We had the pleasure of Hawkes Bay Model Engineers club President Ross Bates and Vice President Graham Leaborne visit us, the purpose of their visit was to look at our club tracks various point systems developed over the years. Their clubs first track was a raised 3 1/2" and 5" located in Kennedy Park, which council decided needed to be relocated to Anderson Park. As explained to me by Graham, the old track was lifted and plonked on the ground, and operation continued from there. The plan is to add a 7 1/4" track on the same ground profile but that requires some special turn outs to cater for the three gauges. They are sensibly retaining their 3 1/2" track. I hope what they gleaned from us is of use and wish them the best with their new project. Google HBMES Railway, lots to see.

Happy modelling

Peter Jones.

Am looking for the person who took the common out of
common sense!!!!!!!

or perhaps.....

I wish common sense was more common!!!!!!!

Decisions!!!!

A group of friends went deer hunting and paired off in two's for the day. That night one of the hunters returned alone, staggering under the weight of an twelve point stag.

"Where's Shane?"

"Shane had a stroke of some kind. He's a couple of miles back up the trail."

"You left Shane laying out there and carried the deer back?"

"A tough call," nodded the hunter, "but I figured no one is going to steal Shane."

Through the pitched black night the Captain of a Destroyer sees a light dead ahead on a collision course with his ship.

He sends a signal "Change your course 10 degrees West".

The light signals back: "Change yours 10 degrees West."

Angry, the Captain sends: "I'm a Navy Captain, change your course immediately".

"I'm a seaman second class," comes back, "Change your course Sir!"

By this time the Captain was furious, "I'm a Battleship, I'm not changing course!"

The light quickly came back, " I'm a Lighthouse, your call."

From the Editors desk

Thanks to Warren for the interesting article and pics, can't wait to get the next instalment!!!

It is my intention to request personal life stories. The Club is full of most interesting people who have done some amazing things and been to all sorts of odd places. Murray did a talk at one of our monthly meetings some time ago on personalizing fishing rods. Whilst it's not a thing I would have thought of I was enthralled with the methods and results Murray told of and displayed and I know other members who attended had similar thoughts.

Sooooo if I touch you on the shoulder please don't shudder and walk away quickly, sit down and do an article giving "My Story".

Have included an article from the archives on the Arthurs Pass Tunnel. There are 3 parts to this so hope you find it of interest.

The Club has had an approach to provide a "run day" for Camp Quality. The suggested date is Saturday 5th August. This organization provides support for children who have Cancer and is a volunteer organisation like ours providing camps and recreational activities on a one on one basis. More information will be provided when the committee has considered this request.

Roy

A CENTURY OF MODEL ENGINEERING

(Part 2)

With LBSC being editor of the Model Engineer magazine from 1966 until his death in 1967; Martin Evans then became Technical Editor in January 1966. It was at this point in time when Martin took over the reins of the serialisation of locomotive designs for the magazine. Many staff changes were also made and magazine sales started to rise, also due partly to UK having a good employment level after the second world war and sales of small lathes and secondhand engineering equipment started to increase. Notably Myford machinery then became well known in the model engineering world until around the 1980's.

Martin produced three 2.5" gauge designs, thirteen 3.5" designs, sixteen 5" designs and five 7.25" designs. These figures show the popularity of the smaller gauge designs in the earlier years of his editorial ship with the larger gauge and scales creeping in later years of his life. With many commercial suppliers climbing on board with castings and components with many of his designed engines running to day. Many sit on the mantel pieces as larger scale 7.25" engines appear now days. Its pity that the smaller gauge engines seem to be disappearing as it becomes easier to transport larger heavier locomotives around. Also bigger machinery costs are now more affordable in the 21st century.

Martin also introduced The International Model Locomotive Efficiency competition, still very popular to this day. Martin retired from being editor in 1977 and died in 2003 at the age of 87.

The castings with which to machine and build these designs are in many case s still available through some commercial suppliers, such as Reeves and Blackgate Engineering UK.

The push of model engineering in the States is another story in itself. However the first publication of the popular 'Live Steam' magazine in 1967 set the way forward to connect the model engineering fraternity to an American magazine.

