MR. BARBER: Before the commencement of the proceedings this morning I should like to draw attention to a certain matter in order that my remarks may be included in the shorthand notes. On page 2446 of the transcript it will be seen where Mr. Gowans cross-examined Mr. Lakeland, Forest Engineer, about the Omeo forest, largely from instructions received from Mr. Clark. At one stage in referring to the unsatisfactory condition of the Omeo Forest, Mr. Gowans said "It has been
put to me by Mr. Clark and Mr. Strom, and they are prepared to go into the box". I have received a letter from Mr. Lakeland in these terms -

"Forests Commission of Victoria, 4th April, 1939.

E. H. E. Barber Esq.,

Dear Sir,

re Royal Commission Appointed to Inquire into the Causes and Origins of Bush Fires.

Transcript of Evidence - Monday 3rd April, 1939, Page 2446 - Line.

This morning Mr. G. Clark called at my office and informed me that his assertion concerning the unsatisfactory state of the Reserved Forest applied to the Enano Forest, and not to the Omeo Forest, lying to the south-west of Omeo.

In regard to the unsatisfactory state of the Enano Forest, I quite agree with Mr. Clark - photos in my exhibit illustrate the conditions. In regard to the Omeo Forest, I still maintain that it was in by far the most satisfactory condition of any area in the Hume Catchment at the time of my last inspection in February 1932;

Yours faithfully,

E. J. LAKELAND,
Forest Engineer"

THE COMMISSIONER: Where and what is the Enano Forest?

MR. GOWANS: It is east of Omeo, getting over towards the border.

THE COMMISSIONER: Apparently it is that part of the forest which is south-east to south-west.

MR. BARBER: Apparently it was the Enano Forest that Mr. Clark had in mind.

THE COMMISSIONER: Are there any other applications or matters to be discussed before we proceed with the addresses?

MR. KELSO: There is a small matter of evidence which I wish to refer to. In reading over the evidence of Mr. Lane-Poole I noticed a point that I had missed when he was speaking; at least,
it made no impression on my mind. He said in relation to the working of the forests, and I think he was referring to the Board of Works areas specifically, that those areas should be under the attention of an expert forester. I have not said so previously but it is a fact that for ten years the Board of Works had had a position of Superintendent of Forests. That position was occupied until June last when the occupant retired at the age of 65 years. The position calls for an expert forester. It has not been filled up to the present because we are proposing a reorganization and a re-location of the position. The equivalent salary is about £600 per annum so that we can get a trained man. The former occupant of the position is one of the men I would have called to give supporting evidence but he would not have been available because he has been in hospital, I think, for six weeks or two months, and is still there. I feel that the Metropolitan Board of Works would expect me to inform the Commission that there is a position for a trained man in addition to the engineers and others who have some control of these forests.

THE COMMISSIONER: Does anybody wish to dispute or contest that statement, or in any way call it into question?

Very well, Mr. Kelso. Your statement is apparently acceptable to all parties. I understand that there will be only two addresses, from Mr. Barber and yourself.

MR. KELSO: Yes,

THE COMMISSIONER: I think it has already been intimated and you agree, that Mr. Barber should address the Commission last.

MR. KELSO: I agree with that procedure and I am ready to go on with my address immediately. The case for the Metropolitan Board has been already substantially presented and I do not propose to repeat a very considerable part of it.

THE COMMISSIONER: There is no need at all for you to repeat evidence.
forth the sake of getting that evidence into my mind because if it
is already in the transcript, I will certainly consider it. I
think your best plan will be to employ yourself in referring to
the inferences to be drawn, drawing attention to evidence to
refresh my mind if you think it is necessary.

MR. KELSO: What I had thought of doing was to refer to the particular
pages of the transcript, the names of the witnesses, and where
necessary to make a continuous story by stating that what was
said without reading the actual words. In many cases the evidence
extends over several pages. At a later stage in my address
there may be some question whether I need do any more than refer
to the pages, but when I come to that I will speak about it.

The particular part of the submissions that I made on
behalf of the Board relating to the forests, to their protection
by burning and to their natural or unnatural condition, I do
not propose to repeat. That has been dealt with by many wit-
nesses — Mr. Strom, Mr. Clark, Mr. Lakeland, and Mr. Lane-Poole
and I feel that that aspect can be left as it stands, so I will
not attempt to sum up that evidence.

One aspect of the case as it relates particularly to
the Board is that surrounding the question of an over-riding
authority. I wish to refer briefly to some evidence given by
Mr. Ellis in that connection. The Board's case substantially
was that it had for many years effectively controlled its areas.
It had been successful except on a few particular occasions and
the condition that arose on those occasions could not have been
cured or affected by anything the Board might have done. When
dealing with that, I said it was clear from the conditions that
were set up in 1939, that the Board must give consideration to the
conditions that occurred outside its areas, and perhaps remote
from them.
Mr. Ellis reads into that an admission that an over-riding authority is necessary. Perhaps that is because he did not weigh the rest of the statement I made following it. If that were brought forward as supporting a controlling authority, it would obviously be intended to lead to the Board being a controlling authority, but in fact, it does not. A central and over-riding authority is one way of meeting that condition, but the whole of the evidence that I gave in the case I put on behalf of the Board was that there is a better way; a way that does not involve the difficulties inherent in an over-riding authority that is, division of responsibility, which is one of the biggest difficulties. The satisfactory way is to require those authorities having care of those forests to do what they should do in them; to alter the Forests Act, to be more specific - and that is the evidence that I gave - in such a way as to make no mistake about the imposition of responsibility on the Forests Commission, if necessary also on the Lands Department, and to provide by enactment for the settled areas around the forests to be under similar control, to cause those bodies to effectively carry out fire protection.

That was the case that was put as an alternative to entering on this dangerous matter of an over-riding authority. It was also put that adequate finance should be provided in the same enactment. Particular constructive proposals, four in number, were put by me. The whole of this matter is referred to in pages 1838 to 1843. The provision in regard to settlement around the forests is contained in page 1815.

THE COMMISSIONER: Will you please check this information when it appears in the transcript and advise me if there are any mistakes?
MR. KELSO: Yes, I will do that. The second section is in regard to controlling the grazing and it appears on page 1818 of the transcript; controlling of forest industry, page 1819; and the control of fire in the forest, page 1824. That is my evidence on behalf of the Board in this matter. What I have now to submit as representing the weight of the evidence is that this central control might be considered, and one might expect the proposal might be based, on some failure on the part of the Board.

If it is proposed that the control should be taken from the Board, one would expect to find developed in the evidence some failure on the part of the Board to control its areas. I submit that the whole of the evidence indicates quite the reverse, that it indicates that the Board has in fact controlled its areas effectively and satisfactorily, and that the only times when there has been damage have been the result of something that could not have been controlled in those areas. There has not been any suggestion of anything the Board itself could have done inside the areas to have affected the position in January, 1939. All the evidence points to the Board's control, as far as control could have been affected in that way, having been satisfactory. Nor has there been any substantial evidence that the maintenance of those areas in the way the Board does maintain them, in a natural condition, has led to what I think we would describe as a fire menace. There, again, the evidence is quite the contrary. It is that those areas did not burn in 1939 to the extent that adjacent areas did. A suggestion has been made that the leaving of the forest in its natural condition and without burning and without any other action causes it to become more and more inflammable, but all the substantial evidence that has been brought forward has been to the effect that that is not so; that the litter does not gather up. Mr. Lane-Poole,
Dr. Paton, and some others have said that in fact the scrub does not gather up. Mr. Lane-Poole and Dr. Paton, and I also, have said that the maintenance of a forest canopy does just the opposite. An opinion was sought from them as to how long it takes to depress the scrub from developing a canopy. Whatever may be felt about how long it takes to depress the scrub, I feel sure that you will not feel that it goes the other way, and that the scrub increases. It has been demonstrated quite clearly by those who are best capable of speaking about it, that the exclusion of fire from an area thereby assisting the forest to grow and spread does in fact decrease its inflammability by depressing the scrub. The references in regard as to how long it may take to regenerate and completely make a new canopy - the maintenance of the old canopy does that - are on pages 1901 to 1902 (Dr. Paton) page 2382 (Mr. Lane-Poole) pages 1806, 1812, 1845 (my own evidence).

Thus, I submit that the weight of the evidence is that the Board's policy in this matter has been a sound one, that is, a policy which has led not merely to effective water services but also to effective forest cultivation. I also submit that the Board has been successful in that these areas have been substantially less damaged than the areas not so treated but subjected to the same fire in January this year. As to the general effectiveness of this policy, Dr. Paton said on page 1901 that he would have no fires in a water catchment under any circumstances. On page 1741 Mr. Clark states that the Board's policy is a reasonable one, that is, the policy of protection and exclusion. On page 1747 Mr. Clark states that he would exclude all occupation and milling from these catchments, and on page 1749 he states that he considers the Board's catchments are sufficiently small to try to keep fires out of them altogether, that is, do without fire protection.
by burning. Mr. Strom states on page 1675A that the ideal catchment is one that is maintained in its natural condition. On page 1544 Dr. Barrett states that he would have no fires and no interference in a water catchment under any conditions. He makes a similar statement on page 1547. Mr. Ingle on page 1411 states that the Board is wise to have no burning in its catchments. Those views all support what I call the Board's policy of endeavouring to maintain these catchments free of fires without protective burning. So that there has been developed no effective basis for an over-riding authority on the grounds that the Board has failed. I do not think that any witness really put that forward. The basis put forward was really one of theoretical efficiency, the theoretical desirability of undivided control.

THE COMMISSIONER: Do you say that there is any evidence that the Board takes any precautions on the outer margins of its areas?

MR. KELSO: There has been a great deal of evidence to that effect.

THE COMMISSIONER: I do not remember evidence that you have had protective burning outside the fringe of your own areas.

MR. KELSO: No; There are fire breaks.

THE COMMISSIONER: You say that you do adopt certain methods but they do not include the method of protective burning?

MR. KELSO: Except on fire breaks. Some of the fire breaks are quite wide extending from 5 chains to 10 chains in width. Actually, those breaks are burnt sometimes under very close precautions but there is no protective burning of the sort that is generally meant when that term is used before this Commission.

THE COMMISSIONER: I thought there was not.

MR. KELSO: That is quite correct. I do not know that it is necessary for me to go very deeply into the question of theoretical justification for centralised overruling control.

Pages 1830 - 1833 contain a reference to what is substantially
is substantially the Board's views on that matter. Summed up I feel sure that it comes to this: no centralization can provide for undivided control of every function. You can obtain undivided control of fire protection but in the particular case of the Board of Works areas it may be only obtained by division of control, by the splitting of a control that at present is undivided. There is at present an undivided geographical control, that is, a particular area is operated in every function for the best purposes of water production. You can divide that and over a whole number of areas functional undivided control can be given in respect to fire fighting, in respect to roads and water supply, and all the things that may be desired, but you cannot have it both ways. The question then is not the simple one of providing the ideal conditions. It is a choice between two conditions; which is the more important of them. I submit that the maintaining of a centralized control in the matter of water supply for 1½ million people is, as I said in my evidence, far more important. It involves the health and effectiveness of industry, the maintaining of proper conditions in that watershed. That is best achieved by the geographical undivided control in those watersheds. Of course there is a stumbling block. If you wish to obtain undivided functional control over the whole of the State, but then you must also provide in some manner for the breaking down of responsibility. In this particular case the responsibility is clear and definite. If something happens in this State because of failure to maintain the water supply pure, only one body is responsible. If this functional control were given to an outside body it would not be possible to hold one body responsible if other bodies had been given the right and had in fact carried out work in the catchments.
That aspect has not been widely discussed but there are one or two references. Sir James Barrett states on page 1862 and I think on page 1847 that from the point of view of maintaining the purity of supply, the question of overriding the Board of Works in its catchments should not be considered.

There has been one particular aspect of the Central authority, namely, that it should be the Forests Commission. What I have said refers equally to the Forests Commission as to any other central authority, but there are special reasons in relation to the Forests Commission. One of them of course, is that a central authority specially organized might contain one or more experts in water supply. That does not apply in general to the Forests Commission. They could not be expected to be in a position to say what should be done if questions of water supply were involved. Mr. Galbraith himself said that if it came to an issue he would not overrule the water authority. I think he altered it and said "Not much". It would be unthinkable to allow an inexperienced body some degree of control in matters that might affect the water supply to the city; there is the additional consideration that relates to the Forests Commission - when asked, Mr. Galbraith said that there was no ulterior motive, but that does not mean that the ulterior motive of getting some control of those catchments for commercial purposes might not arise in future. Mr. Galbraith agreed that his Commission would desire the right to commercially operate these catchments and in future it might easily develop that this initial step of getting some control would lead to that kind of exploitation. I submit that that is a particular reason why the Forests Commission should not be given that kind of control, and why this centralization, whether it be in the hands of the Forests Commission or some other body, is a dangerous centralization.

I therefore
ask that Your Honour should consider these particular findings in relation to the Board of Works area:

(a) That they have been adequately and effectively controlled from a forest protection point of view and that there is no evidence to suggest that any of the recent fires have originated from them;

(b) that the weight of evidence is that these catchments acted as a check on those fires and that their relative resistance to fire is the result of the Board's policy of protection and of maintenance of the forest in a natural condition.

That, Your Honour, is a direct reply to a suggestion that this policy has resulted from the areas becoming a fire menace. I submit that the weight of the evidence is wholly in accordance with (b).

(c) That there is therefore no justification for modifying in any way the Board's control in these areas.

Before I go on to the next suggestions for Your Honour's consideration I will develop the matters leading up to them. I will have no more to say about the question of settlement around the forest or of grazing in it, or even of the development of the proper fire control organization. However I do feel that more must be said about the questions of forest industry. We have the two matters which affect the Board of Works now and which may at any time in the future seriously affect the Board's areas, namely: the question of the disposal of debris from milling, and the disposal of the debris from thinning. The proposal put forward by the Forests Commission in Clause (6) in relation to its future fire protection policy was to the effect that tops should be disposed of in clear cutting in mountain ash. If that is the only policy that the Forests Commission is putting forward, I
submit that it is totally inadequate. It does not deal with the problem of tops, it deals with only a fraction of it. For that reason I feel that it is necessary to go into the evidence and to say what in fact what has been done and what the result of it has been. It is here that the question arises as to the best way to submit this summation. I have reduced these submissions I make to a number of what I call propositions, and I feel that it would be helpful if after each of them I gave the meaning of the evidence that I will bring in support. I could delete that and actually give the pages only, but I do not think it will take too long if I do it the other way. If Your Honour thinks differently at any stage, that procedure could be modified. There is a great deal of evidence.

THE COMMISSIONER: I think it might assist you if I say that I think I do remember the evidence and in any case I propose to read it all again. Do not let that deter you from taking your own course now.

MR. KELSO: Probably that will help me. I will not go so deeply into some of the matters.

THE COMMISSIONER: In many cases I remember the witness's name, where he gave his evidence, and what he said; what he looked like even.

MR. KELSO: I think remembering the appearances of the witnesses is very helpful.

THE COMMISSIONER: It is not a question of your having to remind me that such evidence was given. However, if you wish to accentuate it, point it out by all means.

MR. KELSO: I want to make a consistent story and it is necessary to quote evidence to do that. I wish to refer to a suggestion that arose at one stage that there is some embarrassment and inconsistency in the Board of Works illustrating the Forests Commission on a matter of failing to burn when the Board of Works itself is wholly unfavourable to burning as a policy. That matter has been dealt with in my

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own evidence on pages 1790 to 1793. To sum it up briefly, the forests undoubtedly will be destroyed by regular burning. This question of getting rid of inflammable material does not involve regular burning, nor does it involve extensive burning if it is done properly. What I put forward was that all of this debris should be disposed of by cutting and stacking and reducing the affected area, that is, the burnt area, to a minimum. I submitted in those pages that there could be no comparison between dropping a substantial part of the forest and leaving it lie dry and inflammable, and the burning of the forest floor while the material remains green and standing. Those conditions are not comparable, and it would be indeed foolish for me to suggest that the debris should not be disposed of. The whole of my submission in my evidence was that it was going much too far with this question of burning. So I feel that it is not inconsistent in any way. In fact, one of the strong points I made in my evidence was that if nothing else were necessary, the proper disposal of this debris was.

I am going to say that the weight of the evidence establishes certain particular statements that I will make.

