

(6) EXCESSIVE SPEED.

The evidence concerning speed may be dealt with under four heads :—

- (a) Evidence regarding the time of the accident ;
- (b) The evidence of the passengers and the Guard ;
- (c) The evidence of the driver ;
- (d) Evidence as to the condition of the wreck and the relative positions of the vehicles as ascertained after they had come to rest.

We propose now to consider these items in the above order.

(a) We have devoted considerable thought to the possibility of establishing the time at which the accident happened. The Turakina Station record shows that the train passed through Turakina at 2.3 a.m. There is confirmation of the accuracy of this record in the corresponding records of Fordell Station to the north and Marton Station to the south, the latter having been signalled immediately after W 4 passed through Turakina in connection with the southward departure of the goods-train (No. 573). There is ample evidence that W 4, though it had been making up a few minutes of lost time after leaving Marton, passed through Turakina at a normal speed, which may reasonably be taken as being 30 miles per hour. At this pace, with allowance for a speed-restriction to 25 miles per hour at a curve, it would reach the point where the Turakina grade special speed-restriction begins to operate in a few seconds over one minute, the distance being half a mile for all practical purposes. The next mile up the steep grade of the Turakina Hill would be, and we believe was, traversed approximately in accordance with the special speed-restriction of 20 miles per hour, and occupied three minutes. This gives the time of topping the grade and entering the Ratana Flat as 2.7 a.m. The distance from the top of the hill to the scene of the accident is 2 miles 25 chains. Taking in descending order, the times given by witnesses as the time at which the accident occurred, we find that :—

- (i) The guard recorded 2.18, a period of eleven minutes, or an average speed of 12.54 miles per hour from the top of Turakina Hill. This is palpably absurd.
- (ii) Mr. Winstone fixed the time at 2.15, which gives a period of eight minutes and a speed of 17.25 miles per hour—almost equally absurd.
- (iii) Mrs. Wilkinson, whose watch was five minutes slow, and who knew of this error and allowed for it but did not look at the watch until after the lapse of an estimated interval of two or three minutes after the accident, made, after these adjustments, the time 2.12 or 2.13. This is not very definite, but assuming it to be definite, it results in a speed on the critical stretch of 23 miles per hour—only two-thirds of the regulation speed.
- (iv) Mr. Allen, whose watch was found shortly after the accident to have stopped at 2.12 a.m., stated that the main spring had been broken, probably as a result of the watch falling to the floor, where it was picked up after the accident. As the watch had been half a minute slow by the railway clock at Palmerston North, this makes the time 2.12½. Of course we have not sufficient evidence to be certain that the watch stopped instantly at the moment of impact ; but assuming that it did, this gives an elapsed time of 5½ minutes and a speed of 25.1 miles per hour. Mr. Allen did not guarantee his reading of the watch within half a minute, and even if his time be taken as 2.12, the speed works out at only 27.6 miles per hour.
- (v) The guard, under cross-examination, admitted that his entry of 2.18 must be wrong, and it was suggested, and he agreed, that he might have made a mistake of five minutes, and that the entry should perhaps have been 2.13. The assumption of this time would result in a speed of 23 miles per hour—quite incredible. If the guard's record of 2.18 is disregarded, and it must be, then there seems no more reason for assuming 2.13 than 2.8 or any other time.

The evidence of the other witnesses as to time was so indefinite, owing to their having looked at their watches at times unrelated to any fixed or fixable points or incidents that it can be disregarded. Counsel for the New Zealand Locomotive Engine-drivers, Firemen, and Cleaners' Association and the driver, after traversing all this evidence and analysing it, argued that no period less than ten minutes could be assumed for the passage of the train from Turakina to the scene of the accident. Examining this contention in the light of the computations we have made, we obtain a result of six minutes for the Ratana Flat, or an average speed over this straight and downward sloping length of 23 miles per hour. In view of the evidence of the tablet porter at Turakina that times are always booked to the nearest minute, counsel assumed the Turakina time to be 2.2, but such an assumption does not appear any more warranted than 2.4. Even if 2.4 were taken, thus making the time at the hill-top 2.8, and if 2.12 were taken as the time of the happening of the accident, we would then have a speed over the Ratana Flat of 34.75 miles per hour, which is considerably less than the speed sworn to by both the driver and the guard, and quite at variance with the probabilities. It is not reasonable to assume that a train which was timed as an express, which had run for 130 miles at express speed, and which, though slightly behind schedule, was steadily making up the lost time, would, on one of the best stretches of the line, have dropped down to a speed less than the authorized speed. There is a great deal of evidence concerning speed—some in support of normal speed, some in support of high and excessive speed, but none in support of slow speed. In view of all these circumstances, we consider that all evidence given by witnesses as to the time of the occurrence of the accident must be disregarded.

(b) It was quite apparent that the memories of some of the passengers were somewhat confused, and that they were unable to distinguish between the sensations they experienced while rounding the sharp curves on the Turakina grade, where undoubtedly there would be the normal swaying of the train from side to side, even at its restricted pace, and their imagined sensations of swaying much closer to the scene of the accident. It can be confidently stated that the condition and alignment of