The following table discloses the growth of annual loan charges and demonstrates how the use of borrowed moneys involves the appropriation of future revenues, thereby reducing the amounts which would otherwise be available for current requirements.

MAIN HIGHWAYS ACCOUNT.

Annual Loan Charges.

Year.	£	Year.	£
1925–26	23,235	1931–32	262,078
1926–27	71,578	1932–33	269,179
1927–28	31,630	1933–34	258,674
1928–29	116,178	1934–35	281,871
1929–30	126,416	1935–36	291,651
1930–31	224,605		

The matter is one which is at present receiving the earnest consideration of the Government, and the representations submitted from the highways viewpoint are being studied in connection with future financial policy.

Assistance from the Unemployment Fund.

In recent years the Board has undertaken a number of improvement works, somewhat in advance of the normal programme, for the purpose of assisting as far as possible towards the relief of unemployment. Such a course was rendered practicable through the Unemployment Board granting subsidies based on the amount of labour employed. This arrangement provided extra finance, and enabled additional works to be commenced, and consequently a much greater number of men to be employed, without unduly restricting the prosecution of ordinary works.

In effect, highways funds were applied to advantage in relieving the unemployment situation, while at the same time additional progress was made possible in carrying out improvement work.

There is, of course, a limit to which Highways Funds should be used in relieving unemployment. It does not always follow that works requiring attention are necessarily situated in the localities where unemployment is most acute, but in considering proposals, the circumstances of each case were examined carefully, in order that, as far as possible, justifiable work and not the labour situation, governed the actual selections that were made.

The subsidies previously granted from the Unemployment Fund have been withdrawn as from the 1st April, 1936, and highways funds will require to be allocated for the whole of the cost involved in completing these special works, most of which are in the progressive stage.

Maintenance.

The primary requirement for any highway system is its proper maintenance, and the Board has impressed on local controlling authorities the necessity for continuous attention being given to this phase of the work. Maintenance has generally been of a reasonable standard though many floods caused much scouring of metal surfaces over a wide area.

The heaviest floods occurred in February and March, and caused considerable damage, the estimated cost of the repairs being in the vicinity of £100,000. The Taranaki District suffered most, where the damage was estimated at £68,000. The principal losses in this district were six concrete bridges.

With a view to improving the standard of maintenance and reducing cost, the Board made arrangements with the Public Works Department to design a special power-grader suitable for New Zealand conditions, and embodying up-to-date mechanical features. Photographs of two models of the grader are attached to this report. These machines are almost wholly New Zealand made and are giving very satisfactory service. When the graders were first produced, it was found necessary to make adjustments of a minor nature, but now that the machines have been run in, excellent service is being obtained. The Board has also purchased for a number of local bodies many modern grading units, the local bodies undertaking to acquire such equipment under terms of hire-purchase.

Due attention has also been given to dustless surfaces. The designed speed of motor-vehicles has increased during the last two or three years by twenty to thirty miles per hour, greatly increasing road impact. There is ample evidence that many of the old surfaces are becoming progressively rougher, and that it will be necessary to pay more and more attention to the application of smoothing-coats to overcome unevenness, and thus prevent impact damage to the metal crust. Already the technique of smoothing-coat work has developed to the extent that production cost of plant-mix material, using cut-back bitumen, has been reduced in some districts from £2 2s. 6d. per ton to £1 6s. 6d. per ton. There is no doubt that the appearance and riding comfort of the sections that have been treated have been vastly improved. Roughometer readings have been reduced from two hundred units to the mile to as low as five units to the mile. The viagraph appended to this report shows by comparison the relative roughness of the different types of pavement between Christchurch and Glenavy.

Of some 12,000 miles in the highways system, approximately 2,000 miles are paved; the remainder has gravel or crushed-rock surfaces. Much of this latter type will be treated in due course with bituminous materials; but there are many hundreds of miles of highway where the traffic densities are so low that it is likely to be many years before sealing or similar surface treatment can be economically justified. Therefore, in the meantime, grading equipment must be maintained to the highest possible standard.