(1) That commercial operations, particularly milling, however well conducted (that is, if the tops are burnt and the debris disposed of) necessarily sets up a fire hazard within the forest, and extreme fire precautions are necessary in areas so used.

On page 2584 Mr. Lane-Polle said that milling of itself creates a fire hazard. On page 1895 Dr. Paton said words to the same effect. My own evidence will be found on pages 1810 to 1813 and 1820-1821. Mr. Ingle, on page 1412B said that millers are a danger to the forest. That is, even with milling carefully and properly conducted, it does set up within the forest, firstly, the use of fire, and secondly,
the production of inflammable debris, the two things that
together constitute the elements which give rise to a fire
hazard:

(2) that milling has in fact in many parts of this State been
conducted in this sense badly (that is, not well.) and that
the heads of trees felled from milling have over considerable
areas remained undisposed of.

The evidence concerning that is very substantial.
Of course there is evidence both ways. As far as I am able
I will refer to all of it that appears to have some basis.
Mr. Coke, Divisional Officer, said that in his division all
tops were lopped and burnt except for mountain ash in the
Otways. I have not actually read the reference to that,
although page 1982 contains one part of it. Mr. Oldham, District
Officer in the Otways, said that millers burnt their heads for
their own safety. On page 801 "A minority of mills" Page 800
"that he had never directed the millers to burn". Page 803
he "would not take the risk". Page 797 "It was generally
too dangerous to burn when the time came"; Page 198 "You are
liable to have the fire over your head the whole summer";
Page 801, "by that time the miller has lost his interest in
burning".

From that I suggest that in Mr. Oldham's experience
the matter was left to the miller. A minority of them burnt
for their own safety. It is notable that Mr. Oldham made no
reference to ash timber in this matter. He referred only to the
possibility on account of the weather. It was also noticeable
that he was not able to explain why he did not burn in the
Autumn.

THE COMMISSIONER: I remember Mr. Oldham very well. He showed a sense
of acute embarrassment during his evidence. I think I
understand why.

MR. KELSO: Perhaps we will make some deduction from that.

THE COMMISSIONER: I think what he said was quite true and good sense.
I think he was embarrassed.

MR. KELSO: I did not see him and I can only go on his actual words in the transcript. The evidence of Mr. Bryan, Forest Officer in Irrewillipe, which I understand is to the west of Mr. Oldham's area and is at all events not in the mountain ash area, was that the heads were not burnt for four years before last October. Page 816 is the one concerned. Mr. Mawson, who is a timber getter, in the same area, said on page 821 that Mr. Bryan's area was in a shocking condition, Mr. Neal, another timber getter, said on page 830 that it was not only in the ash country that the heads were not burnt. That is not actually the statement made by Neal who I think merely supports what Mawson said - that the heads were not burnt. The evidence of these three men who were not in the ash country at all shows that heads were not burnt generally.

Mr. Irvine, in the adjacent Otway area, claimed a very strong policy as to the burning of heads. He stated on page 851 that he had them burnt except in ash areas. On page 852 he stated that he did not like burning them in pure ash areas. Irvine stated on page 853 that the Lorne sawmills were in such an area. He did not say it in so many words, but he implied that he had impressed this strong policy at those mills. Yet, when a miller came in (Mr. Henry page 887) he said that at his mills the heads were all burnt! On page 889 "You can clear up in ash with a little trouble and expense."

MR. BARBER: He said they were all burnt?

MR. KELSO: Yes. He said the heads were all burnt in his mill. One finds a little difficulty in seeing why Mr. Irvine made his case worse by saying that the Lorne sawmillers' heads were not burnt, when, in fact, they were.

MR. BARBER: I thought you were putting it just now that Mr. Irvine had stated that the Lorne sawmills were some of the places where
be enforced burning.

MR. KELSO: No, where there was no burning. His strong policy was no burning of mountain ash and he gave evidence on that page that the heads were not burnt under that policy, but, in fact, we find that they were.

THE COMMISSIONER: We find that someone says they were. You know that the whole evidence was gone and so did the witnesses.

MR. KELSO: That is quite correct. I say with that reservation that Mr. Henry himself may have been wrong. There does seem to be some grounds, however, for a feeling that I will refer to again that possibly these forest officers with their multifarious duties did not know so much about the burning of heads. We know that in the Rubicon area Mr. Ure left it to Mr. Simmons. Mr. Simmons left it to Mr. Ure. Mr. Ure's contact with that area was not great and a possible explanation of the grave discrepancies between what the forest officer said and what the millers and timber workers said may lie in the fact that the forest officer was working on what he thought was done and what he knew should have been done. However, the man on the job in his evidence gave us a different story altogether. That is given for what it is worth. Apparently the position in the Otways was that to a very great extent at all events, these heads were not burnt. That is the statement of almost all the men who gave evidence. I think two millers at Lorne said their heads were burnt. Mr. Henry, of course, said that his were. When we come to the Rubicon, we have very much the same position.

THE COMMISSIONER: It seems likely that the heads were not burnt at Lorne because they all thought that they were in a naturally safe position and precautions were not necessary. I think that was the main trend of the evidence. Can you tell me the name of the miller who gave evidence at Lorne?
MR. GOWANS: Perhaps you mean Mr. Armistead.

THE COMMISSIONER: I think it was he who said he thought his mill was safe. On being cross-examined it became obvious that it was not safe, and it was doubtful whether he ever thought so.

That was what he said. If they did really believe that their mills were safe, they would hardly burn tops for protection.

MR. KELSO: No, I think you have put your finger on the spot but you are talking about the mills and I am talking about the Commission. There is a difference. If the evidence shows that this matter was left to the millers, then what Your Honour says is correct.

I have here a book entitled "Mountain Ash" by Mr. Galbraith which tells us the Commission's view of that. On page 36 Mr. Galbraith says "The present system generally followed with regard to the treatment of cut-over forests is to burn all logging slash as early as possible in spring, mainly because of the extreme fire hazard created during the following hot summer is the slash is permitted to lie on the ground."

It goes on to say "On the drier areas north of the Divide, however, where the problem of conserving soil moisture is of particular moment, logging slash on ash areas is allowed to remain unburned and special fire precaution measures are introduced, e.g., intensified patrol and an intensive fire-break system, for the period during which the slash constitutes a dangerous hazard." This book was published in 1937.

We will leave the parts north of the Divide for the present. What I have read suggests that in the Otways and Gippsland the whole of the slash is in fact disposed of because it constitutes an extreme fire hazard. That should be the view of the Commission, and it should represent the practice of the Commission and its officers. If, in fact, it has been a definite policy - not only a policy, but a definitely imposed practice on the millers. If, on the other hand, the millers
have decided whether or not the practice should be carried out and there is evidence to support that - then the very variable procedure is explained. Some think it is quite safe to leave the heads unburnt, and others burn them because they do not think it is safe. That is, in fact, what Mr. Oldham said, that in his experience a minority of millers burnt to keep themselves safe, the implication being that the rest of the millers were not forced to burn, at all events.

On page 2093 concerning the Rubicon area, Mr. Gerraty said that in his division more than 60 per cent of the heads were burnt, and on page 2080 he said that the general practice was to burn the heads without damage to the standing timber. Mr. Elsey said on page 1090 that most of his heads were burnt, and this was confirmed by the only miller from that area who gave evidence; that was Mr. Ezard, on page 38. In relation to burning in general Mr. Ezard said he did it for his own safety, at his own time, and in any case the forest officer would not know anything about it. That is rather supported by what Mr. Elsey said when cross-examined about the watching of the burning of heads. He said he had not the time to do it himself and he gave the work to certain officers under him. Of course Mr. Elsey is a man with a big area to control and a great number of duties to perform. When we come to Mr. Benallack, we find on page 1113, that he said the heads were burnt in some cases, and he named them. There were six mills out of eighteen. In the Rubicon area 12 witnesses spoke concerning the disposal of heads. Four of them were actually owners or managers, and they were associated with No. 2 mill, No. 4 mill, No. 6 mill and Brown and Cecil's mill. There were two mill hands associated with Nos. 5 and 6 mills, two graziers and a policeman, and all of these people said that the heads were
unburnt in the Rubicon area, some of them for as long as five years. One manager said that he burnt 18 months ago. The other witnesses who spoke about the heads were the two forestry officers, Messrs. Ure and Simmons. On page 601 Simmons said that the only mills with unburnt heads were No. 1 mill and Brown and Cecilia's mill. On page 595 he said that it was Mr. Ure's job to see to the heads, and not his. He had left it to Ure. Ure on page 621, said that the burning of heads was not practised vigorously in the Rubicon as he relied on Mr. Simmons. There again we have the position that the forestry officers do not appear to have taken a very leading part in this disposal of heads, and of course the fact that substantially the heads were not disposed of whoever decreed whether they were to be disposed of or not. As to who did so, there is some light thrown on the matter by Mr. Sims, one of the managers who said on page 447 that the real position was that the miller decided whether it was possible to burn, and then consulted the forestry officer. On page 597 Mr. Simmons said that it was the mill manager's responsibility to ask about the burning of heads. There were further witnesses from different parts of the State who gave evidence about the burning of heads. Mr. Dyer, a miller, on page 60 said that some of his heads were burnt. Mr. Outhwaite, miller, on pages 75-77 said that the accumulation of heads was a menace, that his area was a waste of logs and branches. Mr. McCashney, a miller up in the north, about Murrindine, not far from Alexandra, and not in mountain ash area, said on page 623 that no heads had been burnt in the 14 months in which he had been operating in that place.

THE COMMISSIONER: It was a new area.

MR. KELSO: He had been operating for 14 months.
THE COMMISSIONER: He had not taken over in succession from somebody else. It was just new country.

MR. KELSO: I gather that it was.

MR. BARBER: That was the last 14 months prior to giving the evidence. It was a very special period, climatically. He had only been there 14 months.

MR. KELSO: On page 641, Mr. Beetham, forestry officer at Mansfield, stated that the heads had been burnt in the last 12 months. Later on page 627 he said that the heads at Ball's mill had not been burnt, and on page 660, that they were in fact a menace.

Two millers said that the heads had been burnt. On page 608, Baxter, at Marysville said that he burnt the heads twice a year. Bell, of Marysville, on page 665, that his heads had been burnt. Mr. Parke, forestry officer, at Woods Point, said on page 750 that there was an accumulation of heads left at Fitzpatrick's Mill. Mr. Francis, a mill hand at Yelland's mill, said on page 769 that some of the heads remained unburnt on Yelland's and Fitzpatrick's mills. Mr. Roberts, Inspector of Timber from the Electricity Commission said on pages 1502, 1507, and 1513A that heads are not burnt periodically by the Forests Commission.

THE COMMISSIONER: He is the man who gave evidence in Melbourne.

MR. KELSO: Yes, he was invited to give evidence by the Commission. He did not do so of his own accord. He said that it was definitely not the Forests Commission's practice to burn its heads in any area of which he had knowledge. He did specifically mention a number of mills and it is significant that no evidence was brought out in relation to them, except as to one mill.

MR. BARBER: On the contrary I called specific evidence as to all of them.

MR. KELSO: I may have missed it.

MR. BARBER: I got particulars of those mills from Mr. Roberts, so that
his comments could be answered and they were.

MR. KELSO: I have not seen where they had been answered except in relation to Collins' mill and the evidence of Mr. Roberts in relation to that mill is supported by Mr. Benallack's evidence. The evidence of both those men is not in accordance with the evidence that was brought out by Mr. Barber.

MR. BARBER: Collins' mill is not in Benallack's district.

MR. KELSO: In that case there may be another mill. It is for you to clear it.

MR. BARBER: It is for me to clear up but it is not for you to make it not clear in the first place.

MR. KELSO: No, I will not. I am almost certain that it was a reference to Collins' mill, and a forestry officer, who I am almost certain was Mr. Benallack, said that half the heads had been burnt at that mill by forestry officers.

MR. GOWANS: According to the information supplied to me, there is a mill belonging to Collins Bros. at Noojee which would be in Mr. Benallack's district.

MR. KELSO: I have taken it that that was the mill referred to by Mr. Roberts. If there is another Collins' mill, I may be mistaken, but Benallack referred to that mill and did say that half the heads were burnt by a forestry officer. Mr. Galbraith, District Officer, said that he had seen that mill; all the heads had been burnt, half of them by forestry officers.

MR. BARBER: There is something wrong there.

MR. KELSO: I recognise that difficulty, but possibly Mr. Galbraith had seen that mill.

MR. BARBER: Mr. Galbraith's district does not include Noojee, so there is something wrong somewhere.

MR. KELSO: I think it was Mr. Galbraith who gave the evidence.

MR. BARBER: I think it was Mr. Galbraith, but he was not referring to Collins' mill at Noojee.
MR. KELSO: On page 2040 he is questioned about Mr. Roberts' statement, so presumably someone else besides myself thought the same as I do.

MR. BARBER: I asked him about it and about Collins' mill, but not the one at Noojee.

MR. KELSO: He stated that the Commission's foreman burnt half of the head there prior to the summer.

MR. BARBER: In the Mullandung forest.

MR. KELSO: There is a particular point that seems to tie it together.

MR. BARBER: I should not have thought that there was any real doubt that Mr. Roberts was referring to the Collins Mill in the Mullandung forest and that was the mill I asked Mr. Galbraith about.

MR. KELSO: It ties up with Benallack's evidence.

MR. BARBER: I am afraid it does not. It is a different mill in a different district. Mr. Galbraith would not have been saying anything about the Noojee mill.

MR. KELSO: I will look at that also. I think Mr. Benallack also said that half the heads were burnt by forestry officers at a Collins' mill which is rather a co-incidence if it is not the same mill.

MR. BARBER: At page 2040. "The only one that concerns you is Collins' mill"? The answer was "It is in the Mullandung forest."

MR. GOWANS: The explanation may be that Mr. Roberts was referring to Collins' mill at Noojee.

MR. BARBER: I think you will find that Mr. Roberts' evidence specified Mullandung.

THE COMMISSIONER: I do not think it is necessary to go any further on a very small point of corroboration, except that Mr. Barber naturally wishes to indicate his objection to what Mr. Kelso was saying.

MR. KELSO: At all events, that is what Mr. Roberts said. I have been through all the evidence and I have not seen any
clearing up of the position in the bulk of the cases referred to by Mr. Roberts.

My next proposition for Your Honour's consideration is:

(3) That this condition set up in the forests whereby heads of trees were actually not disposed of constituted a menace and added to the intensity of the fires in January, 1939.

There are two types of evidence that have been given about that. One, that the trees disappeared almost at once and could not constitute a menace, and secondly, that they were there for a good while and did create a menace.

On page 2014 Mr. Code says that the heads of the trees will not cause some kind of fire menace because it is only a few months when all the leaves turn into mound, particularly with ash.

MR. BARBER: Would you mind me interrupting? I am sorry that I have made a statement that is not strictly accurate. I said that Mr. Gerraty had cleared it up. The position was this: When Mr. Gerraty was giving evidence I did not have a list of the mills that Mr. Roberts had spoken of and I put it to Mr. Gerraty generally and he gave me a general answer. Apart from Morgan's mill, I did not put those specific mills to him.

MR. KELSO: About six mills were mentioned.

MR. BARBER: I did not regard it as being sufficiently important to recall Mr. Gerraty.

MR. KELSO: Mr. Roberts was called by the Commission. He actually goes around the mills and I think would be likely to give good evidence.

MR. BARBER: You have the general reply.

MR. KELSO: The submission I make about the general reply is that it is very likely that Gerraty did not have close contact with
these matters. He had a big division to deal with. That is not a matter for my assessment. Mr. Code said that these heads disappeared in two months. On page 2074 he said that the head is an infinitesimal part of the scrub and debris knocked down. The scrub and debris are all part of the inflammable debris that is left on the floor of the forest. I submit that the statement that the heads disappear in a few months is patently absurd, even that the leaves disappear. I think that the real scrub constitutes the wood, branches, twigs, and all the rest of the inflammable debris of which the leaves are only a part.

THE COMMISSIONER: I think he was the only witness who said those things were not a danger. The argument has been in regard to whether they were burnt or not.

MR. KEELSO: I think Mr. Hone tried to work in that direction. I was not present when he gave evidence, but I think he suggested that scrub cut to the floor of the forest and left there left the forest less inflammable than when it was green and standing. I feel sure that any statement of that sort does not need further comment.

THE COMMISSIONER: Everybody else seems to assume that it was a danger. The argument was whether that danger had been allowed to remain or not.

