

conditions, we are of opinion that spontaneous combustion is possible in greasy wool; but, has it been the cause of any of the fires which have recently occurred? The total shipment of wool from the colony for the year ending the 30th September, 1906, amounted to 415,643 bales. Of this—on the ratio of the preceding year—82 per cent. or thereabouts was greasy wool, 16·82 per cent. of scoured and slipped wool, and 1·18 per cent. of washed wool, so that greasy wool has had ample opportunity to demonstrate its possession of any inherent vice and likelihood of being dangerous under abnormal conditions. Excessive moisture, or moisture above that which is absorbed by wool in its natural state, is necessary to bring about the action of bacteria in generating heat in wool when baled and dumped under pressure. The season of 1906 being exceedingly damp had the conditions necessary to bring about the action of such bacteria. The wool season of 1906 was an exceptionally wet one, and the possibility of there being more moisture present in the greasy wool shipped from the colony during that season has been in evidence before your Commissioners. Mr. Walter Hill, a wool buyer and exporter of considerable experience and well-known ability as a wool expert, in the course of his evidence (p. 101) stated that there had been a bigger percentage of damp wool in 1906, taking New Zealand all round, and that he thought the sheep had been shorn before the wool was in a fit condition to shear, in order to catch the sales. Subsequently the witness transmitted to the Commissioners a list of lots of wool which he had during the season 1905-6 specially noted in the catalogues of sales which he had attended as being "wet," and had consequently avoided them for shipping purposes, considering they were not in a fit condition. These lots comprised lines of wool offered at auction in the four centres of the colony, and might be taken as a fair sample of greasy wool containing, in the opinion of an expert, an undue percentage of moisture. Each of the lots mentioned has been traced, and it will be seen from the correspondence (Exhibit No. 18, p. xxxv) that in no case was such wool the cause of any of the outbreaks of fire which have occurred. Indeed, only one line was aboard any of the vessels which took fire, and that lot was not damaged even by fire or water.

Considerable evidence was submitted to support the contention that sheep were frequently shorn in a wet condition, although few particular instances could be cited where this had actually taken place. One witness in the course of his evidence (Mr. Young, p. 206) handed in two letters which he had, three years previously, received from two shearers who had complained to him that they were compelled to shear wet sheep (Exhibits Nos. 23 and 24). The wool therein referred to as having been shorn when the sheep were wet has been traced to its destination, and it will be observed from the copies of the correspondence (Exhibit No. 24, p. xlviii) that the wool arrived at its destination in good condition, realised full-times prices, and was not the cause of any damage to itself or ship or cargo.

Coming now to a review of the circumstances surrounding the fires which have most recently occurred upon vessels carrying wool-cargoes from New Zealand, it has been fortunate that a closer investigation into the probable cause of the fires was made in the case of the "Gothic," "Waimate," and "Rimutaka" than had been in previous cases. It is, however, to be regretted that, having gone so far in their investigations, the authorities in London, who might be expected to have instituted a searching investigation, did not make such a complete inquiry as was hoped at the outset. It appears to have been left to the shipping companies to move in the matter of ascertaining the probable cause of the outbreaks. However, with the assistance of the High Commissioner for the colony in London your Commissioners have been furnished with such data as were available at that end, and it has been of considerable assistance to your Commissioners in arriving at a solution of the problem set before them.

The Produce Commissioner in Great Britain, in the course of a report to the High Commissioner on the more recent outbreaks, said (Exhibit No. 9), "In each case the trouble arose in connection with wool-cargo, and it is safe to say that the cause of all the fires was spontaneous combustion in the wool. Although it is known that the past season in New Zealand was an exceptionally wet one, thus possibly tending to the baling and shipping of damp wool, the present extraordinary series of fires has led the opinion to gain ground that other causes than dampness are responsible for the trouble. In the search for the originating centres of the various fires, slipped wool has been very much in evidence; that from one company in the colony in particular. The theory has been broached that possibly a new method of