

can be recorded. It may be stated that the general aim of the Board is to provide for a standard classification, so that rural main highways will carry gross loading up to 6½ tons for two-axled vehicles and up to 10 tons for multi-axled vehicles. Many highways are definitely below such a standard, but as funds permit, the foundations and general construction are being strengthened year by year, where traffic density justifies such action.

STOCK TRAFFIC ON MAIN HIGHWAYS.

With a view to facilitating the transfer of stock between the Poverty Bay and Bay of Plenty districts, and obviating inconvenience to both motorists and stock-owners, an endeavour was made to confine all through stock traffic to the highway via the Motu. By-laws were enacted which prohibited such through traffic from using the alternative route through the Waioeka Valley, where the road is of fairly recent construction and, though of ample width for vehicular purposes, is somewhat narrow for large mobs of stock. The Motu route has been used for very many years, and in point of distance is no longer than the Waioeka route.

It was held by a Court that these by-laws were unreasonable and therefore invalid. It appears that no special legislative provision exists for controlling stock traffic in country districts to the same extent as is possible in municipal areas. The Board is of opinion that the matter merits special consideration and, with the intention of submitting proposals to the Government, the New Zealand Counties' Association has been consulted. The association obtained the views of its constituent counties, and ascertained that by far the majority of replies favoured the Board's suggestions.

Suitable representations are being made to the Government, so that where an alternative route is available for stock traffic, a local authority may be able to make special by-laws, to prevent long-distance stock traffic from congesting vehicular routes.

TESTING OF HIGHWAY MATERIALS.

The Board's Petrologist has continued the testing of road-metal and similar materials from numerous sources, and details of standard tests are shown in Table 6 appended to this report.

Subgrade soils have also been examined, and standard tests will be carried out as soon as the necessary equipment has been completely installed.

The Dominion Analyst has carried out, on the Board's behalf, numerous tests of tar, bitumen, road-oil, and emulsion, for surfacing-work.

EXAMINATION FOR FOREMEN AND OVERSEERS OF ROAD CONSTRUCTION.

The tenth examination for foremen and overseers of road construction was held on the 30th October, 1935, and at twenty centres throughout the Dominion fifty-five candidates presented themselves. The examination is divided into two papers, one relating to general road construction and maintenance and the other to tar, bituminous, and concrete-road construction. Three candidates passed in both papers and twelve secured a partial pass by satisfying requirements in respect of only one paper. Of those who had previously obtained a partial pass, three were successful in completing the examination. Since the institution of the examination, it has been the Board's practice to withhold the issue of a certificate of competency until satisfied that the candidate has had reasonable practical experience in modern roadwork. During the year, certificates were issued to four candidates who had passed previous examinations and had, in the meantime, produced evidence of adequate practical experience, these candidates being B. L. Williseroft, M. J. Scally, A. S. Henry, and M. Winter.

The names of the candidates who passed or completed a pass at this examination are as follows, those to whom a certificate was issued being indicated by an asterisk: R. Jackman, *R. Hanna, *W. H. Claris, G. E. Berry, *P. S. Butler, *H. W. Stansfield.

Recent examinations have disclosed that comparatively few of the candidates had had practical experience of tar, bituminous, and concrete-road construction. It was therefore decided that, until a candidate had produced satisfactory evidence of at least one year's experience in this class of work, he should not be admitted for examination in paper No. 2.

OPERATION OF MAGNETIC TRUCK.]

The Board's magnetic truck, which was acquired for the purpose of clearing main highways of iron or steel puncture-producing articles, has been in operation in the North Island during the year, except for the period April to July, 1935, when the machine was out of commission owing to replacement of the engine unit. The length of road surface actually cleared from 29th July, 1935, to 31st March, 1936, was 1,514 miles, and the weight of material picked up by the magnet was 3,935 lb., which equals an average of 2.6 lb. to the mile cleared. This is a reduction when compared with the average of 3.25 lb. for the previous year. The machine was also occasionally hired to local authorities for use on roads other than main highways.

DECLARATION OF NEW MAIN HIGHWAYS AND ADJUSTMENTS.

In pursuance of section 11 of the Main Highways Act, 1922, the usual annual review of main highways was made during the year ended 31st March, 1936.

Recommendations by District Highways Councils included proposals for approximately 1,311 miles of new main highways, and for the revocation of 44 miles of the existing system. The Board, however, recommended the declaration of 542 miles 23 chains of new main highways, and the revocation of lengths totalling 47 miles 77 chains, these latter in some cases being merely formal cancellations, to facilitate the description or renaming of highways which were being extended or relocated.

Apart from the extensions and reductions arising from the recommendations of the District Highways Councils, a number of other alterations were made at the suggestion of the Board, most of which were in the nature of adjustments, or to meet special circumstances,