MR. KEELSO: I think that is so.

THE COMMISSIONER: It may be that that is a matter to be considered.

MR. KEELSO: Mr. Carraty said on page 2093 that leaving the heads involves carrying a temporary risk. Mr. Cuthwaite on page 75 said that the accumulation of heads over a period of years was an absolute menace in the case of fire. Mr. Sims on page 445 said that heads from old workings abandoned 18 months before were still in the bush. That is in regard to the suggestion that they disappear after two months. He could see them after 18 months.
On page 471 Mr. Wright said that heads and tops were lying around after 3½ years. There are many others in the same strain giving evidence to the effect that in the Rubicon area the heads were there after years had passed. Mr. Murray states on page 494 that heads create very intense heat. On page 549 Mr. Callanin said that the fires were much more serious than they would have been if they had been allowed to burn the tops. He made a statement to Detective North which was subjected to a great deal of cross-examination. He was cross-examined at Mansfield. After a discussion with Mr. Gerraty, Callanin produced a reason why they should be left, but he did not in fact in his examination and cross-examination endeavour to modify the statement that the heads had been left. He came back under cross-examination to the admission that they were certainly the cause of the fires being much more intense.

On page 660 Mr. Beetham said that the heads near Ball's mill were a menace and contributed to the intensity of the January fires. Mr. Farke said on page 750 that the accumulation of heads at Fitzpatrick's mill would make the fire intense. On page 798 Mr. Oldham said that the accumulation of heads would become very dangerous for a spring burn. On page 1502 Mr. Roberts said that fires are fiercest in the milled areas owing to the enormous amount of useless material left lying about. Mr. Lane-Poole said on page 2407 or 2408 that the tops created a very heavy fire hazard.

So it is submitted that there were extensive areas in which these heads had been left, and that in fact, from the evidence of persons who saw them and were in a position to judge of the fires, the heads did create a menace and increase the intensity of the fires when they did come. I submit that the most likely explanation of this position is more or less as has been exposed by the witnesses I have quoted.

2541.
that this burning of heads was generally decided on by the millers - that is except in some instances it was a matter for the millers to decide whether they wanted to burn. As Mr. Oldham says, they burned when they considered it was a matter of safety. I suppose that a miller having heads close to his mill on the northern side would consider that it was a matter of safety to burn them. These various explanations, some of them very divergent, as to why the heads were left were an attempt, not to state a policy dictated by the millers - not a dictated and effectively put into action by the Commission's men at all, but left more or less in the hands of the millers. It was an attempt to bring that to some policy. The result is that we find that there are different explanations in different areas.

The northern districts have been referred to in the pamphlet "Mountain Ash" (Page 36) that I have quoted from. An official explanation is given there that the heads in the Rubicon area, and presumably in the Murrindindi - possibly also in the area which is north of the Divide - were left unburnt to conserve soil moisture. That seems a very dubious business in view of what witnesses have said but the fundamental requirements of intensified patrol and intensified fire break systems does not seem, according to the evidence of Messrs Ure and Simmons, and the other witnesses who gave evidence in regard to the Rubicon, to have materialised. We know that Mr. Simmons was almost by himself in the Rubicon with the assistance of a few men. There is no intensified patrol about that. Without going into the question of whether that is actually a wise policy, or whether the statements of witnesses expose that it is an extremely dangerous policy for the little benefit of preserving the ground moisture, my submission concerning these heads is that there is no real need to destroy ground moisture.

2542-43-44. KEISO.
If, as I have said in my evidence, those heads are stacked as produced and burnt in a small compass, that would apply. The whole of the impression one gets from these statements and forest officers that fires would be over their heads all the summer, that they must burn in such a way as to safeguard the seedlings, that this burning is dangerous, presupposes it is left until the dangerous time of the year, and the reason for that is obvious: it is left to the miller and they will not burn except when it is a cheap and easy method. They will not cut, stack and burn in August, as they could. That is in accordance with evidence that has been given. There is evidence from Mr. Code himself that he does lop, stack and burn, and that in the Otways the firewood getters burn green, as they call it, off the axe. If those persons who spoke of danger to seedlings, and this and that had that in their minds, the case does not arise; the only thing they have in mind is this dangerous broadcast burning. Economically again, of course, and so long as it is left to the miller it will be economically based on the cheapest method of doing what they themselves think necessary to be done. I do submit that is what is behind this question of head burning.

Now, there has been some evidence given that cutting and stacking to achieve safe burning is uneconomic; that the industry cannot stand it. When at page 2272 of the transcript, Mr. A. V. Galbraith was asked, he agreed that that type of work was done in other countries; but he stated, at page 2271-A, that the market really dominates the position. That is the economic reflection on this question I have been talking about. Mr. Lane-Poole, at page 2407, said that top-disposal, if the work were done properly, cutting and stacking of the branches, would be an expensive operation; but he was incapable of speaking of this cost in our mountain ash country. At pages 2485, Mr.
Ellis said stacking and burning is used to a very limited extent in America. I am not going to read the reference to Hawley, it is given in my own evidence, but summed up it is that where the forest condition is one of some fire hazard, stacking and burning is the only method to be used. At page 2408, Mr. Lane-Poole says that the eucalypt forest is one of the most hazardous types and they just tie up with what Hawley says about the proper way to dispose of heads. At page 2497, in dealing with this question, Mr. Ellis said that in talking of the undesirability of stacking and burning, that he had in mind the broadcast burning in clear cutting in ash. That is what he suggests should be done, that it should be a broadcast burn; but that stacking and burning might be all right with selective cutting in stringybark. Mr. Ellis objected to this procedure of stacking and burning in ash, clear cutting or otherwise, on the cost basis. Now, in giving that evidence, Mr. Ellis quoted £25 an acre for the process; but he did not make it clear what he reckoned would be included in that £25 an acre; but that means five men a week working an an acre. As a matter of comment, I would say he must have thought of cutting up the logs and stacking the, as well. However, that was not suggested in any question, about stacking and burning. The suggestion that I made was that the branches under 9 inches, or something like that, should be cut, stacked and burnt, that that should be taken as constituting the heads. There fore, as a matter of comment, that £25 does sound pretty substantial. At all events, one may reasonably say that if there is any such figure, it would refer to the most productive section of an ash forest, that it could be taken to mean an ash forest which has a very dense growth of trees. Mr. Saxton gave us some lead as to his idea of a productive ash forest, and at page 1041 he said that a good ash forest would run from
60,000 super feet to 100,000 super feet per acre over the saw. If you take it at 100,000 super ft., that is the extreme limit, and, of course, you will felling it is a very high one. Taking the figure of £25, with 100,000 super ft., that means 6d. per 100 super ft., which is 2 per cent, of the market price of the timber, if you take Mr. Quinn’s valuation of good quality ash, as shown on page 2504. If £25 an acre refers to the disposal of heads on what the Forests Commission says in this book, to which I have referred, would be a highly productive area, yielding 50,000 super ft. per acre, and there are plenty of them quoted here at a lot less than that, I do submit Mr. Ellis has gone pretty high in the scale, and to balance him we have to reach a pretty high figure in the scale also. That figure will bring 50,000 super ft. over the saw per acre and that would bring this cost out at 4% of the market value for the proper disposal of the heads, i.e. 1/- per 100 super ft. I submit under the circumstances in these forests we are taking, that 4% or 5% additional to the cost is not worth considering, as an offset to the extreme fire risk, what the Forests Commission itself describes as an extreme fire hazard, by leaving these heads improperly disposed of. The main point I wish to make as a comment on this evidence is that really on this question of fire hazard, not burning the heads has resulted in this mental attitude, that the only time to get rid of heads is right on the verge of the summer. I have given it in my evidence that the Board of Works does dispose of this sort of forest debris all through the year by stacking and burning. If it has been lying on the ground for a few months, whether in the winter or not, it can be burnt and that is the way to burn it, even if it does cost this 4% or 5% extra.

MR. BARBER: Where did you get the heads from to burn?

MR. KELSO: I am quite prepared to answer that question. The Board in its O’Shannassy reservation, with the clearing of the
dam had 100 acres of this typical mountain ash forest cleared and it did in fact do that work, felling every tree, sawing it up, stacking it and burning every bit of the debris by that method. That was done for an amount of less than £40 per acre, in the process of clearing up every bit of debris on the floor, leaving the floor clean enough for a reservoir. A similar piece of work was done at the Silvan Dam; but I do not quote that because it was not mountain ash country. Then along our channels and breaks we actually do this very class of work, cutting, stacking and burning the debris. Of course, we do it during all the year, we do hot leave it.

MR. BARBER: I should not think you would leave it there, in the case of a reservoir, where you wanted the ground for a reservoir.

MR. KELSO: That does answer the question I was asked. I do know of these things. I therefore submit that the Commission's policy in its future policy, as set out in item 6 of the document put in, where they deal only with the burning of the heads of mountain ash in clear cutting, is totally inadequate, and what is required is that (a) all tops should be disposed of, including branches up to 9 inches in diameter; (b) this should be done by lopping and stacking to make the burning area an absolute minimum; (c) that this will provide for what is required in this booklet "Mountain Ash", and it is in fact the only way that will provide it. I refer to page 3 of that booklet. Under the heading "Silvicultural System", dealing with the leaving of seed trees it says: "There is at present insufficient data on which to determine the optimum number of seed trees to be left, but as a provisional measure not less than four well-distributed trees are to be retained per acre." If you are to retain four trees per acre in mountain ash areas, this question of broadcast burning does not arise. The only way to be sure of retaining four mountain ash trees to the acre in an area is to actually
do a considerable quantity of this cutting, stacking and burning in that way.

The next matter is this question of thinning, the thinning of the forest. At a certain stage in the proceedings Mr. Elsey told us that this had been abandoned. However, subsequent proceedings have led to considerable doubt in that matter. If there is any doubt, then it is necessary to sum up the evidence here and to ask that you should find most definitely that this procedure of leaving forest thinning on the floor of the forest is equally dangerous to the leaving of tops. In fact, in some instances it may be a great deal more dangerous. For that reason I will take the time that is necessary to state what evidence has been produced in this matter of thinning. There has been some suggestion that thinning only involves the cutting of scrub; but witnesses have told us about thinning. There is quite good evidence to describe what really constitutes thinning. Mr. Ezard, at page 48 was the first one. Mr. Simmons, at page 602-A was another, and Mr. Elsey at page 1093 was another. Again this pamphlet "Mountain Ash" deals with the subject at page 38. There would be no doubt after reading these references that this procedure of thinning is in fact applied to re-growth of eucalyptus and not only with scrub, and that it does involve the cutting of a substantial amount of that re-growth, 19/20ths, or 4/5ths, according to what the witnesses have stated. This booklet "Mountain Ash" says there is to be a 5-chain break left around every such thinning area. It quotes that as an instruction, and everything on that break has to be stacked and burnt, or burnt in some other way; but Mr. Elsey at page 1093 and Mr. Torbet at page 2350 states that one or two chains is all that has been done in breaks, so that we have a picture of an area of
young growth, or perhaps an area of scrub and young growth, with a very big percentage of the whole of the green material cut and left on the floor, with a narrow break around the outside. At page 247-0 Mr. Hone says a great proportion of the thinnings were burnt; but this in fact is not correct is perfectly clear from the evidence of a great number of witnesses covering the Rubicon, the Otways and Central Gippsland.

MR. LAWRENCE: That is not all Victoria.

MR. KELSO: It is pointed out this is not all Victoria; but I am referring only to those areas where we have had witnesses who were able to speak on the conditions, and I should say this about heads as well, that witnesses in East Gippsland, forest officers only — there were not many millers or others called to speak in those places and also probably in the north-west have given evidence; but I have not attempted to sum that up, although we have been in those areas. They certainly did say heads were burnt, and I think also thinnings. However, all I am saying here refers specifically to these areas where the fire has been extremely intense. It may have been extremely intense in East Gippsland; but I have not tried to sum up that evidence. So far as anything I have said about heads is concerned, my comments do not apply to East Gippsland, the Wimmera, the Mallee, or the Red Gum areas. I have not attempted to deal with those.

The position about thinnings is referred to by Mr. Wright at page 475, and these are the ones where I am not able to show anything except in general, I have not extracted what they have to say about this, but there is Mr. Tuckett at page 478, Mr. Gallinan at pages 549, 549, and 564; Mr. Simmons at page 602-A; Mr. Coutts at page 594; Mr. Leorchie at page 983; Mr. Elsey at page 1093; Mr. Ezard at page 54,
and myself at page 1869. The burden of the statement of everyone of those witnesses was the same, that thinnings had been left lying on the floor of the forest and some of the witnesses, one I think was Mr. Ezard, said that right throughout the districts of Gippsland — or words to that effect — thinnings had been left. Mr. Ezard was asked was it not only in association with fire breaks and he said, no, it was not, to his knowledge, that he knew of them spread throughout the district of which he had knowledge. That the presence of this unburnt and inflammable debris did in fact set up a dangerous fire hazard, with a serious effect in January was stated by the following witnesses: Mr. Ezard at page 48 said "They stack them, but that is a danger." Then at page 50, a portion which I have marked to read, (This is relating to these thinnings) the Commissioner asked: "How much room do they take up when stacked?" Mr. Ezard answered "It would be according to the amount of thinnings taken out, but generally it is half a chain thick and there is a big row stacked through the bush. If a fire got anywhere near it it would be terrific." Mr. Ezard gave a lot more evidence, but that is in relation to his opinion about the inflammability. On page 559 Mr. Callinan speaks of it as a big risk — the presence of this inflammable debris. Then on page 564 we are back on the matter on which he spoke to Detective North — the fires were much more serious than they would have been had the Forests Commission allowed us to burn the scrub out over a period of years. Then there are the references that I have already given, by Mr. Coutts, at page 894 and Mr. Leorchie at page 963. They also refer to the hazard. At page 1093 Mr. Elsey said that this condition of thinning makes the fire hard to stop and involves a risk over a certain number of years, and at page 2089 it is pointed out
there is a risk for 12 months by leaving these thinnings. At page 2446 Mr. Ellis says it may be a risk for a year or two. There cannot be much doubt about what these witnesses thought as to the risk. I submit there is no doubt at all, over a period of years these thinnings have been left in the forest and on the floor. There has been an attempt to minimise and to make light of this risk. At page 2089 Mr. Gerraty said the thinnings would be water-logged in the first winter. Perhaps they would, but the next summer they would be dried out again. That is also certain. At page 2470 Mr. Hone said that where thinnings were left there was less hazard than under the natural conditions. Now, what Mr. Hone wants us to believe is that if you come along to a forest, it may be young growth or scrub and young growth, and if you dropped 90 per cent. of the whole of that green material, or perhaps some of it not so green, some perhaps dying, but we know how much of it is green from the evidence given, that if you drop this substantially green material and let it become dead, it is less inflammable. I do not think any comment of mine is necessary on that.

MR. BARBER: He did not say that.

THE COMMISSIONER: I think he was talking about what it would ultimately become. I think he went on to say it rots away and becomes part of the humus.

MR. BARBER: The whole point as I remember it is that you break the connection between the crown and the ground.