John Heald

Steam Launch Build Part 1

This is my "Bucket List" project which I have wanted to do for a long time. Many years ago, I looked at building a steam launch but could never find a steam plant at the right price and did not have the gear or funds to build one. Looking back now with what I have spent on always "Option 3" decisions I could have probably been enjoying this experience a lot earlier.

Scope of works was a steam plant of Double 10 size with a boiler to match and a hull length to support the weight and not look as though its water line was a guess. Building the boat is no problem but the engineering problem was not going to go away. So I bit the bullet in that I have purchased a **Miniature Steam** "Mildura" twin cylinder steam plant (19x19) and a matching 4in Boiler from Australia. A really nice piece of kit. I make no excuses for the check book engineering, so be it.

Now that I had the machinery I could decide on a design for the hull and calculate the displacement required to support it. The model is based on the Selway Fisher 28' Corn Bunting design which is an open cockpit steam launch. The hull is full bodied and should be a stable platform on the water. I had already obtained a modellers plan pack from them and it was only a matter of drafting up a set of lines drawings on CAD. Advantage of CAD is that you can scale up or down to suit until the right numbers come up on the displacement calculations. Final numbers for the model are 1.4m length, 325mm beam, 80mm draft, and displacement of 13.5kg.

There being no excuses now it was get on with the job. I obtained a small forest of Spruce strip in various widths and proceeded to prep for construction. Murphy's Law meant that I had to splice 80 odd 6mm x3mm planks with an extra 250mm as the strip wood only came in 1.2m lengths. Christmas break was used to cut out shadows, laminate the keelson, and set up the building jig. With the laminated gunnels in place the whole structure was faired up for planking. Planking took about three weeks to complete as you can only position three to four planks each side at a time, fitting and shaping as you go. Fortunately, the only area where fitting was required was at the transom as the rest of the hull only required edge sanding. Gluing the planks was done with water resistant PVA held down with tape and a million pins. There were 49 planks each side.

On completion of planking the hull was sanded and faired with a long board. The end result was very pleasing with little filling required. The keel and skeg with shaft tube was then fitted and faired into the hull. Once this was done and I was happy with the finish after a final sand the hull was glassed with 100gm glass cloth and the given two coats of epoxy primer filler coat. This was then sanded again with long board and any areas spot filled as required. One more filler coat was applied and once this was sanded a coat of primer from a spray can was applied.

The next milestone was to pull it off the jig. After removing most of the building shadows it was crunch time to see what it weighed. I was happy to find that it was just over 1.8kg with the extra bits of bracing still in. Next stage was to prep for glassing inside. The inside of the hull was sanded and Carbon Fibre strips laid cross the hull to act as ribs and stiffen the hull in the middle. The inside of the hull was glassed with 100gm in sections and then finished off with a couple of flow coats. At this point the hull was rock solid and weighed in at just under 1.9kg.

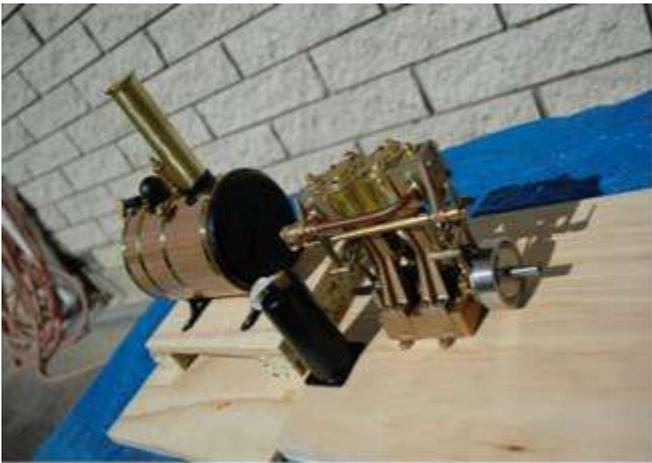
With the hull now bare, work could proceed with installing floors for the engine/boiler tray, two bulkheads, one forward, one aft, and deck beams. Deck beams were installed full width to start

