the coal was not at fault?—Yes; we are doing that this year. On the Rimutaka Incline, which is 1 in 15, we have absolutely no provision for spark-arresting. Most of the fires there come from the operation of the brake appliance on the centre rail. We run water on the centre rail, but it does not put the fire out in all cases.

72. Have you had experience on other railways than those in New Zealand?—Yes; I had experience of the North British Railway, the Edinburgh-Glasgow Railway, and the Manchester-

Sheffield-Lincolnshire Railway, now known as the Great Central Railway.

73. I suppose hard coal is burnt on those lines?—Yes. 74. And they ran through thickly populated districts?—Yes.

75. What were the provisions there for spark-arresting?—Just the ordinary brick arch.

76. No spark-arresters?—No, not at that time. We have that brick arch in addition to the The brick arch insures better combustion, and also prevents any of the softer spark-arrester.

particles lifting up.

77. Have you any suggestions to make for additional precautions that might be taken?—No; I cannot suggest anything further towards stopping the emission of sparks. I am constantly experimenting, but all my experience comes to this: that when I absolutely stop sparks I stop the engine too. It will do no effective work. Throughout the world it is the same Even in India it comes to the same.

Tuesday, 13th March, 1900.

JAMES BURNETT, SWORN.

78. Mr. Poynton. What is your position, Mr. Burnett?—I am Inspecting Engineer, New Zealand Railways.

79. You were in the Canterbury District at one time, were you not?—I was District Engineer

for eleven years, and it was during that time that certain fires occurred.

80. Can you tell us anything about the fires?—My personal knowledge of the fires was gained after they were over. I have no personal knowledge of the origin of the fires.

81. You visited the ground?—Yes; I went to Rakaia on the 5th January, and went over the

ground.

82. You saw the remains of the fire?—Yes.

83. Can you say anything of the extent of the damage? Different estimates were made, were they not?—Yes, different estimates were made. At the time I estimated the damage at nearly £900. I estimated Mr. Gardiner's damage at £442, and the damage to the Acton Estate at £379.

84. Did you make a careful estimate?—No; I made it from a cursory examination of the

ground. I afterwards employed Mr. Coster to value the amount of damage done.

85. Can you say anything about the precautions taken by the department to prevent fires?—
1 only say in a general way that the grass is always cut. Dry grass is not allowed to remain I can only say in a general way that the grass is always cut. about the line. In this case the fire started on leased land.

86. Is there much land leased along the railway-line?—Yes, a good deal.

87. Do you think that tends to prevent fires, or does it tend to the accumulation of rubbish?

—Generally, it tends to prevent fires. The ground is largely used for root-crops, and at this particular place the man had cut the grass for hay. At that time the whole country was like tinder.

88. The department sometimes ploughs a strip, does it not?—Yes.

89. Why do they plough at some places and not at others?—On account of the risk of fire spreading being more in some places than in others; and there has always been a reluctance to plough on leased land. You would have to get the consent of the leaseholder.

90. You think, then, it would not tend to diminish fires if the letting was abolished?—I do

not think it would have much effect that way.

91. It would cost a lot of money, of course, to plough?—No strip such as was ploughed on this land would have stopped the fire that damaged Mr. Gardiner's property. It jumped over a road that was 40 ft. wide.

92. Have you had experience on other railways?—Only on the New Zealand railways.

93. On what sections?—Christchurch, Dunedin, Invercargill, Wanganui, and Wellington-Napier. I was only Inspector on the latter two.

94. I suppose you have complaints of fires every dry year?—Yes; whenever it is unusually

dry there are complaints.

95. Can you say anything about the appliances used in the locomotives?--Not from personal knowledge. I have, of course, looked inside a locomotive.

96. How long were you in charge of the Christchurch Section?—About nineteen years, with

intervals. 97. Could you form an idea as to the number of claims made in that time?—It is rather a difficult question to answer, but, speaking offhand, I should say it would average four in the year. All fires are reported.

98. Do you think that anything else could be done to prevent fires?—No; I think everything in reason is done at present.

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