MR. KELSO: That is really what I was going to speak about, I think that is really what he meant and I think Mr. Gerraty at one stage also said by doing this you break the bridge between the crown and the ground. That is one of those beautiful ideas, what you do is you break the crown down on to the floor, 19/20ths of the whole crown goes on to the floor. The question of the fierceness of a fire has been discussed by many witnesses, and it has been
pointed out it is the quantity of fuel that fixed the fierceness of the fire, and this fuel is still in the same quantity, whether in the crown or on the floor. However, the difference is it is made dry and ready to burn, instead of being green, growing, and comparatively unflammable. I can only submit with regard to that idea that if you are looking at it as a means of producing a crown fire, well, what you are doing is that you are producing a fierce floor fire. You may have enough crown left for it to burn in the crown but it will not matter very much. If in a young regrowth forest you make an extremely fierce fire on the floor the rest will be killed in any case, whether fire goes into the tops of trees or not. It seems a very futile excuse for this procedure of spending a great deal of money to safeguard and to improve a young forest and, as witnesses have said, to set up an extreme fire risk which will destroy the lot. As to the protection which is provided over a one-chain, a two-chain or even a five-chain stretch, it is protection of a sort and it would be a protection if it were patrolled adequately, carefully, and permanently; but it is a very poor protection to the keeping out of flying inflammable debris. Then if the condition set up inside is one to make fire fighting extremely difficult — as has been said, extremely hard to stop — then the wisdom of it is subject to the greatest doubt. In fact, there does not seem to be very much doubt that it is not wise. At page 1990 Mr. Code stated that he was opposed to thinning unless the debris was burnt and it is apparent that the Commissioners were also opposed to it (page 2270). At page 1094 Mr. Elsey said that this thinning had been abandoned. Mr. Galbraith said it had been cut down for economic reasons. At page 2092 Mr. Gerraty said that in this conference which has been talked about the question of danger was discussed. I think he mentioned that the work was discontinued owing to it
being an unprofitable undertaking as the unemployment money available was cut down. There does not seem to be any indication in the figures that have been provided that this unemployment money was cut down very much in those years. That is a matter of recollection, but I think it is true that in 1937-38 the unemployment funds were not very different — they might have been a little less. I think it was given by Mr. Galbraith, although the 1938 figures are not there, that it would be but slightly less. Then taking pages 2315, 2349 and 2350, Mr. Torbet was pretty evasive. He was hard to pin down, but you might take his evidence to mean — — — —

THE COMMISSIONER: I think you led Mr. Torbet into a belief that he was engaged in a duel rather than in giving evidence. I think that might have something to do with that.

MR. KELSO: Well, I think really the comment I would make in regard to Mr. Torbet's evidence about thinning was that he was trying to evade the question about what was the position before 18 months ago; but he did say since 18 months ago the only thinning that was done was along fire breaks and that the thinnings were burnt. That is very much in accordance with a lot of the evidence. It might be deduced from that that this real thinning, the thinning spoken of in this pamphlet "Mountain Ash", the thinning spoken of by Mr. Elsey and other witnesses, the thinning that set up this dangerous condition in the Rubicon had been abandoned. I do not think that is very important, provided Your Honour does see fit to make it a finding that if it is not, it should be. That is the only suggestion I am making.

I suggest this finding, I am now referring to both thinning and heads —

D. That forest industries and forest thinning have in many areas set up a serious fire menace in that the debris produced has been left on the forest floor and that the
intensity of the recent fires has been increased thereby;

E. That complete disposal by burning or otherwise of all forest
debris as it is produced is essential as a safeguard against fire.

That is rather than that this proposal be accepted
of only doing part of it and that this should be done where
disposal is to be by burning by a method of cutting and stacking
rather than by broadcast burning.

That is practically all I wish to say in particular
detail. I have asked that certain findings be made.

To round off the position, I have not been specific in
suggesting how it should be done, I have only suggested that
it should be done by a process of legislation; that these
findings should be given force by incorporation in an enactment,
rather than being made as recommendations to some authority
yet to be constituted. That is all I have to say.

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MR. BARBER: If Your Honour pleases, I want first of all to deal with
the matters that Mr. Kelso has raised and I propose to deal
with them at the moment. It may be that on further reflection
at lunch time I may have to look up further evidence and make
some other comments at a later stage. However, I desire to
have something to say now about his remarks. In general, it
has been quite apparent that in the course Mr. Kelso has
persisted in throughout this inquiry he has been eager to cross-
examine with vigour the witnesses of the Commission and adopting
the method that offence is the best defence, he has been eager at
all times to carry the war into our territory. May I say this,
I cannot see any very severe fight between the Board of Works
and ourselves, except that Mr. Kelso seems to have gone
deliberately out of his way to promote one, and it very hard to
see why why he should be doing that, except as a matter of
tactics.
THE COMMISSIONER: Of course, it may be that he wishes to protect large areas which in places are in close proximity to your own territory, and he may regard your territory as being a danger to his territory.

MR. BARBER: Yes. I understand that is the way he puts it.

MR. KELSO: I thought I had been very kind towards the Forests Commission in a lot of things.

MR. BARBER: I know the way Mr. Kelso puts it, but the ultimate example of that attitude was shown in his address this morning. We heard practically nothing of any summing up of the Board's case, it was confined entirely to an attack, very ably and vigorously presented, on two aspects of the Forests Commission's activities. That is significant when I say that he has been reluctant throughout this case to give us any sort of notion of what the Board itself is doing in the way of fire prevention. He has concentrated on us. His own evidence consisted of a justification of the theory of the Board's policy to leave it to nature. As I say, he has displayed great reluctance to tell us what actual works and precautions of a fire prevention nature were taken by the Board at all. No plans were ever submitted, there does not seem to be any plan except a vague plan of "Whenever we see a fire we hit it". There is no suggestion of any proper fire prevention plan at all. The evidence of Mr. Torbet was that there is very little fire prevention work, if any, done in the Board of Works' areas. Those areas are unroaded, they are in their natural state; as it has been put, they are left entirely alone. That is a matter which is a serious one for the surrounding forests. Just as Mr. Kelso is concerned about our forests, so we are vitally concerned about the Board of Works' forests. There are only two ways in which the interests of the Board of Works and our interests clash at all. The first
one is this: as Mr. Torbet himself put it, that their areas are links in the chain of forests, and as he puts it, they are weak links - their areas are not properly fire controlled. His evidence on that matter will be found on page 2321 of the transcript. I think it is quite clear that the entirely natural forest, while it may have all the virtues that were claimed for it, is a fire menace unless it is at least so roaded and so easy of access that when fires do start in it they can be immediately got at, and another thing, that it is so surrounded by adequate breaks that apart from fires starting in it, any fires that sweep into it from other areas can be got at and stopped, in the Board's area. One of the main dangers the Board's areas present is not so much in connection with fires starting in the area, for the moment giving Mr. Kelso his theory fires do not start very much in the Board's area; but if a small fire started to the north of the Board's area and got into it, by the time it got outside, on the other side of a 45,000 acre area, it might be of enormous proportions.

MR. KELSO: Am I allowed to ask Mr. Barber to produce the evidence on which these comments are made, that a small fire could do that? Such comments should be based on some evidence. In cross-examination Mr. Torbet did admit he knew very little about some of these things. He was quite mistaken in regard to the road at the north of the O'Shamnassy area. Mr. Barber has the right to rely to whatever extent he can on Mr. Torbet's statements and the cross-examination, but where are these other statements that a small fire has started and gone through this area; where are the statements to justify his assumption?

MR. BARBER: I never said it did.

THE COMMISSIONER: I do not think Mr. Barber said it had done so. I think he meant the possibility of it arising was not remote.
MR. BARBER: Precisely. I am not going to be cross-examined by
Mr. Kelso.

THE COMMISSIONER: It would be a great pity to spoil this on the last
day. You have all behaved very well indeed. I will give
Mr. Kelso the right to make a short reply to anything he thinks
should be the subject of a reply.

MR. KELSO: And allow Mr. Barber to run on for the present?

THE COMMISSIONER: Do not interrupt him. You yourself know how difficult
it is if you are interrupted. Do not interrupt unless you hear
something that is a direct mistake. Then you are always
entitled to interrupt and ask where is the evidence; but do
not let us have these arguments.

MR. KELSO: Very well.

MR. BARBER: I was putting it that one of the reasons for our vital
interest in the Board of Works' area was that, at any rate, it
is not beyond the bounds of possibility that a fire might start
even outside the Board's area, sweep that area and assume very
large proportions by the time it had got outside that area.
That is one of the reasons why I say the Board's area should be
properly roaded and properly fire controlled. In that connect-
ion I rely on the evidence of Mr. Torbet when he swears that in
such areas as he is familiar with — and he names them in his
evidence — there are no adequate fire precautions taken at all.
That is also linked up with my comment that we have no plan in
evidence or any suggestion of a proper fire control plan on the
part of the Board of Works. The other way in which the Board
of Works' forests link up with ours is in connection with this
question of authority, the final authority — the over-riding
authority. I do not necessarily mean that authority should be
the Forests Commission; but there should be some authority that
would have control of fire prevention throughout the forest
areas. We do go on to say that that should be the Forests
Commission; but stopping at the question as to who
it should be, there should be some authority. For instance, suppose the Forests Commission was so ignorant and so absurd as to insist upon interfering with the water point of view, it might be equally well put it is conceivable you might get a Board of Works so negligent that it created an even bigger fire hazard than is there at present. There should be some authority that should be a final authority. All we want is this: that the Board of Works should be compelled to provide and submit proper and adequate fire precaution plans that would link up with the fire precaution plans that have been submitted by ourselves. We do not want to interfere to the slightest extent with their domestic question as to the purity of the water supply and so on, or to allow millers into their area, or anything else. However, instead of just sitting within their own areas, having no cooperation with anybody and refusing to do anything, so far as I can see, but sit back and leave it to nature, they should be compelled to have a proper fire precaution plan which would link up with the plans we have in operation. To me that does not seem to be very far from Mr. Kelso's own theory. He wants changes in legislation, making the Forests Commission and/or the Lands Department made fully responsible for areas under their own control; they are going to have three authorities, each fully responsible for the area under its own control. That almost implies there should be some authority or body to see that these three people all do their jobs. It is no use merely having legislation; the mere suggestion there should be legislation to make it clear that these people are responsible for their areas is not going to get us anywhere.

THE COMMISSIONER: It is no use having a criminal law without a policeman.
MR. BARMER: That is so and what we are saying is that there should be some central over-riding authority to see that the various bodies - not only the Board of Works but such people as the Trustees of these various sanctuary areas and that sort of thing are included. The evidence is that they apparently do nothing at all, they run a fence around their sanctuary, sit back and leave it. That seems to be the position. We contend there should be some authority over all with complete control so far as fire prevention is concerned.

THE COMMISSIONER: You mean you would leave it as a domestic matter for each body or authority to take its own preventive measures; but you would have some superior body to see that they did so, and if they were not doing so, to take some means of making them do it.

MR. BARBER: Yes. Possibly the only means you could take would be through Parliament. It would be simpler to have this body, with powers.

THE COMMISSIONER: I rather gathered that the Chairman of the Forests Commission wanted that power to be vested in his Commission.

MR. BARBER: I was coming to that. The first step is that there should be an authority, and we then go on to say that instead of having a multiplicity of authorities and simply adding one more authority, the simplest and most convenient thing to do would be to make the Forests Commission that authority, as after all, it has the largest danger area under its control. We say the Forests Commission should be the authority to control the whole area. When I say "control", I use it in the sense that it should be to see these bodies do have a fire precaution policy, that they carry it out and that it links up. It does not seem to me anybody can cavil at that, unless the body objecting does not have a fire prevention plan and does not want one. If that is not the position, it seems to me there is very little that could be urged against what I am suggesting.
I think that also gets over Mr. Kelso's fear of divided responsibility; the responsibility would still in his case rest primarily on the Board of Works, but there would be another body to see they adequately carried out that responsibility. I will come on the question of that authority generally at a later stage, when dealing with the question of policy. At the moment I am really referring to Mr. Kelso's part. Of course, one of the reasons why the Forests Commission is so interested in a proper protection policy for the Board's areas is that the Upper Yarra catchment determines to a great extent the protection of Erica and Neerim, as was seen in the last fire. We must have adequate protection in the Upper Yarra catchment. That is one of the places that is a good example. If that is not properly protected, then nothing we can do will make Erica or Neerim safe.

Turning to some of the specific matters Mr. Kelso dealt with, there is the matter of top disposal. I suggest there is no evidence to show that tops had any effect on the recent fires. There was some suggestion that tops would burn more fiercely, I suppose that is so if you get a heap of tops, but I do not think that there is any direct evidence that in fact any of the recent fires were affected by the presence of tops.

THE COMMISSIONER: I think a lot of things have been taken out of their respective positions during these proceedings. I am inclined to think the importance of whether tops were burnt or not is of another kind, namely, whether the forests officers were doing their duty and carrying out instructions from the Head Office, or whether they were ignoring Head Office instructions. I think that is the most important aspect.

MR. BARBER: I agree with that, if I may say so; but let me just dispose of the tops. I think that is really the main aspect of it.
THE COMMISSIONER: I do not want you to agree with me unless you think so.

MR. BARBER: No, I think that is an important aspect of it. I was just at this stage, I was going to say that from the point of view of actual effective danger, to use an expression which has been exaggerated, tops did not affect the position, because when you consider the many millions of acres of forests, the actual areas occupied by tops must have been very small indeed and I do not think as a practical matter they really affected the situation at all.

THE COMMISSIONER: They might have some effect on safety and lives.

MR. BARBER: Yes, if you have a lot of tops about a mill, or in a specific spot. So far as the other aspect is concerned, you have evidence which I think comes to this, that the general policy of the Forests Commission was that tops should be burnt; but as against that the Commission realised that a lot had to be left to the discretion of these officers. It was not a matter of officers disobeying instructions, each particular area and each particular heap of tops had to be considered on the merits of the situation. For instance, in recent months, the season immediately before the fires, the period was a very difficult one because it was so hot and dangerous that top burning became very difficult indeed. Each particular heap had to be considered on its merits, because you might get damage to seed trees or young growths or danger because of the particular position the tops were in. They might be in such a position that the officer on his own initiative and expert knowledge would decide it was safer to leave them. The mere fact that in certain areas tops were not burnt does not necessarily mean that that officer was disobeying the Commission or that he was negligent in his duty. For instance, Mr. Gerraty says...
that over 60 per cent of tops were burnt in the Rubicon.
Quite frankly others were not, because in the exercise of the discretion of the officer it was considered proper to leave them.
That seems to be the whole position in regard to top burning.

THE COMMISSIONER: There is this, I think it is of importance when you come to consider the lives and safety of the workers, people working on the mills and so on, where tops are in close proximity to the mills.

MR. BARBER: I will agree with that.

THE COMMISSIONER: But I think on the general survey of the question of bush fires in Victoria it is in effect not a very important matter. Surely there are others that are more important.

MR. BARBER: I should have thought so. To deal with other certain specific matters Mr. Kelso raised, he spoke about Mr. Oldham's evidence. I did not hear it, it was at an early stage, but it was clear he was only in charge of the district for a short period. In regard to Knee & Lawson's mills, they said they did not burn tops; but Mr. Irvine pointed out the Forests Commission did burn tops and Mr. Irvine produced written instructions to millers and others. Then again Mr. Elsey said the tops were burnt. It is put by Mr. Kelso that Mr. Benallack said that six out of 18 mills were burnt - I do not think there are 18 mills in his district. Perhaps Mr. Gowans will be able to tell me that. Then Mr. Dwyer gave evidence that some heads were burnt; but he stopped burning because of the dry weather. Mr. Beetham gave evidence that heads were not burnt because of the bad year.

THE COMMISSIONER: I think Mr. Beetham insisted in another year they were always burnt.

MR. BARBER: Yes. The suggestion that this year a lot of tops were not burnt is that it was due to climatic conditions.
The mere fact they were not burnt this year is not generally significant. Then as to Mr. Roberts' evidence there is no doubt Mr. Galbraith was talking about Collins' mill at Yarram, which was the mill mentioned by Mr. Roberts and it does not link up with the Noojee evidence at all.

MR. GOWAN: There appear to be 20 mill owners in the Neerim district and some appear to have more than one mill.

MR. KELSO: I think I can give a better reference to that.

THE COMMISSIONER: I do not think that point would be helpful.

MR. BARBER: It can be looked up. As to the Rubicon, I cannot give reference to it, but I understand there was evidence that the patrol was intensified during the summer, and of course the Rubicon is in direct line with the Cumberland and O'Shamassa, and the Board's protection measures, or lack of them, became important in regard to the Rubicon.

Then as to this cutting and stacking, Mr. Ellis mentioned £25 per acre. The average mill cuts easily 60 acres a year. The average return over the saw is not more than about 20,000 super feet and the cost would be 2/6d. per 100 super ft. At a market price of £1 per 100 super feet that represents about 12½ per cent, not 4 per cent as Mr. Kelso has put it. Then Mr. Torbet stated that all thinning in the last 18 months had been done along tram tracks, breaks, etc., up to a width of three chains and all debris had been burned. I forget Mr. Kelso's reference to Mr. Torbet as to that, but I have a note that Mr. Kelso was putting it that the thinning had been stopped and he was referring more to Mr. Hone's evidence, that there had been very little thinning done for the 18 months prior to the 1939 fires. If that were so, I should think that this question of thinning did not have much to do with the intensity of the bush fires we are investigating. I think Mr. Gerraty or Mr. Hone gave evidence to the effect that thinnings when left on the ground became
water logged in one season. Mr. Kelso suggests they would become dry again the next summer. It is a matter for expert opinion; but if in fact there had been none of this thinning done where the thinnings were not burnt in the last 18 months, I should think that that would have had little effect at all on the 1939 fires, and the theory that Mr. Bone put up is not so absurd as Mr. Kelso would lead you to believe. He put it up that a forest was more safe after thinning had been done and the stuff had been laid on the ground than it would be in its natural condition. That seems to be logical and common sense. The worst that can happen would be a sort of ground fire, there would be no ladder for the flame to climb up to the tops - very different from the Board's forests where you have old culls, hollow trees, young growth, and so on all mixed up together, where a large fire or a fairly strong fire getting in would rapidly climb into the tops and become a crown menace.