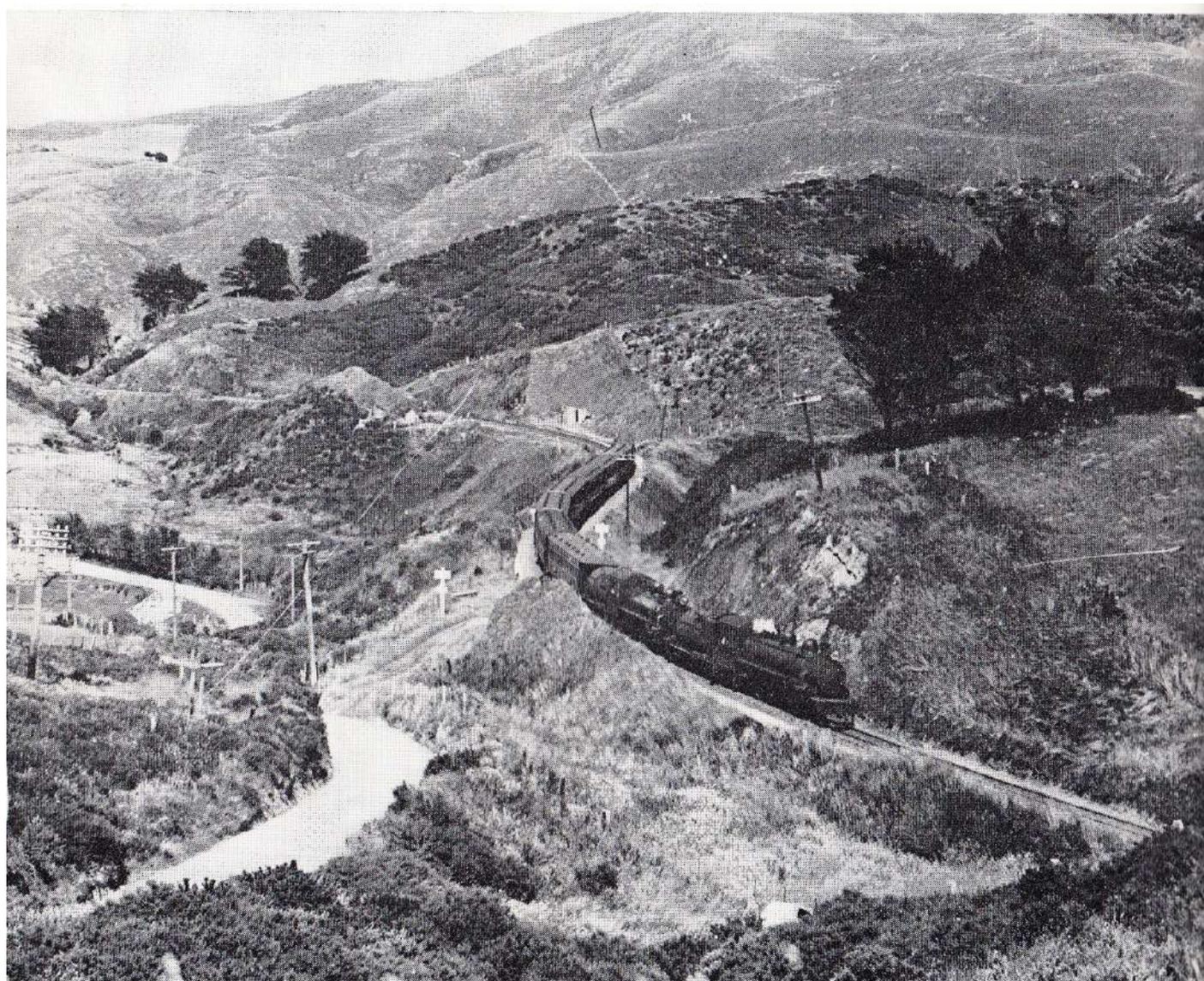
with along with deck carlines recessed in. The 1.5mm sub deck was glued on and once dry the temporary deck beams cut and along with the building braces removed. A jig was made out of MDF to laminate the curved coaming and this was made in two halves with three layers of 0.8mm birch plywood. This was then fitted and joined ready to be installed once the deck has had its planking laid.

This is where we are at to date. All in all, I am pleased with the result so far. Tank test (Bath) coming up soon. Hope the numbers are correct.

Next instalment is machinery install, radio control setup, and hopefully some interior fittings.

