

*Re Main Otupua Road* (item 1 on statement): The cost would amount to £720 per mile on that estimate. That part of the road is generally a good sound road. A fair amount to be put on that road would be 5 yards per chain, which would be ample. The Overseer's report shows 25 yards. In constructing new roads we never put more than 25 yards per chain for heavy traffic for similar roads. Knows the work being done inside the borough boundary in the construction of that road. They are remetalling the road there. They are really constructing the road, putting metal on the top of clay. Estimated they were putting on 16 yards per chain of broken stone. What is being put on the county road is superior to what the borough is putting on. The effect on traffic in putting on so much metal as the County Overseer proposes is that it would be a nuisance to the traffic. Five yards per chain would last for a couple of years. Item 2: Thinks this would amount to £420 per mile. Thinks 5 yards per chain would be sufficient to crown it up. This should last for two years. Item 3: There should be put on about 200 yards on this part, 40 chains. The crown was a little flat; this is all that is wrong with the road. 200 yards is ample. Item 4: Cannot say whether 150 yards is required. The road is in good order, and has been recently gravelled. Item 5: Should say that this is not required in the meantime; the road is in good order. There are a few weak places on one portion that want attention, but nothing like the quantity proposed. Item 6: This is a reasonable request, although the road is in fair order. The road requires patching here and there. *Re Brassell's Road* (item 7): This expenditure is not wanted. 150 yards of maintenance gravel is sufficient to make up the weak places, and the grass pared off the side of the road. Does not consider that cuttings come under the heading of "maintenance." The cuttings are reconstruction. There are three places where cuttings might be made with advantage. One is estimated at £41, the other one at £37 10s. 6d. This includes cutting down the rises and filling up the gully, also culverts and regravelling; total, £78 10s. That is based on the Overseer's prices. Thinks this is all that might be done. It would be an improvement, but it is not necessary. No other work is required on that road. *Re Main South Road* (item 7): Finds that 6 or 7 chains require 5 yards per chain, and the other part of the road is a good road. Item 8: Considers that the road is in good order; it is good in places, but in other parts the gravel is worn down to the formation. Considers that 5 yards per chain is sufficient, or 75 yards for the whole piece. Item 9: This is in much the same state as the previous piece. There are a few yards required in weak places. 10 yards are required; nothing more is required. The gravel traffic seems to have avoided it last year. Item 10: Is in much the same position as the last piece, and the same amount is required for the weak places near the bridge. Item 11: 10 chains are required here at 3 yards per chain. Item 12: This is the part where the Levels County are regravelling it now. This is a good hard road, and no maintenance gravel is required there. They are putting on 10 yards per chain, and do not therefore think that the rest requires 15. 10 yards is a very heavy coat. It would be a very heavy coat with us; it is too much. The parts not yet gravelled do not require anything at all. Item 13: The amount proposed equals 15 yards per chain. Part of this road has been gravelled recently. They have put on about 11 or 12 yards per chain. The part not gravelled is in very fair order. It is a little flat in centre and requires about 4 yards per chain. As to the claim generally, it is proposed 15 yards per chain should be generally put on. Such a quantity would be a reconstruction quantity. *Re Main Otupua Road*: Assuming that a certain amount of extra traffic in addition to the Levels traffic goes over the road, and that this amounts to 1,500 tons per annum, this would not considerably affect the cost of maintenance.

Cross-examined by Mr. Raymond.—*Re* the 1,500 tons. It would contribute to the disrepair in proportion as it stood to the total traffic. If the local traffic is 2,000 tons and the Waimate traffic is 1,000, the proportion would be as 1 is to 2. These roads are well constructed, and only need maintenance; they do not need reconstructing. Improvements could be made, but the claims are as a whole for maintenance only. My objection is that an excessive amount of metal is asked for for maintenance. Metalling and regravelling is of the character of maintenance-work. In the construction of a road you first of all grade the surface and put in culverts, ditches, water-tables, and cuttings, then a coat of metal is placed on the top. If the road is originally properly and efficiently constructed it will be best to maintain it well. If you allow the road to go too far you will have to put as much metal on as originally, but this would not be reconstruction of the road. The amount that Levels ask for does not imply that the road requires reconstruction; merely says that the Overseer wants as much metal put on as if he were metalling the road for the first time. A great deal depends on the amount of traffic. Has no fault to find with the material, and the Overseer has done the best he could as regards that. As regards 5 yards of metal per chain, it depends on the road as to what the width of the metal should be. As to the Main South Road, says that 5 yards per chain should last two years, but cannot say what width should be metalled. It varies. It will not require the same metalling all through. Examined these roads yesterday only; was about six hours, and went over thirty miles of road. Stopped half an hour for lunch. Was therefore on the road for about five hours and a half. We did not stop to make observations at cross roads. Did not get out of the trap and measure. We got out once or twice, but made no measurements. [Witness pointed out on map places on Main Otupua Road where he went, also on Brassell's Road.] Measured two steep gullies in Brassell's Road and made notes of these. It would be a great improvement to regrade this part. This is the only part he measured. In other parts did not make special observations as to soundness; judged from the surface. Could not tell very nearly the depth of the skin over the road as they drove over it, but could know the condition of the road. As to the Otupua Road, the work required is not maintenance; it might be required next season. It is not now required. Have had no previous experience in Levels County. In Southland County we are governed by local conditions.

Re-examined by Mr. Kinnerney.—Whatever experience a man might have for roads, 15 yards per chain is an excessive amount for maintenance. We consider in Southland that where a road is