

present and future of Dannevirke, that it is anticipated that such spare room as there is will very shortly be called into requisition.

Two private offices are provided, one for the manager and one for the accountant, and while the prevailing tone of the interior decoration of these rooms is severe, the excellent finish of detail is well maintained, in fact the whole of the woodwork finishings which show extreme care, and beautiful figure work, reflect great credit on the local company responsible for this section. A cloak room is provided for the staff fitted with every essential convenience, and easily accessible from the entrance lobby. The top story of the building, towards the rear is fitted out for the use of clerks sleeping on the premises and comprises two well-built bedrooms and a comfortable sitting room, all these rooms being fitted with artistically set-in fire places.

In this portion of the building are fitted lead light windows similar to the construction of the dome, which add appreciably to the attractiveness of the back story.

Situated as the building is at the corner of High Street and Gordon Street, it presents an imposing aspect to the main thoroughfare and the architect Mr. J. C. Charlesworth of Wellington is to be congratulated on having given such able expression to the class of building required for a Banking House. Mr. Charlesworth has just let a contract to the same builders Messrs Duncan and Abbott of Hastings for another building for the Bank of New Zealand at Featherston.

## The World's Greatest Concrete Viaduct

A piece of American rail-road building which is termed "more daring and original than any of the great rail road-construction works of the West," and which contains the largest concrete bridge in the world, was opened November 6th by the president of the Lackawanna Railroad and public officials of New York, New Jersey, and Pennsylvania. This most impressive engineering feature of the Lackawanna line is the great viaduct over the Tunkhannock Valley, shown in the accompanying picture. It is half a mile long—2,375 feet, to be exact—and is as high as a twenty-storey building. The whole cut-off from Clark's Summit to Halstead, Pa., is 39.6 miles long and cost £2,400,000. It reduces the distance between New York and Buffalo just 3.6 miles. Yet Lackawanna officials insist that it will pay for itself many times over. The President of the Railroad Coy. Mr. W. H. Truesdale says in a New York "Times" interview:

"There were other savings than the shortening of distance to be considered. The new route will give us a maximum grade of 0.68 per cent., against a previous maximum grade of 1.23 per cent., and a total curvature of 1,560 degrees, against a total curvature of 3,970 degrees.

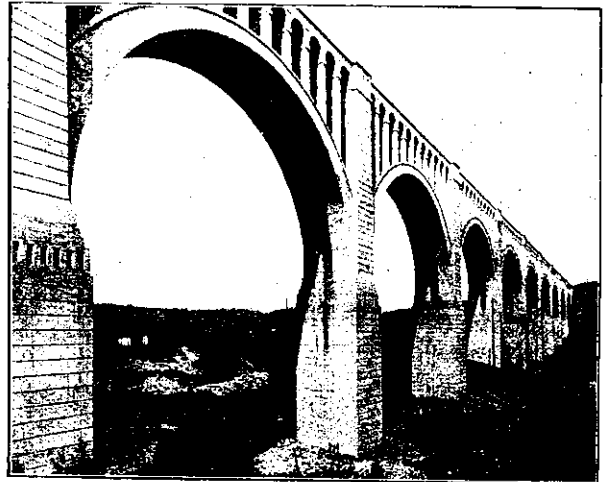
"These, to the layman, may seem as small and unimportant results—as the slight saving in mileage

may seem. But, together, these changes will cut the running time of every passenger train between New York and Buffalo by twenty minutes, and will reduce the running-time of freights by a full hour. Nor is this all. By reducing the traction, through reducing the grade, they will make it possible to move trains with two engines which, under present conditions, require five."

A few impressive facts about the viaduct are thus sketched:

"The Tunkhannock Viaduct is 240 feet high, more than a hundred feet higher than the roadway of the Brooklyn Bridge, and is half a mile long. It is by several times the largest concrete bridge in the world, with ten spans of 180 feet each and two spans of 100 feet each.

"It contains approximately 4,500,000 cubic feet of concrete and 2,280,000 pounds of re-inforcing steel, the trains which cross it being guarded



THE WORLD'S GREATEST CONCRETE VIADUCT  
Near the Tunkhannock Valley in Pennsylvania, built as part of the  
Lackawanna's £2,500,000 cut-off

between massive parapet-walls rising four feet above the level of the track and three feet thick. Each of its foundations has been carried down to the bed-rock, and this, in the case of two of its piers, meant making excavations ninety-six feet deep."

Further description of the cut-off as a whole is given to the press by the Lackawanna Railroad as follows:

"It is what railroad men know as a replacement line, being for the most part in sight of the old line for which it is substituted. The radical reduction of grades and curves is achieved by very heavy cutting and filling and by viaducts of enormous size, all of which was impossible in the early days of rail-roading. Some idea of the magnitude of the operation is seen from the fact that the amount of earth moved reached a total of 5,525,000 cubic yards, while the rock-excitation amounted to 7,647,000 cubic yards, 8,100,000 cubic feet of concrete was used, and the amount of re-inforcing steel employed in the various bridges, viaducts, and culverts aggregated 4,720,000 pounds."