There were some of these matters rather sprung on us by Mr. Kelso and I might want to refer to them again later on; but at the moment I do not think there is much more I want to say about Mr. Kelso, except to again repeat that we have heard a great deal of criticism directed to the Forests Commission by him. He resents any criticism of their water conservation scheme and gives very little story of what the Board of Works themselves are doing.

To turn to the main part of my address, in the first place I want to say that looking at the whole of the Forests Commission's case, I think Your Honour can find that the evidence has been given frankly and freely by the Forests Commission officials. If there is one thing that emerges from that evidence I think it is this, that there has not been the slightest attempt to concoct a case.
Where there were differences of opinion between officers those differences were expressed in evidence without any attempt to regiment, and Your Honour has had the honest opinion and evidence of every forest officer who was called. In addition to that, we have given this Royal Commission the fullest access to our files; any files that were asked for were produced and the method of presenting our case encouraged a search of those files. Any officer the Royal Commission desired to have called was called. The result of that was that we have co-operated in permitting a thorough take-over of the Department, that is what it amounts to. To a great extent this Royal Commission has become an investigation into the methods of the Forests Commission. As I say, we have co-operated in every way and facilitated that inquiry. I venture to suggest there are few Government Departments that could be subjected to such a close scrutiny of policy, methods, and actions which would show on the whole such a clear record. I suggest the result of that investigation is that there are no grounds for serious allegations against the Commission, and a fortiori there has certainly been nothing proved of a serious nature at all against the Commission.

Now, turning to that period prior to January 1939, I suggest that the evidence given does show that there has been a developing policy and a growing organization. I do not think we need to go back, or can in fairness go back any further than the 1926 fires. I think before 1926 there was probably not a great deal done in the way of fire protection, although a certain amount was done; but since 1927, when lessons had been learned, and when Mr. Galbraith, the present Chairman, became Chairman of the Commission, there has been a steady, progressive policy adopted.

THE COMMISSIONER: You heard Mr. Galbraith reply to two or three
questions I put in sequence. I asked was there any difference between the 1926 and the 1939 fires in principle and effect. He said "No". He said they had not learned so much from the 1926 fires as from the 1939 fires. That was his answer, which leads one to think perhaps the real lesson has been learned from the fact that a Royal Commission has been constituted, if he actually meant those answers. I have some doubt about whether he meant them. I do not want to stop you, but it is no use my sitting here and allowing you to think I am taking this in, when these things come to my mind.

MR. BARBER: I appreciate that. I do not think the Chairman of the Forests Commission meant what might be drawn from that reply, that the Forests Commission had learnt nothing from the 1926 or the 1932 fires; but had learned a lot in 1939.

THE COMMISSIONER: I do not think he went quite as far. I have forgotten the exact words, but it was something to that effect. Mr. Gowans opened it up and I followed it up. I may tell you I have not actually reasoned the thing out but I have some feeling in the matter that he was not doing himself justice.

MR. BARBER: I do not think he was at all, at that point. I think this is the reference (page 2210 of transcript) - The Commissioner asked: "The 1939 fires taught us all something. Was no lesson to be learned from the 1926 fires?" Mr. Galbraith answered "Yes, there was a lesson, and we endeavoured to profit from it by putting as much of the forest in order as possible". The Commissioner asked "I note that you say all the time that you have insufficient funds. It is probable true because it appears that you are badly understaffed." That does not appear to be the precise point; but at that point the Chairman
of the Forests Commission does say what I am putting to Your Honour now, that a lesson was learned.

THE COMMISSIONER: Of course, I do/know how far this business of learning lessons from fires goes. It is a very nice phrase, but surely we know what it means.

MR. BARBER: You do not come away from the 1926 fires, and after wiping the soot from your brow, take a note-book in hand and write down the lessons you have learned.

THE COMMISSIONER: It might have been well if you had.

MR. BARBER: The sort of lessons you learn are these, you find perhaps a particular thing broke down or failed. The lesson we learned from the 1939 fires would be probably this. Based on the experience of the 1926 and 1939 fires we had set up certain works which we thought adequate and which did control local outbreaks. They would probably have controlled anything of the magnitude of the 1926 or 1932 fires; but in 1939 there were conditions living memory had never heard of, and nobody ever expected we would get this titanic disaster; but we have learned from that this lesson, that we have to take some very much greater precaution, and we have to go out into a different part of the country and take precautions there, as I will be saying at a later stage. In that sense those are the lessons to be learned from the 1939 fires. However, what I was putting was this, that the evidence does show that from about 1927, whether because of the lessons of the 1926 fire, or because Mr. Galbraith became Chairman about that date, - perhaps something of both - there was a growing and developing policy. On that aspect may I put this, it was a tremendous task that the Commission faced in 1918, and it was very little less when the present Commission started in 1927. In 1927 you have the present personnel coming into existence and from then on they have carried on and are the people now before Your Honour who are more
or less responsible. There was a very large task ahead of them, and I am going to submit that task has been very completely tackled; but you cannot expect that everything was going to be done in a few years. Take for example the Country Roads Board, you could not set up that authority in one year and expect the roads to be perfect in the next year, or in five, ten, or twenty years. That is the sort of organization or department that must grow gradually, and it has been the same with the Forests Commission. In 1918 they are presented with a huge area of forest and at that stage very little had been done, practically nothing at all. A certain amount of money is given to them each year and an organization has to be build up. At the very early stages they had not an adequacy of trained men. Apart from immediate financial consideration they had to build up an organization and in doing that one has to train his men and himself learn how to go about the thing. It must take time to do all that is necessary. Even if they had been presented with an unlimited amount of money, it would still have taken a considerable time to have gradually got together their trained and efficient personnel, also materials, and to have learned the proper methods of going about the work. What I am putting is this, it was a colossal task, and a huge area that had to be got under control, and one could not expect that it be done instantly. To do that must take a long period of years, but you do find that from 1927 on to 1939 that task has been completely and adequately tackled and that a tremendous amount has been achieved in that time, and that that achievement has been in spite of lack of adequate financial support. I think that is one of the matters at the root of the whole question of the Forests Commission's achievement. I think there is no doubt that the evidence is uncontradicted that they required
more money than they in fact got. The evidence of the Chairman of the Commission at page 2210 is particularly significant in that regard. He comes out and quite bluntly tells you that over and over again he has asked for large sums of money and has been given considerable less than half the amount he has asked for; he has asked for £100,000 and has been given £40,000 or £50,000. There is no doubt that is one of the things that has had to be overcome in tackling their job. In other matters there was considerable inertia on the part of public bodies and people with whom the Commission had to work. Clearly there has been opposition to the Forests Commission in a number of cases; I think that is quite clear to one who has heard or read the country evidence.

That being the position, faced with a very big task and all sorts of difficulties to be overcome, it was not to be expected that by 1939, 11 years after the period I spoke of, that everything would have been in perfect order, ready to withstand anything; but I do submit, as I have said before, that the precautions that were taken were adequate for dealing with a normal fire, the sort of bush fire we were used to in 1926 and 1932. The 1939 position was something that was unequalled in living memory and I do not think one could expect that anybody could have foreseen the magnitude of the 1939 disaster.

LUNCHEON ADJOURNMENT.
MR. BARBER: When we adjourned for lunch I had dealt with the magnitude of the 1939 outbreak and I had said that the plans and works which had already been carried out were sufficient for any lesser outbreak, but that nobody could have been expected to foresee the terrific 1939 fires. There was evidence from time to time from forestry officers, mainly from the field men, that their plans, works and precautions were adequate for, and did in fact control, all local outbreaks. The works and plans prior to 1939 which were all going on steadily were, road, water supply, fire lines and breaks, (Mr. Torbet tells us that the fire line theory was commenced in 1926) patch and strip burning, organization, education, and propaganda, aerial patrols - fire guards and that sort of thing - look-out towers. The scheme was gradually being improved and there was some clear evidence of a great deal of educational propaganda that was being directed to the community in general and which, I suggest, had an important value which will be continued in future. Eventually it will have a considerable value in creating a fire conscience in the community, particularly in regard to its effect on the younger generation. There is another matter concerning work that had been undertaken which I do not think has been given sufficient consideration as a fire prevention measure. We have heard a lot about the thinnings where the debris is left on the ground, but a great deal of thinning has been done where the debris has been removed and burnt. That has a very definite fire protection value. I draw attention to it because although it is under the silvicultural heading, it is a matter that has been worked on for a long period, particularly in recent years, and is of definite value for fire protection. I direct Your Honour's attention to the evidence of Mr. Torbet
on page 2311 and thereafter. He gives a very adequate summary of the work that had been done up to the 1939 fires. One of the matters I have mentioned is road construction. There was some controversy as to when that started. Its value is clear. The present theory is that the most important thing in fire prevention is to be able to get at and stop the small fires as they occur. Roads have become a very important factor in fire protection. Some criticism was directed at the Forests Commission on the basis that the road system was of very recent origin. The position is really that the extraction of forest produce in the early days was dependent on tram transport in mountainous areas, and bullocks and horses in the lower country. The reconditioning of these tracks was made necessary with the advent of motor traffic and was a relatively simple operation. Where works of this nature had been conducted intermittently as a maintenance operation by the permanent staff since about 1930, with the development of the motor vehicle to a type suitable for rough tracks in forest areas, the Commission decided in 1934 to build up its mobile equipment. That is the point I make. The roads were always used. In the Gippsland country and in the mountainous country they are very costly. You can only gradually thoroughly road your forests. That gradual roading has taken a long time but it has been steadily pursued. It was only when we had motor vehicles capable of getting into forests along these roads that the roading became of such great importance. I think the evidence, and particularly that of Mr. Torbet, will show that since 1934 that policy has been vigorously pursued. It is a matter of common knowledge that about that time motor vehicles became developed to a point where they could be of use in extracting forest produce. There again was an added incentive for increasing the roading of the forests. I again repeat
that the road building in areas such as are occupied by Mr. Hayden, and to a less extent in Mr. Code's case, is an easier and simpler business. When you come to the mountainous areas, it must of necessity be a slow process, mainly for financial reasons because of the sheer difficulty and time that it takes to survey and prepare the roads through those areas.

All of these questions of past policy are conditioned by a fact to which Your Honour's attention has been drawn. I draw your attention to it again. The Forests Commission was created as a Commission purely and simply to look after the forests. It was so created by the terms of its Act and its financial resources are of a size commensurate with dealing with its own areas alone, and with it being a mere timber authority. In the course of its work it has been found necessary to go outside and beyond its own forests and do a lot of things other than merely looking after trees. But that is the basis. When you come to consider what work has been done it must always be kept clearly in mind that the Forests Commission was set up for the purpose of looking after the forests and that alone. That becomes important when considering its relationship to forest communities, to lands outside the forest in general, and even to Crown lands - that its job, its powers, and its resources, were all on the basis that it was a mere forest authority. It may be that in the future it will have to be given powers that will enable it to become something more than that, but that is all it was in the past. It is on that basis only that it is fair to criticise.

That brings me first of all to the old matter of criticism concerning the relationship to Crown lands. I personally still adhere to the position I took up that there was a legal doubt as to the powers of the Forests
Commission with regard to work on Crown lands. However, I admit frankly that the evidence given by the senior officers of the Department shows that that doubt was not a real factor in preventing works being done on Crown land. I think it is clear now that the real factors were firstly, a fear that the existence of Crown lands might have been lost later by alienation, and secondly, the all important matter of finance. With a limited income the Commission had to do the more important matters first; that is to say, matters important from the point of view of a Forest Commission, not necessarily the most important from the point of view of the community in general. From its point of view the first thing the Commission had to do was to improve and protect its reserved forests. That has been done so far as it has been able to do it. It also protected valuable timber on Crown land. Its officers went on to Crown land to fight fires and they went on to Crown lands to do works which would be necessary for protecting their own forest areas, and valuable stands of timber. It is only later that further works have been contemplated and done, at any rate on Crown land such as the Woods Point area. Mr. Torbet and Mr. Hone told us that work had been done in that area, and was contemplated. That is quite clearly understandable on the basis that I have just put to Your Honour. First, they had to do the things that lay nearest to them and were most important. That work was gradually extended to Crown lands and the two things that prevented them from doing more work in Crown areas were the fear of alienation, which was a real one, and the financial resources. Apparently the view has been held and that is what led to controversy - amongst some of the field officers that it was illegal to do work on Crown lands. That view has not been expressed by any of the senior officers. I think some of the field officers used the
word "illegal" in its proper sense. I fancy that some of them rather meant that it was a matter of improper administration. However, some of them took the view that it was actually illegal to do it. That is the view that I myself held, or at least believed to be a possible interpretation of the Act, but that view was not expressed by the senior officers or the Commissioner when they gave evidence. That easy way out was not accepted by them. They were quite frank in giving the real reasons that actuated them. Mr. Lawrence's statement on page 942 of the transcript gives quite a fair summary of the position taken up by the Commission. The next matter that I want to deal with is the matter of burning in general.

At this date I think two schools of thought have been fairly defined. I refer first to the school of thought that we heard so frequently on the country tours, as typified by the man who wanted broadcast burning, and advocated the burning of the forest every year. That sort of thing is illustrated by a statement I saw in the press recently that the ideal condition of the forest is to have a foot or so of ashes over the floor, and there is then a lovely forest, free from fires. After the hearing of evidence of experts of the Forests Commission and independent experts, I think that kind of thing is quite dead. It was given burial with military honours by Mr. Lane-poole, so I do not think the Forests Commission need worry about the criticism that it did not completely burn its forests. The other school of thought which believes that you should never burn anything is more difficult to deal with because in a sense, it is basically correct. I mean that it is much more desirable to have no fire in the forests if you can possibly do so. However, as I said in opening, the Forests Commission has adopted the sensible 'middle-of-the-way' attitude. They
have only burnt where it has been necessary. They have burnt to protect the main part of the forest. They have deliberately sacrificed areas by burning over them in order to safeguard the main part of the forest. At this stage that seems quite clearly to be the proper thing to have done. It is all very well to sit back and say "If you leave your forest to nature, it will become almost fire-proof, or that it will have a nice big top, young undergrowth and all the rest of it". The obvious comment is that the forest is not in that condition now. It will take decades before it gets into that condition, and in the meantime there will be a number of disastrous fires, and no forest will be left. The proper thing was to burn strategically and that was the principal adopted by the Forests Commission. I think that the burning of tops and mill wastes have been sufficiently dealt with.

There is one other thing I want to say about burning and that is that whilst it is cheaper than some methods, it is not in itself an entirely cheap and easy practice. It is cheap enough if someone just rides through the forest with a packet of wax matches and throws a lighted match into every decent pool of rubbish or leaves. If you are going to carry out proper strategic and controlled burning, it costs money. It takes time and labour and is not an inexpensive matter at all; although, it is the cheapest of the methods of cleaning the forest. After hearing all the evidence, I think it becomes fairly clear that the attitude taken up by the Commission is the right one. The only question there is as to the proper quantities in which the burning should be carried out. The evidence has borne out that the Forests Commission has done sufficient; it has done as much as it possibly could to protect the forest and has not done too much so as to ruin large areas that should have been preserved.
another criticism that we met with in the country was the
allegation concerning the youth and inexperience of the Commis-
sion's officers. I think the evidence has shown that that is
not the position. It has shown that field officers go through
a long and properly arranged course of studies. At the end
of that time they had many years of experience before being
allowed to take charge of a district.

THE COMMISSIONER: I think that criticism arose out of a faulty
understanding of what the young men were doing.

MR. BARBER: I think that is so. The man with the real power, the
District Officer, is a man with experience. People may look
at a man 30 or 35 years of age and think he is not experienced,
but one must remember that the forestry officer packs a lot of
experience into a very short time. The average age in Mr.
Hayden's district was 48 which is quite high.

