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 BIG RAILWAY WORK. Sydney Morning Herald 13-5-1913

 GLENBROOK DEVIATION.OPEN TO TRAFFIC.

 PARTICULARS OF THE WORK.

The railway line which is used by trains travelling up the Blue Mountains Is the "down" line according to railway parlance, and, similarly, tho train returns to Sydney on the "up" line, according to railway terminology. Passengers travelling to the mountains now travel portion of the journey over a new route. They will use the Glenbrook deviation, which possesses many advantages over the old route, though it is two miles 54 chains longer than the existing road, and measures altogether 7 miles 56 chains. But the grade- on the new route is 1 in 60 throughout, with the exception of a short length near Glenbrook station, where it is 1 in 100. The grade on the route previously used up Lapstone Hill was 1 In 30 for a length of about two miles.

One engine will do the work on the deviation route that it needed two to do on the old route, and there will be no suffocation In the Glenbrook tunnel.

The new route la picturesque; in fact, railway officers say it is one of the most beautiful scenic Journeys on the railways of this State. The dreaded Glenbrook tunnel will be avoided on the trip to the mountains, though it will be used on the journey back. Then the engine will not be puffing and toiling up a stiff grade, but instead will be running down by gravitation, so that passengers will be in-convenienced but little. The new journey has a tunnel, but It is only 11 chains long, and

.is on a grade of 1 in 60. Along -what is called the cliff section on the slope of Glenbrook Creek heavy earthworks had to be carried out.

The height of the cliffs varied from 240 ft to 270ft. Along their edge the trains are now running, and the route gives tourlst and others a series of beatutlful views of scenery of creek and river, mountain and plain, and hill and valley, that was not before possible.

The deviation commences at Emu Plains, 36 miles 52 chains from Sydney, and branches

away in a northerly direction for about a mile and a quarter. It crosses the existing line again at about 37 miles 30 chains. Thence it travels along tho slope between the existing line and the Nepean River, crossing Knapsack Gully over a double line brick viaduct, built on eight arches. Travelling along the edge of the cliffs 400ft above Glenbrook Creek, the passenger can obtain splendid views of the Nepean River. The tunnel is at the southern end of the spur on which Glenbrook village is situated. Travelling north-westerly, the route runs on to the site of the new Glenbrook station, which is about a quarter of a mile south of the old site. The deviation continues in a north-westerly route, and passes under the old line at about 41 miles, and then in a westerly direction to Blaxland station, joining the old line at 41 miles 64 chains.

The work was commenced in March, 1311, and on Sunday last what is known to railway men

as the "down" road was opened to traffic, the trains travelling up to the mountain resorts

by the new route. The formation has been taken out for a double line, and the second road will be ready tor traffic about the end of June. The existing line is to be retained as a relief road, but it will only be used for trains journeying to Sydney, and not on their journey to the mountains. The new road will make little or no différence in the time taken, but, besides relieving congestion, it will avoid the Glenbrook Tunnel, and give an easier grade and a more picturesque route. The

work has been carried out on the day-labour system by the department of the Engineer-in

Chlef for Existing Lines.

Railway officers are very proud of their achievement. The greatest number of men employed at any one time was 1400, and at that time their fortnightly pay averaged about £6000. Every advantage was taken of modern appliances in carrying out the work.

A power-house capable of generating a 2200 volt current, erected at Glenbrook, carried electricity over the works to the faces of the cliffs, and so supplied power for working the compressod-air drills, -which auger-like bored the way through tho mountain. Portion of the Zig-zag was used for running materials along; in other places temporary, but sturdy, lines had to be erected. At the Bluff, where the tunnel was cut, tho work was carried out from a shelf cut Into a wall of the rock To get tho material down, what was known as a funicular railway had to be built. Part of it

had a drop of 1 in 12, while for the rest the journey down was 1 in 3. The. tunnel itself was lit up .by electricity, and fans kept the air pure. On this deviation the steam navvy was first tried on State railway works, and proved a great success. Its great scoop or shovel seized earth and rock, and tossed them aside, accounting for about 23 tons at each ponderous movement. Steam derrick locomotive cranes tossed huge boulders about with ease; elsewhere steam travelling gantries did their Herculean work with equal facility.

A year ago an estlmate of the probable cost of the deviation was given at £200,000. Particulars of the actual cost are not yet available. Much of the plant purchased for the work will bo transferred to other works, and so adjustments must bo made. When the proposal was first submitted to the Public Works Committee it provided for a single track, but in view of the heavy nature of the work, and the difficulty that would have followed the building of a double track later, it was ecided

to make the line a double one at once. This,of course added greatly to the cost Then again the increases granted the men employed, and the extra price of materials, brought the cost of the work to a much higher figure than was at first contemplated.