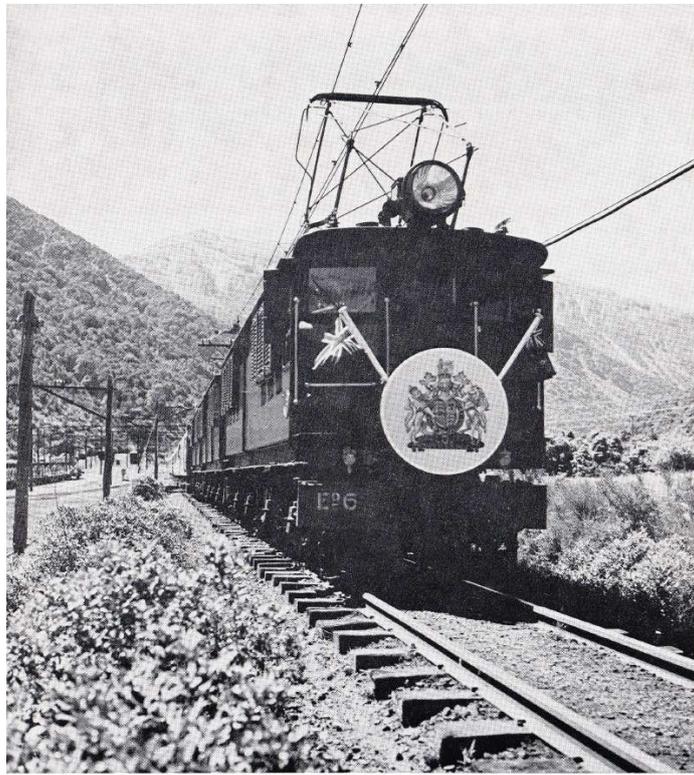
Warren Belk





Photograph: N.Z. Railways Publicity

How many readers, we wonder, were fascinated by this picture of a double-headed New Zealand express train when it appeared in the part work *Railway Wonders of the World* in 1935? This train, northbound from Wellington in the morning to either Napier or New Plymouth (we tend to favour New Plymouth), dates back to the early 1930s, and is seen between Khandallah and Johnsonville close to the site of the present Raroa suburban station. The locomotives are of the "Ab" class 4-6-2 type, as used on the "Kingston Flyer".



ROYAL OCCASION AT OTIRA

At 2.30 p.m. on 18 January 1954, three "Eo" class locomotives Nos. 6, 5 and 5 leave Otira with the Royal Train for Arthur's Pass during the journey of the Queen and her party from Greymouth to Christchurch. It was a beautiful summer's day. The weight of the train on this occasion, excluding the locomotives, was 225 tons, seen above beginning the 1 in 33 climb.