THE COMMISSIONER: That district is up north.

MR. BARBER: Yes. You cannot put men of middle age into the really
rough mountainous districts of Gippsland. It is necessary to
have a man of experience but also of youth and vigour to get
around the place at all. The younger men were to be found in
the rougher districts, such as portion of the Woods Point
district. As a matter of fact, speaking practically, it is
necessary to have fairly young men in those districts. Having
regard to their training and practical experience before taking
charge of the district, they are amply experienced for the
work they have to do.

I draw attention to the evidence concerning the
training of officers on page 2200 of the transcript.

Now I come to the problem of dug-outs and the
Forests Commission's responsibility in this regard. It
has already been thrashed out fairly fully and I want to
sum up again the attitude that I take up. When the
The idea of dug-outs first arose, it was a new question entirely. The whole idea was experimental and at first nobody thought much of it. The Forests Commission eventually came to the conclusion that dug-outs were a sound idea. This belief, of course, was entirely untested by experience. The result was that the Commission urged the millers to construct dug-outs, and I submit that at that stage they had no very effective means of enforcing the provision of dugouts had they wanted to do so. If you read the Section of the Act which gives power to make regulations as being sufficient to permit gazetting the dug-out regulations, they could have gone to the Minister and had them gazetted. My own view is that having regard to the scope of the Act and to the general terms of that sub-section, the dugout itself might well have been ultra vires to the Act. That becomes important because they could have approached the Minister and had more legislation enacted, but having regard to the fact that the dugout position was entirely untested, the Commission was shy about getting the power to force on the millers, many of whom did not want the dugout, a thing which they believed to be good. It is easy to be wise now. The dugouts were a success in the 1939 fires although lives were lost in them. The fact that the Commission got the Crown Solicitor's opinion on the question of liability shows — — —

THE COMMISSIONER: In what dugouts were lives lost?—

MR. BARBER: In Saxton's dugout.

THE COMMISSIONER: It is doubtful whether they were in the dugout at the time. I think they emerged from it.

MR. BARBER: They may have done so. That was the only place I was referring to.

THE COMMISSIONER: The evidence is not at all conclusive. It looks as if one person became disabled and the others went to assist.

MR. GOWANS: I think there was fairly clear evidence that Mr. Saxton was
struck by some part of the dugout falling down because his neck was broken.

THE COMMISSIONER: I remember hearing that. However, that does not matter now.

MR. BARBER: There was no doubt that the dugouts saved many men's lives, so on the whole they were successful. It is only necessary to look at them to realise that there would have been considerable reluctance on the part of people to trust their lives to contraptions of that nature. As Mr. Galbraith put it, if the experiment had turned out badly and the dugouts had been forced on the mill owners, the position might have been much worse. I think the whole key to the situation was that they are not sufficiently enthusiastic because they did not have a certain belief in the dugouts to go on and force them on to the millers. Therefore, they urged the provision of dugouts as far as possible from the humanitarian point of view but did not seek the power to enforce them. It is significant that the Timber Workers' Union which had a most important interest in dugouts did not seek any variation of the Federal award. Obviously there were plenty of people who had grave doubts about their efficacy. Again, I suggest that it must always be remembered that safety of life is not specifically part of the Commission's duties. Looking at the matter from a purely legal view it was not the duty of the Commission to have enforced the dugouts and therefore there was no negligence. We would have been free from a lot of criticism if we had simply sat back and done nothing.

THE COMMISSIONER: If you had done nothing whatever about it, you would have escaped all this difficulty.

MR. BARBER: I direct attention to the evidence of the Chairman of the Forests Commission on page 2203 which sums up the dugout position fairly well.

It is quite evident, particularly from the
country evidence, that the Forests Commission was very unpopular indeed in many areas. I want to say something about the basis of that unpopularity — as I see it, it is that the Commission was trying — with or without the right methods — for the moment — to do its duty to preserve and to arrange the utilization of the forests in the best interests of the whole State. It was unavoidable that in doing that the Commission should clash with the interests of persons who wished to use the forest purely for their own private gain. I do not mean in any improper sense, but to make a profit out of it. For that reason the Commission was unpopular with certain people. Whatever the Commission did was done bona fide to preserve the forests and a lot of the actions of other people which it was the duty of the Commission to stop were purely for the profit and benefits of individuals.

There were two other matters which gave rise to considerable unpopularity. The first was the Commission's attitude towards broadcast burning, which has turned out to be the right one, and which is still held up among many of the farming community to be the wrong one. I submit that the Commission was right in its policy, but it certainly caused a very great deal of unpopularity. The other thing was the enforcement of the proclamation. I do not wish to say much about that because I think it has now become quite clear that it was only a day dream. The proclamation was a cumbersome piece of legislation and undoubtedly its enforcement caused a very great deal of bother — a great deal of probably owing to the fact that country people were not really aware of all of its provisions, and did not really understand what it did to them. Although it was not elastic, and was inartistic, it was not half as bad as many people thought. Many people thought it was a rigid black-out of fires.
Had they taken the trouble to find out exactly what its provisions were, a lot of that feeling would have been avoided.

I now come to the position in January 1939 and I want to say about that particular stage that the Forests Commission whatever may have been its sins in the past came out of that week with flying colours. It was the only organization that stepped into the breach at once — practically the only one; the Red Cross and one or two others assisted. For all practical purposes the whole burden of fire-fighting organization and relief was thrown on to the Forests Commission. That sudden and unexpected burden was very readily and willingly taken up, and very adequately handled. I refer to the transcript, page 2193, as to that. As to the personnel of the Forests Commission, every man in it made most heroic efforts during that time. They risked their lives day after day, not so much in the exercise of their duty as in going right outside it to protect the lives and property of people outside the forests altogether. I respectfully submit that there must be nothing but praise for the activities of the Forests Commission during that week.

I now wish to deal with some matters of future policy.

The evidence of the Chairman of the Forests Commission, on page 2135 and of Mr. Hone and Mr. Lakeland becomes important at this stage. Speaking of rural areas generally, apart from actual forest areas, the controversy seems to be over the Central unified control which we advocate and control by local committees which was advocated pretty strongly. I should have thought that the Local Committee idea had obvious disabilities but there is concrete evidence as to how it works out in Mr. Lane-Poole's statement concerning the areas surrounding the Federal
Capital Territory where apparently fire protection has been left to local committees purely and simply with the result that there is no fire protection at all. I think that a good deal of the blame for the fire position in 1939 can be directed to the fact that there was no unified control. There was no body really responsible for the areas outside the forests. The Bush Fire Brigades did very fine work as they always have done in the suppression of fires, but there was no body to arrange for pre-suppression measures at all. There will have to be such a body and it will have to be a central one. The scheme outlined by Mr. Galbraith on page 2169 is quite sound. He put forward as a suggestion to this Commission that a body consisting of various representatives should be set and have proper power to control the rural areas outside the forests. I have already dealt to some extent with the question of unified control within the forest area itself. Again, I suggest that there should be such an authority acting in a way I have outlined. The most obviously suitable authority is the Forests Commission, clothed with fuller powers and adequate financial resources. That body will of necessity have to deal with timbered areas. It will need to have sufficient resources in men and money to deal with the areas right outside the ordinary reserved forests. I refer to areas right up in the north-east of Victoria. At present that part of the State undoubtedly is a menace. It is inaccessible; it is wild, and a lot of fires start there. Because of that position they are nobody's business, and they drift around. Then the bad day comes and they sweep down on to the more valuable and nearer areas. The authority, whether it is the Forests Commission or not, will have to be given power to road those areas. I am inclined to think that the one hope of preventing future fires like the 1939 fires, is a thorough reading of the whole timber
areas, a proper system of detection both by towers at strategic
points and by aerial control, so that in bad times fires can
be spotted when they are small and got at by means of the road
system so that they may be put out at once. That is going
to cost a great deal of money but unless the State is prepared
to spend that money I do not see how we can avoid very serious
fires every decade or so.

THE COMMISSIONER: There are a number of places, especially in the
north-east, where some part of the forest is fully 20 miles
from any settlement. Would you say that that was so, Mr.
Lawrence?

MR. LAWRENCE: Yes.

THE COMMISSIONER: I judge that from my walking in those parts in days
long gone by. I am sure that there are numerous parts where there
is no settlement of any kind for 20 miles. The whole thing
is so huge.

MR. BARBER: It is colossal.

MR. KEIL: There is not a very great fire risk in those places. I
know a lot of those areas and there are many substantial areas
20 miles from settlement. All the same, they are not places
where fires ordinarily arise. There is no reason for burning
in many of them. There are special instances, but that is
another matter. The problem is not quite as acute as it is in
afforested areas near settlements where fires are rather common.

THE COMMISSIONER: That is so. It is rather remote.

MR. BARBER: Your Honour used the word 'remote'. I think that is another
matter about which there will be very little argument. There
does not seem to be much doubt that the majority of fires are
man made but I still maintain that fires do start throughout
all these areas. They may not start as readily or as often.
One fire is as bad as another if it is left alone and bad days
come along.
Strictly speaking, it is not essential to my case but I put it forward as a serious suggestion that in future those distant areas will have to be safeguarded because by the time a fire that has started there gets to the inner areas, it is travelling on a terrific face.

**THE COMMISSIONER:** The area concerned would make it worse than an ordinary fire.

**MR. BARBER:** Yes. In regard to the Proclamation, I think the witnesses have all agreed that it will have to be more elastic. There seems to be general agreement among the Commission's officers that a short period of acute danger will have to be proclaimed as an absolute blackout. I think the best way to deal with the position will be to have a more elastic provision generally but where a bad season is suspected, or a dangerous period arises, there will have to be an absolute blackout. It will need to be policed effectively. We do not seem to have been able to police the larger black-out, but probably a smaller one can be effectively policed. Of course, that involves a further education of the rural community.

In regard to the question of grazing, undoubtedly the graziers have been responsible in the past for a great number of fires. That is another reason why a central authority is necessary. I suggest that control of grazing - and Mr. McIlroy, I think, did not see much objection to this - should be vested in the Forests Commission which would then be in a position to keep graziers out of areas where burning would do harm. The Lands Department does not seem to be very vitally interested. When a grazier wants a particular part of the country he is just given a licence for it. The Forests Commission ought to be in a position to refuse the issue of licences to specific graziers who are always breaking the provisions of the Act.
Also, the Commission could work out what areas can be let to graziers, where they may be permitted to burn and what areas can be left to them with a specific prohibition against burning at all. Also what areas are so dangerous from a fire or erosion point of view that the grazier can be excluded from them altogether. That has not been done by the Lands Department in the past and there is no suggestion that they propose doing it in the future. Apparently Mr. Molloy has no objection to the transfer of the control of grazing to the Forests Commission, and I think it would be a factor which would make in future both for safety in fire prevention and an improvement in the erosion problem. I think the classification of grazing land is a vital part of the suggestion. The Chairman's evidence in pages 2174 to 2195 of the transcript bears out the scheme I have outlined.

THE COMMISSIONER: What is the acreage of the available grazing forest land where it is generally understood that burning is not necessary. They do not burn in some parts and it would be interesting to have that information.

MR. BARBER: I understand that there are parts where burning is not regarded as necessary. At this stage I cannot give the information you require but I will make some inquiries along those lines.

THE COMMISSIONER: Mr. Lawrence, could you supply me with further information giving figures that would show the populations of the various areas, and their value from the revenue point of view. Also the places where it is generally considered unnecessary to burn, and the places where graziers at least think that it is imperative to burn.

MR. LAWRENCE: Would Your Honour regard the rental value of the areas as sufficient?

THE COMMISSIONER: Yes, the revenue to your Commission. I will be obliged if you can furnish that information.
This matter may lead to a wrong conclusion if we do not go into it fully enough. I would like to get that information to get an accurate idea in regard to the inconvenience that could be caused to the section of the public that uses the forest, or would be most concerned if a recommendation were made that parts should be excluded from burning, and it were found that burning was not necessary. Will you find out where it is practicable?

MR. LAWRENCE: We will do what we can to satisfy Your Honour.

THE COMMISSIONER: That is not a finding. I am covering myself again as far as I can.

MR. BARBER: I do not think that is a matter of controversial interest between any parties represented so I do not know whether there is any point in supplying the information to anybody else.

THE COMMISSIONER: They shall have it if they want it.

MR. BARBER: In regard to our future policy concerning our own forests that will consist in the main of simply doing more of what we have been doing already. That is about what it amounts to, which goes to show that the lines we have been working along in the past have been perfectly correct. There is nothing to be gained in my going through the evidence of the Chairman of the Commission. He has clearly and carefully set out an elaborate and detailed plan for the future. I suggest that there is nothing in that plan—referring to our own areas—that anybody can complain about. It seems to have adopted all the lessons it is possible to learn from the past. Provided sufficient money is given to us in the future, those plans will be carried out. The planning, as Mr. Torbet illustrated, that has already been started is an important feature. I want to say about the scheme inaugurated in 1937 that it has been in operation for a couple of years and the advantages are obvious in connection with past situations. I emphasise that in the past
there was not the complete lack of co-ordination, that one might imagine. They might say "Here is a co-ordination officer appointed in 1937; there was no co-ordination prior to that". There were various officers and there was co-ordination as well as individual practice. Apart from the officers, the schemes and plans preferred in individual districts were sent through the Inspectors to head office and there was a considerable amount of co-ordination between 1937. Since Mr. Torbet's appointment there has been a very much better system. Previously it was possible to prevent the plans from being completely out of joint with each other, but now the works can be so planned that they will link completely and there will be a complete mesh of fire protection over the whole of the forests. That is an essential and important part of the future policy. In regard to the other items, it seems hardly necessary to repeat merely what the Chairman has already stated in evidence.

A lot of what I am about to say now is not so much a matter for the Forests Commission but for the Government to consider. There must be a general survey for the purpose of getting a proper utilisation scheme. I think the evidence of Messrs Hone and Lakeland that a proper survey of the State is necessary in order to properly utilise the land is getting down to fundamentals. Of course, that goes far beyond the matter of bush fires. It takes in matters of erosion and settlement generally but it is important from the bush fire point of view, in that there would not be settlers invading the forest on land that is entirely unsuitable. On the other hand, there would not be the necessity for working very poor forest land. That seems to be a matter that should be undertaken by some body for the sake of the future of the State. It would eliminate the present unsatisfactory
forest boundaries which look like a jigsaw puzzle on the map. They cannot follow any natural contour at all. It must have been for reasons extraneous to proper forest management that they were cut up in that curious fashion.

In the light of the evidence of Messrs Hayden and Hone, an effort must be made by somebody towards developing the market for forest produce. Their evidence shows that a lot depends on the marketing arrangements. Mr. Hayden's area is blessed by nature so far as bush fires are concerned, but it is apparent that the proper utilization of the forest, marketing all its produce, would be a happy result from a bush fire point of view. There is an officer in the Forests Commission whose work lies in this direction now, but it is probable a job for co-operation between the Forests Commission and other Departments so that the forests will be used that many of the difficulties arising from waste paddocks and lack of man power in the forests will be overcome.

Certain figures have been supplied to Mr. Gowans which will be put in. I do not propose to go over the entire evidence that has been submitted.

THE COMMISSIONER: I do not think there is any need to do that. You may think that your final address is rather short when there has been such an amount of evidence, but there has been a lot of repetition in that evidence. You seem to have accepted my assurance that I intend to read it all, and in the circumstances I do not think it is necessary for you to address me at very great length. There are a few main points to be considered. Some of the minor ones may be touched upon in my final report, but you will not be advancing your client's interest by speaking at length and you will not be hurting your client's interest by refraining from doing so.

MR. BARBER: I am grateful for that assurance. There are just one or
two matters that I would still like to refer to.

THE COMMISSIONER: This is not an attempt to prevent you from addressing me. I want to put your mind and your client's mind at rest.

MR. BARBER: I appreciate that entirely. There is just one thing. All of this information has to be considered in the light of the financial position and it is quite clear that sufficient finance was not provided in the past for the colossal task that was set the Forests Commission.

THE COMMISSIONER: Has there been any evidence to show to what purpose the money available has been applied.

MR. GOWANS: Perhaps I can help Your Honour with the document that I propose to put in.

