To take such a case as that stated by Mr. Wylde, of ordinary miners' tunnels, having 4ft. caps 8in. in diameter, and compare the strength of these with that of the channel caps, the shorter caps would be stronger in proportion to their length than the other, but not to the extent which Mr. Wylde endeavoured to show. Thus, the squares of their respective lengths would be as 16 is to 100, or, the channel caps would have to be six and a quarter times the strength of the shorter caps. Taking the 8in. caps to be of red-pine, and allowing for sap-wood, then the relative strengths would be as 64,118 is to 279,936, or, the channel caps would be 4·36 times the strength of the others, in place of 6¼ times.

In evidence given by Mr. Wylde at an inquiry in July, 1880, and which was handed in by him at the recent inquiry, he states, "In the event of a subsidence taking place each set would have to bear a calculated weight of 334 tons. From the fact that some of the props have crushed into the caps, there has been a subsidence." Now, when this statement is analysed, it means that the weight on the roof of the tunnel is the entire weight of the material above the tunnel in a vertical line at each side to the surface. If such a weight had come on the caps by the subsidence he referred to that had taken place, the whole of the channel would have collapsed; but the mere fact of the timber sustaining the weight for ten years after the subsidence he stated had occurred is in itself sufficient to show the fallacies adduced by him.

The timber in the channel caps is in proportion to the strength of timber used in other tunnels constructed in alluvial drifts, and, although an accident happened, and one of the caps, after ten years' use, broke down, there is not a tittle of blame to be cast on any one connected with its construction or maintenance. The same thing might happen in any other tunnel where the timber had not been so long in use. The evidence of Mr. Wylde tends to cast reflections on those who had charge of the work; but, when analysed, it shows that, even with all his experience, he has not studied this subject sufficiently.

The following table shows the amount received from channel-fees and gold-dust obtained from the channel, the expenditure on its maintenance, the outstanding moneys due at the end of each month, and the number of miners employed in claims that are worked from this channel, for the year ending the 31st March last :—

Month.	Channel-fees paid towards the Construction of New Deviation.	Channel-fees.	Value of Gold-dust obtained from the Channel.	Cash received for Channel-fees.	Expenditure.	Outstanding Moneys due at End of each Month.	Number of Men using the Channel.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	
1889.							
April	..	64 1 8	27 3 6·	93 8 6	390 4 9	..	80
May	..	68 19 8	29 12 0	58 16 3	356 2 5	..	80
June	..		33 7 0	..	203 18 1	..	80
July	..	21 15 5	13 11 0	9 5 9	360 17 2	0 13 4	80
August ..	56 7 5	12 12 6	16 8 6	13 0 11	213 3 5	1 8 4	79
September ..	116 17 2	..	91 14 0	..	192 1 1	..	79
October ..	107 13 6	..	75 3 6	..	236 10 1	..	79
November ..	94 0 10	..	62 2 0	..	212 6 5	..	78
December ..	35 8 10	..	..	..	189 14 0	..	78
1890.							
January ..	2 0 0	..	..	..	302 12 7	..	78
February ..	75 17 0	..	47 2 0	..	342 17 0	..	78
March ..	31 8 8	..	145 12 0	..	213 8 11	..	76
	519 13 5	167 9 5	541 15 6	174 11 5	3,213 15 11	..	79

This shows that the channel-fees previous to the construction of the new deviation of channel amounted to £167 9s. 3d., and the value of channel-fees paid towards the construction of new deviation, £519 13s. 5d., thus making the total fees for the year £687 2s. 8d.; and the value of gold-dust obtained from the channel amounts to £541 15s. 6d., which added to the channel-fees amounts to £1,228 18s. 2d. ; while the expenditure on maintenance and repairing the breakage amounted to £3,213 15s. 11d.: thus showing a direct loss on the working for the year of £1,984 17s. 9d., as against £2,619 8s. 2d., which was the loss for the previous year. But the reason of the loss being less this year is that a large number of blocks were on hand, and, as the channel will shortly be handed over to the miners, the material on hand has been used, and only such material as was actually required to continue the maintenance until handed over to the miners has been procured, so that the supplies on hand at that time will be reduced to a minimum.

In order to show the actual loss to the revenue by the Government maintaining the sludge-channel, it is necessary to take into account the quantity of water supplied to the different parties who are using it, which the following table will show :—