ARTHUR'S PASS TUNNEL

EARLY EXPLORATION AND CONSTRUCTION

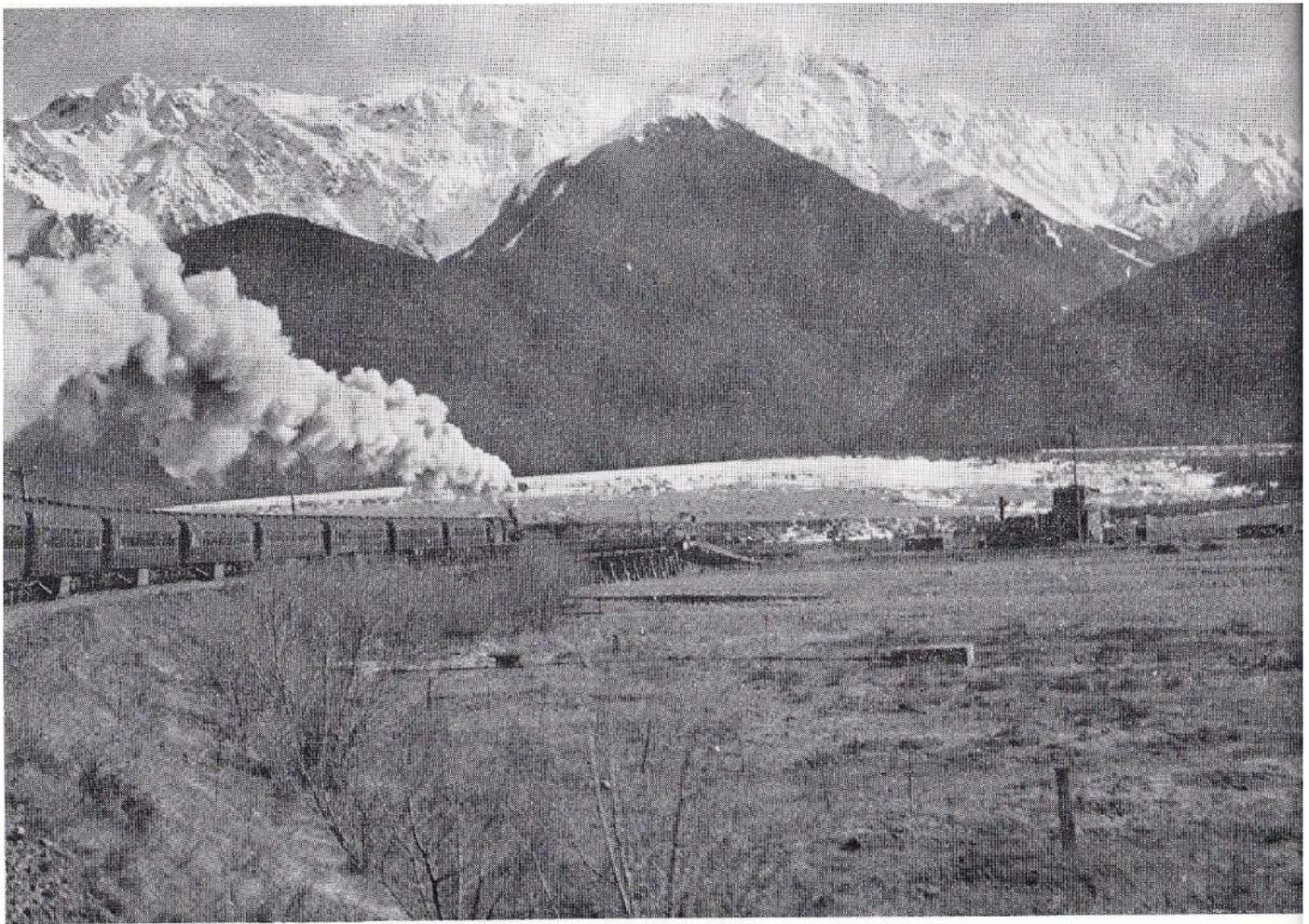
(From the Public Works Statement, 1923, Appendix E)

AMONG the colonists in the early days of New Zealand there were many who had a keen perception of the advantages that would attend the introduction of railways into the new country they were helping to found. The progress of colonization was, however, naturally somewhat slow in those days, and it was not until 1860 that a contract was let for the construction of the first New Zealand railway; this was between Christchurch, the chief town of Canterbury, and Lyttelton, its seaport. Since then railway-construction has progressed as rapidly as the financial position of the country and the great natural obstacles encountered have allowed. At the present time there are about three thousand miles of line open for traffic, and a large number of new lines under construction.

In the Middle Island of New Zealand (or South Island, as it is more commonly called) the great obstacle to railway communication between the fertile plains of Canterbury, with its port, Lyttelton, on the

east coast, and the timber and coal lands of Westland on the west coast, has been the high mountainous ranges of the Southern Alps, which run parallel with the east and west coasts. The South Island is roughly about five hundred miles in length, with an average width of probably one hundred and twenty miles, and it is divided for almost its entire length by this alpine range. Some of the summits of the range reach a height of from 10,000 ft. to 12,000 ft. Mount Cook, the highest point, rising to 12,349 ft.

From the earliest days of colonization the question of railway communication between Christchurch, on the east coast, and Greymouth on the west coast, had attracted great attention, more especially among the residents of Canterbury and Westland. Greymouth is a bar harbour, difficult to work, and seldom if ever visited by steamers from Europe or America; but Lyttelton, the port of Christchurch, is a common port of discharge and loading for such vessels.



From an unidentified print

A special train bound from Christchurch to Arthur's Pass crosses the Waimakariri River between Cass and Cora Lynn. Peaks of the Dome Range of the Southern Alps in the background soar to more than 6,500 feet (1,920 metres) above sea level.