MR. BARBER: Mr. Gowans asked for certain information and it was supplied to him today. There are two aspects concerning the lack of finance. Firstly, quantitatively it was not enough, and secondly it was not continuous. That is borne out by the evidence given in many cases, and particularly by the Chairman of the Commission. The Commission never knew from one year to the next what its income was going to be and, of course, that was almost fatal to proper forest management. That is a very vital aspect to be considered when viewing the past actions of the Forests Commission. I desire to repeat that the evidence given by practically all witnesses before this Commission shows that the disaster in January of this year was something entirely unexpected, something new, something that nobody could have possibly foreseen. I suggest that those two things should be always borne in mind in conjunction with one another when viewing the past actions of the Forests Commission. If that is done and having regard to the mass of the evidence, I earnestly suggest that Your Honour can find that the Forests Commission has done the
authorised to do and has done it very well, and there is no serious matter in which the Forests Commission can be seriously criticised for its conduct over the past years.

MR. GOWANS: Your Honour will remember that Mr. Galbraith, Chairman of the Forests Commission, supplied certain figures in regard to expenditure during the years from 1929 up to the present date. Actually, I put those figures to him as taken from the reports and he agreed with them. At page 2266 of the transcript there are two alterations to be made as follows: for the years "1929 to 1930" there should be substituted the years "1930-31". Some error has cropped up there. For the years "1930-31" there should be substituted "1931-32."

THE COMMISSIONER: Has that been actually corrected in the transcript?

MR. GOWANS: No. I have just noticed that the transcript has not been corrected in that respect. The total expenditure for each year from 1929 onwards is set out on that page. I now propose to put in a document that has just been handed to me on behalf of the Forests Commission which is headed "Statement of expenditure on fire protective operations, 1/7/28 to 30/6/38." With Your Honour's approval I ask that it be typed into the transcript lengthwise.

THE COMMISSIONER: Yes.

MR. GOWANS: With that document there is a statement headed "Silviculture from the Fire Protection Viewpoint." I would ask that that be inserted in the transcript at the same place as the statement of expenditure that I have referred to.

THE COMMISSIONER: Very well.
# Statement of Expenditure on Fire Protective Operations 1/7/28 to 30/6/38

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<th>1930/31</th>
<th>1931/32</th>
<th>1932/33</th>
<th>1933/34</th>
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SILVICULTURE FROM THE FIRE PROTECTION VIEWPOINT.

Silvicultural operations may be classified roughly under the following headings:—

1. Thinning.
3. Liberation cutting or Ring-barking.
4. Suppression of Coppice.

Of these works none have a direct fire protection value except thinning operations. In thinning a stand of timber, be it young or semi-mature, there are two definite objectives:

(a) Accelerated increment;
(b) Reduction of Fire Hazard.

ACCELERATED INCREMENT:

From a true forestry aspect management aims at the production of the maximum possible amount of produce from the minimum possible area in the shortest possible time. To achieve this object nature must be assisted by the removal of that material which is in process of being killed out in the struggle for survival, thereby releasing light, moisture and soil foods in greater quantities for those trees which are intended to constitute the final crop and are the ultimate objective of management.

REDUCTION OF FIRE HAZARD.

From a purely silvicultural viewpoint, the material which is slashed down in the process of thinning should be left lying on the ground so that it may rot and add substantially to the soil mulch. Furthermore from the aspect of increment, the removal of entirely dominated and practically dead material is totally unwarranted in that such material does not constitute real competition to the main main roots of the stand.
When one contemplates the aspect of fire hazard, however, the menace created by the conservation of this dead material in all stands other than mountain ash is so formidable that the disposal of this slash becomes a practical necessity. Thinning operations in all country other than Mountain Ash therefore necessitate the cutting down of scrub and suppressed trees together with the heaping up and burning of all this material. This is indeed standard practice throughout the Victorian forests, the result being that areas which have been thinned are left in a clean condition and immeasurably safer from a fire aspect than the country that has not been subjected to treatment. While it may not so appear at first sight, the expenditure involved in the removal and disposal of slash is usually considerably greater than that of the operation devoted purely to the silvicultural aspect, i.e., reduction of competition among the main trees; the proportion amounting in fact to as much as 70 per cent. in some types of country.

With respect to Mountain Ash, the only reason for deviation from this standard practice is the extreme susceptibility of young trees of that species to mortality from ground fires. It is a practical impossibility to burn heaped debris in any thinned ash stands without causing serious damage to the trees. In those wet ash forests, however, the debris, once laid flat on the mineral soil, quickly decomposes, so that the fire hazard which may be at a minimum in the year in which the work is done, rapidly diminishes until in the course of 4 or 5 years a stand so treated is in a fire-proof condition insofar as a local fire is concerned.

Throughout the years in which the thinning of Victorian forests has been conducted, the fire protection aspect has been kept uppermost in the minds of the Commission officers and has contributed to the extent of 50% on the average of the cost of these operations.
MR. GOWANS: There is a further document or a series of documents which are summaries of plans of operation and probable allocations for the years 1935 onwards. I understand that they represent summaries of the estimates that were furnished by the Forests Commission in each of those years for the expenditure during the following year. Unfortunately they are available only from 1935 onwards, owing to the fact that after the estimates had been put in and the amount received from revenue, the estimate was destroyed.

THE COMMISSIONER: What on earth for?

MR. GOWANS: I do not understand, but that is the explanation I received. I am told that the actual expenditure was regarded as being of more importance than the Estimate that had been prepared.

THE COMMISSIONER: I do not see why it should be destroyed.

MR. GOWANS: I cannot help Your Honour beyond that. I have had that explanation furnished to me.

THE COMMISSIONER: If that is so, why were they not destroyed from 1935 onwards?

MR. BARBER: It was not so much a matter of destroying them. They were simply not preserved prior to 1935. As I understand it, the estimates would be prepared, sent in, and knocked back in the ordinary course of business. Having received whatever was given to them and worked out what in fact the expenditure was to be, they then lost interest in their hopeful estimate which bore no relation to reality and it was not preserved. From 1935 onwards it was realised that they should be preserved.

THE COMMISSIONER: Is not anything that goes out of the office copied?

MR. BARBER: Apparently not.

THE COMMISSIONER: All right. I will just accept the statement.

MR. GOWANS: On page 2266 of the transcript are figures taken from 2690.
the reports and statements of expenditure. On the one hand there is the total expenditure of the Commission in these years, and on the other hand the expenditure on fire protective operations to enable you to work out approximately the percentage of the total expenditure which was allocated in each of those years to fire protective operations. In putting this statement of expenditure on fire protective operations from 1928 to 1938, I should like to draw Your Honour's attention to one or two matters. Your Honour will remember some discussion about the amount spent on roads and bridges and the part that item played in the policy of the Commission prior to 1936. The figures set out here from 1928 to 1939 are as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>Amount (£)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1928-29</td>
<td>493</td>
</tr>
<tr>
<td>1929-30</td>
<td>514</td>
</tr>
<tr>
<td>1930-31</td>
<td>78</td>
</tr>
<tr>
<td>1931-32</td>
<td>2</td>
</tr>
<tr>
<td>1932-33</td>
<td>43</td>
</tr>
<tr>
<td>1933-34</td>
<td>99</td>
</tr>
<tr>
<td>1934-35</td>
<td>660</td>
</tr>
<tr>
<td>1935-36</td>
<td>2292</td>
</tr>
<tr>
<td>1936-37</td>
<td>22873</td>
</tr>
<tr>
<td>1937-38</td>
<td>35454</td>
</tr>
</tbody>
</table>

That is on the construction of roads and bridges. It comes from an amount of £493 in the first year down to £2 and then up to £35,464 in the last year. On the maintenance of roads and bridges the figure has gone from £214 in 1928-29 to £6,310 in 1937-38.

THE COMMISSIONER: What are the figures for the years following 1926?

MR. BARBER: We do not get back that far. It is only back to 1928.

MR. GOWANS: Your Honour will see the significance of the rise in the figures for construction of roads and bridges from 1936 up to the present time.

THE COMMISSIONER: Is that expenditure?

MR. GOWANS: Yes, actual expenditure. There is one other matter.

The other subject is headed "Fire patrol". In the 1928-29 expenditure for fire control was £6,245. It does not
reach that figure again up to the present time. In 1937-38 the amount is £4,197 for fire patrol. It goes down to as low as £1,701 in 1934-35, but speaking roughly the Commission in its last year spent two-thirds of what it was spending in 1928-29 on that item.

In patch burning the figure for 1928-29 is £566, and first of all it goes down then rises to £2,198. The total figures spent on fire protection in each of the years under consideration are here set out but it will be of importance to Your Honour when reading the table to notice that a very large proportion of the figures is taken up with an item which I think must be regarded as controversial, that is, fire protection in connection with thinning operations. In 1928-29 the figure for that purpose was £11,092 of a total expenditure on fire protective operations of £36,105 - about one-third.

THE COMMISSIONER: What does fire protection in connection with thinning operations mean?

MR. GOWANS: That is why I have put in the explanatory note headed "Silviculture from the Fire Protection Viewpoint".

THE COMMISSIONER: I see.

MR. GOWANS: In the last year 1937-38, the item fire protection in connection with thinning operations is a figure of £33,839 of a total sum of £101,590, so speaking very roughly it can be taken that that item constitutes one-third of the total expenditure on fire protective operations.

THE COMMISSIONER: What sort of operations are they in connection with thinning upon which the the Forests Commission has spent this money?

MR. GOWANS: Perhaps I should read this explanatory note.

THE COMMISSIONER: I can find it out. I am somewhat mystified at the moment.
MR. ROWANS: This note gives an explanation of exactly what is done in connection with thinning and there is one passage that is apparently the kernel of the matter. It reads as follows:

"While it may not so appear at first sight, the expenditure involved in the removal and disposal of slash is usually considerable greater than that of the operation devoted purely to the Silvicultural aspect, i.e. the reduction of competition among the main trees; the proportion amounting in fact to as much as 70 per cent, in some types of country." The statement then goes on to deal with mountain ash and the concluding paragraph which I frankly confess I cannot properly understand is as follows:

"Throughout the years in which the thinning of Victorian forests has been conducted, the fire protection aspect has been kept uppermost in the minds of the Commission's officers and has contributed to the extent of 50 per cent, on the average of the cost of those operations." I do not know what the subject for the verb is.

MR. BARBER: I have not read it but if I do so, I am sure I will find the subject of the verb if I have to write it in myself.

MR. GOWANS: Your Honour will remember that Mr. Galbraith informed this Commission that about 40 per cent of the total expenditure of the Forests Commission was in connection with fire protective operations. On page 2267 of the transcript it will be seen that Mr. Galbraith was asked the following question — "You say that the total expenditure by the Commission, the expenditure on fire protection represented about 40 per cent." The answer was "Yes, approximately 40 per cent." If you take the total expenditure set out in this statement for each year including the controversial item I have referred to and compare it with the figures that appear on page 2266 of the transcript showing the total expenditure of the Commission, I think Your Honour will find that on the whole fire protection does not represent 40 per cent.

2593.

GOWANS.
In 1928-29 the total expenditure on fire protective operations was £36,105. Perhaps that year would not help for comparison purposes. In 1930-31 the total expenditure on fire protective operations was £36,478. The total expenditure for the Commission was £267,000, so that it is between one-fifth and one-fourth. I think that position improves later on because in 1937-38 the total expenditure on fire protection was £101,000. In 1936-37 the total expenditure was £148,000 as against the total expenditure of the Commission of £610,000. It does not improve a great deal. However, I am merely drawing Your Honour's attention to these matters so that they will be included in the transcript. As far as I can see that is the only way in which you will be able to make a comparison. I am not making these remarks with the object of discrediting Mr. Galbraith because it was obvious that he was speaking from the book when in the witness box. I am speaking only in order that Your Honour will not take the statement which Mr. Galbraith made from the witness box as being in any way conclusive. I think your remark was that the expenditure on fire protection was £1,000 per week. That was the ultimate conclusion that we arrived at, and it seems to be based on the figures over 20 years. That £1,000 per week does not agree with these figures. Sometimes it is a good deal more than that in the later years; in the earlier years it was a good deal less than that.

MR. BARBER: It was simply a rough calculation based on the average over a number of years.

MR. GOWANS: I will put in those statements.
FORESTS COMMISSION OF VICTORIA.

SUMMARY OF PLAN OF OPERATIONS AND PROBABLE ALLOCATIONS FOR 1935-36.

<table>
<thead>
<tr>
<th>PLAN OF OPERATIONS</th>
<th>LOAN ALLOCATION</th>
<th>FUND AMOUNT AVAILABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>DETAILS AS PER ATTACHED STATEMENTS.</td>
<td>£45,000</td>
<td>£86,000</td>
</tr>
</tbody>
</table>

A. FOREST WORKS

B. PLANTATION WORKS

C. WORKS ETC. CLASSIFIED (INCLUDING FIRE PROTECTION)

<table>
<thead>
<tr>
<th></th>
<th>LOAN</th>
<th>FUND</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOREST WORKS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C. WORKS ETC. CLASSIFIED</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(INCLUDING FIRE PROTECTION)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FORESTS</td>
<td>41,857</td>
<td>21,249</td>
</tr>
<tr>
<td>PLANTATIONS</td>
<td>47,382</td>
<td>6,743</td>
</tr>
<tr>
<td>NURSERIES-CENTRAL</td>
<td>-</td>
<td>2,777</td>
</tr>
<tr>
<td>GENERAL</td>
<td>-</td>
<td>3,000</td>
</tr>
<tr>
<td>FIREFIGHTING AND OTHER MINOR WORKS</td>
<td>£89,239</td>
<td>1,280 £35,019</td>
</tr>
</tbody>
</table>

PLAN EXCEEDS LOAN ALLOCATION BY = £44,239

FUND ALLOCATION EXCEEDS PLAN BY = £50,981

EXCESS OF ALLOCATION = £ 6,742.

THE TRANSFER OF THE COPPICING £14,574 AND CONVERSION FEILINGS £3,326 TO FORESTRY FUND WILL RELIEVE THE LOAN ALLOCATION.

THE ESTIMATES ARE BASED ON ALL RELIEF WORKS BEING ADDITIONAL.

2595.
### Summary of Plan of Operations and Probable Allocations for 1936/37

<table>
<thead>
<tr>
<th>Plan of Operations</th>
<th>Loan</th>
<th>Fund</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Details as per attached Statements.)</td>
<td>Allocation £45,000</td>
<td>Probable Amount Available £34,000</td>
</tr>
</tbody>
</table>

(a) Forest Works.
(b) Plantation Works.
(c) General Works, etc. Classified. (Including Fire Protection).

<table>
<thead>
<tr>
<th></th>
<th>Forests</th>
<th>Plantations</th>
<th>Nurseries (Central)</th>
<th>General</th>
<th>Firefighting and Other Works</th>
<th>Roads Etc. Amounts Reserved</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>£56,267</td>
<td>£6,522</td>
<td>3,782</td>
<td>5,000</td>
<td>2,000</td>
<td>50,000</td>
<td></td>
</tr>
</tbody>
</table>

Plan exceeds probable Loan Allocation by £59,505
Plan exceeds Fund by £3,617
Total excess requested £68,122

Plan of Operation equivalent to the estimated excess £68,122 will require to be undertaken from relief Allocations.
### Summary of Plan of Operations and Probable Allocations for 1937-38

#### Forests Commission of Victoria

<table>
<thead>
<tr>
<th>Plan of Operations</th>
<th>Loan Allocation</th>
<th>Probable Amount Available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Details as per attached statements.</td>
<td>£45,000</td>
<td>£87,170</td>
</tr>
</tbody>
</table>

**A. Forest Works.**

**B. Plantation Works.**

**C. General Works Etc., Classified. (Including Fire Protection).**

<table>
<thead>
<tr>
<th>Description</th>
<th>Loan Allocation</th>
<th>Probable Amount Available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forests</td>
<td>£65,593</td>
<td>£30,103</td>
</tr>
<tr>
<td>Plantations</td>
<td>38,320</td>
<td>6,658</td>
</tr>
<tr>
<td>Nurseries-General</td>
<td></td>
<td>2,232</td>
</tr>
<tr>
<td>General</td>
<td></td>
<td>5,000</td>
</tr>
<tr>
<td>Firefighting</td>
<td></td>
<td>1,000</td>
</tr>
<tr>
<td>Roads Etc., Amounts Reserved</td>
<td></td>
<td>50,000</td>
</tr>
</tbody>
</table>

**Total Excess Requested £66,736.**

**Plan Exceeds Probable Loan Allocation By £58,913.**

**Plan Exceeds Fund By £7,823.**

**Total Excess Requested £66,736.**

---

2597.
FORESTS COMMISSION OF VICTORIA.

SUMMARY OF PLAN OF OPERATIONS AND PROBABLE ALLOCATIONS FOR 1938/1939.

<table>
<thead>
<tr>
<th>PLAN OF OPERATIONS</th>
<th>FUND</th>
<th>LOAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>DETAILS AS PER ATTACHED STATEMENTS.</td>
<td>£57,940</td>
<td>£45,000</td>
</tr>
</tbody>
</table>

| A. FOREST WORKS. |       |       |
| B. PLANTATION WORKS. |       |       |
| C. GENERAL WORKS ETC. CLASSIFIED. (INCLUDING FIRE PROTECTION). |       |       |
| FORESTS | £55,508 | £80,355 |
| PLANTATIONS | 2,293 | 41,378 |
| NURSERIES (CENTRAL) | 3,500 | - |
| GENERAL | 4,000 | - |
| FIREFIGHTING | 1,000 | - |
| **TOTAL** | **£72,306** | **£121,733** |

PLAN EXCEEDS LOAN ALLOCATION BY = £76,733

PLAN EXCEEDS FUND ALLOCATION BY = £14,366

TOTAL EXCESS REQUESTED = £91,099
MR. BARBER: I desire to add that the Board of Works, through Mr. Kelso, has promised to furnish some figures in regard to its fire protection for some years past. Mr. Kelso informed me these figures would be made available, that they have been taken out but have not yet been prepared in a formal manner.

MR. KELSO: I have taken out a lot more, and getting the figures out has taken longer than I expected. The statement is practically ready now and will be along very shortly.

MR. BARBER: That sentence Mr. Gowans referred to may not be very elegant; but I think it is understandable. It reads:—

"the fire protection aspect has been kept uppermost in the minds of the Commission's officers and has contributed to the extent of 50 per cent." It is really the word "contributed" that is the trouble; it should be "has been responsible". There are certain figures here which Mr. Gowans has asked whether I desire to put in or not. I think I would prefer Mr. Lawrence to go into the box and give them from there, because they have been prepared this morning by him. I am not sufficiently familiar with them, except to read them to the Commission. If you wish to ask anything about them, I would prefer that Mr. Lawrence put them in from the witness box.

THE COMMISSIONER: Very well.

ALFRED OSCAR LAWRENCE: Sworn and Examined:

TO THE COMMISSIONER: Your Honour, the figures which were read to you by Mr. Gowans have neeb examined with a view to analysing them in order to deduce the fire protection value of the expenditure which was devoted to silvicultural work. Mr. Torbet and I concentrated on this matter and we set out the conditions prevailing in each district in the State, and having some knowledge of the nature of the work done and the conditions
prevailing in those districts, we calculated for each particular district the percentage of the cost which was directly attributable to, the elimination of the fire hazard. Those figures vary from 10% to a maximum of 30 per cent., and through their application we find these results - the total expenditure in silviculture for the period 1/7/28 to 30/6/38, a ten-year period, is as follows: Hardwood forests, £1,337,785; Plantations, £581,352; making a total expenditure of £1,919,137. The fire protection value of that expenditure on hardwood forests, deduced from those percentages I spoke of, averages 25.61 per cent., evaluated at £342,541. The cost of direct fire protection measures in hardwood forests in Victoria works out at £360,437. The total expenditure on fire protection of hardwood forests amounts to £882,978. That total expenditure on fire protection, in proportion to the total expenditure devoted to hardwood forests amounts to 51.05 per cent. That was the position with regard to hardwood forests. In addition there is the aspect of pine plantations, on which £581,352 altogether has been spent, and we estimate that not less than one/fifth, 12% of that expenditure, is directly attributable to fire protection consideration.

MR. BARBER: Have you anything to say as to this matter of the Chairman's estimate of 40 per cent.?—Well, it is not far out.

THE COMMISSIONER: That is not far out, but in any case, as I think you remarked, Mr. Galbraith was talking from his general knowledge.

MR. BARBER: I appreciate that. (To Witness); You say it is not far out; although he was only speaking from general knowledge it does turn out to be pretty nearly right, does it not?—Yes.

THE COMMISSIONER: I know it varies tremendously.
MR. GOWANS: One-fifth is between 20% and 25% which seems far away from 10%. Instead of being 40 per cent, it is now between 20 and 25 per cent, in parts; and you have to average it over a number of years. (To witness) May I see that statement that you have for a moment?---Yes. (Handing document to Mr. Gowans.).

As I understand these figures, the cost of direct fire protection measures in hardwood forests comes out at about 25 per cent. of your total expenditure?---Yes.

And in order to make up your 40 per cent, or 45 per cent., the balance is made up by what I might call the indirect item of fire protection value of silviculture in hardwood forests?---That is so.

MR. BARBER: So the proper proportion is the question of the proper proportion of money spent on silviculture.

MR. GOWANS: I think that is what is really said, fire protection value of silviculture.

MR. BARBER: That is so.

MR. GOWANS: So in bringing the percentage up from 25 per cent. to 40 per cent., we have to rely upon the estimate which you and Mr. Torbet have made, with regard to the value of silvicultural expenditure from a fire protection point of view?---Yes.

Is there anything in any of these documents which will enable His Honour test out the accuracy of your estimate of the value of silvicultural expenditure from the point of view of fire protection?---To some extent His Honour will be able to judge the accuracy of it by referring to that paper which you have in your left hand. (Statement of the Fire Protection measures taken out in the various divisions, with an assessment of the percentages attributable to fire protection.) and in addition by referring to the fairly concise description of the
relationship between silviculture and fire protection in the statement which was put in; but he might not be able to test it accurately. I am afraid His Honour will have to rely to some extent upon my judgment in that aspect.

THE COMMISSIONER: It is a matter of opinion, even when an expert puts it forward. He is analysing one matter which consists of two or in some cases more operations. He has to say "How much will I fairly allow for fire prevention and how much will the commercial or forestry side be?" That is what you have done in some instances, have you not?—Yes.

I think I understand that. If that is so, I will take your word for it. I am not going to spend the rest of my life trying to worry it out.

MR. GOWANS: I suppose you cannot help His Honour by telling him in a few words what factors you took into consideration in arriving at your apportionment?—I could. It might confuse the issue with the statement put in.

MR. GOWANS: It seems to me this matter may become of importance to Your Honour. This question of finance has been canvassed a good deal.

THE COMMISSIONER: I think I may say I am not in a position to judge whether this Department has been adequately financed or not. If the Department says "That is due to the lack of finance", I am not in a position to judge of that fact. I cannot go into the question. You see what I mean.

MR. GOWANS: I appreciate what Your Honour means. My only concern was to see if you needed any further assistance on this. It is only a question of how much of the general expenditure of the Commission was allotted to fire protection. It depends entirely upon the figures and the apportionment taken out by Mr. Lawrence. If Your Honour wants any further assistance as to the basis of that apportionment, I will question him further. If you are not going to pursue it, I will not question him further.
THE COMMISSIONER: No, not at present. I may get in touch with Mr. Lawrence for an explanation, or ask you to do so. I do not see that I need it at the moment. At present I do not think it necessary.

MR. GOWANS: If Your Honour does not desire me to test it, I do not desire to proceed.

THE WITNESS WITHDREW.

(Copies of Statements produced in the evidence of Mr. Lawrence)

PERIOD 1/7/28 to 30/6/38.

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total expenditure on silviculture - Hardwood Forests</td>
<td>£1,337,785</td>
</tr>
<tr>
<td>Plantations</td>
<td>£581,352</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>£1,919,137</strong></td>
</tr>
<tr>
<td>Fire protection value of Silviculture in Hardwood Forests - 25.81%</td>
<td>£342,541</td>
</tr>
<tr>
<td>Cost of direct fire protection measures in hardwood forests</td>
<td>340,437</td>
</tr>
<tr>
<td>Proportion of total expenditure in hardwood forests attributable to fire protection</td>
<td>51.05%</td>
</tr>
<tr>
<td>In addition, 12½% of expenditure on Plantations</td>
<td>72,670</td>
</tr>
</tbody>
</table>

2603: LAWRENCE.
### NORTHERN DIVISION

<table>
<thead>
<tr>
<th>Region</th>
<th>Towns</th>
<th>Cost Involved</th>
</tr>
</thead>
<tbody>
<tr>
<td>R.G. work</td>
<td>Barmah, Gunbower, Kerang, Swan Hill</td>
<td>40% Cost in cutting up, stacking and burning felled trees and debris. (Hazard caused by operation.)</td>
</tr>
<tr>
<td>Box and Ironbark</td>
<td>Castlemaine, Heathcote, Bendigo, Rushworth</td>
<td>23% Cost involved in lopping, stacking and burning tops. (Hazard caused by operation.)</td>
</tr>
</tbody>
</table>

### NORTH-WESTERN DIVISION:

<table>
<thead>
<tr>
<th>Tree</th>
<th>Towns</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pine</td>
<td>Ouyen</td>
<td>Nil</td>
</tr>
<tr>
<td>R.G.</td>
<td>Mildura</td>
<td>15%</td>
</tr>
<tr>
<td>Box and Ironbark</td>
<td>Bealiba, Dunolly, Tarnagulla</td>
<td>23%</td>
</tr>
<tr>
<td></td>
<td>Maryborough, St. Arnaud</td>
<td></td>
</tr>
</tbody>
</table>

### NORTH-EASTERN DIVISION:

<table>
<thead>
<tr>
<th>Tree</th>
<th>Towns</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Box and Ironbark</td>
<td>Beechworth, Chiltem</td>
<td>23%</td>
</tr>
<tr>
<td>R.G.</td>
<td>Shepparton, Yarrawonga</td>
<td>15%</td>
</tr>
<tr>
<td>Messmate</td>
<td>Upper Murray, Upper Ovens</td>
<td>20%</td>
</tr>
<tr>
<td>Messmate</td>
<td>Broadford, Delatite</td>
<td>50%</td>
</tr>
<tr>
<td>Messmate</td>
<td>Stawell</td>
<td>20%</td>
</tr>
</tbody>
</table>

### WESTERN DIVISION:

<table>
<thead>
<tr>
<th>Tree</th>
<th>Towns</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ballarat &amp; Creswick</td>
<td>Beaufort, Heytesbury, Heywood</td>
<td>30%</td>
</tr>
<tr>
<td>Box and Ironbark</td>
<td>Lal Lal, Scarsdale, Stawell</td>
<td>30%</td>
</tr>
<tr>
<td>Messmate</td>
<td>Wombat</td>
<td>50%</td>
</tr>
<tr>
<td>Ash</td>
<td>Otway Easty, Otway West</td>
<td>20%</td>
</tr>
</tbody>
</table>
### Central Division:

<table>
<thead>
<tr>
<th>Town</th>
<th>Percentage</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper Yarra</td>
<td>33%</td>
<td>Much debris burnt.</td>
</tr>
<tr>
<td>Niagaroon</td>
<td>25%</td>
<td></td>
</tr>
<tr>
<td>Neerim</td>
<td>64%</td>
<td>Ash 75%, Messmate 60%, in</td>
</tr>
<tr>
<td></td>
<td></td>
<td>the proportion of 1:3.</td>
</tr>
<tr>
<td>Dandenong</td>
<td>22%</td>
<td></td>
</tr>
<tr>
<td>Erica</td>
<td>20%</td>
<td></td>
</tr>
<tr>
<td>Woods Point</td>
<td>Nil</td>
<td></td>
</tr>
</tbody>
</table>

### Gippsland Division:

<table>
<thead>
<tr>
<th>Town</th>
<th>Percentage</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bruthen</td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td>Cann Valley</td>
<td>60%</td>
<td></td>
</tr>
<tr>
<td>Mallacoota</td>
<td>Nil</td>
<td></td>
</tr>
<tr>
<td>Nowa Nowa</td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td>Omeo</td>
<td>Nil</td>
<td></td>
</tr>
<tr>
<td>Orbost</td>
<td>)</td>
<td></td>
</tr>
<tr>
<td>Tanjil</td>
<td>)</td>
<td>40%</td>
</tr>
<tr>
<td>Yarram</td>
<td>)</td>
<td></td>
</tr>
</tbody>
</table>

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2605. LAWRENCE.
THE COMMISSIONER: Is there anything further?

MR. KELSO: I did expect to have time this evening to look up a few references and find statements in my evidence and some of the other evidence concerning the fire precautions that my Board has taken in its areas, so that I could place them before you.

THE COMMISSIONER: I am going to read all the evidence. You want to accentuate something?

MR. KELSO: Only that Mr. Barber said "a body refusing to do anything except leave it to nature". I am quite sure that in reading the evidence you will find there is abundant evidence by myself and others to show that my Board in its areas has done quite a great deal, and also in these exhibits, one that has been put in and one that is to be put in there will be shown the actual cost of that work and other kinds of work done; I think I can leave it at that. We have not been a neglectful body in that respect, we have provided fire breaks, telephone communications and fire-fighting.

THE COMMISSIONER: I think, as usual, I will be allowing a little discount for advocacy.

MR. KELSO: Yes, I feel Mr. Barber has not been his generous self on this occasion.

MR. SWINDON: Since the last meeting of this Royal Commission I have been to the Northern District Executive Meeting of the Victorian Bush Fire Brigades, which was held on the 3rd. April, and I also attended the Central District Council Meeting held in Melbourne on the 12th April. I put forward the suggestion as submitted by the Forests Commission, that the Bush Fire Brigades Act of 1933 be amended as proposed by the Forests Commission. It received the strong support of both the Central District and the Northern District Councils. They thought that was a better
proposition than to submit a Bill, as we have submitted it, as it would mean a new Bill altogether. It was also referred to the North Western District Council on the 4th April and was not opposed. The appointment of local committees was opposed, the feeling is that if local committees were recommended the possibilities are that the people doing the work at fires would not have any say in the matter.

HIS HONOUR: I see difficulty about local committees. I will not commit myself any further than that, but a local committee in a small community is obviously going to be faced with certain difficulties.

MR. STEWART: Yes, that is the general opinion in these council meetings. They would prefer an amendment of the Act as proposed by the Forests Commission, instead of the Bill we originally put forward, because they thought that if the Government found the money, there would be no opposition in the municipalities.

THE COMMISSIONER: That concludes the evidence?

MR. GOWANS: That is so.

THE COMMISSIONER: Before I adjourn the sittings of the Commission sine die, and I will do that because I may want to call you together again, although I hope not, I would like to express my appreciation of the manner in which these proceedings have been conducted. We have worked together in most trying circumstances. We have suffered acute physical conditions and have sat in places and temperatures where men's tempers might well have become frayed. I am happy to think that through all those days, some dreadful days, although we adopted a free and easy method of procedure, no one for a moment lost sight of proper decorum, which after all should be the over-riding consideration in public sittings of a judicial or semi-judicial nature. Mr. Gowans, I wish to thank you publicly for all you have done; you
have been of the very greatest assistance to me. In the first weeks when the thermometer went from between 105 degrees in the shade to 115 degrees in the shade and we though it would never come down again, your industry and interest never flagged. I wish to thank you. I think you, Mr. Barber, had a very trying task, coming into the matter late, and trying to pick up what was essentially a technical subject.

Mr. Lawrence, I have already mentioned my appreciation of your services and I was happy to think you had been relieved of the embarrassment as acting as advocate for your employer, which is never a satisfactory position. Mr. Kelso, being hardier, was not worried about that. I wish to congratulate Mr. Kelso on the way he has handled this matter from beginning to end. I think he is a very skilful advocate and no one could have done better.

I appreciate Mr. Swindon's help, he put his case well. Mr. Hardy has also put before us matters of value and interest. It is rather unusual to thank you one by one, but it has been an unusual sort of inquiry, in unusual circumstances, and I repeat on the score of that good conduct which has been evident all through this matter, I do indeed thank you. The sittings of this Royal Commission will now be adjourned sine die.

ADJOURNED SINE DIE.
Author/s:
Victoria. Parliament

Title:
Transcript of evidence and Report of the Royal Commission to inquire into the causes of and measures taken to prevent the bush fires of January, 1939, and to protect life and property and the measures to be taken to prevent bush fires in Victoria and to protect life and property in the event of future bush fires.

Date:
1939

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