Surveys and explorations for the purpose of ascertaining the best route over the mountain-ranges were put in hand at an early date. In 1864 Mr Arthur Dudley Dobson made a survey for a road over the mountains from Christchurch to Greymouth. This was taken over a pass called "Arthur's Pass", in his honour, and runs down the famous Otira Gorge. The survey of this road and its subsequent construction enabled a considerable amount of useful information to be collected in furtherance of the proposed railway.

Between 1878 and 1883 numerous surveys of proposed routes were made, the most notable being the Cannibal Gorge route, running from Culverden, in Canterbury, to

Reefton, in Westland; the Hurunui Gorge route, from Waikare to Jackson's; and the Arthur's Pass route, running from Springfield, in Canterbury, to Stillwater, near Greymouth. In 1882 a Royal Commission was set up by Parliament to decide on the best route for the proposed railway, and the Arthur's Pass route was finally adopted.

The line from Christchurch had already been constructed as far as Springfield, and from Greymouth to Springfield the route was roughly as follows: It ran from Greymouth up the valley of the Grey River to Brunnerton and Stillwater Junction, and thence up the Arnold, and round the north-eastern side of Lake Brunner, through a natural depression, into the Teremakau



Photograph: courtesy Inksters of Greymouth

One of the five Nasmyth Wilson 4-4-0 tank locomotives of the New Zealand Midland Railway Company on a bridge near Stillwater. These locomotives were built in 1887.

Valley; up the Teremakau River and its tributary (the Otira) to Otira; from Otira over Arthur's Pass to Bealey Flat (or "Arthur's Pass", as it is now generally called); from Bealey Flat down the Bealey Valley to the left bank of the Waimakariri River, then crossed to the right bank, which is descended as far as the Cass River, where it left the river and made for the saddle of Mount St. Bernard, whence it descended by the long valley of Slovens Creek to the Waimakariri Gorge; thence down this Gorge to Springfield, and across the plains to Christchurch.

At that time the intention was to construct the line on a 1-in-15 grade over Arthur's Pass, using a centre-rail Fell system.

The summit of Arthur's Pass is about 3,000 ft. above sea-level.

As soon as the Arthur's Pass route was finally adopted, several influential New Zealand gentlemen formed what was known as the Chrystall Syndicate, to push ahead with the construction of the Midland Railway, as it was now generally called. They entered into various railway-construction contracts with the New Zealand Government. In 1886 the Chrystall Syndicate was merged into the Midland Company, with a capital of \$500,000.

The New Zealand Midland Railway Company (Limited) was what is generally known as a land-grant railway-construction corporation, similar to the great railway



Photograph: courtesy N.Z. Railways Publicity

A view of the western portal of the Otira Tunnel during construction (about 1920). Arthur's Pass can be seen in the background. Note the line of cleared scrub up the mountainside to facilitate the surveyors' measurements.

companies of Canada, and was founded in England by a syndicate who took over the contracts of the Chrystall Syndicate. Those contracts were subsequently annulled, and a new one, dated 3rd August, 1888, was entered into between the New Zealand Government and the Midland Company. That contract provided, among other matters, that the company should construct a line from Springfield, in Canterbury, to Brunnerton, near Greymouth, in Westland. As an inducement to the company to build the railway, all Crown lands remaining at the time of the signing of the contract in the provincial districts of Canterbury and Westland and Nelson (aggregating about 6,000,000 acres, and of an estimated value of £3,150,000) were earmarked and cut up into blocks, each block being valued in a schedule attached to the contract, and none at less than 10s. per acre. The entire line was divided into sections for the purpose of allocating the proportionate estimated cost of the construction of each particular section; the company, upon completion of a section, being enabled to select blocks of land, upon the basis of 10s worth of land for each £1 spent upon the construction of the railway.

Between 1886 and 1895 work proceeded vigorously, but when about thirty-five miles of the line had been completed the physical difficulties to be overcome were found to be so great that the company shrank from attempting the apparently impossible, and accordingly the ambitious idea was abandoned. The result was that the Government took the railway over and determined to penetrate the mountain-chains at all hazards.

From 1895 construction work was pushed ahead on both sides of the mountain-ranges, and in 1900 a committee of engineers was set up to consider the best means of crossing the actual dividing-range — whether to adhere to the original proposal of a 1-in-15 grade over the range, or to have a long summit-tunnel. The committee decided in favour of a summit-tunnel about six miles long, with a grade of approximately 1 in 37.

